UNSW
THE UNIVERSITY OF NEW SOUTH WALES

Undergraduate Handbook

2006
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Introduction

The Undergraduate and Postgraduate Handbooks are designed as a detailed source of information for prospective and current students who are seeking information about studying at the University of New South Wales.

The Handbooks contain extensive information about all the programs (degrees) and plans (disciplinary streams) offered at UNSW. Program and plan outlines are presented by faculty and students should refer to the relevant faculty section for program and plan requirements and related information.

The Undergraduate and Postgraduate Handbooks also provide information on some of the most important administrative rules and procedures at UNSW.

It is important that students read the ‘General University Rules & Student Information’ section in the Handbook, which details these rules and procedures, prior to the information contained within faculty sections. This section also contains the ‘Schedule of Undergraduate Programs 2006’ or ‘Schedule of Postgraduate Programs 2006’, which lists all programs offered by UNSW, and the University’s ‘Tuition Fee Schedule’.

Additional copies of the Undergraduate and Postgraduate Handbooks are available for sale at the UNSW Bookshop: (+61 2) 9385 6622 or www.bookshop.unsw.edu.au/handbooks.html

Further Information

While the University has attempted to make this information as accurate as possible at the time of going to print, students should note that information is also available online at:

www.handbook.unsw.edu.au

It is recommended that students consult the Online Handbook for the latest information regarding approved programs and plans.

The Online Handbook also contains up-to-date information about which courses (subjects) are available at UNSW. This includes course descriptions and timetabling information.

How to Read the Handbook – Navigation Guide

Step 1
Read Handbook Introduction or Faculty Overviews

View further information online: https://my.unsw.edu.au

Step 2
Read about Programs of interest

View further information on Online Handbook: www.handbook.unsw.edu.au

Step 3
Read about Plans of interest related to the Program

View further information on Online Handbook: www.handbook.unsw.edu.au

Step 4
Read about Courses of interest related to the Program or Plan

View further information on Online Handbook: www.handbook.unsw.edu.au

Step 5
Read further information online: www.handbook.unsw.edu.au or https://my.unsw.edu.au or www.timetable.unsw.edu.au or Faculty websites

Key to Abbreviations Used in this Book:

If you are uncertain of any terminology relating to studying at UNSW, please refer to the Glossary at the end of this publication.

- CS Commonwealth Supported places available in this program
- L Local fee places available in this program
- I programs available for International fee paying students
- CCH class contact hours
- f full-time
- HPW hours per week
- L lecture
- UOC units of credit
- P/T part-time
- S1 Session 1
- S2 Session 2
- T tutorial/laboratory
- WKS weeks of duration
- X external
- X1 Summer Session
- X2 Winter Session

While the Undergraduate and Postgraduate Handbooks have been designed as a detailed source of information regarding University rules and procedures, the Handbooks should be used in conjunction with other University publications containing rules and procedures, especially the UNSW Student Guide and online information available at: http://my.unsw.edu.au

International students should contact the International Office for a copy of the international students’ prospectus: (+61 2) 9385 6996 or www.international.unsw.edu.au

Students interested in studying at the Australian Defence Force Academy (UNSW@ADFA) should obtain a copy of the ADFA Handbook: (+61 2) 6268 6000 or www.unsw.adfa.edu.au/student/handbook/index.html

Further Information

While the University has attempted to make this information as accurate as possible at the time of going to print, students should note that information is also available online at:

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It is recommended that students consult the Online Handbook for the latest information regarding approved programs and plans.

The Online Handbook also contains up-to-date information about which courses (subjects) are available at UNSW. This includes course descriptions and timetabling information.
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Academic Calendar for 2006

Please note: The University’s Academic Calendar for 2007 is currently under review. Please refer to the myUNSW website for up-to-date information
https://my.unsw.edu.au/student/resources/AcademicCalendar.html

Faculties Other than Medicine, AGSM and University College, ADFA

Summer Session 2006
Summer Session (9 weeks) 12 Dec 2005 to 23 Dec 2005
Xmas Recess 24 Dec 2005 to 2 Jan 2006
Summer Session continues 3 Jan 2006 to 17 Feb 2006

Session 1
Session 1 (14 weeks) 27 Feb 2006 to 13 April 2006
Mid-session recess 14 April 2006 to 23 April 2006
Session 1 continues 24 April 2006 to 9 June 2006
Study Period 10 June 2006 to 15 June 2006
Examinations 16 June 2006 to 4 July 2006
Mid-year recess 5 July 2006 to 23 July 2006

Session 2
Session 2 (14 weeks) 24 July 2006 to 22 Sept 2006
Mid-session recess 23 Sept 2006 to 2 Oct 2006
Session 2 continues 3 Oct 2006 to 3 Nov 2006
Study Period 4 Nov 2006 to 9 Nov 2006
Examinations 10 Nov 2006 to 28 Nov 2006

Public Holidays 2006
New Year’s Day Monday 2 January
Australia Day Thursday 26 January
Good Friday Friday 14 April
Easter Saturday Saturday 15 April
Easter Monday Monday 17 April
Anzac Day Tuesday 25 April
Queen’s Birthday Monday 12 June
Labour Day Monday 2 October
Christmas Day Monday 25 December
Boxing Day Tuesday 26 December

Faculty of Medicine

Medicine I, II
Teaching Period 1 27 Feb to 28 Apr
Mid-Session Break 14 Apr to 23 Apr
Recess 1 May to 7 May
Teaching Period 2 8 May to 30 Jun
Mid-Year Break 3 Jul to 23 Jul
Teaching Period 3 24 Jul to 15 Sep
Recess 18 Sep to 2 Oct
Teaching Period 4 3 Oct to 24 Nov

Medicine III
Teaching Period 1 27 Feb to 28 Apr
Mid-Session Break 14 Apr to 23 Apr
Study and Examination Period 1 May to 14 May
Teaching Period 2 15 May to 7 Jul
Mid-Year Break 10 Jul to 23 Jul
Teaching Period 3 24 Jul to 15 Sep
Recess 18 Sep to 2 Oct
Teaching Period 4 3 Oct to 24 Nov

Medicine IV
Summer Teaching Period 16 Jan to 10 Mar
Teaching Period 1 13 Mar to 12 May
Mid-Session Recess 14 Apr to 23 Apr
Teaching Period 2 15 May to 7 Jul
Mid-Year Break 10 Jul to 23 Jul
Teaching Period 3 24 Jul to 15 Sep
Recess 18 Sep to 2 Oct
Teaching Period 4 3 Oct to 24 Nov

Medicine V
Summer Teaching Period 16 Jan to 10 Mar
Teaching Period 1 13 Mar to 12 May
Mid-Session Recess 14 Apr to 23 Apr
Teaching Period 2 15 May to 7 Jul
Mid-Year Break 10 Jul to 23 Jul
Teaching Period 3 24 Jul to 15 Sep
Recess 18 Sep to 2 Oct
Teaching Period 4 (Elective) 3 Oct to 24 Nov

Medicine VI
Teaching Period 1 20 Feb to 2 Apr
Teaching Period 2 20 Feb to 2 Apr
Recess 3 Apr to 9 Apr
Teaching Period 3 10 Apr to 21 May
Teaching Period 4 22 May to 2 Jul
Hospital Program 22 May to 2 Jul
Campus Program 2 3 Jul to 14 Jul
Recess 17 Jul to 23 Jul
Teaching Period 5 24 Jul to 3 Sep
Teaching Period 6 4 Sep to 13 Oct
## Important Dates in 2006

### January
- **W** 4 UNSW Info Day

### February
- **M** 27 Session 1 commences (faculties other than Medicine, AGSM and University College, ADFA)

### March
- **F** 3 UNSW Payment Due Date for all Session 1 fees
- **F** 10 Last day to enrol in Session 1 courses
- **F** 31 Census Date for Session 1
  - Last day for students to discontinue without financial penalty from Session 1 courses
  - Last day for students to finalise arrangements for HECS-HELP and FEE-HELP.

### April
- **F** 14 Commencement mid-session recess
- **M** 17 Commencement AVCC Common Vacation week
- **F** 28 Last day for students to discontinue without academic penalty from Session 1 courses

### May
- **I** 9 Publication of the provisional timetable for the June examinations
- **W** 17 Last day for students to advise of examination clashes
- **I** 30 Publication of the Final Timetable for the June examinations

### June
- **F** 16 Examinations begin for faculties other than Medicine, AGSM and University College, ADFA

### July
- **M** 3 Commencement AVCC Common Vacation week
- **I** 4 Examinations end for faculties other than Medicine, AGSM and University College, ADFA
- **W** 5 Commencement mid-year recess
- **M** 24 Session 2 commences (faculties other than Medicine, AGSM and University College, ADFA)
- **F** 28 UNSW Payment Due Date for all Session 2 fees

### August
- **F** 4 Last day to enrol in Session 2 courses
- **Th** 31 Census Date for Session 2
  - Last day for students to discontinue without financial penalty from Session 2 courses
  - Last day for students to finalise arrangements for HECS-HELP and FEE-HELP

### September
- **S** 2 UNSW Courses and Careers Day
- **F** 15 Last day for students to discontinue without academic penalty from Session 2 courses
- **S** 23 Commencement mid-session recess
- **M** 25 Commencement AVCC Common Vacation week

### October
- **T** 3 Publication of the provisional timetable for the November examinations
- **W** 11 UNSW Postgraduate Expo
- **W** 11 Last day for students to advise of examination clashes
- **T** 24 Publication of the Final Timetable for the November examinations

### November
- **F** 10 Examinations begin for faculties other than Medicine, AGSM and University College, ADFA
- **T** 28 Examinations end for faculties other than Medicine, AGSM and University College, ADFA
### Schedule of UNSW Undergraduate Programs 2006

The range of programs offered by the University is indicated in the tables below, listed by faculty. For details of the programs, please consult the relevant faculty section of this Handbook.

Please refer, in addition, to the ‘2006 Tuition Fee Schedule’ which follows the ‘Schedule of UNSW Undergraduate Programs 2006’.

*This information is current as at 31 August 2005 and is subject to change.*

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<td>Commonwealth Supported places available for this program.</td>
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<td>Local fee places available for this program. Please note that the availability of Local fee places for these programs is not guaranteed.</td>
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| Architecture / Social Science | BArch BSocSc | 3263    | 288       | ✓          | ✓      | ✓            |
| Science Architecture    | BSc(Arch) | 3265         | 144       | ✓          | ✓      | ✓            |
| Building Construction Management | BBCM | 3331        | 204       | ✓          | ✓      | ✓            |
| Industrial Design       | BIndDes   | 3385         | 192       | ✓          |        | ✓            |
| Interior Architecture   | BIA       | 3255         | 192       | ✓          |        | ✓            |
| Landscape Architecture  | BLArch    | 3380         | 216       | ✓          | ✓      | ✓            |
| Planning                | BPlan     | 3360         | 240       | ✓          | ✓      | ✓            |

| FACULTY OF THE COLLEGE OF FINE ARTS | | |
| Art Education            | BAEd      | 4801         | 192       | ✓          | ✓      | ✓            |
| Art Theory               | BAEd Th   | 4803         | 144       | ✓          | ✓      | ✓            |
| Art Theory / Arts        | BAEd Th BA | 4806    | 192       | ✓          | ✓      | ✓            |
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**FACULTY OF LAW**

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## 2006 Tuition Fee Schedule

### Identification of Courses and Course Fees 2006

A course is defined by the Academic Board as ‘a unit of instruction approved by the University as being a discrete part of the requirements for a program offered by the University’.

Each approved course of the University is identified by a sequence of eight characters, consisting of a four character alphabetical prefix which identifies the subject area, and a four digit numeric suffix which identifies the course. Each course has a unit of credit value defined.

Course identifiers are approved by the Registrar and the system of allocation is based on the following guidelines:

1. A four character alphabetical prefix is used to indicate the subject areas. This usually correlates with the authority offering the course (normally a School of the University), but in some cases identifies subject specialisations or cross-disciplinary subject areas.
2. Each course identifier is unique and is not used for more than one course title.

Courses taught are listed in full in the Undergraduate and Postgraduate Handbooks and in the Online Handbook. The subject areas and organisational units for each identifying alphabetical prefix are also described in the Handbooks and the specialisation pages in the Online Handbook.

### Course Prefixes and Associated Fees Per Unit of Credit

A standard session academic load is 24 units of credit (48 UOC per annum).

Fees for courses are charged by unit of credit according to the classification of the course (that is undergraduate, postgraduate, research) and then the classification of the student.

To calculate the charge for a course - refer to the course prefix, appropriate course classification and student classification to determine the fee per unit of credit.

Non-award courses will also be charged according to the classification of the course as above.

**For Example:** An International student is enrolling in a Faculty of Commerce and Economics course, ACCT3563, which has a value of 6 units of credit and the course is classified as undergraduate.

The fee for this course will be 6 x $400 = $2400.00

The fees listed are applicable to students who commenced study from Summer Session 2003 onwards.

### 2006 Tuition Fee Schedule

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**Australian Graduate School of Management**

MNGT | Australian Graduate School of Management | Refer to Australian Graduate School of Management for Tuition Fee Schedule

**Faculty of the Built Environment**

MNGT | Australian Graduate School of Management | Refer to Australian Graduate School of Management for Tuition Fee Schedule

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**Faculty of Science**

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Admission Requirements and Procedures

Admission Enquiries
The Student Recruitment Office (Kensington Campus) is the initial referral point for local students for information on undergraduate programs, and admission requirements. The office is located in RM LG20, The Chancellery Building and is open from 9am-5pm, Monday to Friday. Tel: (+61 2) 9385 1844/1886/2413 email: studentrecruitment@unsw.edu.au

Program and course information for prospective students can be found at www.unsw.edu.au/futureStudents

UNSW International is the initial referral point for international students for information on undergraduate and postgraduate programs. The office is located on the Ground Floor, East Wing of the Red Centre Building. Tel: (+61 2) 9385 6996, email: internationaloffice@unsw.edu.au

Program information for prospective international students can also be found at www.international.unsw.edu.au

College of Fine Arts: The Student Centre is located on the ground floor of 8 Block. It is open from 8.30am to 5.30pm Monday-Friday.

UNSW@ADFA - University College, Australian Defence Force Academy: The Student Centre is located on the top floor in the Administration Building. It is open from 8.30am to 5pm Monday – Thursday and 8.30am – 4pm Friday. Tel: (+61 2) 6268 6000.

Admission Procedures
The procedures for applying to UNSW will vary, depending on whether you are a local or international applicant:

- **Local** applicants are Australian citizens, Australian permanent residents or New Zealand citizens.
- **International** applicants are citizens of a country other than Australia or New Zealand and are not Australian permanent residents.

Local Applicants
All local applicants must apply through the Universities Admissions Centre (UAC). Students who are enrolled in Year 12 in NSW/ACT in 2006 will be issued with a copy of the UAC Guide by their school or TAFE. Other local applicants can purchase the Guide from newsagents in August or apply online at www.uac.edu.au.

The UAC Guide outlines admission/application requirements and procedures for all UNSW undergraduate programs (including ADFA) and includes important information regarding determinant, special consideration for applicants who have experienced long term educational disadvantage (the ACCESS Scheme for students who have not undertaken tertiary study before and SCATS for applicants with a tertiary record) and key dates.

International Applicants
If you are an international applicant currently completing Year 12 in Australia you must apply through the Universities Admissions Centre (UAC). You will be issued with a UAC Guide by your school or TAFE and should read Part 3 of the Guide thoroughly.

All other international applicants (i.e. international applicants who have completed or are completing qualifications OTHER than the current Australian Year 12 or are completing an Australian Year 12 outside Australia) must apply for admission directly to UNSW. Before you lodge your application, please refer to UNSW International’s website at www.international.unsw.edu.au for further information and entry requirements, or telephone (+61 2) 9385 6996.

Online applications can be lodged at https://apply.unsw.edu.au

Entry Requirements
Admission to UNSW is based on academic merit. If you are seeking admission to an undergraduate program you must be able to provide evidence that you have the potential for tertiary study. Age alone is not a sufficient criterion for admission. Some programs may consider work experience where this is relevant to the application, but this factor alone is not a basis for admission.

Some programs may require additional entry criteria, such as an admissions test, interview and/or audition.

Though there are no specific prerequisite requirements for entry to UNSW undergraduate degrees it will be assumed candidates have studied certain subject areas in their last year of high school or other studies. (See ‘Assumed Knowledge’ below).

It is also assumed that students are competent at communicating in both written and spoken English. (See ‘English Language Requirements’).

The following are considered for admission:

**Australian and New Zealand High School Qualifications:**

- Universities Admission Index (UAI)
- Equivalent National Tertiary Entrance Rank (ENTER) or other interstate Year 12 qualification rank
- Overall Position (OP) and New Zealand National Certificate of Educational Achievement (NCEA level 3)

**Other Australian and New Zealand Qualifications:**

**TAFE Qualifications and qualifications from private colleges** - If you hold completed TAFE qualifications including an advanced diploma, diploma, associate diploma or AQF Certificate Level IV or above, you are eligible to be considered for admission. However, due to the high demand for places in most programs, successful applicants generally require a Credit or above average with no failures. Trade certificates are not acceptable for admission purposes.

Currently, UNSW has formal articulation arrangements for students holding a Diploma of Building Studies who wish to study the Bachelor of Building Construction Management (program 3331), and may award approximately 18 months advanced standing, depending upon course selection. Similarly, holders of a 2-year Diploma of Community Services (Welfare) may be granted up to 25% of a 4-year Social Work degree (programs 4031, 4035, 4036).

In the past, students holding other TAFE diplomas have been admitted to degree programs such as Bachelor of Arts, Bachelor of Fine Arts and various Engineering programs. All applicants are considered on a case-by-case basis.

**Nursing Qualifications** - If you are a registered nurse who has completed hospital-based training you are eligible to be considered for admission to some programs. In general, it would be an advantage to have completed at least one post-basic course. Completion of Enrolled Nurse training is not acceptable for admission purposes.

**International Qualifications:**

Local Students (Australian Citizens, Permanent Residents and New Zealand Citizens) who hold qualifications from overseas should contact Admissions. Tel: (+61 2) 9385 3228, email: ugradmis@unsw.edu.au.

International students should check the following website for entry requirements from their country:

www.international.unsw.edu.au/future/entry

Honours Entry:
Current UNSW students should apply to their Faculty or School Office. Other local students should refer to the following website: www.unsw.edu.au/honours. Other international students should refer to www.international.unsw.edu.au

**Alternative Entry**
If you do not possess any of the qualifications outlined in ‘Entry Requirements’, there are a number of alternative avenues through which you may seek admission to an undergraduate program at UNSW.

- **Degree Level Studies** - If you have successfully completed the equivalent of at least two whole-year degree level courses at any recognised Australian tertiary institution on a non-award basis, or four one-unit Open Learning degree level courses, you are eligible to be considered for admission. However, due to the high demand for places in most programs, successful applicants generally hold Credit average results and, in the case of Open Learning at least eight one-unit courses, with credit average results. Please note: If you have attempted any post-secondary studies you will be considered for selection on the basis of your overall record, i.e. both secondary and post-secondary studies. In general, greater weight will be given to your post-secondary record.
Assumed Knowledge

www.unsw.edu.au/assumedknowledge

For some degree programs and first-year courses, it is assumed that through secondary studies or other equivalent studies a student will have achieved a level of knowledge of the subject area that is considered desirable for successful university level study.

Students who do not have the recommended level of assumed knowledge are not prevented from enrolling but they may be placed at a considerable disadvantage. Any students who have not achieved the recommended level of assumed knowledge are strongly advised to undertake a bridging program or other appropriate preparation. (See ‘Bridging Programs’).

When a student enrols in a program at UNSW, it is assumed that they are competent at communicating in both written and spoken English. Many courses require students to make oral presentations, prepare assignments or write essays. Without a high level of written and spoken English, it would be difficult to meet the requirements for successful performance at Band 4 has been achieved. General Mathematics does not meet the recommended level of assumed knowledge.

Prerequisite (P) Assumed knowledge (A), Recommended studies (R)

Aviation (Flying)                  (P) Flight screening and medical examination and interview
   (A) Mathematics                 (R) Physics
Aviation (Management)             (A) Mathematics
   (R) Physics
Advanced Science                 (A) Mathematics and Chemistry, plus one or more of: Biology, Earth and Environmental Science, Physics, HSC Mathematics Extension 1
   (depending on chosen area of study)
   (R) For Science Communications: English Advanced
Art Education                    (A) Visual Arts
Biotechnology                     (A) Mathematics and Chemistry
   (R) Biology
Business Information Technology  (A) Mathematics
Commerce & Commerce/Law           (A) Mathematics
Commerce (Marketing, Tourisn and Hospitality Management)  (P) Questionnaire and interview
   (A) Mathematics
Computer Science & Computer Science/Law (A) HSC Mathematics Extension 1
   (R) Software Design and Development or Information Processes and Technology
Design                           (A) Visual Arts
Economics & Economics/Law        (A) Mathematics
Education (Dance/Education)      (P) Audition and interview
Education (Music/Education)      (P) Audition and interview
   (R) Music 2 or AMEB (7th grade Practical and 6th grade theory or Musicanship) or equivalent study.
Education (Science/Education)    (A) Mathematics (prospective science teachers must have Physics or Chemistry)
   (R) HSC Mathematics Extension 1
Engineering & Engineering/Law    (A) Mathematics and Chemistry
   (R) Earth and Environmental Science or Physics or Biology
Environmental Science            (A) Mathematics and Chemistry
Fine Arts                        (A) Visual Arts
Health and Sports Science        (A) Mathematics and Chemistry
   (R) Biology and/or Physics
Industrial Design                (A) Mathematics
   (R) Physics or Engineering Studies
Information Systems              (A) Mathematics
   (R) Physics or Chemistry
Medical Science                  (A) Mathematics and Chemistry
   (R) Biology
Medicine                         (P) Undergraduate Medicine and Health Sciences Admission Test
   (UMAT) and interview
   (A) English Standard
   (R) Chemistry
   Note: English as a second language (ESL) and Fundamentals of English are not considered suitable preparation for this program
Music                             (P) Audition and interview
   (R) Music 2, or AMEB (7th Grade Practical and 6th Grade Theory or Musicanship) or equivalent study.
Nanotechnology                    (A) HSC Mathematics Extension 1
   and Physics and Chemistry
Optometry                         (A) Mathematics and Chemistry and English Advanced
   (R) Physics
Psychology                       (A) Mathematics
   (R) Biology or Chemistry and Earth and Environmental Sciences or Physics
Science & Science/Law            (A) Mathematics and Chemistry, plus one or more of: Biology, Earth and Environmental Science, Physics, HSC Mathematics Extension 1
   (depending on chosen area of study)

Assumed Knowledge for Commerce and Economics: Quantitative Methods A (QMA) and Quantitative Methods B (QMB) are compulsory first year courses for students enrolled in Commerce and Economics programs at UNSW. These courses assume students have knowledge of algebra (logarithms, exponentials and graphs), calculus (differentiation and integration) and basic probability concepts. Without a background equivalent to HSC Mathematics, a student would be placed at a considerable disadvantage in QMA and QMB.

Assumed Knowledge for Engineering: All Engineering programs at UNSW assume knowledge of HSC Mathematics Extension 1. Common mathematics courses taken by engineering students in their first year include Mathematics 1A and Mathematics 1B. Students enrolled in these courses whose level of mathematics is below HSC Mathematics Extension 1, will be placed at a considerable disadvantage. In addition to these first year courses, some Engineering programs also require additional study of mathematics in upper level years. Physics is also a compulsory course in many programs. However some programs offer introductory level studies in mathematics and physics to assist those students without a thorough knowledge of both.

Assumed Knowledge for Medicine: The Medicine program at UNSW assumes that students have studied HSC English Standard (or higher), and
have achieved a level of performance of at least Band 4. As is the case in all undergraduate programs at UNSW, Fundamentals of English and English as a Second Language (ESL) are not considered suitable preparation for this program. Medicine students are required to satisfactorily complete a communications course in Year 1 and clinical work from Year 2.

Assumed Knowledge for Science: All Science programs at UNSW assume a level of knowledge equivalent to HSC Mathematics. Some programs require students to continue studying mathematics throughout the program, while others involve the study of mathematics in first year only. In addition, all science degrees recommend studies of at least one HSC science subject and/or HSC Mathematics Extension 1.

Bridging Programs
UNSW bridging courses offer you the opportunity to revise Mathematics, Chemistry and Physics subjects and experience how these subjects are taught at university. Each course has a total of 33-40 hours of lectures, tutorials, laboratory classes and/or demonstration sessions.

All Year 12 (or equivalent) students, older students, and deferring students are eligible. If you intend to study at another university you may still enrol in a UNSW bridging course. However, we advise that you first ensure that the bridging course you select is recognised by that institution.

For further information, please refer to the following website or contact Admissions (tel: 1300 36 8679, email: ugadmis@unsw.edu.au): www.unsw.edu.au/bridging

English Language Requirements
All applicants for admission to UNSW undergraduate or postgraduate programs either in Australia or overseas whose first language is not English, must provide evidence that their English language ability meets the requirements for admission.

The required evidence may take the form of results from an acceptable English Language test undertaken no more than two years prior to the commencement of the program at UNSW.

Only ORIGINAL test certificates are acceptable. The University does not accept certified copies of English language results.

Alternatively, applicants whose first language is not English, but who have undertaken at least one year of full-time study at a university or other post-secondary educational institution where the sole language of instruction was English, will not be required to undertake a language test, if they can provide a statement or certificate issued by the Registrar's office of that institution confirming this. This study must have been undertaken no more than two years prior to the commencement of the program at UNSW.

For further information, please refer to the following website: www.unsw.edu.au/englishproficiency

Non-Award Enrolment
Non-award enrolment refers to all enrolments in courses or a sequence of courses which do not lead to or count towards a formal award (e.g. degree or diploma) of the University of New South Wales.

Non-award enrolments fall into two categories, voluntary and cross-institutional.

- A voluntary course enrolment is where the student enrolls in a course either out of interest, or to develop professional competence in an area of specialisation. Students enrolled for award programs sometimes simultaneously enrol voluntarily in courses additional to their award requirements. Students should note that they are liable to pay Student Activity Fees each session at the published rate.

- A cross-institutional enrolment is where the student enrolls in a course at UNSW for credit towards an award at another Australian tertiary institution in which the student is concurrently enrolled. Before an application for cross-institutional enrolment can be approved, the student must submit both the home institution's written confirmation that the course applied for will be credited towards award requirements and a certified copy of the student's complete academic transcript. Undergraduate cross-institutional enrolments will incur Student Contribution liability for the courses taken at UNSW in addition to the liability at the student's home institution. Students enrolled as local fee paying students at their home institution will also be charged tuition fees at UNSW. International students are permitted to enrol on a cross-institutional basis, and are charged tuition fees for their courses.

Rules and Guidelines
The following principles and rules govern the acceptance and enrolment by the University of non-award students, and of students enrolled in award programs in courses, which are additional to their award requirements:

(1) Non-award enrolment in a course, taken either voluntarily or cross institutionally, may be permitted provided that the student has appropriate educational qualifications and in each case the Head of School offering the course considers that the student will benefit from the enrolment, that accommodation is available, and that the enrolment does not prevent a place in the course being available to a student proceeding to an award.

(2) The University may limit the number of non-award courses in which a student may enrol, regardless of the permission to enrol that the student may have received from Heads of Schools offering the courses. In general, enrolment will not be permitted in more than four half-year courses in any one academic year.

(3) A student who is under exclusion from any course of the University may not enrol in that course as a voluntary enrolment.

(4) A student who is under exclusion from any program at the University may not enrol in any course which forms a compulsory component of the program from which the student is excluded.

(5) A student who is subsequently admitted to an award program at the University for which the courses completed as a non-award student form a part, may apply for credit for those courses.

(6) As a general rule the University does not permit non-award enrolments in first year undergraduate courses. In addition, the University may decline permission to enrol in a course if the student has not completed prerequisites for that course.

Fees
Tuition fees are charged according to the classification of the course. Please refer to the ‘Fee Schedule’ in this Handbook.

Application Procedures
Applications to enrol as a non-award student must be made on the Non-Award Enrolment application form available from UNSW Student Central or on the following website: www.unsw.edu.au/futureStudents/nonAward/sad/fnacrossinsit.html

Permission to enrol as a non-award student is conditional on the permission of the Head of School and authorisation from the Director, UNSW Student Services. Applicants should follow the instructions given to them with the application form.

Admission with Advanced Standing and Credit Transfer
Students may be admitted to undergraduate degrees or award with credit for previous study and/or attainments. All credit granted in undergraduate degrees or awards must comply with the following rules:

(1) Any credit granted must be consistent with the rules governing progression within the program which are operative at the time the application is determined.

(2) Students who transfer from another program shall not, in general, be granted standing which is superior to what they had in the program from which they are transferring.

(3) Students who are admitted to the University after completing, or partly completing, the requirements of another degree or award of another tertiary institution must complete a program of study deemed to be no less than that required of students in full-time attendance in the final year of the program concerned.

(4) Where faculty rules permit, students who have been awarded the degree of Bachelor at Pass level may be permitted to enrol for the award of the degree at Honours level with credit for all courses completed if, during their studies for the Pass degree, they have satisfied the prerequisites for entry to the Honours level laid down by the schools concerned or the equivalent of those prerequisites.

(5) Enrolled students have the right of appeal against credit transfer decisions under the Procedures for Resolution of Student Grievances and Disputes.

Applicants should also note that eligibility for credit in a UNSW program does not guarantee admission to that program.

Student Fees
Please note: The information provided in this Handbook relating to Student Activity Fees is subject to change pending the outcome of proposed changes to Commonwealth legislation. For the latest information, please refer to https://my.unsw.edu.au

Commonwealth Support
Commonwealth Supported Places (Formerly HECS)
A Commonwealth supported place is a higher education place for which the Commonwealth makes a contribution towards the cost of your
education. If you are enrolled in a unit of study as a Commonwealth supported student, you will generally be required to contribute to the cost of your education through a student contribution.

There are three classes of Commonwealth Supported Students:

(1) Post-2005 students commenced a program of study on or after 1 January 2005. These students pay student contributions at rates approved by UNSW within ranges set by the Commonwealth (indexed annually). (See Student Contribution Ranges for information about how rates have been set at UNSW.)

(2) Pre-2005 students commenced a program of study before 1 January 2005. These students pay student contributions at rates set by the Commonwealth (indexed annually). This classification lapses at the end of 2008: from 1 January 2009 students in this category will pay student contributions at the same rates as students commencing after 1 January 2005.

(3) Pre-1997 students commenced a program of study before 1 January 1997. In most respects these students have the same status as pre-2005 students, except that they pay a fixed student contribution set by the Commonwealth (indexed annually).

Student Contributions
Student contributions are paid either up-front or are deferred and paid later through the tax system. The options available for paying your student contribution will depend on your citizenship or residency status.

Student Contribution Ranges
For post-2005 students, higher education providers determine student contribution amounts for each unit of study within ranges set by the Commonwealth. The Commonwealth permits Higher Education Providers to set student contribution rates within a range from $0 to 125% of the Commonwealth’s rate. In June 2004 the UNSW Council approved the University setting its higher education student contribution rates for all courses as follows:

2005: 100% of the indexed indicative Commonwealth rate
2006: 125% of the indexed indicative Commonwealth rate
2007: 125% of the indexed indicative Commonwealth rate

Please refer to the Student Contribution Rate Table for 2006 student contribution rates.

The range that applies to a unit of study is dependent on the student contribution band in which the unit of study is classified. The amount of a student’s contribution will also depend on the weight of the unit within the course of study (the equivalent full-time student load [EFTSSL] value of the unit).

Student Learning Entitlement
From 1 January 2005 all Commonwealth Supported students will commence using their Student Learning Entitlement (SLE). The SLE gives all Australian citizens, New Zealand citizens and holders of a permanent visa access to seven years of equivalent full-time study in a Commonwealth supported place.

Eligibility for Loans and Discounts
Only Australian citizens and holders of a permanent humanitarian visa are eligible for HECS-HELP assistance. The discount for full up-front payments or up-front payments of $500 or more is 20%. New Zealand citizens and holders of non-humanitarian Permanent Resident visas are still entitled to Commonwealth Support, but must pay 100% of their Student Contribution up-front.

If you enrol in a Commonwealth supported place, you must complete a Request for Commonwealth Support and HECS-HELP application on or before the relevant census date. These students are eligible for HECS-HELP assistance, including the new discount rate of 20% for up-front payments of $500 or more.

Failure to complete the appropriate Request for Commonwealth Support and HECS-HELP application will result in the cancellation of your enrolment as a Commonwealth supported student.

Before signing the application, students must read the Information for Commonwealth Supported Students booklet in order to be aware of their obligations as the recipient of assistance from the Commonwealth.

Provision of your Tax File Number (TFN)
You need to supply your TFN if you are eligible for HECS-HELP assistance and you wish to obtain a HECS-HELP loan for all or part of your student contribution; or you are paying your student contribution up-front but, as a safety net, you want to ensure that if you fail to make the payment on or before the census date, that you can still obtain a HECS-HELP loan.

If you have not paid your student contribution in full on or before the census date and you did not provide your TFN, UNSW will be obligated to cancel your enrolment as a Commonwealth supported student.

Students who Commenced Studies before 2005 (Pre-2005 Students)
If you commenced your program of study as a Higher Education Contribution Scheme (HECS) student before 1 January 2005, you may be considered to be a pre-2005 HECS student. However, you will be affected by most of the provisions outlined in the previous section. This is:

• you will become a Commonwealth supported student;
• commence using SLE; and
• if eligible, access HECS-HELP assistance, including the new discount rate of 20% for up-front payments of $500 or more.

Pre-2005 HECS students will also be subject to the current thresholds for the repayment of HECS debt and the new bonus for voluntary repayments.

The only changes that affect students differently as a pre-2005 HECS student are:

• changes to the student contribution amounts; and
• new eligibility criteria for HECS-HELP.

The arrangements that apply are described below. From the end of 2008, however, all students will be subject to the new arrangements, regardless of whether they have completed their program.

Student Contribution Amounts 2006
UNSW has set the following Student Contribution amounts for Commonwealth supported students. In 2006, all ‘post-2005 students’, including those who commenced a program of study on or after 1 January 2005 will pay student contributions at 125% of the indicative Commonwealth rate (see Student Contribution Ranges above and the Student Contribution Rate Table for further information.)

<table>
<thead>
<tr>
<th>Student Contribution Rate Table – 2006</th>
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<tbody>
<tr>
<td>Student Contribution Band</td>
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<tr>
<td>---------------------------</td>
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<tr>
<td>Band 1 (humanities, behavioural science, social studies, foreign languages, visual and performing arts)</td>
</tr>
<tr>
<td>Band 2 (accounting, administration, economics, commerce, mathematics, statistics, computing, built environment, health, engineering, science, surveying, agriculture)</td>
</tr>
<tr>
<td>Band 3 (law, dentistry, medicine, veterinary science)</td>
</tr>
<tr>
<td>National Priorities (education, nursing)</td>
</tr>
</tbody>
</table>
For pre-2005 HECS students who began their program before 1 January 1997, the Student Contribution for 2006 is $2,943. The pre-1997 rate is indexed each year.

Calculating Student Contribution Amounts and EFTSL
Equivalent full-time student load (EFTSL) is a measure of the study load, for a year, of a student undertaking a program on a full-time basis. The amount of the student contribution depends on the EFTSL value of the course.

Calculating EFTSL for a course
At UNSW, a normal full-time enrolment for one year is defined as 48 units of credit (24 units per session). A course (unit of study, e.g. MATH1011) has the same unit of credit value and generates the same load (EFTSL) irrespective of the program (e.g. BSc) or the stage in which it is taken. Most courses at UNSW have a value of 6 units of credit (6 UOC).

To calculate the EFTSL of a course, you will need to note its units of credit (UOC) value. The unit of credit value for a course is displayed in this Handbook or in the Online Handbook at www.handbook.unsw.edu.au.

Eligibility for HECS-HELP assistance
HECS-HELP loans are available to eligible students enrolled in Commonwealth supported places. A HECS-HELP loan will cover all or part of the student contribution amount.

Commonwealth supported students who are eligible for HECS-HELP can either:
- pay their student contribution amount up-front and receive a 20% HECS-HELP discount, or
- defer payment, request a HECS-HELP loan and pay later through the tax system.

HECS-HELP assistance is available only to Australian citizens or holders of a permanent humanitarian visa.

HECS-HELP assistance eligibility for New Zealand citizens or holders of a permanent visa (other than a permanent humanitarian visa) who are pre-2005 HECS students will be determined under the old HECS rules until the end of 2008.

FEE-HELP
FEE-HELP is a new loan program that assists eligible fee-paying students to pay their tuition fees at eligible higher education providers. Australian citizens and holders of a permanent humanitarian visa are eligible for FEE-HELP assistance.

Under FEE-HELP, students can borrow up to a maximum of $50,950 (indexed each year) over their lifetime.

Undergraduate FEE-HELP loans are subject to a 20% loan fee.

OS-HELP
OS-HELP is a new loan program that assists eligible undergraduate students who wish to study overseas for one or two study periods. It assists these students with payment of their tuition fees at eligible higher education providers. Australian citizens and holders of a permanent humanitarian visa are eligible for OS-HELP assistance.

Under OS-HELP, students can borrow up to $5,095 per study period for one or two study periods of overseas study.

OS-HELP loans are subject to a 20% loan fee.

Commonwealth Assistance Notice
A Commonwealth Assistance Notice (CAN) is a notice that contains information about a student's enrolment and use of Commonwealth assistance. This notice is published to the web and is available via the My Student Profile tab on myUNSW within 28 days of the census date for each semester.

If you are a Commonwealth supported student, your CAN will include the following information:
- the units of study for which you have received Commonwealth assistance
- your student contribution amounts
- your Student Learning Entitlement (SLE) usage
- the amount of any up-front payments you have made
- your HECS-HELP assistance.

If you have applied for FEE-HELP, your CAN will include the following information:
- tuition fees for your unit(s)
- units of study for which you have received FEE-HELP
- amount of any up-front payments you have made
- loan fee for undergraduate units of study

You are required to check your CAN notice for any discrepancies within 7 days of the issue of the notice, and you have the right to request correction of information contained in this notice until the date as shown in the last paragraph of the notice.

Payment of Fees
Fees are charged and are payable on a semester basis. Tuition fees and Student Activity Fees are payable each semester in advance. Students must access their statements online. Students will be able to view their fee statement and payment options (Statement of Student Debt) online approximately 2-3 weeks before classes commence. Students should refer to the online statement (available at https://my.unsw.edu.au) for payment deadlines and payment options.

Students with An Existing HECS or PELS Debt
HECS or PELS Debts
From 1 January 2006, an accumulated HECS or PELS debt will become known as an accumulated HELP debt. Any HECS-HELP or FEE-HELP debts you incur from 1 January 2005 will be added together with your HECS or PELS debt to become one accumulated HELP debt on 1 June 2006.

Repayment Thresholds
The repayment threshold for compulsory repayment of HELP debts in 2005-06 is $36,185.

Bonus for Voluntary Repayments
From 1 January 2005, if you make a voluntary repayment of $500 or more, you will receive a bonus of 10% of the repayment you make.

Bankruptcy Rules
From 1 January 2005, HELP debts and accumulated HELP debts are not provable under the Bankruptcy Act 1966 and you will have to pay them as if you had not been declared bankrupt. Your HECS or PELS debt will remain provable until it becomes part of your accumulated HELP debt on 1 June 2006. Further information is available from https://my.unsw.edu.au or www.goingtouni.gov.au.

Student Activity Fees
Please note: The information provided in this Handbook relating to Student Activity Fees is subject to change pending the outcome of proposed changes to Commonwealth legislation. For the latest information, please refer to https://my.unsw.edu.au.

Total Activity Fee charged per semester (incl. Miscellaneous Student Activity Fee and GST)
Kensington Students
- full-time students: $257.80
- part-time students: $205.00

COFA Students
- full-time students: $176.40
- part-time students: $125.80

1.1 Student Activity Fees have two components: Semester Subscriptions (to the various student organisations (listed in (a) below) and the Miscellaneous Activity Fee (see (b) below).

a) 2006 Semester Subscriptions:
These are charged and payable each standard semester. Due dates are the same as for student contributions and tuition fees. Subscriptions are adjusted annually by a system of indexation. Please note that, as explained below, GST has been included in these fees.

Kensington Campus:
- University Union per semester subscription: full-time students: $137.50
- part-time students: $103.40
- Sports Association per semester subscription: full-time students: $44.00
- part-time students: $33.00
- Student Guild per semester subscription: full-time students: $36.30
- part-time students: $28.60
- College of Fine Arts:
- College of Fine Arts Students’ Association per semester subscription: full-time students: $136.40
- part-time students: $103.80
- GST (Good and Services Tax)
The Australian Government has determined that a Goods and Services Tax (GST) of 10% applies to all goods and services and anything else consumed in Australia. Certain exceptions include most education courses provided by the University. If you are enrolled in an award program you will not be liable for the GST.
However subscriptions for membership of the Students’ Union, Guild and Sports Association are not part of the academic award program and these fees are therefore subject to GST.

b) 2006 Miscellaneous Activity Fee:
This fee is used to finance expenses generally of a capital nature relating to student activities and includes an allocation for insurance cover for students. Funds are allocated for projects approved by the University Council.
Kensington: $40.00 per session
College of Fine Arts: $40.00 per session

1.2 Exemption from Student Activity Fees
Students often seek exemption from Student Activity Fees for reasons other than those set out below. It is stressed that the fees charged are a contribution by students towards services and amenities for the University community both now and in the future and exemption from them cannot be claimed because a student is unable or unwilling to make use of some of these services or amenities.

(1) Life members of the University Union and the Sports Association are exempt from Subscriptions.

Students who consider themselves eligible for life membership of the University Union or the Sports Association should make enquiries at the offices of those organisations. Once life membership has been approved, contact the Treasury with your life membership details.

(2) Students enrolled in programs classified as external or who are enrolling in programs where for a semester or semesters the formal academic requirements are undertaken at a part of the University away from their campus such as a teaching hospital or field station or at another tertiary institution or elsewhere, are exempt from all Semester Subscriptions but not the Miscellaneous Activity Fee. Students who consider themselves eligible for a Semester Subscription fee concession on the basis of external study should contact their Program Authority in the first instance.

(3) Students enrolled in programs at the University College, Australian Defence Force Academy, are exempt from the Student Activity Fees, but shall pay such other fees and charges as the Council may from time to time determine.

(4) Students who while enrolled at and attending another tertiary institution in a degree or diploma course are given approval to enrol at the University in courses to be credited towards the degree or diploma for which they are enrolled elsewhere are exempt from all subscription Student Activity Fees. Students should provide proof of payment of such fees at another tertiary institution to the Student Financials Section at UNSW Student Central.

(5) Graduate students who have completed all the experimental and research work for their degree at the commencement of session, except for the submission of their thesis or project report, may be exempted from the payment of all Student Activity Fees by the Registrar on production of an appropriate statement from the student’s supervisor or Head of School certifying that the student is no longer using University facilities.

(6) Graduate students required to resubmit their thesis or project report where resubmission requires no further experimental or research work may be exempted from payment of all Student Activity Fees by the Registrar on production of an appropriate statement from the supervisor or Head of School.

(7) The Registrar is empowered to grant exemption from membership of the University Union, Student Guild and/or the Sports Association to students who have a genuine conscientious objection to such membership, subject to payment of all prescribed fees to the Miscellaneous Activity Fee fund.

1.3 Refund of Student Activity Fees Paid

(1) If notice of discontinuation of a program is received on or before 31 March a full refund of Session 1 Subscriptions and the Miscellaneous Activity Fee paid will be made; if notice is given on or before 31 August a refund of Session 2 Subscriptions and the Miscellaneous Activity Fee paid will be made; thereafter no refund will be made except that provided for in (2) below.

(2) The refunds mentioned above may be granted to a student unable to notify the Registrar in writing by the dates required provided evidence is supplied that the student had ceased attendance by those dates. Students who consider themselves eligible for a refund should contact the Treasury.

(3) The refunds mentioned in (1) above also apply to graduate students who submit a thesis or project report for examination or whose enrolment is discontinued by the dates given.

UNSW Fee Policy: Local Students
Australian citizens, New Zealand citizens and Australian permanent residents are categorised as local students. Fee-paying programs include postgraduate, undergraduate and non-award programs. These rules apply only to students enrolled as fee-paying students. They do not apply to Commonwealth supported students (HECS).

Acceptance of an Offer of Admission
There is no tuition fee deposit required, however your reply must be received within 4 weeks of date of offer, or as otherwise advised, to secure your place. Tuition fees for the first semester of the program are payable by the end of the first week of the semester, as indicated on the fees statement available at https://my.unsw.edu.au

Fees Payable
Tuition Fees:
Fees are reviewed annually and may increase. See the ‘2006 Tuition Fee Schedule’ in this Handbook for a complete schedule of tuition fees.

Non-Award, Cross-Institutional and Voluntary Course Fees:
Fees are charged for non-award enrolment in a course, and for enrolment in an inter-institutional course. Fees are charged according to the classification of the course (Undergraduate, Postgraduate, Research). See the ‘2006 Tuition Fee Schedule’ in this Handbook for a list of a complete schedule of tuition fees.

Student Activity Fees:
All students enrolling in fee-paying programs, including non-award enrolments, are liable to pay Student Activity Fees each semester at the published rates (please refer to ‘Student Activity Fees’ under ‘Student Fees’ for more information). Student Activity Fees are additional to tuition fees and are separately identified on fee statements. Student Activity Fees are subject to annual review and may increase from one year to the next. These fees (with the exception of the Miscellaneous Activity Fee component) are subject to the Australian Government’s Goods and Services Tax (GST), which is levied at 10%. Students enrolling in distance education programs are required to pay the Miscellaneous Activity Fee component only.

Calculation of tuition fees:
Tuition fees are calculated on a student’s enrolment in specific courses. UNSW students enrolled in most programs have some flexibility in the courses they choose and, at times, these courses will be from outside their own Faculty. Tuition fees are derived from the relative cost of providing each type of course and will be calculated on the basis of that year’s current fee. Information on tuition fees is provided in the offer letter. Further information is also available on the following website: https://my.unsw.edu.au/student/fees/FeesMainPage.html

Repeated Courses – Students who are required to repeat courses will be charged the full cost to re-enrol in the course, based on the units of credit for that course at the time it is repeated.

Payment of fees:
Fees are charged and payable on a semester basis. Tuition fees and Student Activity Fees are payable by semester in advance. Students must access their statements online. Students will be able to view their fee statement and payment options (Statement of Student Debt) online approximately 2 – 3 weeks before classes commence. Students should refer to this online statement (available at https://my.unsw.edu.au) for payment deadlines and payment options.

Please note: Costs associated with payments for deposit requirements, tuition and/or activity fees to the University via electronic or direct funds transfer will be seen as the students’ responsibility and the cost shall be borne by the student. Please check with your financial institution before making any transfer of payment.

Non-Payment of Fees:
Failure to pay fees according to the payment guidelines may result in a student’s enrolment being cancelled. If, with notice, a student’s enrolment is cancelled for non-payment of fees and that student is subsequently permitted to have his/her enrolment reinstated, a $250.00 reinstatement fee will be levied. A student whose enrolment is cancelled will retain her/his fee liability, so that re-enrolment in a subsequent year, or semester, will not be permitted unless such a time as the debt is either paid in full or agreement reached between the student and the Registrar on the method of repayment.

Students indebted to the University will not be issued with academic transcripts or any other official credentials and will not be permitted to graduate.
Refund of Fees Paid

(1) Refund of Deposit
Where a student is required to make an initial deposit to confirm her/his place in a program, the deposit is non-refundable.

(2) Refund of Program Fees – New Students
If a student in her/his commencing semester lodges a notice of discontinuation of a program after enrolment and before the census date for that semester, all tuition fees will be refunded less $500.00. The student will incur and retain a liability for payment of $500.00 regardless of whether or not fees have been paid.

(3) Refund of Program Fees Paid – Re-Enrolling Students:
For re-enrolling students, if notice of discontinuation of course is received on or after the census date of a new academic semester, no refund of tuition fees paid for that semester will be made. In such instances, the student will incur and retain a liability for that semester’s fees regardless of whether or not fees have been paid.

(4) Refund of Program Fees - Non-Award Enrolment
If notice of discontinuation of a course is lodged on or before the census date for that semester, a full refund of the fee for the course will be made.
A student will incur and retain liability for the course fee, regardless of whether the fee has been paid, if notice of discontinuation is not lodged before the census date for that semester.
In the case of a course(s) conducted outside the normal semester format, such as those conducted in summer or winter sessions, a refund will only be made if notice of discontinuation is lodged before the commencement of the course.

(5) Refund of Program Fees Paid – Special Cases:
A refund may be granted to a student unable to notify the Registrar in writing by the dates required, provided evidence is supplied that the student had ceased attendance by the census date, and was unable to notify the Registrar or reasons beyond her/his control. A refund may be granted in cases where the applicant is unable to commence or continue in the program because of documented illness or misadventure.
A postgraduate student who submits a project report or thesis for examination by the census date for that semester will not be liable for fees in that semester.

Commonwealth Assistance Notice (CAN)
A Commonwealth Assistance Notice (CAN) is a notice that contains information about a student’s enrolment and use of Commonwealth assistance. This notice is issued to the web and is available via the My Student Profile tab on myUNSW within 28 days of the census date for each semester.
The Commonwealth Assistance Notice (CAN) is issued to Commonwealth Supported and FEE-HELP students only.

Relevant Dates
A complete schedule of semester and census dates is available on the UNSW website: https://my.unsw.edu.au

Disclaimer
Students should note that courses, programs and any arrangements for programs, including staff allocated, as stated in any University publication, are an expression of intent only, and are not to be taken as a firm offer of undertaking. Students wishing to take particular elective courses should ensure that these will be available prior to accepting the offer.

UNSW Fee Policy: International Students
This policy applies to all international students. An international student is a student who is not a citizen or permanent resident of Australia, or a New Zealand citizen. All enrolled international students (or their sponsors), whether in attendance at a campus of UNSW or offshore are liable for payment of tuition fees and Student Activity Fees.

Acceptance of an Offer of Admission
Tuition Fee Deposit: International students wishing to accept an offer of admission to a program must pay a deposit fee to secure their place. Places in programs will be allocated in order of receipt of the deposit. The balance of tuition fees for the first session of the program is payable according to the payment guidelines on the fees statement issued after enrolment. External or offshore students and some government-sponsored students have different deposit requirements, as detailed in the offer letter.
Student Visa: On receipt of the deposit and, if appropriate, the health insurance payment, the University will issue an Electronic Confirmation of Enrolment for Overseas Students (e-COE) form which a student requires in order to apply for a student visa for travel to, and temporary residence in, Australia.

Deferment: Requests to defer initial enrolment from one year to the next, or one session to the next, must be made in writing or online by the deadline stipulated in the offer letter. Not all programs permit deferment. Students not permitted to defer must lodge a new application for admission at the time appropriate for their intended commencement of the program. A student who defers will be liable for the tuition fees applicable in the year in which he/she will enrol.

Fee Charges and Payments

Fees Payable
(1) Tuition Fees:
Fees are reviewed annually and may increase. See the ‘2006 Tuition Fee Schedule’ in this Handbook for a list of a complete schedule of tuition fees.

(2) Student Activity Fees:
All students enrolling in fee-paying programs, including non-award enrolments, are liable to pay Student Activity Fees each session at the published rates (please refer to ‘Student Activity Fees’ under ‘Student Fees’ for more information). Student Activity Fees are additional to tuition fees and are separately identified on fee statements. Student Activity Fees are subject to annual review and may increase from one year to the next. These fees (with the exception of the Miscellaneous Activity Fee component) are subject to the Australian Government’s Goods and Services Tax (GST), which is levied at 10%. Students enrolling in distance education programs are required to pay the Miscellaneous Activity Fee component only.

(3) Health Insurance:
It is a requirement of the Australian Government that student visa holders are covered by medical insurance (Overseas Student Health Cover, OSHC) for the duration of their study in Australia. Students must ensure that they have made arrangements for their OSHC when accepting their offer of a place. OSHC can initially be paid for a minimum period of 12 months or for the duration of the student’s program*. Students who pay for a minimum of 12 months are responsible for renewing their health cover directly with either the University’s Preferred Provider for medical insurance for international students or other approved provider, when their initial cover expires. OSHC charges are regularly reviewed and charges quoted on the UNSW offer letter are subject to change.
Students should be aware that the duration of cover might be shorter than anticipated, should an increase in the charge occur after the offer letter has been sent. Students on external/distance education programs and not residing in Australia are not required to pay OSHC. Similarly, students who do not need a student visa to study in Australia are not required to pay OSHC.

* Please note that the University will require students to take out program-length OSHC cover from Semester 2 2006 onwards.

(4) Calculation of Tuition Fees:
Tuition fees are calculated on a student’s enrolment in specific courses. UNSW students enrolled in most programs have some flexibility in the courses they choose and, at times, these courses will be from outside their own Faculty. Tuition fees are derived from the relative cost of providing each type of course and will be calculated on the basis of that year’s current fee. Information on the tuition fees is provided in the offer letter. However further information can be found on the myUNSW website: https://my.unsw.edu.au/student/fees/FeesMainPage.html

(5) Full-Time Program Study Requirement:
Students holding a student visa are required to undertake their studies on a full-time basis. UNSW defines a standard normal full-time enrolment as 24 units of credit (UOC) per session. A minimum load of 18 UOC will satisfy the full time requirement. However, if students enrol in the minimum full-time load, they will need to take additional courses in a future session to complete their program within the time frame specified on their visa. The University expects that students will undertake their studies on a full-time basis and complete the program in the minimum time.

(6) Payment of Tuition Fees & Student Activity Fees:
Fees are calculated and payable on a session basis. Tuition fees and Student Activity Fees are payable per session in advance. Students must access their statements online. Students will be able to view their fee statement and payment options (Statement of Student Debt) online approximately 2 to 3 weeks before classes commence. Students should refer to this online statement (available at https://my.unsw.edu.au) for payment deadlines and
payment options. Students who have an agreement with the University that their fees will be paid by a recognised sponsor (i.e. home government/institution) will be able to view a fees statement online indicating if any fees are required (i.e. fees which are not covered by their sponsor). If a student is not liable for any fees, the online statement simply serves as a confirmation of their enrolment. A separate invoice for fees will be sent to the sponsor after the census date of each session. Unless stipulated in the offer letter, all fee payments must be made in Australian dollars, and finalised by the University payment due date for each session.

Please note: Costs associated with payments for deposit requirements, tuition and/or activity fees to the University via electronic or direct funds transfer will be seen as the students’ responsibility and the cost shall be borne by the student. Please check with your financial institution before making any transfer of payment.

(7) Non-Payment of Fees:
Failure to pay tuition fees and Student Activity Fees according to the payment guidelines may result in a student's enrolment being cancelled. If, with notice, a student's enrolment is cancelled for non-payment of fees and that student is subsequently permitted to have his/her enrolment reinstated, a $250.00 reinstatement fee will be levied. A student whose enrolment is cancelled, will retain her/his fee liability, so that re-enrolment in a subsequent year or session will not be permitted until such a time as the debt is either paid in full or agreement reached between the student and the Registrar on the method of repayment. Students indebted to the University will not be issued with academic transcripts or any other official credentials and will not be permitted to graduate.

Fee Variations (including Change of Residency)
Permanent Resident Status:
If a student obtains Australian permanent residency before enrolling in the program, or prior to the census date of the session of first enrolment in an approved program (or as a local student), the student will be seen as a local student in that program, the offer of a place (or the enrolment) as an international student will lapse. The student will then be considered for admission as a local student. The Department of Science, Education and Training (DEST) guidelines clearly state that all students must finalise enrolment issues (including permanent residency status) by the relevant census date. There is no provision to extend the census date deadlines. Students must provide proof of residency on or before the relevant session census date in order to be assessed for admission as a local student and be eligible for the local tuition rate. Students who receive their residency on or prior to the relevant session census date but fail to provide the University with a certified copy of their evidence until after the census date will remain liable for the international tuition rate for the remainder of the session.

Please note: the University cannot be held accountable for problems which may occur between students and the Department of Immigration and Multicultural Affairs (DIMIA) regarding the issuing of permanent residency visas and is unable to apply retroactive adjustments for prior sessions.

Students who are granted Australian permanent resident status after the census date of their first session of enrolment or after the census date of any subsequent session will be seen as having entered into a contract with the University to pay international fees for that session.

Please note that because of government controls on the number of local students that can be enrolled, students who obtain permanent residency may not qualify for a Commonwealth Supported place (HECS).

Repeated Courses:
Students who are required to repeat courses will be charged the full cost to re-enrol in the course, based on the units of credit for that course at the time it is repeated.

Non-Award Course Enrolment:
In certain cases, students may be permitted by a Faculty to enrol in additional courses that cannot be counted towards award requirements. If permitted to do so, the student will need to apply for and be enrolled in a separate non-award program and charged at the international student rate according to the band fee for the course enrolled in.

Graduate students completing a thesis or project report:
Graduate students who have completed all work (i.e. all research, laboratory, computational and field work) before the commencement of a session, except for the preparation and submission of the thesis or project report, will be exempted from the fees for that session if the thesis or project report is submitted before the census dates. After these dates fees will be charged at the rate of 50% for the session in which the thesis or project report is submitted, provided the student has exceeded the minimum period of enrolment specified in the degree conditions. Graduate students who are permitted to resubmit a thesis or project report and required to undertake a further period of study are liable for the full cost of the further study period.

Refund of Fees Paid
(1) Withdrawal Prior to Enrolment (Refund of all fees paid less administrative charge of $500):
Applicants who notify the University in writing before they enrol in the program for the first time that they wish to withdraw, will receive a refund of all tuition fees paid less an administrative charge of $500. The full amount may be refunded in cases where the applicant has not been granted a student visa or is unable to attend because of documented illness or misadventure. Any refund so made will be at the discretion of the Registrar. A student may receive a full refund if it can be shown that, following discussions with program authorities, it is not possible for that student to enrol in an appropriate program. Refunds of tuition fees will normally be made within four weeks from the date of request or the date of clearance of the original payment, whichever is the later.

(2) Commencing Students - Withdrawal By Census Date (Refund of all fees paid less administrative charge of $1000):
Students who withdraw from the program prior to the census date in their commencing session will receive a refund of all fees paid less an administrative charge of $1,000.

(3) Commencing Students - Withdrawal After Census Date (No refund):
Students who withdraw after the census date in their commencing session will not receive a refund for fees paid unless they have also paid fees for a full year, in which case, fees paid for the second session will be refunded in full.

(4) Re-enrolling Students - Withdrawal By Census Date (Refund of all fees paid):
Students who withdraw from the program prior to the census date of that session will receive a refund of all fees paid for the session.

(5) Re-enrolling Students - Withdrawal After Census Date (No Refund):
Students who withdraw from the program after the census date will not receive a refund of fees paid unless they have also paid fees for a full year, in which case, fees paid for the second session will be refunded in full.

(6) Illness and Misadventure:
Students who have to withdraw at any time because of documented ill health or misadventure may apply for a refund of fees paid. However, pro-rata refunds will be considered only in exceptional circumstances. Any refund so made will be at the discretion of the Registrar.

(7) Students Not Permitted to Continue:
Students not permitted to continue in their program because of a determination made by the University in relation to unsatisfactory progress, or any other reason, at the end of Session 1, will receive a refund of any fees paid for Session 2.

(8) Refunds for Tuition Fees Paid:
Refunds will be processed and normally paid within 4 weeks of receiving a written request, and all required documentation from the student. Refunds will only be made in Australian Dollars, following clearance of the original payment, and are usually in the form of a bank draft, mailed to the student. If a telegraphic transfer is required to a bank account, please ensure you include all bank details on the refund request. This method of refund is not recommended because of banking difficulties in some countries.

(9) Difficulties with Payment:
Students who are unable to pay their fees by the agreed dates should apply in writing to the Student Financials Section, Student Administration and Records Office, through UNSW Student Central, Lower Ground Floor of the Chancellery Building. In exceptional circumstances special payment arrangements may be made for students, taking into account their financial and other circumstances. Students should not assume that extensions will be granted automatically and are reminded that non-payment of fees may result in cancellation of enrolment.

(10) OSHC
Students who decide not to enrol with the University will be eligible for a full refund of any OSHC paid. The refund will be issued by the University, if the payment has not been sent to the OSHC Provider. However, students will be responsible for contacting the Provider directly, if the payment has been sent and processed.
Students who enrol with the University, but who decide to withdraw, should be aware that they are required to pay a minimum of 3 months cover, and this will be deducted from any refund.

In requesting a refund, students must provide the Provider with the following information: full name, date of birth, OSHC membership number together with the reason for refund and either evidence of transferring to another university, or the date of departure from Australia.

Relevant Dates
A complete schedule of session and census dates is available on the myUNSW website: https://my.unsw.edu.au

Disclaimer
Students should note that courses, programs and any arrangements for programs including staff allocated, as stated in any University publication, are an expression of intent only and are not to be taken as a firm offer or undertaking. Students wishing to take particular elective courses should ensure that these will be available prior to arriving in Australia

This fee policy does not remove the right to take further action under Australia’s consumer protection laws (Education Services for Overseas Students Act 2000 Section 43.1).

Other Fees and Charges
Special Examination Fees
Examinations conducted in special circumstances for each course: $85

Other Charges
In addition to any of the fees outlined above and depending on the course being taken, students may be asked to make a payment for equipment; money so paid is, in general, refunded if the equipment is returned in a satisfactory condition. Charges may also be payable for accommodation and subsistence on excursions and fieldwork; and for hospital residence by medical students.

Penalty Fees
(1) Failure to lodge enrolment or pay fees* according to enrolment procedure: $100
(2) Late enrolment penalty for re-enrolling students: enrolment in Week 1 of Session 1 or later: $250
(3) Reinstatement of enrolment fee: $250
(4) A penalty fee of $250 will be incurred by a student when a result is returned for a course which is not included in the student’s enrolment program.

Penalties (1) and (2) may accumulate.* Fees include Student Activity Fees, fees levied for voluntary enrolment, non-award enrolment, international student fees, tuition fees for postgraduate and undergraduate programs, and up-front Student Contribution Liability.

Sponsored or Assisted Students
Sponsored or Assisted students are those who have an official sponsor recognised by the University and whom the University invoices directly, rather than invoicing the individual student.

Students who have an “unofficial sponsor” such as an employer or a family member who have agreed to cover study costs should note that in all cases UNSW considers the student is solely responsible for any financial liability to the University.

Students in receipt of an official sponsor should note that they will be liable for any unpaid tuition and activity fee costs should the sponsor default on payment in any given semester. A student with an outstanding debt may not be permitted to re-enrol in a subsequent year or semester until such time as the debt is paid in full. Students indebted to the University will not be issued with academic transcripts or any other official credentials and will not be permitted to graduate.

Debts
Any student who is indebted to the University and who fails either to make a satisfactory settlement of indebtedness upon receipt of due notice or to receive a special exemption will be disenrolled and will cease to be entitled to membership and privileges of the University. Such a student is not permitted to attend classes or examinations, or to be granted any official credentials. Re-enrolment in a subsequent session or year will not be permitted until such time as the debt is either paid in full, together with any enrolment reinstatement penalty fee (if appropriate) or agreement is reached between the student and the Registrar on the method of repayment.

In exceptional cases the Registrar may grant exemption from the provisions referred to in the preceding paragraph upon receipt of a written statement from the student setting out all relevant circumstances.

Enrolment Rules and Procedures
Enrolment
All students must re-enrol each year for the full academic year. Students who fail to enrol in accordance with advertised procedures or who enrol after the nominated date will incur a penalty fee. By enrolling, students incur Student Activity Fees, tuition fee charges or liability under the Student Contribution Scheme.

Refer to myUNSW (https://my.unsw.edu.au) for full details of enrolment procedures and up-to-date fee information.

All students are required to confirm their enrolment details e.g. check that they are enrolled in the correct course(s) by accessing their online Fee Statement/Confirmation of Enrolment at https://my.unsw.edu.au prior to the session’s census date. Any enrolment issues must be referred immediately to the Program Authority in writing.

A complete schedule of session and census dates is available on the website: https://my.unsw.edu.au/student/resources/KeyDates.html

1. New Undergraduate Enrolments
For application procedures, please see ‘Admissions Procedures’ above.

Successful applicants will be required to complete enrolment on the web via myUNSW and to complete any other procedures required by their program office before the start of session.

2. Re-enrolling Undergraduate Students
Re-enrolling undergraduate students are required to re-enrol on the web via myUNSW, and complete any other procedures required by their program office. Different enrolment procedures may apply for some programs, particularly some distance or alternative mode programs. In these instances, students should follow the instructions emailed or sent to them by their program office. Detailed information regarding enrolment is available on myUNSW and students should check this site regularly for updated information: https://my.unsw.edu.au

3. Re-enrolment Deadlines and Penalties
Students must enrol in accordance with the enrolment procedures for their program. The University has established enrolment deadlines and penalties for late enrolment or failure to enrol in accordance with program office requirements as follows.

Students who have an outstanding debt to the University will not be able to process any enrolment changes until the outstanding debt is finalised.

Students must access their Fee Statement online at https://my.unsw.edu.au. Students should refer to this online statement for payment deadlines and payment options.

(1) On the recommendation of the program authority, the Registrar may impose a penalty fee of $100 on students who fail to enrol in accordance with their program office’s instructions. Circumstances under which the penalty may be imposed include:
- failure to re-enrol by the deadline set by the University or the student’s program office;
- failure to attend the program office to enrol on or by the published date where this is a requirement of enrolment for the program.

(2) Lodgement of a proposed enrolment, and acceptance of a student’s enrolment, in Week 1 of session and subsequently, will incur a late enrolment penalty fee of $250.

(3) Students who do not pay all the fees assessed on their fees statement (including up-front Student Contributions where relevant) by the end of the first week of teaching may have their enrolment cancelled.

4. Summer Session Enrolments
Students will be required to complete formal enrolment procedures prior to the commencement of their Summer Session of study. Enrolment at this time will be for a student’s approved Summer Session program. Students must access their fee statement online.

5. Restrictions on Re-enrolling
Students whose progress is deemed to be unsatisfactory should follow the written instructions they have received from the Registrar.

6. Multiple Enrolment
The University has laid down the following rules on multiple enrolments:
(1) No person shall be permitted to enrol in a degree, diploma or certificate course at the University of New South Wales at the same time as he/she is enrolled for any other degree, diploma or certificate in the University
A request for leave should be made in writing to the Registrar either:

1. For a student who discontinues a program with or without failure after the last day to discontinue a course without failure, and for the census date for a session may result in failures being recorded.

2. For a student whose application for leave is rejected or who does not provide their Tax File Number and has not made the required student contribution payment by the date set by the University, or at any other tertiary institution, except with the approval of the faculty or faculties concerned.

(2) The Registrar may suspend from enrolment any student who is found to be enrolled, without approval, in more than one degree, diploma or certificate course.

7. Non-Award Enrolment

Non-award enrolment refers to all enrolments in courses or a sequence of courses which do not lead to or count towards a formal award (e.g. degree or diploma) of the University of New South Wales. Non-award enrolments fall into two categories, voluntary and cross-institutional.

Applications to enrol as a non-award student must be made on the Non-Award Enrolment application form available from UNSW Student Central or the following website: www.unsw.edu.au/futureStudents/nonAward/sad/fsnacrossinst.html. Permission to enrol as a non-award student is conditional on the permission of the Head of School and authorisation from the Director, UNSW Student Services. Applicants should follow the instructions given to them with the application form.

8. Final Dates for Enrolling in Courses

No enrolments for Session 1 courses will be accepted from students after the end of the second week of Session 1, except with the express approval of the Registrar and the Head(s) of the School(s) concerned.

No enrolments for Session 2 courses will be accepted after the end of the second week of Session 2, except with the express approval of the Registrar and the Head(s) of the School(s) concerned.

9. Deadlines for Payment of Fees, Charges and Student Contributions

The University has set deadlines for the payment of all fees that are set out below. Students who do not pay all fees by the due date may be disenrolled. Students who are permitted to be reinstated following disenrollment will be required to pay a penalty fee of $250 plus all outstanding fees before reinstatement.

Under Government legislation, a student who has elected not to provide their Tax File Number and has not made the required student contribution payment by the date set by the University, must have their enrolment cancelled. Such students will not be permitted to undertake studies in their program in that session as a Commonwealth supported student.

Session 1

Session 1 Student Activity Fees, Student Contributions and tuition fees: Friday 3 March 2006

Session 2

Session 2 Student Activity Fees, Student Contributions and tuition fees: Friday 28 July 2006

Variations in Enrolment (including Discontinuation and Program Leave)

1. Variation of Enrolment

Undergraduate students wishing to vary their enrolment program will be able to do so on the web (https://my.unsw.edu.au/) at specified times throughout the year. Where a student is unable to successfully vary their enrolment online, or they are in doubt as to whether the courses they wish to enrol in will count towards their program requirements, they should contact their program office or appointed academic adviser for further advice.

It is a student’s responsibility to ensure that they enrol in accordance with the University’s rules, and that the courses they enrol in will count towards their program requirements. Students should take care to enrol only in classes that are defined as core units or electives for their academic program. If they enrol in classes that cannot be counted, they may have to enrol in extra classes, or for an extra session. They may also incur additional fees.

2. Variation of Summer Session Enrolment

Students may vary their Summer Session enrolment program on the web. Students should check with the relevant course authority for the last day to discontinue a course without failure, and for the census date for the course.

3. Discontinuation of Program

Students discontinuing programs are required to notify the Registrar in writing or to complete the discontinuation form available from UNSW Student Central. Such students may be entitled to a fee refund for fees paid (see ‘Student Fees’ entry in this Handbook). The Registrar acknowledges discontinuation of a program in writing.

A new undergraduate student in Stage 1 of a program who discontinues that program without failure prior to the census date must reapply through UAC and is guaranteed re-admission to the same program the following year. A student who does not resume study in the following year must compete for a place, if and when re-admission is sought.

A new undergraduate student in Stage 1 of a program who discontinues after the census date may apply for leave for Session 2 prior to the Session 2 census date. It should be noted that discontinuation after the census date for a session may result in failures being recorded.

4. Discontinuation of Courses

Discontinuation of courses prior to the census date for a session can generally be processed by a student on the web (https://my.unsw.edu.au/). All variations to course enrolments can also be confirmed by students on the web.

Students can discontinue a course online without academic and financial penalty until the census date.

Students can discontinue a course online without academic penalty until half session plus one week (the withdraw without academic penalty date).

Students should be aware that they will be financially liable for all courses in which they are enrolled as at the census dates.

Written applications to discontinue courses after the withdraw without academic penalty date may be lodged with the course authority but will result in students being regarded as having failed the courses concerned, except in special circumstances.

5. Program Leave

Leave from a program of study may be granted to undergraduate or postgraduate students. Leave is generally restricted to a total of two sessions; applications for leave in excess of two sessions will be approved only in exceptional circumstances at the discretion of the program authority.

Undergraduate students may be granted leave before commencement of the program. This type of leave, usually referred to as deferment of enrolment, will normally be granted once only and for a maximum of 2 sessions.

The following procedures apply:

- A request for leave should be made in writing to the Registrar either by letter or by using the Discontinuation/Leave form available from program offices and the Student Centres at each campus.
- Leave must be sought prior to the census date. For information about census dates, please refer to: https://my.unsw.edu.au/student/resources/KeyDates.html
- A student who discontinues a program with or without failure after the census date for a session retains an enrolment record for that session and is subject to the rules on student progression. A student who discontinues after the Session 1 census date may apply for leave for Session 2.
- A student whose application for leave is rejected or who does not resume study at the end of the approved leave period must formally apply, in the usual manner, for re-admission to the program.

Enquiries about re-admission to a program should be directed to the Admissions Office.

6. Resumption of Program

Students who have had leave for twelve months and wish to resume their program should follow the instructions about re-enrolling given in the letter granting leave of absence. If these instructions are not fully understood or have been lost, students should contact UNSW Student Central in the Chancellery before November in the year preceding the one in which they wish to resume their program.

If students have not obtained leave of absence from their program and have not been enrolled in the program over the past twelve months or more, they should apply for re-admission to the program through the Universities Admissions Centre before the end of September in the year preceding that in which they wish to resume studies or to the Admissions Office by the appropriate closing date.

Program Transfers

Local Students:

Students in the Faculty of Arts and Social Sciences who wish to transfer between the Bachelor of Arts, Bachelor of Social Science or Bachelor of...
of Arts/Bachelor of Education should apply to the Faculty Office in December. Students in the Faculty of Commerce and Economics, who wish to combine either the Bachelor of Commerce with Arts, Science or Social Science, or the Bachelor of Economics with Arts or Social Science, should apply to the Faculty Office in December. Students in the Faculty of Engineering who wish to combine their undergraduate engineering program with MEng, or MEngSc should apply to the relevant Engineering School Office in December. Students in the Faculty of Law who wish to change their non-law program (e.g. Commerce/Law to Arts/Law) or major in their non-law degree (e.g. Accounting to Finance) should apply to the Law Faculty Office in December. Students who wish to transfer from a combined Law program to the single non-law program should apply to the Faculty Office of the program in which they wish to continue. Graduate Law students wishing to change from full-time to part-time study or vice versa should also apply to the Faculty Office in December. Students wishing to change their plan within their current degree should apply to their Faculty Office. All other local students wishing to transfer to an undergraduate program must apply through the Universities Admissions Centre (UAC) by the end of September (late applications are accepted until early February on payment of a late fee or in May for mid-year transfers. Further information is available from the Admissions Office, telephone 1300 36 8679.

International Students: All international students can apply for an internal transfer by completing the form available from UNSW Student Central or online via https://my.unsw.edu.au. For further information, international students may contact the Direct Admissions Office, tel: (+61 2) 9385 3636.

Progression Rules and Procedures Attendance at Classes Students are expected to be regular and punctual in attendance at all classes in the courses in which they are enrolled. All applications for exemption from attendance at classes of any kind must be made in writing to the Registrar. In the case of illness or of absence due to other unavoidable causes students may be excused by the Registrar for non-attendance at classes for a period of not more than one month or, on the recommendation of the Dean of the appropriate faculty, for a longer period. Absence from Classes Explanations of absences from classes, or requests for permission to be absent from forthcoming classes, should be addressed to the Registrar and, where applicable, should be accompanied by a medical certificate. If examinations or other forms of assessment have been missed, this should be stated in the application. If students attend less than eighty per cent of their possible classes they may be refused final assessment.

General Education Requirements UNSW requires that undergraduate students undertake a structured program in General Education as an integral part of studies for their degree. General Education requirements are set out in detail in the General Education section of this Handbook.

Plagiarism

What is Plagiarism?

Plagiarism is the presentation of the thoughts or work of another as one’s own. Examples include:

- direct duplication of the thoughts or work of another, including by copying work, or knowingly permitting it to be copied. This includes copying materials, ideas or concepts from a book, article, report or other written document (whether published or unpublished), composition, artwork, design, drawing, circuitry, computer program or software, website, Internet, other electronic resource, or another person’s assignment without appropriate acknowledgement;
- paraphrasing another person’s work with very minor change keeping the meaning, form and/or progression of ideas of the original;
- piecing together sections of the work of others into a new whole;
- presenting an assessment item as independent work when it has been produced in whole or part in collusion with other people, for example, another student or tutor; and;
- claiming credit for a proportion of work contributed to a group assessment item that is greater than that actually contributed.1 Submitting an assessment item that has already been submitted for academic credit elsewhere may be considered plagiarism. Knowingly permitting your work to be copied by another student may also be considered plagiarism.

Note that an assessment item produced in oral, not written, form, or involving a live presentation, may similarly contain plagiarised material. The inclusion of the thoughts or work of another with attribution appropriate to the academic discipline does not amount to plagiarism.¹ Based on that proposed to the University of Newcastle by the St James Ethics Centre. Used with kind permission from the University of Newcastle.¹ Adapted with kind permission from the University of Melbourne.

UNSW Policy on Plagiarism

At UNSW plagiarism is considered to be a form of academic misconduct and is viewed very seriously. UNSW is committed to helping students understand the conventions which govern academic communication to assist them avoid action which may result in academic misconduct. In the interests of maintaining high standards in scholarship and research, the University reminds students that when they are writing essays, theses, and assessment items of any nature, they are ethically bound to refrain from plagiarism in all its forms. Students are advised to inform themselves about University policies and practices concerning assessment and Academic Misconduct (including plagiarism). Wherever possible, students should also take up those opportunities provided to them by the University to improve their academic and/or information literacy.

The UNSW Approach to Student Plagiarism

The UNSW approach to plagiarism is educative. The University wishes to foster a culture of learning informed by values of integrity and honesty and all staff and students are encouraged to consider their rights and responsibilities as set out in this Handbook. UNSW is also committed to providing a consistent, fair and equitable approach to managing student plagiarism. It is therefore expected that Faculties and Schools will strive to ensure the fair, consistent and equitable treatment of students when handling student plagiarism, and adopt relevant policy, procedures and guidance provided by the University. It is also expected that staff will be conscientious in their evaluation of students’ work and the identification of cases of possible plagiarism. All Faculties and Schools will provide students with discipline-specific examples of good and bad academic practice according to the conventions of the discipline, and provide specific advice regarding those techniques that will be required of students whilst studying at UNSW. UNSW has published an e-document handbook for students, Guidelines and Rules on Student Plagiarism, which contains detailed information on UNSW’s policy, approach and resources for students. UNSW has also developed an online information literacy tutorial (ELISE) to assist students. See Further Information below.

The Learning Centre

The Learning Centre Plagiarism and Academic Integrity website is the central University online resource for staff and student information on academic honesty and understanding and avoiding plagiarism. It can be found at: www.lc.unsw.edu.au/plagiarism. The Learning Centre also provides substantial educational written materials, workshops, and individual assistance to aid students, for example, in:

- correct referencing and citation practices;
- paraphrasing, summarising, essay writing, and time management;
- appropriate use of, and attribution for, a range of materials including text, images, formulae and concepts.

Further Information Learning Centre’s Plagiarism and Academic Integrity website: www.lc.unsw.edu.au/plagiarism/index.html

GENERAL UNIVERSITY RULES AND STUDENT INFORMATION 27
2.3.1 Plagiarism and failure to acknowledge sources

Plagiarism involves using the work of another person and presenting it as one’s own. Acts of plagiarism include copying parts of a document, without acknowledging and providing the source for each quotation or piece of borrowed material. These rules against plagiarism apply whatever the source of the work relied upon may be, whether printed, stored on a compact disc or other medium, found on the World Wide Web or Internet.

Similarly, using or extracting another person’s concepts, experimental results or conclusions, summarising another person’s work or, where there is collaborative preparatory work, submitting substantially the same final version of any material as another student constitutes plagiarism.

It is your responsibility to make sure you acknowledge within your presented work where you have “sourced” the information, ideas and facts etc.

The basic principles are that you should not attempt to pass off the work of another person as your own, and it should be possible for a reader to check the information and ideas that you have used by going to the original source material.

Acknowledgment should be sufficiently accurate to enable the source to be located speedily. If you are unsure whether, or how, to make an acknowledgment consult your lecturer.

The following are some examples of breaches of these principles:

(a) Quotation without the use of quotation marks. It is a serious breach of these rules to quote another’s work without using quotation marks, even if one then refers to the quoted source. The fact that it is quoted must be acknowledged in your work.

(b) Significant paraphrasing, e.g., several sentences, or one very important sentence, which in wording are very similar to the source. This applies even if the source is mentioned, unless there is also due acknowledgment of the fact that the source has been paraphrased.

(c) Unacknowledged use of information or ideas, unless such information or ideas are commonplace.

(d) Citing sources (e.g. texts) which you have not read, without acknowledging the ‘secondary’ source from which knowledge of them has been obtained.

These principles apply to both the text and footnotes of sources. They also apply to sources such as teaching materials, and to any work by any student (including the student submitting the work) which has been or will be otherwise submitted for assessment. You must obtain the prior approval of your lecturer if you wish to submit to that lecturer an essay substantially similar to one which has already been, or will be, submitted to another lecturer.

Using the principles mentioned above about proper acknowledgment, you should also proceed on the general assumption that any work to be
submitted for assessment should in fact be your own work. It ought not be the result of collaboration with others unless your lecturer gives clear indication that, for that assignment, joint work or collaborative work is acceptable. In this latter situation, you should specify the nature and extent of the collaboration and the identity of your co-workers.

2.3.2 Unauthorised materials in exams
The possession of unauthorised materials in exams is another common example of academic misconduct. The University’s rules for the conduct relating to examinations state that no materials are to be brought into the examination room other than those specified in the examination timetable.

The following are examples of materials which would be regarded as unauthorised (and if not specified as being permitted in the examination):
(a) A bag, writing paper, blotting paper, manuscript or book, other than the specified material;
(b) A mobile telephone brought into the examination room must be switched off and placed under the candidate’s seat for the duration of the examination;
(c) Written or printed notes of any kind or size;
(d) Writing on the hand or any other part of the body;
(e) Writing on a ruler or any other instrument;
(f) A calculator or hand-held computer where these are not permitted or where calculators are supplied by the University for the examination.

It does not matter whether or not the notes or writing are relevant to the exam. It does not matter that the notes are inside your pocket or a closed pencil case. It also does not matter that writing on the body is illegible.

It is academic misconduct simply to be in possession of such notes and writing, or to have writing on your body, in the first place.

There are simple steps that you can take to ensure they do not infringe the University’s rules for examinations:
• Read the examination timetable carefully and make sure you fully understand what materials are permitted in the exam;
• Place all bags and belongings outside or at the front of the room before the exam commences;
• Check your pockets and inside any pencil cases or calculators to ensure that you haven’t accidentally left notes in them;
• Listen carefully to the instructions given to you by the examination supervisor. Ask for assistance if you have any questions about the rules and arrangements for the examination;
• Surrender any unauthorised notes or other materials before the exam begins: if you are found with these after the exam commences you will have broken the examination rules.

2.4 Penalties
Students found guilty of academic misconduct may be excluded from the University for up to two years, depending on the individual circumstances. In serious cases, penalties may include permanent exclusion from the University.

2.5 Breach of Discipline and Misconduct in Assessment Procedures
The University has detailed procedures for dealing with allegations or complaints of academic misconduct. Please contact UNSW Student Central or refer to the following website: https://my.unsw.edu.au/student/academiclife/assessment/BreachDisciplineMisconductProcedures.html

3. Student Misconduct
3.1 University Rules and Codes of Conduct
While the University has not formulated a formal general code of conduct, it has defined rules and good practice for many activities. That is, a number of areas within the University have specified rules and codes of conduct for particular activities for the use of facilities. For example, there are rules for the conduct of examinations, rules for borrowing privileges and the use of other University Library resources, and behaviour in the Library. The Division of Information Services has also formulated rules for the use of computers and computer laboratories, and for behaviour in laboratories. These rules are publicised to all users of these facilities.

There are, in addition, University rules governing general student conduct. These are described below.

3.2 What is student misconduct?
Student misconduct of a kind that impairs the reasonable freedom of other persons to pursue their studies or research or to participate in the life of the University includes such activity as:
(a) breach of any rule relating to student conduct in the University;
(b) conduct which unduly disrupts or interferes with a class, a meeting or any other official activity within the University;
(c) conduct detrimental to University property, such as stealing, destroying or deliberately damaging laboratory equipment;
(d) stealing, destroying, impairing the accessibility of, or defacing any part of the University Library collection;
(e) using University computing or communications facilities in a manner which is illegal or which will be detrimental to the rights and properties of others;
(f) acting so as to cause students or staff or other persons within the University to fear for their personal safety;
(g) refusing or failing to identify oneself truthfully when so required by a member of the academic staff or other officer of the University.

3.3 Penalties
The following penalties may apply:
(a) A student who commits a breach of the University parking rules or damages University property (including, but not limited to, fittings, fixtures, equipment, facilities, trees, plants, shrubs, and lawns) shall be guilty of a breach of discipline and shall be liable for the payment to the University of a fine not exceeding $1,000 and/or the cancellation of her or his parking permit.
(b) A student who misuses University Library facilities, or computing or communications facilities, shall be guilty of a breach of discipline and shall be liable for the payment to the University of a fine not exceeding $1,000 and/or restriction or withdrawal of borrowing or access privileges.
(c) Fines and other penalties may only be imposed under these rules by the Registrar, the Chief Information Officer, or a person who holds a written delegation from either officer so authorising her or him.
(d) It shall not be necessary for the University to prove in any case that it has suffered financial or actual loss.
(e) The University may withhold any benefit (including any degree, diploma or result) from a student until any penalty imposed under these rules has been discharged.
(f) Students adversely affected by determinations made and penalties imposed under this rule may appeal to the Vice-Chancellor. The appeal must be in writing and lodged within fourteen days of the student receiving notification of the adverse determination. Such notification shall include notice of the student’s right of appeal. In all other respects, action under this rule is final.

In addition, in situations where it is considered that students present a threat of destruction to University property and/or disruption of academic instruction, assessment, examinations, and the proper functioning of the University, they may be temporarily suspended from part or all of the University.

3.4 Student Misconduct Procedures
The University has detailed procedures for dealing with allegations or complaints of student misconduct. The full text of the Council resolution on student misconduct, which contains details of these procedures, can be obtained from UNSW Student Central or the following website: https://my.unsw.edu.au/student/academiclife/assessment/StudentMisconductRules.html

Academic Standing
At the end of every standard 14-week session the University determines each undergraduate or coursework postgraduate student’s Academic Standing in his or her program of study.

The purpose of specifying a student’s Academic Standing is to alert the student and his or her program authority as early as possible to any problem that may prevent the student graduating in minimum time, or (in more extreme cases) that may prevent the student graduating at all. With early intervention by a University academic advisor, the more serious consequences of a student’s continued poor performance may be prevented. Academic Standing is determined differently for undergraduate and postgraduate students.

Academic Standing for Undergraduate Students
A student’s Academic Standing is determined by two factors: his or her academic standing at the end of the previous standard 14-week session and his or her academic achievement in the current 14-week session. In normal circumstances, academic achievement is classified as satisfactory if the number of units of credit in all courses passed is at least half the total number of units attempted. If it is not satisfactory, academic achievement
is classified either as poor if some units are passed (but fewer than half the total number attempted), or nil if no units at all are passed. If 6 or fewer units of credit are attempted, then academic achievement is classified as indeterminate if any of these units are passed, or as poor if no units at all are passed.

Table 1 indicates how each academic achievement classification is determined. The far right-hand column describes how a student's academic standing at the end of the current session is derived from that student's academic standing at the end of the previous session.

Table 2 lists the undergraduate academic standing categories and their implications. Each student not in Good Standing is assigned an academic advisor, whom the student consults to discuss his or her progress, plans for improving results, and future enrolment options. The student is also encouraged to contact other University services, especially the Counselling Service and the Learning Centre, who can offer advice on ways in which the student may enhance his or her academic performance.

The usual effect is modified in certain situations:

- as it is not possible to skip Suspension, a student whose previous standing was Probation 2 must pass at least half of the attempted units to avoid Suspension. A similar rule applies to Probation 4 in respect to Exclusion.
- after Suspension, a student is assigned Probation 3. The student may then be assigned to Probation 1, if he or she passes half of the attempted units in the first session after returning (i.e. during Probation 3) from Suspension. Thus, two successive satisfactory sessions are required for Good Standing to be regained. If poor progress is recorded the student moves to Probation 4. If nil progress is recorded the student moves to Exclusion and
- in exceptional circumstances a student's academic advisor, in consultation with the program authority, may alter the student's standing. The usual action in this case is to retain the previous standing or to move the standing one step instead of two.

### Academic Standing – Re-enrolment Appeal Procedures

In June 2000, the University's Academic Board adopted the following rules governing appeals against suspension or exclusion:

1. Students who are suspended or excluded from a program have the right to appear before an Undergraduate Re-enrolment Appeal Committee and a Postgraduate Re-enrolment Appeal Committee of the Academic Board will be constituted for the purpose of hearing such appeals.
2. Each Committee will have a membership of five members of academic staff (with a quorum of three) and will be chaired by a member of the Academic Board nominated by the President. The remaining members of the Committee need not be members of the Academic Board but will be nominated by the President taking into account their relevant experience and expertise. Members will not currently be involved in managing student progress and will disqualify themselves if they have previously been involved in the case of a particular student.
3. The decision of the Committee shall be final.
4. The notification to students that they have been suspended or excluded shall indicate that they may appeal that decision to the relevant Re-enrolment Appeal Committee. The appeal must be lodged with the Registrar within fourteen days of the date of notification; in special circumstances a late appeal may be accepted at the discretion of the chairperson of the Appeal Committee.
5. In lodging such an appeal with the Registrar, students should provide a complete statement of all grounds on which the appeal is based.
6. The Appeal Committee shall determine appeals after consideration of each appellant's academic record and stated grounds of appeal. Students may elect to appear before the Committee and/or be represented.

### Assessment

(See also ‘Assessment Policy’ under ‘Other University Policies & Procedures’)

#### Assessment of Progress

In the assessment of a student's progress in a program, consideration may be given to work in laboratory and class exercises and to any term or other tests given throughout the year, as well as to the results of written examinations.

#### Results of Assessment

Assessment result advices include the final composite marks students achieve in courses taken that session.

Passes are graded as follows:

- **High Distinction**: an outstanding performance
- **Distinction**: a superior performance
- **Credit**: a good performance
- **Pass**: an acceptable level of performance
- **Satisfactory**: satisfactory completion of a course for which graded passes are not available

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**Table 1: The effect of the current session's achievement on Academic Standing:**

<table>
<thead>
<tr>
<th>Units of credit attempted</th>
<th>Units of credit passed</th>
<th>Achievement</th>
<th>Usual effect on Academic Standing</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 or fewer</td>
<td>Any</td>
<td>Indeterminate</td>
<td>Remains unchanged</td>
</tr>
<tr>
<td>6 or fewer</td>
<td>None</td>
<td>Poor</td>
<td>Moves one category down</td>
</tr>
<tr>
<td>More than 6</td>
<td>Half or more</td>
<td>Satisfactory</td>
<td>Moves up one category</td>
</tr>
<tr>
<td>More than 6</td>
<td>Some, but less than half</td>
<td>Poor</td>
<td>Moves one category down</td>
</tr>
<tr>
<td>More than 6</td>
<td>None</td>
<td>Nil</td>
<td>Moves two categories down</td>
</tr>
</tbody>
</table>

**Table 2: The implications of undergraduate Academic Standing categories:**

<table>
<thead>
<tr>
<th>Academic Standing</th>
<th>Implications for the student</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good Standing</td>
<td>May continue in program</td>
</tr>
<tr>
<td>Referral</td>
<td>Recommended to consult Faculty advisor to discuss academic progress</td>
</tr>
<tr>
<td>Probation 1</td>
<td>Required to consult assigned advisor who advises on and approves next session's program</td>
</tr>
<tr>
<td>Probation 2</td>
<td>Required to consult assigned advisor, who approves next session's program. Student must improve to avoid suspension</td>
</tr>
<tr>
<td>Suspension</td>
<td>Not permitted to re-enrol for two standard sessions (one year)</td>
</tr>
<tr>
<td>Probation 3</td>
<td>Return from suspension period</td>
</tr>
<tr>
<td>Probation 4</td>
<td>Required to consult assigned advisor, and must improve to avoid exclusion</td>
</tr>
<tr>
<td>Exclusion</td>
<td>Excluded from the University for four standard sessions (two years)</td>
</tr>
</tbody>
</table>
Pass Conceded: this may be granted provided that the overall performance is considered to warrant such a concession. A Pass Conceded in a course will allow progression to another course for which the former course is a prerequisite.


Notification of Results

Assessment results are available on the web via [https://my.unsw.edu.au](https://my.unsw.edu.au). You will need your Student ID and UniPass to use these services.

Review of Results

A student may make application to the Registrar for the review of a result. The application form must be submitted not later than fifteen working days after the date of confirmation of assessment results via the web.

A review of result may take one of two forms:

1. Checking that all marks have been included in the final composite mark.
2. An academic reassessment of a piece of work. Before applying for a reassessment, students must first discuss their performance in the course with the course examiner. If students still have reason to believe that the mark awarded does not reflect their performance, they may apply for reassessment. Reasons must be given to justify a request. Requests may be refused where insufficient reasons are put forward.

Examinations

Examinations are held in June/July and in November/December. It is inadvisable for students to make any vacation travel arrangements within the examination period until dates for all assessment requirements have been finalised.

Provisional timetables are posted on the University website/intranet in May and October.

Final timetables are posted on the University website/intranet in May and October.

Clash of examinations: Students must advise UNSW Student Central of any clash in examinations as soon as the provisional timetable is released. The following website provides important information about the rules and procedures governing examinations at UNSW. It is the students’ responsibility to be aware of these rules and procedures: [https://my.unsw.edu.au/student/academiclife/assessment/examinations/examinations.html](https://my.unsw.edu.au/student/academiclife/assessment/examinations/examinations.html)

Special Consideration – Illness and Misadventure

On some occasions, sickness, misadventure, or other circumstances beyond students’ control may prevent them from completing a course requirement or attending or submitting assessable work for a course. Such assessable requirements may include formal end of session examination, class test, laboratory test, seminar presentation, etc. It is also possible that such situations may significantly affect your performance in an assessable task. The University has procedures that allow students to apply for consideration for the affected assessments. Depending on the circumstances, the University may take action to allow students to overcome the disadvantage; e.g. offer an additional assessment or extend a deadline.

Students should note that merely submitting a request for Consideration does not automatically mean they will be granted additional assessment, nor that they will be awarded an amended result. For example, if a student has a poor record of attendance or performance throughout a session/year involving only three consecutive days or a total of five days within the teaching period of a session is not considered sufficient grounds for an application.

Applications are accepted only in the following circumstances:

1. Where academic work has been hampered to a substantial degree by illness or other cause. Except in unusual circumstances a problem involving only three consecutive days or a total of five days within the teaching period of a session is not considered sufficient grounds for an application.
2. The circumstances have to be unexpected and beyond your control. Students are expected to give priority to their University study commitments and any absence must clearly be for circumstances beyond your control. Work commitments are not considered a justification.
3. An absence from an examination should be supported by a medical certificate or other document that clearly indicates you were unable to be present.
4. A student absent from an examination or who attends an examination and wants to request special consideration is normally required to provide a medical certificate dated the same day as the examination.
5. An application for special consideration has to be provided within three working days of the assessment to which it refers. In exceptional circumstances an application may be accepted outside the three-day limit.

To give the University sufficient and appropriate information on which to base its decision about your request, you must support your application with certified official documentation that normally contains at least the following key information:

(1) the assessment task/s for which you are seeking consideration
(2) the dates/deadlines associated with these tasks
(3) the basis of your request i.e. the nature of your misadventure, illness, etc.
(4) the date/s on which you were seen by the professional/authority providing your official documentation
(5) the date of the illness or misadventure or the dates of the period of time of the illness or misadventure
(6) the professional’s/authority’s assessment of the severity of your illness or misadventure and opinion of the likely effect on your capacity to undertake the assessment task/s concerned.

Items 4. to 6. need to be certified by the provider. For example, by your medical practitioner or other health professional (for illness or injury) or counsellor (for personal or family problems), so you will need to make the provider aware of the University’s requirements.

For causes other than sickness, (e.g. road accident, court hearing, or death of a relative) written evidence (e.g. a police report, a court summons, or a death certificate) instead of the documentation required in 4. above is acceptable (i.e. Section B of the Consideration form need not be completed).

You should note that Consideration requests normally will not be considered:

- unless the application is made on the appropriate form;
- unless all the key information is provided;
- if more than 3 days have elapsed since the assessment for which Consideration is sought;
- if the assessment task is worth less than 20% of the total course assessment, unless the student can provide a Medical Certificate that covers three consecutive days.

In exceptional circumstances the University may waive these requirements, for example, if an accident or sudden illness occurs which requires your immediate hospitalisation.

How to apply for Consideration

A student must make formal application for Consideration for the course/s affected as soon as practicable after the problem occurs and within three working days of the assessment to which it refers.

The application must be made on the ‘Request for Consideration’ form available from UNSW Student Central (or the Student Centre at your campus), from faculty and program offices, the University Health Service, the Counselling Service or from the web at: [https://my.unsw.edu.au/student/atoz/SpecialConsideration.html](https://my.unsw.edu.au/student/atoz/SpecialConsideration.html)

To assist you the ‘Request for Consideration’ form has a sheet attached explaining the procedures and the information required. The form and information sheet must be taken with you when you obtain the certification so as to ensure all the key information is provided.

The completed application form must be submitted to the Student Centre at each campus.

Applications are accepted only in the following circumstances:

1. Where academic work has been hampered to a substantial degree by illness or other cause. Except in unusual circumstances a problem involving only three consecutive days or a total of five days within the teaching period of a session is not considered sufficient grounds for an application.
2. The circumstances have to be unexpected and beyond your control. Students are expected to give priority to their University study commitments and any absence must clearly be for circumstances beyond your control. Work commitments are not considered a justification.
3. An absence from an examination should be supported by a medical certificate or other document that clearly indicates you were unable to be present.
4. A student absent from an examination or who attends an examination and wants to request special consideration is normally required to provide a medical certificate dated the same day as the examination.
5. An application for special consideration has to be provided within three working days of the assessment to which it refers. In exceptional circumstances an application may be accepted outside the three-day limit.

To give the University sufficient and appropriate information on which to base its decision about your request, you must support your application with certified official documentation that normally contains at least the following key information:

(1) the assessment task/s for which you are seeking consideration
(2) the dates/deadlines associated with these tasks
(3) the basis of your request i.e. the nature of your misadventure, illness, etc.
(4) the date/s on which you were seen by the professional/authority providing your official documentation
(5) the date of the illness or misadventure or the dates of the period of time of the illness or misadventure
(6) the professional’s/authority’s assessment of the severity of your illness or misadventure and opinion of the likely effect on your capacity to undertake the assessment task/s concerned.

Items 4. to 6. need to be certified by the provider. For example, by your medical practitioner or other health professional (for illness or injury) or counsellor (for personal or family problems), so you will need to make the provider aware of the University’s requirements.

For causes other than sickness, (e.g. road accident, court hearing, or death of a relative) written evidence (e.g. a police report, a court summons, or a death certificate) instead of the documentation required in 4. above is acceptable (i.e. Section B of the Consideration form need not be completed).

You should note that Consideration requests normally will not be considered:

- unless the application is made on the appropriate form;
- unless all the key information is provided;
- if more than 3 days have elapsed since the assessment for which Consideration is sought;
- if the assessment task is worth less than 20% of the total course assessment, unless the student can provide a Medical Certificate that covers three consecutive days.

In exceptional circumstances the University may waive these requirements, for example, if an accident or sudden illness occurs which requires your immediate hospitalisation.
You also need to follow any local procedures of the relevant course or program authority. You will have been informed of these procedures by the course authority or faculty representative in the course brochure information sheet made available to you upon commencement of the course or program. For example, as well as submitting your application through UNSW Student Central, the course authority may require you to contact them. If you need advice about any of the policies or procedures relating to Consideration contact UNSW Student Central.

What happens after you make the application

If your application meets the University’s criteria for acceptance, it is stamped, a copy is taken and the original is returned to you. Only documentation that meets the requirements listed above will be accepted. No consideration will be given when the condition or event is not related to performance or is considered not to be serious. Details, including the summary information provided by you, are made available to the relevant course authority/faculty. The University’s procedures ensure that confidentiality of this information is maintained.

Note that many course authorities require you to take action within a specified period of time to determine the outcome; for example to consult the course authority’s notice board, to contact the authority in person or by phone, etc. Details of the arrangements will have been made available to you in the course information sheet. Failure to take this action will normally result in forfeiture of any additional assessment granted to you.

On the basis of the information provided in your application, a decision is made regarding the appropriate response in your particular case. The following may be taken into account:

1. Your performance in other items of assessment in the course.
2. The severity of the event.
3. Academic standing in other courses and in the program.
4. History of previous applications for special consideration.

For enquiries relating to your application, please contact the relevant course authority or head lecturer of the course.

What outcomes you can expect

If your application for illness or misadventure is accepted, the following may ensue:

1. No action.
2. Additional assessment or a supplementary examination. Additional assessment may take a different form from the original assessment. If you are granted additional assessment, the original assessment may be ignored at the discretion of the course authority. Consequently, a revised mark based on additional assessment may be greater or less than the original mark.
3. Marks obtained for completed assessment tasks may be aggregated or averaged to achieve a percentage.
4. The deadline for assessment may be extended.
5. Discontinuation from the course. This is unlikely to occur after an examination or final assessment has taken place.

The following examples are included to give an indication of the outcomes you can expect in the most common circumstances. (Many course authorities include similar examples for the special types of assessment used by them in their course information sheets.)

Formal end of session examinations

- If you miss such an examination through an illness, other circumstance beyond your control, etc., which is certified as being severe enough to have prevented your attendance, in general, you will be granted additional assessment. This is usually in the form of a supplementary examination.
- If you attend an examination but prior to it an illness or other circumstance beyond your control occurs which, because of its duration or severity, is certified as having a significant effect on your preparation for that course, in general you will be granted additional assessment. This is usually in the form of a supplementary examination.

Note: In either of these cases if you have attained a Pass in the course concerned from assessment tasks completed during session, it may not be regarded as necessary to grant you additional assessment.

- If you attend an examination but have an illness on the day, which is either certified as not having a significant effect on your performance (such as a minor head cold), or for which you were examined after the illness had subsided, you will not be granted additional assessment.

Class tests, laboratory examinations, vivas

The same types of outcomes as outlined above for formal end of session examinations normally will apply in the circumstances listed.

Field work, practical placements, etc.

Each course authority conducting field work, etc., has in place appropriate mechanisms for dealing with consideration for these type of assessments.

Additional assessment

The time at which any additional assessment granted to you is held, is determined by the course authority concerned. Consult the course information sheet for detailed information about the times and arrangements for the various additional assessment tasks in that course.

Most course authorities conduct supplementary examinations in the period immediately after the formal end of session examination period. For example, for the end of Session 2, supplementary examinations are often held in the three-week period just prior to Christmas. In general, course authorities will provide only one opportunity for you to sit a supplementary examination except in exceptional circumstances. You need to ensure you will be available during this period to take any supplementary examination granted to you.

You should expect any additional assessment granted to you to be of the same degree of difficulty as the original assessment task which it replaces.

Student Contact Details

It is essential that students maintain current email and postal addresses. The University cannot accept responsibility if official communications fail to reach students who have not amended their postal and/or email address as soon as possible after any change of postal and/or email address. See also email Policy in this Handbook.

Student ID Card

All students enrolling at the University are issued with a student identification card. The number appearing on the card is the student identifier used in the University’s records. This number should be quoted in all correspondence.

1. The card must be carried at the University and shown on request. It must be presented when borrowing from the University libraries, when using library facilities and when applying for concessions. The card is encoded by University Security to allow building access.
2. The card is not transferable.
3. The student to whom the card has been issued must notify the University Security (unsw located in the Red Centre) of its loss or theft. Failure to do so may result in the cardholder being held responsible for items issued on the card after its loss or theft.
4. The card is valid only for the period of enrolment each year.
5. The cardholder accepts responsibility for all library books issued on his/her card and agrees to return books by the due date.
6. If the card is damaged or becomes otherwise unusable, it is the cardholder’s responsibility to seek replacement.
7. The card always remains the property of the University and must be returned to it when the holder leaves the University.

Note: Students may be required to provide photo identification such as a driver’s licence or passport in special circumstances where their student ID card does not satisfactorily verify their identity.

Graduation

The University’s policy is to graduate at the next series of ceremonies all students who have completed requirements for their degree or diploma in the previous academic session. Graduands who are indebted to the University will not be permitted to graduate until the debt has been cleared.
The University usually holds graduation ceremonies in the following periods:

March/May: All degrees and diplomas
June/July: Overseas graduation ceremonies in Hong Kong and Singapore/Kuala Lumpur. (No ceremony will be held in Kuala Lumpur in 2006).
September/October: All degrees and diplomas
December: University College, Australian Defence Force Academy.

Undergraduate and research degrees within the Faculty of Medicine. Updated graduation information is posted on the myUNSW website each session before results for that session are released.

All graduates and potential graduates are expected to read the detailed graduation information on myUNSW, and to check their graduation details. In particular, graduates and potential graduates should check that their name, address and degree details are correct. The website is located at: https://my.unsw.edu.au/student/academiclife/graduations.html

Queries regarding graduations can be directed to the Graduations Section on (02) 9385 3092 or graduations@unsw.edu.au.

Information Technology Rules and Procedures

Introduction

The University is committed to using technology to support teaching and learning. For information on the IT resources and services available to students, please refer to ‘Information Technology Services’ in the ‘Student Services and Resources’ section below.

The rules and procedures relating to information technology at UNSW are detailed below.

Please note that students undertaking computing studies in any program are responsible for ensuring that they have appropriate back-ups of their work. Furthermore, work should not be stored on University computers as its security cannot be guaranteed by the University. Students who alter or delete another person’s work may be committing a criminal offence. Students should also note that it is against UNSW policy to knowingly spread computer viruses.

UniPass

UniPass is the Universal Password System that allows students access to UNSW Online Services and the University-wide network. New students will be required to set up their personal online student account in order to access the online services. All new students must also activate their student account by agreeing to the terms and conditions of use of UNSW’s electronic services. For more information, visit: www.disconnect.unsw.edu.au/student/zhome.htm.

ELISE (Enabling Library and Information Skills for Everyone)

Information literacy is a UNSW graduate attribute. For commencing students, a basic level of information literacy is necessary to enable each student to undertake their academic program effectively. It has been found that many students, regardless of their UAI, or other entry criteria, do not clearly understand the use of information in the university environment.

ELISE is a mandatory online tutorial on how information is organised and used in the University context. It is a university requirement for all new undergraduate and postgraduate coursework students to complete the tutorial and attain at least 80% in the ELISE quiz following the tutorial.

More information is available from:
http://my.unsw.edu.au/student/atoz/ELISE.html

The ELISE tutorial and quiz is accessible from the Web CT homepage: http://webct.edtec.unsw.edu.au/webct/public/home.pl

Email Policy

Each student is given an email address as part of his or her enrolment at UNSW. It is essential to check email regularly since this is the main mode of formal communication between students and the University.

All students have a central email address of the form z1234567@unsw.edu.au, where ‘1234567’ is the student number. It is a requirement that all students read email that is sent to this address, as it may contain vital administrative or teaching material not provided any other way. If a student uses an email account other than the centrally provided UniMail account, the student must arrange to forward UniMail to an account that they do use. For the complete policy on electronic mail, please see: www.its.unsw.edu.au/policies/policies_home.html

IT Requirements for UNSW Students

Please refer to the following website for home computer guidelines or contact the IT Service Desk on (+61 2) 9385 1333:
www.its.unsw.edu.au/policies/policies_home.html

Rules for the Use of Computing and Electronic Communications Facilities for Students

UNSW policy is to facilitate the use of information resources by the provision of appropriate and timely technology solutions and technical assistance, and a key strategy of the UNSW Corporate plan is to use information technology in support of the educational, research and administrative activities of the University. Making information technology more readily available contributes significantly to improving academic quality and student access.

While at UNSW, students are responsible for ensuring that their use of computing and communications facilities is ethical and lawful. They are responsible for ensuring that their actions are not detrimental to the property of the University and the rights of others. The following rules, which have been made by Council under the University’s Student Misconduct Rules, apply across all UNSW facilities. In certain local systems, additional restrictions may apply. The manager of the relevant resources will advise these additional restrictions. These rules apply to all student use of University computing or communications facilities. By using any of these facilities, the student is acknowledging that they have read and will abide by these rules. Breach of any of these rules may be considered student misconduct.

1. Definitions

1.1 “account” refers to any computing or electronic communication resource allocated for sole or shared usage by a student and protected from general usage by a security system. Such a resource might include, but is not limited to, storage space; access to a computer terminal; processor time; printed output or dial-up access time. A security system might include, but is not limited to, password protection.

1.2 “communications” refers to the use of any of the University’s computing and/or electronic communications facilities, including, but not limited to, telecommunications, PABX and facsimile equipment to access or transmit information.

1.3 “computing facilities” refers to:
(1) all networked services and computer hardware and software, owned, leased or used under licence by the University including the University’s academic and administrative systems;
(2) computing facilities maintained by other bodies but available for use through an agreement or agreements with UNSW; and
(3) all other computing facilities, wherever situated, where access is by means of UNSW-provided services.

1.4 “University” means the University of New South Wales.

1.5 “user” means any person or persons utilising, accessing or attempting to gain access to the computing or communications facilities at UNSW.

Any reference to the singular includes a reference to the plural and vice-versa in these rules.

2. Legal framework

Users of computing and communications facilities must be aware that use of these facilities is subject to the full range of State and Federal laws that apply to communications and to the use of computers, as well as any other relevant laws. This includes copyright, breach of confidence, defamation, privacy, contempt of court, harassment, vilification and anti-discrimination legislation, the creation of contractual obligations, and criminal laws.

3. Access

3.1 Access to the University’s computing and communications facilities is available to students for teaching, research and administrative purposes, and for other specifically authorised activities.

3.2 Students are entirely responsible for their own accounts and any actions or materials resulting from any use of their accounts.
3.3 The University reserves the right to withdraw the availability of any computing or communications facility without notice.

3.4 Students may use only those facilities to which they have been given specific access by the University or which have been advertised for general student usage, and to the extent and in the manner that they are authorised to use them.

3.5 Students are not to assist persons who do not normally have access to a resource to obtain such access.

4. Non-permitted uses

The following uses and/or activities are not permitted:

4.1 Any use not related to University teaching, learning and research, unless specifically authorised by the University. If a student is unclear of his/her access for purposes unrelated to University teaching, learning and research, clarification should be sought from the relevant University system manager or student supervisor.

4.2 Any commercial purpose.

4.3 UNSW facilities are not to be used for:

(1) the deliberate or negligent preparing, storing, displaying of racist, pornographic or other offensive material;

(2) the deliberate receiving or transmitting of racist, pornographic or other offensive material unless it is a requisite component of a program of study and has the approval of the relevant lecturer or supervisor.

4.4 Use of the facilities to harass any person (whether within or outside the University) or interfere with their work. Examples of breaches to this rule could include the sending of obscene, abusive, fraudulent, threatening or repetitive messages, as well as unsolicited non-University work-related email.

4.5 Tampering with other users’ accounts in any way, including attempting to thwart the system security, setting password traps, and any other behaviour designed to interfere with other users’ access to the facilities.

4.6 Use of other users’ accounts, a false identity or another person’s identity to gain access to any aspect of the facilities.

4.7 Allowing or assisting another person to obtain access to resources or information not authorised.

4.8 Smoking, eating or drinking in computer laboratories or while using computing facilities at the University.

4.9 Behaviour that impacts adversely on other users in shared spaces, such as making unreasonable noise.

4.10 Deliberately or negligently interfering with the operation or performance of a system by:

- generating excessive load, use of storage capacity, network traffic, etc.;

- physically damaging or adjusting the equipment. Any such tampering, vandalism, theft or wilful and/or reckless damage may be referred to the police;

- introducing viruses or other software components designed to interfere with the normal operation of a system;

- deleting, adding or modifying information relevant to the system’s operation;

- obtaining extra resources without authorisation;

- excessive printing;

- creating excessive network links.

4.11 Circumventing, or attempting to circumvent security or obtaining or attempting to obtain information that would allow security to be circumvented.

4.12 Using a resource not allocated or accessing material not permitted, whether by breaching security, using another’s account or taking advantage of another person’s negligence. This includes the use of resources in amounts or to a degree other than authorised.

4.13 Copying, disclosure of, transferring, deleting, examining, renaming, changing or adding to software, data or information belonging to UNSW or another person unless permission has been granted or the software, data or information is clearly intended to be public.

4.14 Activities that impact adversely on the University’s reputation.

5. Copyright and licences

Students will not copy, disclose or transfer any computer software on the computing and communications facilities provided by the University in such a way as to breach any right of any person (including copyright) without the express written permission of the appropriate University officer or head of school/unit/centre.

6. Security

6.1 The University wishes to maintain a secure, efficient computing and communications environment. It has the right to examine all computer files and to monitor computer usage to ensure compliance with these rules.

6.2 If necessary, computer processes that are actively causing a problem will be terminated, or access to any files related to a breach of the rules removed.

7. Related Documents

These rules operate together with other relevant policies, rules and guidelines of the University on the use of its facilities and resources. These include:

- Student Misconduct Rules
- Breach of Discipline and Misconduct in Assessment
- Email Policy.

8. Breaches

Students found in breach of these rules are liable to disciplinary action under these rules and the Student Misconduct Rules. Disciplinary action could result in a warning, a reprimand, suspension of access to computing facilities, a fine or exclusion from the University for a period.

9. Schedule of Fines

The Chief Information Officer may impose fines of up to $1,000.

Website Policy

The increasing reliance on UNSW websites as a means of communicating information and providing services has resulted in the need for an updated and consolidated University website policy.

The scope of this policy includes personal websites. Personal websites are defined as sites owned by, or affiliated to, students and hosted by the UNSW network. It also includes sites hosted on the UNSW network which are affiliated with, but not controlled by UNSW e.g. the Student Guild, Student Union, Kingsford Legal Centre.

The complete UNSW Website Policy is accessible at: www.its.unsw.edu.au/policies/pol_web.html

Other University Policies and Procedures

Access to Assessment Information and Freedom of Information

The University of New South Wales is committed to a policy of openness regarding exchange of information in matters involving the assessment of students. To this end:

1. Course authorities are responsible for ensuring that a clear written statement of expectations is provided for each course which should include a statement of the objectives of the course: its assessment plan, including weights allocated to each significant assessable component and related submission dates; the kind of evidence required for consideration to be given to late submissions; attendance, timetable and other requirements, to be presented at the first class of each session/term, recognising always the ability to negotiate changes with the students concerned within the first week.

2. All items of assessment completed during session should be marked promptly and returned to students with a mark or grade and, where appropriate, comments. Course authorities where appropriate should provide information on the distribution of results in all items of assessment so that students can gauge their own performance against that of the other members of the class.

3. Final composite marks in courses as determined by Faculty Assessment Review Groups should continue to be provided to students.

4. Final examination scripts (other than those returned to students) are to be retained in the School for six months. Students should have access to their own scripts and be able to consult the examiner or the course authority on their performance. Faculties and Boards of Studies may determine the conditions under which access may be granted.

5. Where examination question papers or other forms of assessment need to be kept confidential (e.g. multiple choice question papers where questions are reused in later examinations) arrangements should be made for students to receive advice on their performance with reference to their own examination script but in a way which does not prejudice the examination mode.
6. In the case of the examination of theses and project reports, the examiners’ report should be released to the student, following determination of the grades of examiners. The names of examiners, while remaining undisclosed, prior to assessment, should be released subsequently unless a particular examiner requests that this information be not released.

Information about how to make a Freedom of Information application and the charges involved may be obtained from UNSW Student Central (Student Enquiries), the UNSW Freedom of Information Officer (+61 2) 9385 2860 or the web at: www.infofo.unsw.edu.au/admin/privacy/index.html

Assessment Policy

This is an excerpt from the UNSW Assessment Policy. The full policy can be found online at: https://my.unsw.edu.au/student/academiclife/assessment/AssessmentPolicyIndex.html

1. Introduction

1.1 Principles underlying assessment

The University’s teaching programs are designed to provide a rich diversity of formal and informal learning opportunities for students. University students learn for many reasons: to acquire knowledge for its own sake; to prepare themselves for professional work and careers; and to develop discipline-specific as well as generic skills, for example, the skill to learn independently of a teacher.

A University award (as documented on a testamur) certifies that a student has demonstrated his or her understanding of what has been learned at a standard commensurate with that expected of the holder of the qualification for which the student has been enrolled. Assessment is integral to this certification procedure.

Some assessment is formative. That is, it is specifically intended to assist students to identify weaknesses in their understanding, so that they may improve their understanding and enhance their learning. Other assessment is summative; its objective is primarily to pass judgment on the quality of a student’s learning, generally in terms of assigned marks and grades. Furthermore, critical reflection on the outcomes of course assessments, both formative and summative, can inform teachers and students, not only about the quality of student learning but also about the effectiveness of teaching. In the design and administration of assessments and the reporting of summative assessment results, the University has a commitment to promoting open, equitable and accountable procedures. The University is also committed to providing valid and reliable assessment information, in accord with standards in which students, potential employers and accrediting bodies can have confidence.

1.2 Assessment in relation to course development and teaching methods

While teachers can contribute profoundly to students’ understanding of a discipline, students are ultimately responsible for their own learning. This responsibility extends beyond the assimilation of topics within the course. Students should ensure that they have the necessary assumed knowledge for the course, that they have an adequate grasp of academic English, that they satisfy attendance requirements, that they familiarise themselves with the course assessment requirements, and that they prepare properly for those assessments by the due dates.

For English language requirements and assessed knowledge, please refer to the ‘Admission Requirements and Procedures’ entry in this Handbook.

2. Timing and Weight of Assessments

Students are expected to reach the objectives of a course progressively throughout a session. They should be set tasks during the session that allow their progress to be evaluated against established criteria. Such in-session tasks should contribute to the final assessment in a course.

Assessment tasks should be designed carefully, first, to keep in proportion student time commitment and the weight of the assessment task in the overall assessment, and second, to reflect, as far as possible, the importance of each task in determining the effectiveness of students’ meeting the course objectives. This means more than that an important task, such as a final examination, is weighted heavily.

The Academic Board has determined that the normal workload expectations of a student are 25-30 hours per session for each unit of credit, including all contact hours, preparation and time spent on all allowable work.

Care should also be taken to avoid the imposition of a heavy imbalance of assessment load toward the second half of the session. In disciplines where comprehensive assessment is possible only when students have completed a significant proportion of the session’s work, milestone tasks should be set to enable students to build towards the submission of a more substantial assessment task closer to the end of the course. While assessment regimes will vary across the disciplines of the University, the following guidelines represent accepted norms.

2.1 Except in highly unusual circumstances, one or more tasks should be set, submitted, marked and returned to students by the mid-point of a course, or no later than the end of Week 8 of a 14-week session. This is particularly important when students are considering discontinuing a course (See 8. Discontinuation and Effective Feedback).

2.2 Although students need regular feedback on their progress, set assessment tasks should be kept to the minimum that is sufficient to enable students to make judgements about their progress.

2.3 Deadlines for assessment tasks should be well separated in time so as to give students periods of time for reflective learning that are free from the pressure engendered by a looming deadline.

2.4 In some disciplines, students are expected to practice skill development continuously. To evaluate students’ ability to perform such on-going tasks, consideration should be given to strategies for self-assessment. In this way, students can obtain evidence concerning their level of understanding of the work while avoiding the stress of frequent formal appraisal by an examiner.

2.5 No examination worth 20% or more of the assessment in a course should be scheduled during the final week of a standard session, and no assessment tasks should be set in the period between the end of session and start of the formal examination period. Study for these tasks inevitably impacts on other work undertaken during this period, including the preparation for formal examinations.

2.6 Students should not normally be required to sit 3 exams in 2 consecutive days.

2.7 Apart from examination scripts, all assessed work should be returned to the student, preferably in a class context where the student has the right to query the assessment for resolution either then or at a later time. Examination scripts may be returned at the discretion of the course authority.

2.8 Course handouts should advise students at the beginning of session how all assessment results are to be combined to produce an overall mark for the course. In particular, the handout should make expressly clear:

• the weight of each task in contributing to the overall mark;
• the formulas or rules used to determine the overall mark;
• minimum standards that are applied to specific assessment tasks, and the consequences if such standards are not met (including failure to submit particular tasks);
• rules regarding penalties applied to late submissions; and
• precise details of what is expected in terms of presentation of work for assessment. Emphasis should be placed on appropriate referencing conventions and requirements, on the degree of cooperation permitted between students, and on what constitutes plagiarism and the consequences of committing it.

3. Assessing Students’ Progress

The University is committed to evaluating students’ progress towards the completion of their degree requirements and in relation to the objectives of each course in a way that is meaningful to graduates and to employers. Thus, the University implements several procedures for the preparation for and fair conduct of examinations, and also strategies for the finalisation and communication of assessment results to ensure that there is consistent interpretation of progress indicators across the institution.

3.1 Conduct of examinations and of other forms of assessment

Examinations are conducted by the Examinations Section and by schools. It is important that all examinations are conducted under the same conditions and that those conditions are strictly adhered to. Schools should consult the Guidelines for the conduct of examinations, which are located at: https://my.unsw.edu.au/student/academiclife/assessment/examinations/examinationrules.html

Assessment should be anonymous where this is consistent with the learning outcomes of the course. Schools should develop and inform students of their policy in regard to anonymous assessment. The policy should indicate conditions under which anonymous assessment will normally be applied. In anonymous assessment, the student’s ID number only should appear on the work submitted for marking. The number is subsequently paired with the name of the student when the mark is recorded. In other cases, for example class presentations, individual viva voice assessment and small size classes, anonymous marking will not be possible.
Students with disabilities, in certain circumstances, may be eligible for alternative provisions for assessments or examinations. Provisions for school or faculty final examination and assessments should be arranged with the relevant academic staff member or school administrative officer, in conjunction with the Equity Officer, Disability. Provisions for the end of session examinations should be arranged with the Equity Officer, Disability, who will liaise with the Examinations Section. Information on equity issues at UNSW is located at www.equity.unsw.edu.au

Course authorities should ensure that course convenors follow the guidelines issued by the Registrar for the ‘Preparation and Printing of Examination Papers’. Course convenors are responsible for the accuracy of the examination papers in the courses for which they have authority.

3.1 Scheduling assessment and examinations

The University recognises that there are students whose religious faith prohibits them from sitting for examinations or attempting assessment during certain periods or on particular holy days. The University tries, wherever possible, to accommodate students so that they may fulfil both their religious and University obligations. Course convenors and other academic staff are requested to observe this policy and where possible to consult with students so that alternative arrangements may be discussed.

3.1.1 Group-based assessment

Wherever students’ grades derive from an assignment that has been completed in a group, the students should know from the outset how the marks are to be determined. In particular, students should be informed if individual or group-based grades are to be awarded. As in all assessment tasks, the students should be told the criteria against which the group’s assessment or presentation will be evaluated. It is also recommended that students be asked to complete self and peer evaluations of contributions to the group’s final product, and that students be provided with a handout that informs them about this when the group-based assignment is given to them.

3.1.2 Finalisation of results of assessment

There are two stages in the finalisation of the results that are provided to the Registrar. In the first stage, course authorities are expected to calculate for each student enrolled in each course for which they are responsible a composite mark. It is appropriate that composite marks be calculated only when, on the basis of the work completed, a reasonable assessment can be made of the student’s standard of knowledge and understanding of, and skills in, the course. The recommended mark should normally fall between 0 and 100. The minimum pass is recorded as 50 and marks above 50 reflect the level of performance, according to the categories identified in sub-section 3.2.2 below. If necessary, the provisional composite marks should be scaled so as to achieve this objective. It is expected that only minor adjustments should be required to establish suitable standards.

The course authority is then required to submit a provisional composite mark to the Faculty Assessment Review Group (FARG), or, in cases where it is inappropriate to calculate a provisional composite mark, a recommendation about any action that is to be taken.

The full range of marks and symbols used by UNSW is set out below. Some symbols represent decisions that can be made only by the FARG. Course authorities should not include these on their return of results. Course authorities may, however, use some symbols to convey to the FARG their recommendation as to further action to be taken with respect to a student’s result. These are WD, WC, UF (with a composite mark), AF, EC, and RD.

Course authorities may, in the time between the assessment and the meeting of the FARG, require students to present themselves for further assessment. Any subsequent alteration in marks should be advised by the course authority at the meeting of the FARG.

In the second stage, the FARG considers the provisional marks and recommendations and decides the final marks or any recommended further actions.

Faculty Assessment Review Groups may invite course authorities who are not members of the relevant Faculty Board to attend assessment meetings at which composite marks for courses within their responsibility are considered. If the course authorities or their nominees are unable to attend any meeting of the FARG, notes on the student cases to be considered should be provided for the presiding member prior to the meeting. If the course authorities or their nominees do not attend, the committee shall have full authority to make decisions on the standing of those courses for which the course authorities are responsible. Provided that the general statements in this document are not contravened, additional procedures and guidelines for the FARG may be laid down by its Faculty Board. If, when the composite marks for the course are being finalised, course authorities and/or Faculty Assessment Review Groups propose to vary the marks returned by the course convenor, they should advise the convenor on the action taken and the reasons.

3.2 Graded passes

When a composite mark falls in the range 50-100, the grade is determined in accordance with the following categories:

<table>
<thead>
<tr>
<th>Mark Range</th>
<th>Grade</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>85-100</td>
<td>High Distinction</td>
<td>Outstanding performance</td>
</tr>
<tr>
<td>75-84</td>
<td>Distinction</td>
<td>Superior performance</td>
</tr>
<tr>
<td>65-74</td>
<td>Credit</td>
<td>Good performance</td>
</tr>
<tr>
<td>50-64</td>
<td>Pass</td>
<td>Acceptable performance</td>
</tr>
</tbody>
</table>

3.3 Unsatisfactory failure

The symbol UF (Unsatisfactory Fail) may also be used with a composite mark in the range 40-100 where a student has not performed satisfactorily in an essential item of assessment. UF should not be used to indicate that a student has failed to reach an acceptable standard in a major assessment task such as a final examination unless it is an essential item of assessment. Normally, the assessment weights or formulas should be adjusted so that failure in a major piece of assessment is reflected in an overall mark less than 50. UF should also not be used by a Faculty Assessment Review Group to circumvent the award of a conceded pass.

3.4 Ungraded pass/fail

Where graded passes are not awarded in a course, the grade SY (Satisfactory) is used to indicate that the student has attained the required standard of knowledge and understanding of, and skills in, the course. The grade FL (Fail) should be used to indicate that the student’s performance is below the minimum level of competence in the course.
3.2.5 Grade only

In special circumstances, when it is inappropriate to return a composite mark, the grades HD (High Distinction), DN (Distinction), CR (Credit), PS (Pass) and FL (Fail) may be used. Course authorities should be aware that a national mark is generally assigned to the grade in computing weighted averages (or WAMs). The notional mark used is High Distinction 90, Distinction 80, Credit 70, Pass 55 and Fail 25.

3.2.6 Composite marks below 50

Where the composite mark falls below 50, the Faculty Assessment Review Group will determine which of the following grades applies.

3.2.7 Pass Conceded

A Pass Conceded (PC) may be granted by a Faculty Assessment Review Group, provided a student's overall performance is considered to warrant such a concession. A Pass Conceded allows a student to progress to another course for which the former course is a prerequisite. A PC should not be submitted by course authorities.

In deciding whether a student is eligible for the award of a PC (Pass Conceded), Faculty Assessment Review Groups apply a standard concession algorithm. An undergraduate student will be considered for the award of a Pass Conceded on a mark returned by the course authority that falls between 46 and 49 inclusive, provided that any of the following conditions is met:

- the mark is 48 or 49 and the student’s term WAM is at least 53;
- the mark is 46 or 47 and the student’s term WAM is at least 55;
- the student’s cumulative WAM prior to the start of the current session is at least 55; or
- the student is a potential graduand with no failures in the current term.

However, a returned grade of UF cannot be converted into PC without reference to the course authority; and a student who has previously been awarded PCs for courses totalling 18 units of credit or more shall not normally be awarded further PCs. Whenever a Faculty Assessment Review Group decides not to award a PC in accordance with the standard concession algorithm, that decision should be able to be justified.

3.2.8 Failure

If a student has made no attempt at any assessment task, the result should be returned as AF (Absent Fail). An AF should not be returned simply because the student did not attend a final examination or complete some other single piece of assessment. In the absence of any of the conditions above, a mark should be returned.

3.2.9 Withheld results

To indicate the withholding of a student’s result, one of two symbols, a WD or a WC, is used, depending on the reasons for not finalising the result. In each case, a mark is returned.

WD: This symbol should be used to indicate that it is not yet possible or desirable to finalise a composite mark based on the work completed, or that the mark is not to be released until the student consults the course authority. WD is not appropriate when students have completed all assessment tasks but marking is not complete. In this case, LE (late entry) results are not awarded.

WC: This symbol refers to results that are withheld for special circumstances, or where further assessment is recommended for a student who through illness or some other acceptable misadventure has been prevented from taking one or more of the assessments or has been disadvantaged during the assessment.

Further assessment should not be granted when the composite mark, whether more or less than 50, accurately reflects the student’s level of achievement in the course.

Withheld results cause significant inconvenience. They should, therefore, be used sparingly.

3.2.10 Finalising withheld results

Each school should designate a specified period, as close as possible to the date on which results are released, during which supplementary assessment will be held, and inform the students of this in the course handout at the beginning of the session. Students should be advised that they are required to be available for supplementary assessment, if required.

Students whose results have been withheld (indicated by a WD or a WC) are advised by the Registrar to contact the course authority within the specified time that has been communicated in the course handout, but in any case no more than 5 days after the release of the results on the web, because it might be necessary to arrange for further assessment.

The deadlines for finalising withheld results are:

- Session 1: the first Friday in August
- Session 2: the second Friday in February
- Summer Session: the third Friday in February
- Winter Session: the third Friday in August.

If a student fails to contact the course authority within the specified time, a failure in the course may be recorded. All results not finalised by the relevant date will be converted to:

- a mark and grade based on the mark held in the examinations module, or to
- a grade of NC, which signifies that assessment in the course was not completed.

3.2.11 Other symbols

LE Late entry (or assessment not finalised) indicates that a result was not submitted on time by the course authority. It is the responsibility of the course authority to provide a composite mark at the meeting of the Faculty Assessment Review Group.

RC Enrolment continuing indicates that the course is taken over more than one academic session and the assessment will be finalised in a later session.

KD Result Deferred is used for project courses to indicate that the student is unable to complete in the current session. The student must re-enrol to obtain a result.

GP The mark falls in the range 46 to 49, and a decision whether or not to award a PC is pending. This is used to indicate to a Faculty Assessment Review Group that withheld results currently prevent the determination of a PC recommendation. All late results in the range 46 to 49 returned by a course authority should be entered as GP unless UF applies. Regularly, the UNSW concession algorithm is administratively applied to GP grades that are to be converted to PC or to FL, if all other results are finalised.

NC This symbol is used when a result has been withheld for an extended period of time, and there is no prospect of its being resolved.

3.2.12 Distribution of marks

The two principal approaches to the award of grades are referred to as the standards-referencing approach (in which students’ achievements are evaluated against some pre-determined criteria) and the norm-referencing approach (that assesses students in comparison with their peers or relevant cohort). Over a period of years, the distribution of marks in large classes has shown a consistency across all courses. Patterns of distribution for the current session and for previous sessions are available from the Registrar. In small classes, and in courses and programs with high entrance qualifications, an increased percentage of higher marks may occur. A similar shift in the distribution of marks typically occurs in later years of most degree programs. Course authorities and course convenors are advised not to pass or fail any given percentage of students, but should be prepared to give reasons for a distribution pattern that differs from that which is consistently found in the particular course.

For more information, please refer to the ‘Guide to UNSW Grades’, expressing grade distributions in international terms: https://my.unsw.edu.au/student/academiclife/assessment/GuideToUNSWGrades.html

3.2.13 Time for marking

Assessment of students’ work is a normal component of the duties of academic staff. The Head of School is expected to ensure that markers are not overloaded. While workload estimates vary across disciplines, one rule of thumb relates the amount of time spent by a marker to that spent by the student on the assessment task. For the grading of examination scripts, some schools use a ratio of roughly one-sixth to one-twelfth, depending on the complexity of the task and the level of objectivity used in determining a fair mark. For example, in an seven-hour day an experienced marker might be expected to assess between 14 and 28 entire three-hour examination scripts. In practice, marking may be distributed among several markers, each of whom assesses the corresponding part of each examination paper.

3.2.14 Submission of results

The Registrar is responsible for the provision of the means by which provisional results for each student in a course can be recorded
centrally. Such means might include the transfer of marks and grades in electronic form from systems maintained by the course authority. Course authorities must ensure that their systems conform fully to the Registrar’s specifications, that student lists are current at the time of submission, and that procedures are followed to check provisional results for accuracy prior to submission. Course authorities may elect to enter the results online. Care must be taken to ensure that any transcription that is required is checked manually.

Where the results of assessment are displayed, this should be done in a way that no student can identify another student’s results. This means that student IDs cannot be used because privacy of these cannot be assumed.

3.2.15 Students not formally enrolled in a course
If a student is not identified on a list of those formally enrolled in a course that is provided by the Registrar, normal electronic submission or online entry of a provisional result for the student in the course is not possible. Instead, the provisional result is to be forwarded to the Registrar using a form provided for the purpose (the form may be on paper or other medium at the Registrar’s discretion). Students will be enrolled in the course on a non-award basis and will be liable for the applicable tuition fee. The course may then be counted towards the student’s program at the discretion of the Registrar.

3.2.16 Confidentiality
Assessment is a confidential matter. No person involved in the process shall divulge to any unauthorised person any information about composite marks or standards in any course.

3.2.17 Student access to examination scripts
Examination scripts (other than those returned to students) are to be retained in the school for six months. Students should have access to their own scripts and be able to consult the examiner or the course authority on their performance. Faculties may determine the conditions under which access may be granted.

Where examination question papers or other forms of assessment need to be kept confidential (e.g. multiple choice question papers where questions are reused in later examinations) arrangements should be made for students to receive advice on their performance, with reference to their examination script, but in a way which does not prejudice the examination mode.

3.2.18 Release of results
Final composite marks are released to students on the web and at the Registrar’s discretion may be released in other formats.

3.2.19 Retention of assessment information
Course convenors must ensure that a breakdown of the individual components that have contributed to the final mark is available at all times. Teaching staff who take leave or terminate their employment with the university should lodge those records with the course authority who will retain them for five years. An electronic record is sufficient.

3.2.20 Casual teaching staff
Where one or more non-UNSW staff are employed to teach in a course, the course authority must nominate a course convenor who is a member of staff to be responsible for ensuring that the UNSW Policy on assessment is followed. Areas of particular concern include the late return of results, failure to lodge with the School a breakdown of marks in addition to the final mark, non-return of assignments, unavailability to give feedback during the session or to discuss the final mark after the release of the results, and the inability of the School to arrange for cross-marking of assignments marked by an external examiner because of the lack of relevant expertise within the School.

3.2.21 Review of results
Students who believe that there has been an error in the calculation of their final mark may apply for a review of their result. The review may take the form of:
- either an administrative check that all marks have been included in the final composite mark; or
- an academic re-assessment of a piece of work.

Where a case is made for re-assessment, the work should be re-marked by an appropriately qualified member of staff who was not involved in the initial marking of that piece of assessment and should be done on a clean copy of the work. Please contact UNSW Student Central for further information.

3.2.22 Additional assessment for potential graduands
The status of students who have completed all the requirements for the degree in which they are enrolled, except for a potential failure in one course, will be reviewed by the Faculty Assessment Review Group. Further assessment may be granted, notwithstanding a student’s failure to otherwise qualify for such concession (see also 3.2.7).

3.2.23 Supplementary assessment
Additional or supplementary assessment should be granted only when warranted by the circumstances. Final supplementary examinations should not be granted if a student’s performance in previous assessment has been of a standard that he or she would be unlikely to pass the course. Consideration should be given to the severity of the impact of any special circumstances on the student before allowing additional assessment. (See also Section 6 concerning Special Consideration.)

3.2.24 Discontinuation of courses
Faculty Assessment Review Groups may, in special circumstances, give approval for students to discontinue a course or courses without failure.

3.2.25 Degrees with Merit/Distinction
Some undergraduate Pass degrees may be awarded with Distinction when a Distinction level of performance based on a Weighted Average Mark (WAM) of at least 75% has been achieved in all courses completed since enrolment at UNSW which are credited to the relevant award. This applies only to undergraduate Pass degrees where an award with Honours is not available, for example the three year BCom where a student would have to complete a fourth year to be eligible for the BCom with Honours.

Proposals that Pass degrees be awarded with Distinction must be made through Faculty committees for approval by the Academic Board. For details see www.studentadmin.unsw.edu.au/academiclife/pass_with_distinction.shtml

3.2.26 Award of Honours
Program authorities who are responsible for programs that lead to a Bachelor’s degree make recommendations concerning graduation with Honours for determination by the Faculty Assessment Review Group. The recommendations should be made by completing the appropriate form that is then distributed to the members of the Faculty Assessment Review Group before the meeting, in accordance with conditions for the award of Honours that are determined by the Faculty Board.

3.2.27 Award of the University Medal
The award of the University Medal is determined twice a year by the University Medal Committee following the Session 1 and Session 2 series of Faculty Assessment Review Group meetings. The membership of the University Medal Committee is the Vice-Chancellor or nominee (Chair), the President of the Academic Board, a Deputy President of the Academic Board, and the Registrar or nominee.

Recommendations for the award of a University Medal are forwarded directly from the Faculty Assessment Review Groups for the approval of the University Medal Committee as the final authority for the awarding of the University Medal. The award of a University Medal indicates that, taking the whole of the academic record into account, a student in an undergraduate program has shown highly distinguished merit and, where Honours are awarded, has performed at a level significantly above the minimum required for Honours Class 1. If there are specialisations within a program that involve sufficiently distinct areas of study, a Medal may be awarded for each such specialisation. Given that the award of a Medal indicates outstanding academic performance, it is expected that only in exceptional circumstances would there be more than one recommendation for a Medal for a particular specialisation. If the Medal Committee is of a mind not to award a Medal that has been recommended by a Faculty Assessment Review Group, it will discuss the matter with the appropriate presiding member and head of school, before making a final decision.

3.3 Academic Standing
Please refer to the entry ‘Academic Standing’ in this Handbook.

4. Special Consideration
Please refer to the entry ‘Special Consideration’ in this Handbook.

5. Ethical Use of Scholarly Materials
UNSW policies and procedures in this area are currently being reviewed and expanded to ensure the highest standard of ethical use of scholarly material.

The University is committed to assisting students to understand the conventions which govern academic communication and thereby to avoid action which may result in academic misconduct. The following statement on the ethical use of scholarly materials by students writing
6. Appeals Against Decisions Affecting Standing or Ability to Progress

Any student may complain about an academic decision that affects him or her if there are grounds for believing that the decision may have been made on inappropriate criteria. An academic decision includes any decision made by a member of the University staff that affects a student’s standing or ability to progress in a program. Many of these decisions affect assessment but they may relate to other matters that could adversely affect a student’s standing, such as the granting of advanced standing, discontinuation, the award of scholarships and prizes and decisions regarding fee liability.

Students can lodge an appeal or a grievance without fear of victimisation.

A complaint should be made initially at a local level to enable the concerns to be addressed in an informal way. If this does not provide a satisfactory outcome, the student may take the complaint to the Registrar who will undertake an investigation to ensure that appropriate procedures exist and have been followed. The final level of appeal is to the Presiding Member of the relevant committee of the Academic Board depending on whether the student is undertaking an undergraduate or postgraduate coursework program or a candidate for a research degree.

Students should lodge an appeal or make a grievance known within a reasonable time frame, usually within a month of the decision being communicated. The University has an obligation to resolve appeals and grievances expeditiously.

Separate appeal procedures exist under the Managing Student Progress policy and the Student Misconduct policy. The full policy is located at: https://www.unsw.edu.au/students/atz/Grievance.html In this Handbook, reference is made to ‘Guidelines and Procedures for the Resolution of Academic Grievances and Disputes’.

7. Rights and Responsibilities

In order that assessment policy might be implemented effectively, formal responsibility for specific aspects of policy and practice is distributed across the University (through the Vice-Chancellor and the Academic Board), the faculties, the schools, course convenors and individual academic staff. Though some responsibilities for assessment are shared, others are specific to a particular domain. Students have their part to play in the assessment process; they have rights that correlate with the University’s responsibilities. Students also have responsibilities to ensure that they are aware of, and comply with, the assessment requirements that apply to them, and to report any anomalies or problems.

7.1 Responsibilities of the University

The University, through the Vice-Chancellor and the Academic Board, has a responsibility to ensure that:

- assessment practices are explicit, fair and consistent across the institution;
- assessment procedures are monitored at the level of schools and faculties so that they meet the criteria set out in this document;
- resources are available to provide staff with access to information and expertise on the theory and practice of assessment;
- policies regarding special consideration following sickness or other misadventure, and for students with disabilities, are explicit and consistently applied;
- policies on plagiarism and cheating, including penalties for breaches, are explicit and consistently applied; and that
- appropriate appeal processes are available and publicised.

7.2 Rights and responsibilities of students

Students have a right to:

- be treated fairly and consistently in all aspects of assessment policy and practice;
- be informed of all aspects of assessment policies and practices in each course, including the criteria to be met and penalties for breaches, and in a format appropriate to students with a disability;
- the timely return of the results of assessments with appropriate and effective feedback;
- information which allows them to calibrate their own performance against the criteria for each course and the performance of other students;
- review their examination scripts and other forms of summative assessment (except those saved for reuse in subsequent testing) for the duration of the script retention period;
have access to their
be aware of the rules of progression and the requirements for the award
reading material, such as anthologies of required readings, provided
be informed of appeal processes, and time limits, and appeal against
ensure that they understand the requirements for examinations and
comply with requirements in relation to attendance, completion of
inform themselves about assessment policies and practices, including
be aware of the means for seeking assistance and advice on assessment
food, transport and accommodation costs associated with the provision
equipment or items that become the physical property of the
ensure that submitted assessment tasks are their own work except
advise schools or faculties as appropriate of any substantial absence
notify staff as early as possible if difficulties arise with the timing or
fines or penalties for late enrolments, late variations to enrolments,
apter 12 of the Commonwealth Grant Scheme
Under the provisions of the Higher Education Support Act 2003 (HESA),
Fees for Goods and Services Incidental to
Students have a responsibility to:
• ensure that they are properly enrolled, otherwise they may be refused
• behave ethically and appropriately, avoiding any action or behaviour
• be aware that a major objective of assessment is the promotion
• use assessments to help them develop strategies for self-assessment;
• be aware of the rules of progression and the requirements for the award
• inform themselves about assessment policies and practices, including
• be aware of the means for seeking assistance and advice on assessment
within the school and the University;
• ensure that they understand the requirements for examinations and
other assessment tasks;
• ensure that submitted assessment tasks are their own work except
when they acknowledge shared ownership of a group project;
• notify staff as early as possible if difficulties arise with the timing or
other requirements of assessment tasks;
• advise schools or faculties as appropriate of any substantial absence
and be aware of the appropriate use of medical and other certificates
in applications for special consideration;
• ensure that they understand the advantages and possible adverse
implications of discontinuation or withdrawal;
• seek the advice of the course authority if they believe the proposed
assessment method for a particular unit to be unfair;
• comply with requirements in relation to attendance, completion of
work, and utilisation of support facilities. It is important to note that
if students attend less than 80 percent of their possible classes, they
may be refused final assessment;
• seek feedback on the assessment of their work and advice on how to
remedy weaknesses in learning skills and examination technique if
necessary;
• seek early resolution, through the Head of School or nominee, over
any problem in their working relationship with a staff member;
• inform themselves of appropriate appeal processes; and to
• inform the EO Disability and/or the school/faculty in a timely manner
if they require alternative examination or assessment arrangements.

8. Discontinuation and Effective Feedback
The discontinuation without failure date for students withdrawing from
courses is half the session plus one week. The discontinuation without
failure date for whole year courses is the Session 2 census date. Students
are financially liable for all courses in which they are enrolled as at the
relevant census date.
Students who are thinking of discontinuing should be provided with
effective feedback by the end of week 8. This may take one of the following forms:
1. an assessment task to be completed by the end of week 7 and marked
and available for collection by week 8;
2. an online test to be available through the mycourse@unsw.edu.au link.
This may be a self-assessment task or an assessment task marked by the
relevant school. This test should be listed in the course handbook as a study
mechanism and have directions for the students wishing to access it; or
3. a formal meeting with the lecturer or tutor.
Effective feedback should correspond to the purpose for which it is
intended, which might include advice on whether the student should
continue in the course. However, some students might discontinue for
reasons unrelated to effective feedback.

Fees for Goods and Services Incidental to
Studies
Under the provisions of the Higher Education Support Act 2003 (HESA),
Commonwealth supported students and local fee-paying students

Circumstances in which providers may levy fees
In accordance with chapter 12 of the Commonwealth Grant Scheme
Guidelines, a provider may charge a student for a good or service related
to the provision of their course if one of the following criteria applies:
1. The fee is for a good or service that is not essential to the course of
study.
For example:
• access to internet and computer facilities (except where these are
required as part of a course);
• printing of notes from the internet or disks; and
• graduation ceremonies in cases where students are not required to
attend the ceremony in order to obtain their award.
2. The fee is for an alternative form or alternative forms of access to a good
or service that is an essential component of a course but is otherwise made
readily available at no additional charge by the provider.
For example:
• lecture notes or tapes, provided that lectures are available to students
free of charge;
• electronic provision of essential information if the information is also
readily available free of charge in another form (eg, in the university
library); and
• reading material, such as anthologies of required readings, provided
that these texts are also available free of charge.
3. The fee is for an essential good or service that the student has the choice
of acquiring from a supplier other than the provider and is for:
• equipment or items that become the physical property of the
student and that are not consumed during the course of study; or
For example: artwork; fabric for sewing class; first aid courses; police
clearance checks; musical instruments; protective clothing or footwear;
stethoscopes; dance shoes; and reference texts.
• food, transport and accommodation costs associated with the provision
of field trips.
4. The fee is a fine or penalty, provided that the charge is levied principally
as a disincentive and not in order to raise revenue or cover administrative
costs.
For example:
• fines or penalties for late enrolments, late variations to enrolments,
late withdrawals from a course, and late payment of charges, student
contribution amounts and tuition fees;
• review of grade if a student has already passed the course but is seeking
to improve their grade; and
• a charge for an assessment of prior learning in circumstances where
a person has not applied for entry to the institution.

Circumstances in which providers must not levy fees
Providers must not charge students for a good or service which is required
for a course of study unless that good or service, or an alternative to it,
is also available to students at no additional charge.
For example:
- course materials, such as: subject outlines; reading lists; tutorial or seminar topics and problems; assignment and essay questions; and requirements and guidelines for the presentation of work;
- access to library books, periodicals and manuals;
- clinic, laboratory or workshop materials such as anaesthetics, chemicals, filters, fuel, fertilisers, animal feed or crops used in practical sessions or research;
- access to computers or other online resources;
- recognition of prior learning if the student is enrolled with the provider or the student is applying for enrolment (including auditions);
- equipment and manuals which a professional in the field would not be required to own, such as: fixtures in a clinic, laboratory or workshop; or large items of equipment and relevant workshop manuals required for their use;
- admissions services;
- examinations or assessments, including practical assessment, for example, which requires the services of musical accompanists;
- reassessment of results where a student has failed an assessment and thereby failed a subject or unit; and
- mailing charges associated with distance education.

Copyright
Copyright is the intellectual property of authors, composers, photographers or artists which gives them the exclusive right to copy, publish, perform, broadcast or to make an adaptation of their work. Copyright in an original work is automatic and subsists as soon as the work is created. Under Australian law a copyright work is protected whether or not the work has been marked with the copyright symbol ©. Works published in any form, whether on the Internet, in hard copy or in any other medium, are protected by copyright.

The University does not claim ownership of the copyright of any original work contained in a higher degree thesis or project report submitted as a requirement for the award of a degree.

Under the provisions of the Copyright Act 1968 (as amended), students are permitted to make single copies of literary, dramatic, musical or artistic works provided they are required for research or study purposes and provided they do not comprise more than a reasonable portion of the work. As a guide, a reasonable portion is regarded as:
- not more than 10% of a literary work of not less than 10 pages, or one chapter;
- one article from a periodical or two or more articles if they relate to the same subject matter.

In certain circumstances the Act allows for one full copy of a work to be made for research or study purposes if it is not separately published or available commercially.

The University is also permitted under a special provision in the Act to make multiple copies of written works for teaching purposes, subject to a number of conditions including copying limits and payment of remuneration to copyright owners. This provision does not relate to individual students.

Students enrolled at UNSW may refer to the UNSW Copyright website at www.copyright.unsw.edu.au for further information.

Equity and Diversity
Equity and Diversity Policy Statement
The University of New South Wales is committed to the goals of equal opportunity and affirmative action in education and employment. It aims to provide a study and work environment for staff and students that fosters fairness, equity, and respect for social and cultural diversity, and that is free from unlawful discrimination, harassment and vilification as determined by legislation and by University Council.

In fulfilling this commitment, the University will:
- foster a University culture which values and responds to the rich diversity of its staff and students;
- provide equal opportunity by removing barriers to participation and progression in employment and education so that all staff and students have the opportunity to fully contribute to University life;
- offer programs which aim to overcome past disadvantage for members of staff and student equity groups;
- promote clear and accountable educational and management policies and practices to engender trust between managers, staff and students;
- enhance the quality of students’ learning through the provision of culturally, socially and gender inclusive education in areas such as curricula, teaching methods, assessment and review provisions, written and audiovisual material and support services;
- ensure that its staff and students are aware of their rights and their responsibilities as University members.

To achieve these goals, the University depends on the continued cooperation of all members of the University community. The Vice-Chancellor as Chief Executive Officer and Director of Affirmative Action is responsible for compliance with all relevant legislation. He is assisted by the Executive and the Director, Equity and Diversity.

Explanatory Notes
1. Currently the grounds of unlawful discrimination and harassment are:
- age;
- compulsory retirement from employment;
- disability (physical, intellectual, psychiatric, sensory, neurological or learning disability, physical disfigurement, the presence in the body of an organism capable of causing disease, and current, past, future or imputed disability);
- homosexuality (male or female, actual or presumed);
- marital status (single; or, with reference to a person of the opposite sex, married, separated, divorced, widowed or in a de facto relationship);
- political affiliation, views or beliefs;
- pregnancy or potential pregnancy;
- race (including colour; descent; ethnic, ethno-religious or national origin, nationality; and immigration);
- religious affiliation, views or beliefs;
- responsibilities as a carer;
- sex; sexual harassment;
- transgender or transsexuality (anyone who lives, has lived, or wants to live as a member of the opposite gender to their birth gender including people who are assumed to be transgender);
- actual or imputed characteristics of any of the attributes listed above; and
- association with a person identified by reference to any of the attributes listed above.

It is also unlawful to terminate employment on any of the grounds listed above, and also on the grounds of temporary absence from work because of injury or illness, membership or non-membership of a union, participation in union activities, and absence from work during maternity or other parental leave.

The grounds of unlawful vilification are:
- HIV/AIDS;
- homosexuality;
- race; and
- transgender (transsexuality).

The University is complying with the following statutory requirements with regard to unlawful discrimination and vilification: The NSW Anti-Discrimination Act, and The University of New South Wales Act; and The Federal Disability Discrimination Act, Racial Discrimination Act, Sex Discrimination Act and Workplace Relations Act.

Note (i): University College at the Australian Defence Force Academy in the ACT is subject also to the ACT Discrimination Act. Staff working at, or visiting, University College need to be aware of the following grounds of unlawful discrimination in addition to those listed above:
- bisexuality;
- breastfeeding;
- membership or non-membership of an association or organisation of employers or employees;
- profession, trade, occupation or calling; and
• association (whether as a relative or otherwise) with a person identified by reference to one of the above attributes.

Note (iii): Under the Federal Human Rights and Equal Opportunity Act there are a number of further grounds of discrimination in the area of employment or occupation:
• criminal record;
• medical record;
• national extraction or social origin; and
• trade union activity.

However, discrimination on these grounds is not made unlawful by the Act, and the grounds do not apply where the discrimination is necessary because of the inherent requirements of a particular job. The only avenue of redress for a complaint under this Act is conciliation.

2. In compliance with the NSW Charter of Principles for a Culturally Diverse Society endorsed in 1993 and reaffirmed in 1995 by the NSW Government.

3. For staff, in compliance with Part IXA of the NSW Anti-Discrimination Act 1977 and the Federal Equal Opportunity for Women in the Workplace Act 1999. The equity groups currently identified are: Aboriginal and Torres Strait Islander people; people with disabilities; people of non-English speaking background; and women.

For students, in compliance with Federal Government policy as outlined in A Fair Chance for All, AGPS, 1990 and subsequent amendments as outlined by DETYA. The identified equity groups are: Aboriginal and Torres Strait Islander people; people with disabilities, from socio-economically disadvantaged backgrounds, from rural and isolated areas, from non-English speaking backgrounds; and women in non-traditional areas of study.

Other Equity and Diversity Policies and Procedures

In addition to the Equity and Diversity Policy Statement, the University has a number of other policies to help make it a safe, equitable and fair environment for all students and staff. These policies include:
• Equal Opportunity in Education Policy;
• Anti-Racism Policy;
• HIV and other Blood Borne Infections Policy;
• Policies and Guidelines: Students with Disabilities;
• Code of Practice: Students with Disabilities;
• Discrimination and Harassment Grievance Procedures for Students

These can be found on the Equity and Diversity website www.equity.unsw.edu.au/policies.html or are available from the Equity and Diversity Unit, contact details as per below.

Occupational Health and Safety

UNSW’s Occupational Health and Safety Policy requires each person to work safely and responsibly, in order to avoid personal injury and to protect the safety of others. This requirement is particularly pertinent for both undergraduate and postgraduate students undertaking arts and science-based projects because of the experimental and research nature of work carried out in laboratories and workshops.

OHS Guidelines
• Students should discuss the safety implications of any project or experiment that they are planning with their supervisor or demonstrator and complete risk assessments before commencing the work. Be aware of recommendations for the safe use, transport, storage, and disposal of the materials being used. Students should have access to, and read thoroughly, the Material Safety Data Sheets for any chemicals they may use and operating instructions for plant and equipment. Special requirements and training apply to students undertaking work with radioactive substances, ionising radiation apparatus, lasers or genetically manipulated organisms. Students need to read the AS/NZS 2243 series on Safety in Laboratories and comply with their requirements. Students performing high risk activities as defined by Appendix D of AS 2243:1, should not work alone. Additional requirements may apply to students working with animals, microorganisms and or human tissue particularly concerning immunisations prior to hospital placements or laboratory work.

• OHS Policy guidelines are available on the Risk Management Unit website: www.riskman.unsw.edu.au

• Students need to be aware of the OHS Policy guidelines that relate to their area of study including policies on OHS accountability, hazardous substances, bio-safety, carcinogens gene technology, fieldwork, plant safety and radiation safety.

Students must report any hazards or incidents and any injuries or illnesses acquired during the course of their study, especially if it results in their being unable to pursue their studies for a continuous period of 7 or more days. The relevant reporting forms are available in all school offices and are accessible on the web at www.riskman.unsw.edu.au/ohs/forms.shtml

• The Occupational Health, Safety and Environment section in the Risk Management Unit organises and participates in orientation and training courses for students throughout the year via the schools. Students are encouraged to attend these sessions. Undergraduate and postgraduate student representatives are nominated for the school OHS committees and Level 1 OHS committee.

• Students working at night on campus are advised to use the Unibeat service arranged by phoning Security on 9385 6000 to accompany themselves safely to the car park areas. They should be familiar with the procedures to follow in the event of an emergency, and should know the location of emergency exits, fire-fighting equipment, first-aid cabinets and telephones. All emergencies are to be reported to Security on 9385 6666. Students should also know the telephone number of their Building First Aid Officer, the University Health Service 9385 5425 and their supervisor’s contact telephone number for emergency purposes. They should co-operate fully in the conduct of any building evacuation drill which is carried out in the school within which they are working and should be aware of any special instructions which might be relevant in the event of an incident involving their project. Students may only work after hours in accordance with school policy.

• All students have obligations as ‘persons’ under Sections 21, 24 & 25 of the Occupational Health and Safety Act 2000 and OHS Regulation 2001. It is essential students read their legal obligations, which can be found at the website www.austlii.edu.au under ‘Cases and Legislation: NSW’, ‘NSW Consolidated Acts’ and ‘NSW Consolidated Regulations’.

Action may be taken under the UNSW Student Misconduct Rules against students who deliberately act in an unsafe manner causing potential risk to their own or others health and safety.

Guidelines and Procedures for the Resolution of Academic Grievances and Disputes

The University of New South Wales recognises that all decisions which affect a student’s standing or progress in a program or course must be made fairly and must be based on appropriate academic criteria.

Guidelines

The University is committed to providing a harmonious work and study environment, and will seriously listen to complaints and resolve them quickly if possible. The resolution procedures ensure that students are able to air legitimate complaints, knowing that ad hoc, vindictive or arbitrary action will not be taken against them or the staff complained about. By providing a clear set of procedures, it is hoped that grievances can be dealt with satisfactorily and expeditiously, and will prevent a minor grievance from becoming a major problem.

These procedures apply to all enrolled students and to any decisions which may affect a student’s standing in a course or program. Many of these decisions concern assessment, but they may relate to other matters which could adversely affect a student’s standing such as the granting of advanced standing, discontinuation, supervision arrangements, access to facilities, the award of scholarships and prizes, and decisions regarding fees. Research students may have a grievance concerning a thesis topic, access to facilities or supervision.

As there are many different decision-making processes in the University potentially affecting academic standing, not all of them can be covered specifically in one set of procedures. It is however the University’s intention that a student’s right to resolution of a grievance or dispute is not limited by this statement of procedures. Existing appeal procedures established under the Managing Student Progress policy or the Misconduct policy are not affected by these procedures. Information on these procedures is available in the University Calendar, from UNSW Student Central in the Chancellery or on the web.

A student is required to make his/her grievance known within a reasonable time frame, normally within a month of the decision being communicated.

The University expects that student grievances and claims of unfair treatment should in most instances be able to be resolved through informal discussion and consultation without recourse to formal appeal.
However, where resolution is not possible, the University is committed to listen seriously to complaints and resolve them quickly if possible, by the following procedures:

**Procedures**

**Step 1**
The student should attempt to resolve the grievance with the staff member(s) concerned within a reasonable time frame.

**Step 2**
If the grievance is still unresolved, it should be directed to the Head of School (or other responsible officer nominated by the Faculty) who will attempt to resolve the grievance informally. Reasons should be provided by the Head of School (or nominated officer) for any recommendation or decision in respect of the matter.

**Step 3**
If the matter is not satisfactorily resolved at this stage, the student should refer the grievance to the Registrar. Except when insufficient or unfounded reasons have been given by the student to support the complaint, the Registrar will take the complaint in writing, inform the respondent officially, commence an investigation, including reference to the Dean or President Member of the faculty, and give an answer (including reasons) normally within 7 days.

**Step 4**
If the student is still dissatisfied, an appeal may be lodged in writing with the Presiding Member of the Undergraduate Studies Committee (USC), the Postgraduate Coursework Committee (PPC) or the Committee on Research (COR) within 14 days of receiving the Registrar's notification. The Presiding Member may decline to take action in cases where insufficient or unfounded reasons have been given by the student and shall inform the student accordingly.

If the matter has not already been considered by the USC, PPC or COR, this appeal will be heard by an Appeal Sub-Committee, empanelled for the purpose by the Presiding Member of the appropriate Committee. The Presiding Member will appoint as Chair of the Appeal Sub-Committee a member of the corresponding Studies Committee.

If the matter has not already been considered by the USC, PPC or COR, this appeal will be heard by an Appeal Sub-Committee of the Academic Board, empanelled for the purpose by the President of the Board. The President will appoint as Chair of the Appeal Sub-Committee a member of the Academic Board.

The Appeal Sub-Committee will consist of at least three members, one of whom will be a student. The student member will be drawn from the Academic Board or from the current list of student members of faculties.

No member of the Appeal Sub-Committee will have been associated with either the original decision or any earlier step in the appeal process.

Within two months the Appeal Sub-Committee will make a decision on the matter. Decisions made by the Appeal Sub-Committees will be reported annually to the Academic Board. There will be no further right of appeal.

Each stage is to be handled expeditiously.

**Student Discrimination and Harassment**

**Grievance Policy and Procedures**

In addition to the above procedures for the resolution of student grievances and disputes, the University has a policy and procedures relating specifically to grievances on the grounds of unlawful discrimination and/or harassment. The Policy applies to all enrolled students and covers all student grievances of unlawful discrimination and harassment. A grievance may involve unlawful discrimination if it contains allegations of unfair and inequitable treatment on the basis of a person’s race, ethnic and ethno-religious origin or nationality; sex or sexual preference (including transgender); marital status; status as carer; pregnancy or potential pregnancy; age; disability; religious, trade union or political affiliation. Vilification on the grounds of race, homosexuality and HIV/AIDS status is also unlawful. Unlawful harassment is unwelcome and offensive or intimidating behaviour, comments or images based on any of these grounds. The most common forms of harassment are racial and sexual harassment.

A copy of the Student Discrimination and Harassment Grievance Policy and Procedures can be found on the UNSW website at [www.equity.unsw.edu.au/policies.html](http://www.equity.unsw.edu.au/policies.html). For further advice, please contact the Equity and Diversity Unit, telephone (02) 9385 4734, email equity-diversity@unsw.edu.au.

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**UNSW Student Services: Privacy Code of Practice**

The privacy of your personal information is a vital part of our relationship with you as a student. We are committed to maintaining the secure custody of your personal information and strictly adhere to the Privacy and Personal Information Protection Act 1998 (NSW).

The following statement outlines policy, procedures and safeguards in place to manage the personal information of students at UNSW.

**Personal Information Collected**

As a part of our functioning as an educational institution UNSW holds personal information regarding our students.

The nature of personal information collected and maintained about students by the University generally comprises name, date of birth, gender, contact details (including addresses, phone, fax and email), citizenship/residency status, nationality, passport numbers and visa status, as well as details of previous study and disabilities. This information is used for a range of purposes (see ‘Use and Disclosure of Personal Information’ below).

Some information is collected for statistical purposes for use in University planning and for mandatory government reporting. This may include information relating to ethnic origin, country of birth, languages spoken, source of financial support, and mode of transport.

When you are issued with your Student ID card your photograph will be taken and will be printed on your card for identity verification purposes. This photograph may also be provided to other University departments in electronic format for this purpose.

Records of financial transactions with the University may be maintained (including credit card numbers and banking details). Your tax file number (TFN) will be collected where necessary as required by the Higher Education Support Act 2003 (HESA) for taxation and income related purposes. Universities are authorised to retain TFN data only for the purposes of reporting details of your HECS-HELP, OS-HELP, or FEE-HELP debt to the ATO. Special security measures are in place to protect the confidentiality of TFNs.

Other information collected may include documentation relating to medical and/or personal circumstances provided directly by you in relation to applications for consideration of these circumstances in regard to your admission, academic progression, financial liability, and in the administration of some student services such as accommodation and disability services.

Records will be maintained of your enrolment, academic progress and attendance whilst a student at UNSW. Audit trails may also be maintained of any enrolment transactions you submit through the University’s web based student system, myUNSW.

Our primary means of collection of personal information is information provided by yourself. However, where you have applied for admission through an agent they may have provided information on your behalf. Obviously, some information is also generated by UNSW in the course of our activities (for example, your examination results).

**Use and Disclosure of Personal Information**

All information collected is necessary for the conduct of our business as an educational institution.

The information collected is used for a variety of purposes including:

- Student admission
- Enrolment and progression
- Scholarship administration
- Conduct of student elections
- Provision of student services
- Mandatory reporting to external agencies which include the Department of Education, Science and Training (DEST), Centrelink, the Australian Taxation Office (ATO), and the Department of Immigration & Multicultural & Indigenous Affairs (DIMIA);

- Archival purposes

Upon graduation some personal information regarding students gets transferred to the University’s alumni database. The data is used in order to keep graduates informed of University activities and events. The information may also be passed to the UNSW Foundation for fund raising purposes. Students who would prefer that their personal information is not used for these purposes may opt out by contacting the Marketing and Development Office at the University.

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We do not sell, rent or trade your personal information. Personal information is not released outside the University except in the following circumstances. It may be disclosed when required or authorised by law, such as in response to a subpoena or in the case of mandatory government reporting under relevant legislation. It may also be disclosed when you have consented to our disclosing information about you through the acceptance of the terms and conditions which form part of your application for admission or your enrolment. The Deputy Registrar or a more senior officer of the University may also disclose information in exceptional circumstances because it is considered imperative for your health and safety.

For admissions purposes, your information may be shared with other educational institutions. Where you are engaged in cross-institutional study it is also necessary that your personal information be exchanged with the other institution's involved.

There is a very limited amount of personal information held by the University which amounts to a matter of public record. A notable example is the status of a person as a graduate of UNSW. However, the fact that a student is enrolled at the University is not treated as a matter of public record.

The University is occasionally willing to assist bona fide researchers undertaking studies, for example, by the distribution of questionnaires within the University community. These requests must obtain the approval of the Registrar and clearance by the University Ethics Committee. Name/address labels are provided under stringent conditions associated with the preservation of individual privacy. Material relating to these requests must contain a clear statement of purpose and responses must be entirely voluntary.

Your Responsibilities
As a UNSW student you have certain responsibilities in relation to the privacy and maintenance of your personal information. These responsibilities are to:

• Maintain the confidentiality of any secure passwords issued to you
• Update your contact and personal information as soon as practicable after any change
• Provide true and complete information in regards to your application and enrolment
• Provide correctly verified documentation to the institution where requested.

Control Over your Personal Information (myUNSW)
As a student, you are able to view and update much of your personal and enrolment data through myUNSW.

myUNSW enables you to:

• manage your enrolment, if you are an undergraduate or postgraduate award student
• view your personal class schedule
• check your enrolment details
• view your student financial account
• change personal details such as your mailing address and contact details
• check your assessment results and academic standing
• update some statistical information about yourself

You cannot change some personal details through myUNSW. For example, your name, date of birth or citizenship/residency, as these require documentary evidence. Such changes must be submitted, together with documentary evidence, through the Student Centre on your campus.

If you are unable to use, or do not have access to myUNSW for whatever reason, please contact the Student Centre on your campus or your program/faculty office and all reasonable efforts will be made to correct the information.

If You Fail to Meet Your Responsibilities
If you provide untrue, misleading or incomplete information to the University, it may be necessary on the basis of this for the University to refuse, reverse or terminate your enrolment or cancel or vary any decision it has made. It may also be necessary for the University to disclose the information to any person or body the University considers has a legitimate interest in receiving it.

The University cannot be held responsible for any infringement of your privacy on the basis of your failure to maintain the confidentiality of secure passwords issued to you.

Failure to maintain your personal data may have serious consequences. For example, if you are an international student in Australia on a student visa you may have your visa cancelled if you do not notify the University of a change of residential address or a change of education provider within timeframes specified as a condition of your visa.

If We Fail to Meet Our Responsibilities
We recognise that in any organisation things can go wrong. Should you have a grievance regarding privacy and believe that we have not met our responsibilities in accordance with this policy and privacy legislation, please contact us. This gives us an opportunity to fix the problem and allows us to do all we can to retain your confidence. You should address your grievance in writing to the UNSW Privacy Officer giving all relevant details. The Privacy Officer will arrange for your concerns to be investigated immediately and will write to you as soon as possible.

Security of Personal Information
We are committed to keeping secure the information you provide to us, and we will take all reasonable precautions to protect your personally identifiable information from loss, misuse, unauthorised access, alteration or disclosure. We have a range of physical and technology policies in place to provide a robust security environment. We regularly review these measures to ensure their ongoing adequacy.

Most personal data is stored on the student administration system (NewSouth Student). This database is protected through the use of secure passwords and other security safeguards. You can expect that access to your account will not be available to other users.

In some instances we also maintain paper based files e.g. for medical documentation, and paperwork relating to admission, scholarships, enrolment and the provision of student services. Files are kept in a secure environment. When the information is no longer required for the purposes for which it was collected, and any legal obligations in relation to retention of data for a specified period have been fulfilled, information is destroyed in accordance with established UNSW procedures for the disposal of confidential material.

Staff access to either computerised or paper-based records is granted only where there is a demonstrable need for this because of a staff member’s responsibilities. Security on the student database is allocated according to a staff member’s role at the University. Staff members have unique passwords assigned to them and their use is monitored and audited. A range of other IT security measures are also deployed on the University’s networks.

Access to Personal Information
You can ask us to provide you with access to the personal information we hold about you. If we are able to, we will provide you with access and a fee may apply. If we cannot meet your request for access, in whole or in part, we will let you know why.

Further Information
This page is not intended to be an exhaustive statement of UNSW Student Services’ obligations under the Act and should be read in conjunction with UNSW’s Privacy Management Plan on the following website: www.infonet.unsw.edu.au/poldoc/privacy.htm

Government Policies
Health-related Programs
Criminal record checks:
The NSW Department of Health has a policy to carry out criminal record checks on all students undertaking clinical placements or who require access in any capacity to facilities operated by the Department. (This includes all the Teaching Hospitals used by UNSW in its Medicine program.) It undertakes these checks, as it has a duty of care to all patients and clients receiving services from the Department. The check is conducted by the NSW Police Service and is coordinated by the Department of Health and the University. Further details can be obtained from your program authority.

Infectious diseases:
Students required to complete clinical training in the NSW hospital system will be subject to various guidelines and procedures laid down for health workers by the NSW Department of Health relating to immunisation, infection and blood-borne viruses. Further details can be obtained from your program authority.

Education Programs
Criminal record checks:
It is a requirement that a check of police records be conducted for all teacher education students applying for an unsupervised internship.
placement in a NSW government school. Contact your program coordinator for further details.

**Working with Children**

Under the Commission for Children and Young People Act 1998 and the Child Protection (Prohibited Employment) Act 1998, students who as part of their enrolment are required to work with children must declare whether they are a ‘prohibited person’, that is they have been convicted of a serious sex offence. It is an offence for a ‘prohibited person’ to work with children.

**International Students (ESOS Act)**

The Education Services for Overseas Students (ESOS) Act 2000 is Commonwealth Government legislation that ensures providers of education and training are regulated in the delivery of education services to international students. All providers and programs available to international students are required to be registered on the Commonwealth Register of Institutions andCourses for Overseas Students (CRICOS). A National Code of Practice has been established which provides for consistent standards for the registration and conduct of registered providers and the conduct of persons who deliver educational services on behalf of registered providers. The Act also provides for obligations and restrictions on students to comply with the conditions of their student visa. Under the Act, the University is required to monitor and report on some of these conditions to the Department of Immigration, Multicultural and Indigenous Affairs (DIMIA).

The ESOS Management Unit at UNSW is responsible for coordinating the monitoring and reporting requirements under the Act and is available for advice to students on any of these requirements. For further information, please refer to the following website or contact the Unit via phone (+61 2) 9385 3065 or email esos@unsw.edu.au: 
https://my.unsw.edu.au/student/resources/ESOSstudent.html

UNSW staff should refer to the following website for information:
https://my.unsw.edu.au/student/staff/ESOSstaff.html

**Student Resources**

UNSW offers a wide range of services and resources to support local and international students during their period of study. Please refer to the A-Z Guide on the following website for a full and up-to-date list: 
https://my.unsw.edu.au

**The University Library**

The Library offers resources and services to assist UNSW students and staff with their research and study. Many of these resources and services are available 24 hours a day via the Library homepage: 
www.info.library.edu.au

Situated within the Library you will find computers and printing facilities, photocopiers, books, and journals. An interlibrary loans service is available for postgraduate students and staff.

The collections within the Library are divided into disciplines, Social Sciences and Humanities (enquiries, Library Level 3), Physical Sciences (enquiries, Library Level 7), Law (enquiries, Library Level 8), Biomedical Sciences (Mathews Annex, enquiries ground floor), and Fine Arts (COFA Library, Paddington).

The Library is able to assist you with information literacy resources and programs. For students, this means classes and online tutorials demonstrating how to locate information for your assignments; see ‘skills classes’ on the Library homepage. For staff, this means resources and assistance that will help you integrate information literacy into your courses. Additional information is available from library staff in your discipline area.

Free IT help and training for students and staff, is located in the main Library on the Library Lawn entry level. There is drop-in assistance, classes, and online tutorials aimed at helping you develop your computer skills. See the ICT Assist web site: www.ict.unsw.edu.au

Library opening hours vary during the academic year. See ‘opening hours’ on the Library homepage.

Other library facilities providing services to the students and staff of particular faculties are located at: Water Research Laboratory, Manly Vale, the Australian Graduate School of Management (AGSM), Kensington and the Australian Defence Force Academy (ADFA), Canberra.

**University Counselling Service and Compass Programs**

The Counselling Service, Compass Programs, provides personal development resources, enhancement programs and confidential counselling to enrolled students of UNSW. Students are encouraged to access the Counselling Service in relation to any issue that might adversely affect their personal and academic progress. The service employs psychologists who are able to assist students with concerns such as: transition and adjustment to university life and academic expectations; support with sorting out academic or administrative issues; motivation and other difficulties which affect study; interpersonal problems or relationship conflicts; and personal concerns such as stress, anxiety, depression or loneliness. Students can access the service via the “Drop In” option (no appointment necessary) available from 11am (sign up at 10.45am) each day or make an appointment in advance.

The Counselling Service’s website contains an introduction to the service and useful resources for students and staff: 
www.counselling.unsw.edu.au

Appointments on the Kensington campus are available between 9am and 5pm. The Counselling Service is located on the 2nd Floor, East Wing Quadrangle Building. Appointments can be made by visiting the service or telephoning (02) 9385 3418. Telephone counselling appointments and before/after hours appointments can be negotiated.

Appointments at the College of Fine Arts can be made by telephoning (02) 9385 0733 or visiting the COFA service at Ground floor, G Block, Room 06.

**Careers and Employment**

Careers and Employment offers the following services:

- Careers and Employment Online for job vacancies (graduate, vacation and part-time), employment related information (including sample resumes, cover letters, interview and job search tips) and information on all Careers and Employment activities;
- International Employment Program;
- Workshops including job search, career planning, resume writing, and interview skills. These can be tailored to meet specific faculty needs (see website for schedule);
- Guest Presenter Workshops in which representatives from organisations speak about graduate employment issues;
- Individual assistance for resume checking and help with career management issues;
- Career guidance programs;
- Fortnightly e-list of job vacancies;
- Careers library with resources on career development;
- Workshops including job search, career planning, resume writing, and interview skills. These can be tailored to meet specific faculty needs (see website for schedule);
- Guest Presenter Workshops in which representatives from organisations speak about graduate employment issues;
- Individual assistance for resume checking and help with career management issues;
- Career guidance programs;
- Fortnightly e-list of job vacancies;
- Careers library with resources on career development;
Disability Services

Students with disabilities who require any services should contact Laurie Alsop, Equity Officer (Disability), at the Equity and Diversity Unit on telephone (02) 9385 4770, email l.alsop@unsw.edu.au, location Level 9 Applied Science Building.

Services include the provision of notetakers, readers, sign-interpreters, examination provisions, assistive technology, texts in alternative formats, liaison with academic staff, an electronic mailing list, and access to the Disability Resource Centre.

Whenever possible, students requiring services should contact Laurie Alsop prior to the commencement of classes, to facilitate the organisation of those services. More information can be found at: www.equity.unsw.edu.au/disabil.html

Equity and Diversity Unit

The Equity and Diversity Unit provides services to students, staff and managers, including:

- disability services for students and staff (see above);
- support for ACCESS students;
- assistance with grievance handling under UNSW’s discrimination and harassment grievance procedures;
- guest lectures and presentations to students; and
- advice and information on anti-discrimination legislation, policies and practice.

You are welcome to contact the Unit at any time to talk confidentially about any issues relating to equity and diversity in your study.

The Equity and Diversity Unit is located at Level 9, Applied Science Building, telephone (02) 9385 4734, email equity-diversity@unsw.edu.au.

For further information, please refer to the Equity and Diversity Unit’s website: www.equity.unsw.edu.au

IT Service Desk

The IT Service Desk is the central support point for UNSW staff and students requiring assistance with IT related matters.

The IT Service Desk provides support and technical advice on:

- UDUS - the UNSW Internet Service
- UDUS/Uniwide/Uniweb payments/queries/problems
- UNSW online services queries and problems
- WebCT support
- UniPass requests
- UniMail & University email services
- UniWide - UNSW Campus Wireless Network

Please note that problems with faculty-based IT services should be directed to your school or faculty IT support.

The IT Service Desk Counter is located opposite the ICT Assist training room, Level 2, the Library. Email: servicedesk@unsw.edu.au, tel: (+61 2) 9385 1333 or 9385 1777, website: www.its.unsw.edu.au

Prizes

The University has over 400 prizes available that are presented to students for meritorious academic achievement. Prizes are in the form of medals, books, book vouchers, cash amounts and certificates and are awarded annually on the recommendation of the Head of School.

Scholarships

The University administers a number of scholarships for full-time study. Many of these have been made available by the generous donations and bequests of private donors and organisations.

Further details and the latest scholarship listings can be obtained by visiting the Scholarships@UNSW website (www.scholarships.unsw.edu.au) or by contacting the Scholarships and Financial Support Office. Tel: (+61 2) 9385 1708, email: scholarships@unsw.edu.au

New scholarships are advertised on the Scholarships website and on notice boards in schools and outside UNSW Student Central. To receive newsletters on the latest Scholarships information, subscribe to our mailing list by visiting the Scholarships@UNSW website: www.scholarships.unsw.edu.au

Services for ACCESS Students

Students who enrolled via the ACCESS entry scheme can receive support and referral from the Equity Officer (ACCESS), at the Equity and Diversity Unit on telephone (+61 2) 9385 5434, email equity-diversity@unsw.edu.au, location Level 9 Applied Science Building. More information can be found at: www.equity.unsw.edu.au/help.html#infstud.

Student Representatives

Each year a number of student members are elected to each faculty to represent all enrolled students in the faculty. These students have full voting rights at faculty meetings and committees and hence a direct input in decisions affecting students. Further information can be obtained from www.elections.unsw.edu.au

UNSW Bookshop

The UNSW Bookshop is located in the lower section of the Quadrangle building on the Kensington Campus. Phone: (+61 2) 9385 6622, email: orders@bookshop.unsw.edu.au, website: www.bookshop.unsw.edu.au

Text and reference book information is available online at: www.bookshop.unsw.edu.au/textlist.html
General Education

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Introduction

Why General Education?

Since its foundation, the University of New South Wales has been committed to the provision of a General Education Program for its undergraduate students. The University believes that a general education complements the more specialised learning undertaken in a student’s chosen field of study and contributes to the flexibility which graduates are increasingly required to demonstrate. Employers repeatedly point to the complex nature of the modern work environment and advise that they highly value graduates with the skills provided by a broad general education, as well as the specialised knowledge provided in more narrowly defined degree programs. In addition, over many years graduates of this University have reported that they greatly value graduates with the skills provided by a broad general education, which are found to be relevant to both career and personal development.

The General Education Program at UNSW intends to broaden and deepen students’ understanding of the environment in which they live and work and to enhance their skills of critical analysis. Above all, the program presents students with interesting, challenging and enjoyable opportunities to pursue their own intellectual curiosity.

Objectives

Objectives of the General Education Program

The following objectives were approved by the Council of the University in December 1994 and with some minor changes in 2005:

1. To provide a learning environment in which students acquire, develop, and deploy skills of rational thought and critical analysis.
2. To enable students to evaluate arguments and information.
3. To empower students to systematically challenge received traditions of knowledge, beliefs and values.
4. To enable students to acquire skills and competencies, including appropriate written and spoken communication skills.

5. To ensure that students examine the purposes and consequences of their education and experience at University, and to foster acceptance of professional and ethical action and the social responsibility of graduates.
6. To foster among students the competence and the confidence to contribute creatively and responsibly to the development of their society.
7. To provide structured opportunities for students from disparate disciplines to interact cooperatively within a learning situation.
8. To provide opportunities for students to explore discipline and paradigm bases other than those of their professional or major disciplinary specialisation through non-specialist courses offered in those other areas.
9. To provide an environment in which students are able to experience the benefits of moving beyond the knowledge boundaries of a single discipline and explore cross and interdisciplinary connections, and cross-cultural contexts.
10. To provide a learning environment and teaching methodology in which students can bring the approaches of a number of disciplines to bear on a complex problem or issue.

General Education Requirements

The University’s basic requirements are the same for students in all single degree programs. Students must:

(a) satisfactorily complete a minimum of 12 units of credit in General Education courses or their equivalent (unless otherwise entitled to exemption – see below). Combined undergraduate degrees offered with another faculty and leading to the award of two degrees satisfy the first requirement (12 units of credit in General Education) within the program.

(b) undertake additionally 56 hours of study which examines the purposes and consequences of their university education and which fosters socially, ethically and professionally responsible behaviour. The extent to which individual programs meet this requirement varies from program to program. In the Faculty of Arts and Social Sciences, for example, this requirement is satisfied in the BA degree through an ARTS3000 course.

In some other degrees of the Faculty of Arts, it is distributed throughout the program. Most programs in the Faculty of the Built Environment fulfil the latter requirement as part of the normal program curriculum. However, in the case of both the BBCM and BSc(Arch) programs, students are required to take BENV1382, Social Responsibility and Professional Ethics.

Restrictions and students’ choices

In order to ensure that students have the maximum amount of choice possible in the courses that can be taken to fulfill the General Education requirement, all programs have agreed to allow students to select either:

- courses that were developed especially for the General Education Program (these courses are listed at the back of this Handbook and have a course identifier that begins GEN);
- a limited number of ‘mainstream’ courses that are offered in the degree programs of other faculties.

However, certain restrictions apply to students’ choices:

Students may undertake a maximum of three units of credit from approved General Education courses within the faculty which is the program authority for the program in which the student is enrolled. Further General Education courses may be drawn from any other faculties with a maximum of six units of credit to be drawn from any one faculty, other than the faculty that has the authority for the program in which the student is enrolled.

* The Faculty of Commerce and Economics has not approved GE courses offered by FCE to be available to students enrolled in FCE degree programs.

The following rules will apply:

(a) Where students have been granted advanced standing in any program, any remaining General Education requirements in those programs must be met from courses offered in a faculty other than the faculty which is the program authority for the program in which the student is enrolled.
In programs that have a partial exemption from General Education, the remaining General Education courses must be taken in faculties other than the faculty that is the program authority for the program in which the student is enrolled.

Faculties must identify any of their mainstream courses which overlap substantially with the General Education courses offered within that faculty and must stipulate that students who have completed or are completing these mainstream overlapping courses are excluded from enrolment in the related General Education course. Additionally:

- the program requirements for each faculty which relate to the undergraduate degree programs offered by that faculty, may in some cases limit the number or type of ‘mainstream’ courses a student may include in the total number of courses necessary to complete their General Education requirement (in any case ‘mainstream’ courses may substitute for a maximum of 50% of the General Education requirement for a course), and
- students’ first choices cannot be guaranteed, as students in later program stages will be given preference over those in earlier stages; quotas may be set for different faculties and courses. Courses with insufficient enrolments will be cancelled by 31 January (for Session 1 courses) and 27 June (for Session 2 courses). Staff leave means that not all courses are necessarily offered each session or year.

Exemption from Part or All of the General Education Program

There will be no general exemptions for students enrolled in single degree programs.

**Students enrolling in combined programs**

As a general rule, students enrolled in combined undergraduate programs leading to the award of two degrees, each in a different faculty, meet their General Education requirements.

Variation to the General Education requirement in some combined programs may have been approved. Students enrolled in combined programs should check their General Education requirements with their faculty or program office.

**Special student exemptions**

Students transferring from one faculty to another at UNSW, or from another higher education/tertiary institution, who believe that their prior learning and/or qualification satisfies the University's General Education objectives are eligible to seek exemption from all, or part of the UNSW General Education requirements (4 courses or 12 units of credit).

Applicants for exemption must supply full written justification for their request, plus appropriate documentation, showing how they have satisfied the GE objectives (see above). Applications will be considered on a case by case, and course by course basis by the faculty, which will make a determination and notify the student accordingly. The faculty's yardsticks will be:

- the extent to which the courses nominated for exemption satisfy sufficient GE objectives (i.e. cooperative interaction with students in other disciplines, most importantly; skills/competencies complementary to the major discipline area; social and ethical responsibility and development; empowerment to challenge traditional knowledge/paradigms);
- the extent to which the previous program is different in paradigm and content to that in which the student is presently enrolled;
- the length of previous study undertaken, where, in principle, 1 year might qualify for exemption from one GE course (3 units of credit), 2 years for 6 UOC, 3 years for 9 UOC and 4 years for 12 UOC.

In all cases, the onus is on the student to present a written justification.

**Note:** Life experience and/or mature age entry are not grounds for exemption.

**Substitution**

Students may apply to their faculty for approval to substitute any course(s) from other faculties for General Education courses up to a total maximum of 6 units of credit (or 50%) of General Education. Substitution requests must be submitted in writing and approved prior to enrolment and state how the proposed courses will satisfy the GE objectives in their program, together with the remainder of the student’s GE program. The faculty will approve the request if satisfied that the substitution(s) will indeed allow this to occur.

Students may substitute the study of Language Other Than English (LOTE) within their General Education program. English (and other languages) as offered by the Institute of Languages or Learning Centre are excluded. Only languages offered by academic units are acceptable; a maximum of 50% of General Education can be substituted with language courses.

- Irrespective of the amount of units of credit associated with a mainstream course, students can only count 6 UOC towards the General Education requirement.
- Students should ensure that the substitute course has a seminar component. It is unlikely that the Faculty will accept it otherwise.

**Faculty General Education Requirements**

Each faculty has the responsibility for deciding what courses are not able to be counted towards the General Education requirement for their students. This may mean that courses offered by the faculty in which a student is enrolled, or courses which are a required part of a program even though offered by another faculty, are not able to be counted toward the General Education requirement.

Information concerning the substitution of other university courses or exemption from some General Education courses on the basis of previous formal study at tertiary level is available from the faculty or program office.

**Student Involvement in the General Education Program**

An important feature of the General Education Program is that student representation on committees that make decisions about General Education is assured. There are two student members on the Academic Board’s Committee on Education. All General Education courses are required to be regularly evaluated by students and the results of the evaluations made known to the members of all faculties whose students are taking those courses.

**Administrative Arrangements**

**The enrolment process**

Students enrol in General Education courses through myUNSW [https://my.unsw.edu.au](https://my.unsw.edu.au) the web interface to the University’s student information system, in the same way that they enrol in other courses.

Before nominating the General Education courses they wish to take, students should ensure that they are familiar with:

- the relevant faculty and program policy and procedures for General Education including approval requirements, as set out in this Handbook and additional faculty program policy and enrolment information.
- the General Education course timetable, which includes lecture and tutorial times and the campus on which the course is taught.
- how many General Education courses (or General Education units of credit) they have completed, and how many they are still required to complete.
- their own timetable for 2006, including times which they have available to take General Education courses.
- where a course is offered in more than one class (that is, the course is streamed and students must register for a particular stream), students must ensure that they enrol into the correct class using myUNSW.

Students will be able to vary their enrolment in General Education courses, subject to places in other courses being available. Course enrolment variations will be conducted through myUNSW.

Students who are unable to enrol through myUNSW should contact their faculty or program office regarding alternative enrolment arrangements.

**Quotas and preferences**

General Education courses may have enrolment quotas set for both overall course enrolments and for each faculty. Although these quotas are flexible, students may be unable to enrol in a particular course because it is already full. In these cases, students may attempt to enrol in the class at a later time, as places may become available.
To increase the chances of enrolment in first preference courses, the University will generally try to allocate enrolment appointment times to students who have progressed furthest in their degree program, before students in earlier stages of their program. This means that if a student misses out on admission to a course in one year, they are more likely to be successful in subsequent years, as they gain more senior status in their program.

**Alternative mode courses**

Most General Education courses (with GEN prefix) will be offered in the format of one lecture and one tutorial per week. However, in developing courses for the General Education program a number of faculties have put forward courses that can be completed in a more intensive mode – either over a summer session, or in some other non-standard arrangement. Some approved courses will be offered in an open learning or distance learning format, supported by electronic delivery techniques. It is hoped that the choice of delivery mode will increase in response to student preferences and the course evaluation process.

**Campus at which courses are taught**

General Education courses are taught at Kensington as well as the Paddington (Faculty of the College of Fine Arts) campus. Students may enrol in courses offered on either campus provided the courses have been approved as part of their General Education requirement. Separate arrangements are in place for students of the Australian Defence Force Academy and of the Australian Taxation Studies Program. Students in these programs should consult their faculty for information on courses and venues.

**Units of Credit, Fees & Charges and General Education**

The University's academic structure is based on 'units of credit'. A fulltime enrolment for one year is defined as 48 units of credit (24 per session). A course will have the same unit of credit value and generate the same load for student contribution charges and tuition fees irrespective of the program or stage in which it is taken. All courses are measured in whole units of credit. The normal workload expectations are 25–30 hours per session for each unit of credit, including class contact hours, preparation and time spent on all assessable work.

Every course in the University has a unit of credit value, with program requirements defined, in part, in terms of the completion of a specified number of units of credit. The most important thing to remember about units of credit and General Education is that, because the General Education Program is an integral component of each undergraduate degree program at UNSW, units of credit earned for General Education are not additional to program requirements, but rather are a required part of each program. For the same reason, students do not pay extra for undertaking General Education courses.

Student contribution charges and tuition fees are based on the student’s total study load, taking into account the discipline grouping of the unit of study. Student load is calculated on the sum of the units of credit of all courses undertaken (including General Education courses) as a proportion of the specific full-time total (48 units of credit) for the particular stage of the program.

All General Education courses form part of the discipline group which includes Arts, Humanities, Social Studies/Behavioural Science and Visual/Performing Arts which attracts the lowest level of charges. Where approval is given to undertake mainstream courses instead of General Education courses, these courses will be charged according to the discipline grouping of the unit of study.

**The Heinz Harant Challenge Prize**

A prize of $1,000, awarded twice yearly, has been established especially for work done by students in the UNSW General Education Program. The prize commemorates one of the University's earliest alumni and most devoted supporters, the late Heinz Harant. It is called 'The Heinz Harant Challenge Prize' because challenging orthodoxy was the driving spirit of Heinz Harant's life and the prize attempts to recognise this belief.

The prize recognises challenging and original thinking in work submitted for assessment in a General Education course. Academics in charge of General Education courses will be asked to select items of work of high standard and which they judge to be in keeping with the spirit of this prize.

Students may also submit their own work of high standard if they feel that it meets the spirit of the prize. Entry forms are available from UNSW Student Central and work must be submitted within one month of the close of the session in which the course is offered. At the end of Session 1 for courses completed in Session 1 or the Summer Session, and again at the end of Session 2 for courses completed in Session 2, a small number of items are selected for submission to a judging panel, subject to the author’s consent.
### General Education Courses

Descriptions of courses offered in 2006 can be found in alphabetical order by the course code at the back of this Handbook or in the Online Handbook at [www.handbook.unsw.edu.au](http://www.handbook.unsw.edu.au)

### Out-of-session General Education Courses

#### Summer Session – Kensington Campus

**Faculty of Arts and Social Sciences**

<table>
<thead>
<tr>
<th>Course</th>
<th>Session</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>GENT0420</td>
<td>X1</td>
<td>Along the Silk Road</td>
</tr>
<tr>
<td>GENT0902</td>
<td>X1</td>
<td>Witches, Quacks and Lunatics</td>
</tr>
<tr>
<td>GENT0903</td>
<td>X1</td>
<td>Environmental Conflicts</td>
</tr>
<tr>
<td>GENT1206</td>
<td>X1</td>
<td>Australian Feminist Issues</td>
</tr>
<tr>
<td>GENT1207</td>
<td>X1</td>
<td>Crime, Sex and Gender</td>
</tr>
<tr>
<td>GENT1209</td>
<td>X1</td>
<td>Migration and Australian Society</td>
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</table>

**Faculty of Commerce and Economics**

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<thead>
<tr>
<th>Course</th>
<th>Session</th>
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</thead>
<tbody>
<tr>
<td>GENC5001</td>
<td>X1</td>
<td>Introduction to the Internet and Electronic Commerce</td>
</tr>
</tbody>
</table>

**Faculty of Engineering**

<table>
<thead>
<tr>
<th>Course</th>
<th>Session</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>GENE7801</td>
<td>X1</td>
<td>Energy and Mineral Resources – Use or Abuse?</td>
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**Faculty of Law**

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<th>Session</th>
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<tbody>
<tr>
<td>GENL0230</td>
<td>X1</td>
<td>Law in the Information Age</td>
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<tr>
<td>GENL1020</td>
<td>X1</td>
<td>World Religions: Customs and Laws</td>
</tr>
<tr>
<td>GENL5020</td>
<td>X1</td>
<td>Business Fundamentals</td>
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</table>

**Faculty of Medicine**

<table>
<thead>
<tr>
<th>Course</th>
<th>Session</th>
<th>Title</th>
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<tbody>
<tr>
<td>GENM0201</td>
<td>X1</td>
<td>Human Origins, Human Problems</td>
</tr>
<tr>
<td>GENM0510</td>
<td>X1</td>
<td>Using the Media: Promotion Through Mass Media and Multimedia</td>
</tr>
<tr>
<td>GENM0512</td>
<td>X1</td>
<td>(Mis)representation of Health</td>
</tr>
<tr>
<td>GENM0518</td>
<td>X1</td>
<td>Health and Power in an Internet Age</td>
</tr>
<tr>
<td>GENM0703</td>
<td>X1</td>
<td>Concepts of Physical Fitness and Health</td>
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**Faculty of Science**

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<th>Course</th>
<th>Session</th>
<th>Title</th>
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<tbody>
<tr>
<td>GENS1004</td>
<td>X1</td>
<td>Cinema and Science</td>
</tr>
<tr>
<td>GENS2002</td>
<td>X1</td>
<td>Mathematics in Art and Architecture</td>
</tr>
<tr>
<td>GENS3501</td>
<td>X1</td>
<td>Metals, Ceramics, Plastics – Building the 21st Century</td>
</tr>
<tr>
<td>GENS4001</td>
<td>X1</td>
<td>Astronomy</td>
</tr>
<tr>
<td>GENS5002</td>
<td>X1</td>
<td>Aviation: Contemporary Issues in a Complex Sociotechnical System</td>
</tr>
<tr>
<td>GENS6033</td>
<td>X1</td>
<td>HIV and Other Unconquered Infections</td>
</tr>
<tr>
<td>GENS6071</td>
<td>X1</td>
<td>Technological, Social and Business Aspects of Alcohol</td>
</tr>
<tr>
<td>GENS8001</td>
<td>X1</td>
<td>Risk, Perception and Reality</td>
</tr>
<tr>
<td>GENS8003</td>
<td>X1</td>
<td>Work and Safety</td>
</tr>
<tr>
<td>GENS8004</td>
<td>X1</td>
<td>Ergonomics, Productivity and Safety</td>
</tr>
<tr>
<td>GENS8005</td>
<td>X1</td>
<td>Environmental Management in the Workplace</td>
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#### Summer Session – Paddington Campus

**Faculty of the College of Fine Arts**

<table>
<thead>
<tr>
<th>Course</th>
<th>Session</th>
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<tbody>
<tr>
<td>GEND1202</td>
<td>X1</td>
<td>Drawing the Body, Studies of Surface Anatomy</td>
</tr>
<tr>
<td>GEND1203</td>
<td>X1</td>
<td>Drawing the World Within/Without</td>
</tr>
<tr>
<td>GEND1204</td>
<td>X1</td>
<td>Studies in Painting</td>
</tr>
<tr>
<td>GEND1205</td>
<td>X1</td>
<td>Making a Print</td>
</tr>
<tr>
<td>GEND1208</td>
<td>X1</td>
<td>Studies in Sculpture</td>
</tr>
<tr>
<td>GEND1209</td>
<td>X1</td>
<td>Studies in the Camera</td>
</tr>
<tr>
<td>GEND1210</td>
<td>X1</td>
<td>Studies in the Print</td>
</tr>
<tr>
<td>GEND1212</td>
<td>X1</td>
<td>Analysing a Picture: Composition and Design in Art</td>
</tr>
<tr>
<td>Course</td>
<td>Session</td>
<td>Title</td>
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</tr>
<tr>
<td>GEND2202</td>
<td>X1</td>
<td>Multicultural Contexts</td>
</tr>
<tr>
<td>GEND3231</td>
<td>X1</td>
<td>Picturing Death: Art and the Human Predicament</td>
</tr>
<tr>
<td>GEND3233</td>
<td>X1</td>
<td>Scandals of Modern Art</td>
</tr>
<tr>
<td>GEND4205</td>
<td>X1</td>
<td>Design Communications and Presentation</td>
</tr>
<tr>
<td>GEND4207</td>
<td>X1</td>
<td>Designing: Models as a Tool for Communication</td>
</tr>
<tr>
<td>GEND4208</td>
<td>X1</td>
<td>Working with Ceramics</td>
</tr>
<tr>
<td>GEND4209</td>
<td>X1</td>
<td>Working with Jewellery</td>
</tr>
<tr>
<td>GEND4210</td>
<td>X1</td>
<td>Textiles and Fashion</td>
</tr>
<tr>
<td>GEND4211</td>
<td>X1</td>
<td>Design in Performance</td>
</tr>
<tr>
<td>GEND4212</td>
<td>X1</td>
<td>Design in Adornment and Costume</td>
</tr>
<tr>
<td>GEND4213</td>
<td>X1</td>
<td>The Arts of Aboriginal People and Torres Strait Islanders</td>
</tr>
<tr>
<td>GEND4214</td>
<td>X1</td>
<td>Surface &amp; Image in Tapestry Weaving</td>
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**Winter Session – Kensington Campus**

**Faculty of Arts and Social Sciences**

<table>
<thead>
<tr>
<th>Course</th>
<th>Session</th>
<th>Title</th>
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<tbody>
<tr>
<td>GeNT1202</td>
<td>X2</td>
<td>Social Aspects of Deviance</td>
</tr>
<tr>
<td>GeNT1403</td>
<td>X2</td>
<td>Global Crisis: Transition to a Sustainable Society</td>
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**Faculty of Engineering**

<table>
<thead>
<tr>
<th>Course</th>
<th>Session</th>
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<tbody>
<tr>
<td>GENE1012</td>
<td>X2</td>
<td>Tools for Implementing Ecologically Sustainable Development in Corporations and Regions</td>
</tr>
<tr>
<td>GENE7801</td>
<td>X2</td>
<td>Energy and Mineral Resources – Use or Abuse?</td>
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**Faculty of Medicine**

<table>
<thead>
<tr>
<th>Course</th>
<th>Session</th>
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<tbody>
<tr>
<td>GENM0201</td>
<td>X2</td>
<td>Human Origins, Human Problems</td>
</tr>
<tr>
<td>GENM0202</td>
<td>X2</td>
<td>Frontiers in Brain Research</td>
</tr>
<tr>
<td>GENM0510</td>
<td>X2</td>
<td>Using the Media: Promotion Through Mass Media and Multimedia</td>
</tr>
<tr>
<td>GENM0518</td>
<td>X2</td>
<td>Health and Power in an Internet Age</td>
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**Faculty of Science**

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<tr>
<th>Course</th>
<th>Session</th>
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<tbody>
<tr>
<td>GENS2002</td>
<td>X2</td>
<td>Mathematics in Art &amp; Architecture</td>
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<tr>
<td>GENS6012</td>
<td>X2</td>
<td>Diet – Food, Fact, Fiction and Fallacy</td>
</tr>
<tr>
<td>GENS6032</td>
<td>X2</td>
<td>Great Epidemics in History</td>
</tr>
<tr>
<td>GENS7602</td>
<td>X2</td>
<td>Viewing the Earth through a Geological Window</td>
</tr>
<tr>
<td>GENS7604</td>
<td>X2</td>
<td>Energy Resources for the 21st Century</td>
</tr>
<tr>
<td>GENS8003</td>
<td>X2</td>
<td>Work and Safety</td>
</tr>
<tr>
<td>GENS8004</td>
<td>X2</td>
<td>Ergonomics, Productivity and Safety</td>
</tr>
<tr>
<td>GENS8005</td>
<td>X2</td>
<td>Environmental Management in the Workplace</td>
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**Winter Session – Paddington Campus**

**Faculty of the College of Fine Arts**

<table>
<thead>
<tr>
<th>Course</th>
<th>Session</th>
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</tr>
</thead>
<tbody>
<tr>
<td>GEND1202</td>
<td>X2</td>
<td>Drawing the Body, Studies of Surface Anatomy</td>
</tr>
<tr>
<td>GEND1203</td>
<td>X2</td>
<td>Drawing the World Within/Without</td>
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<tr>
<td>GEND1204</td>
<td>X2</td>
<td>Studies in Painting</td>
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<tr>
<td>GEND1205</td>
<td>X2</td>
<td>Making a Print</td>
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<tr>
<td>GEND1208</td>
<td>X2</td>
<td>Studies in Sculpture</td>
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<tr>
<td>GEND1209</td>
<td>X2</td>
<td>Studies in the Camera</td>
</tr>
<tr>
<td>GEND1210</td>
<td>X2</td>
<td>Studies in the Print</td>
</tr>
<tr>
<td>GEND1211</td>
<td>X2</td>
<td>The Artist's Studio</td>
</tr>
<tr>
<td>GEND2201</td>
<td>X2</td>
<td>Art Therapy</td>
</tr>
<tr>
<td>GEND2202</td>
<td>X2</td>
<td>Multicultural Contexts</td>
</tr>
<tr>
<td>GEND2205</td>
<td>X2</td>
<td>Dialogues and Communities</td>
</tr>
<tr>
<td>GEND3230</td>
<td>X2</td>
<td>Art, Money and Power</td>
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<tr>
<td>GEND3231</td>
<td>X2</td>
<td>Picturing Death: Art and the Human Predicament</td>
</tr>
<tr>
<td>GEND4204</td>
<td>X2</td>
<td>Designing: Practical Studies in Design</td>
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<td>GEND4205</td>
<td>X2</td>
<td>Design Communications and Presentation</td>
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<tr>
<td>GEND4206</td>
<td>X2</td>
<td>Integrated Design Studio</td>
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<tr>
<td>GEND4208</td>
<td>X2</td>
<td>Working with Ceramics</td>
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<td>Course</td>
<td>Session</td>
<td>Title</td>
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<tr>
<td>GEN4209</td>
<td>X2</td>
<td>Working with Jewellery</td>
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<td>GEN4210</td>
<td>X2</td>
<td>Textiles and Fashion</td>
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<td>Design in Performance</td>
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<td>GEN4212</td>
<td>X2</td>
<td>Design in Adornment and Costume</td>
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<td>GEN4214</td>
<td>X2</td>
<td>Surface &amp; Image in Tapestry Weaving</td>
</tr>
<tr>
<td>GEN5201</td>
<td>X2</td>
<td>Landscape Animation</td>
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### In-Session General Education Courses

#### Kensington Campus

**Nura Gili (Indigenous Programs)**

| Course      | Session | Title                                          |
|-------------|---------|-------|-------------------------------------------------|
| GENX0101    | S1      | Indigenous Australia – Travelling through Time |
| GENX0102    | S2      | Indigenous Australia – The Present             |
| GENX0103    | S1      | Aboriginal Heritage: From Diggings to Display  |
| GENX0104    | S2      | Aboriginal Popular Culture                     |

#### Faculty of Arts and Social Sciences

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<thead>
<tr>
<th>Course</th>
<th>Session</th>
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<tbody>
<tr>
<td>GEN10201</td>
<td>S2</td>
<td>Communication Skills</td>
</tr>
<tr>
<td>GENT0209</td>
<td>S1</td>
<td>Great Books</td>
</tr>
<tr>
<td>GENT0310</td>
<td>S1 &amp; S2</td>
<td>Opiate of the People: Religion and Western Society, 1500 2000</td>
</tr>
<tr>
<td>GENT0312</td>
<td>S1</td>
<td>Dressed to Kill: Dress and Identity in History</td>
</tr>
<tr>
<td>GENT0404</td>
<td>S1 &amp; S2</td>
<td>Gods, Heroines and Heroes in Greek Mythology</td>
</tr>
<tr>
<td>GENT0405</td>
<td>S2</td>
<td>An Introduction to “…Isms”: Ideas that have Shaped our World</td>
</tr>
<tr>
<td>GENT0414</td>
<td>S2</td>
<td>Korea at a Glance</td>
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<tr>
<td>GENT0421</td>
<td>S1</td>
<td>Chinese Cinema</td>
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<tr>
<td>GENT0436</td>
<td>S1</td>
<td>Chinese Language for Beginners A</td>
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<tr>
<td>GENT0437</td>
<td>S2</td>
<td>Chinese Language for Beginners B</td>
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<tr>
<td>GENT0503</td>
<td>S1</td>
<td>Jazz and Popular Music Studies</td>
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<tr>
<td>GENT0504</td>
<td>S1 &amp; S2</td>
<td>Performance and Practice of Music A</td>
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<tr>
<td>GENT0505</td>
<td>S1 &amp; S2</td>
<td>Performance and Practice of Music B</td>
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<tr>
<td>GENT0506</td>
<td>S2</td>
<td>Music Technology</td>
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<tr>
<td>GENT0604</td>
<td>S2</td>
<td>Critical Thinking and Practical Reasoning</td>
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<tr>
<td>GENT0606</td>
<td>S1 &amp; S2</td>
<td>The Use of Language, Images and Symbols</td>
</tr>
<tr>
<td>GENT0707</td>
<td>S1</td>
<td>Globalisation and the Nation State</td>
</tr>
<tr>
<td>GENT0803</td>
<td>S1</td>
<td>Introduction to Australian Cinema</td>
</tr>
<tr>
<td>GENT0804</td>
<td>S2</td>
<td>Internet and Cyberculture</td>
</tr>
<tr>
<td>GENT0911</td>
<td>S1</td>
<td>Murderers, Maniacs and Medical Detectives</td>
</tr>
<tr>
<td>GENT1205</td>
<td>S2</td>
<td>Experiencing Anthropology Through Fieldwork</td>
</tr>
<tr>
<td>GENT1301</td>
<td>S2</td>
<td>Contemporary American Film</td>
</tr>
<tr>
<td>GENT1401</td>
<td>S1</td>
<td>Biopsychosocial Study of Humour</td>
</tr>
<tr>
<td>GENT1501</td>
<td>S1</td>
<td>Gifted and Talented Students: Recognition and Response</td>
</tr>
<tr>
<td>GENT1502</td>
<td>S2</td>
<td>Student Learning, Thinking and Problem Solving</td>
</tr>
<tr>
<td>GENT1503</td>
<td>S1</td>
<td>Introduction to Educational Psychology</td>
</tr>
<tr>
<td>GENT1507</td>
<td>S2</td>
<td>Learning Processes and Instructional Procedures</td>
</tr>
<tr>
<td>GENT1508</td>
<td>S1</td>
<td>Managing Stress and Anxiety</td>
</tr>
<tr>
<td>GENT1513</td>
<td>S1</td>
<td>Culture, Identity and Education</td>
</tr>
<tr>
<td>GENT1520</td>
<td>S2</td>
<td>Motivation in Learning and Teaching</td>
</tr>
<tr>
<td>GENT1512</td>
<td>S1</td>
<td>Relationships Between Personality Mood, Motivation and Learning</td>
</tr>
<tr>
<td>GENT1514</td>
<td>S2</td>
<td>Ideology and Power in Education</td>
</tr>
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#### Faculty of the Built Environment

<table>
<thead>
<tr>
<th>Course</th>
<th>Session</th>
<th>Title</th>
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<tbody>
<tr>
<td>GENR0003</td>
<td>S2</td>
<td>Spirit, Myth, Sacredness in Architecture</td>
</tr>
<tr>
<td>GENR0006</td>
<td>S1</td>
<td>The City: Sydney</td>
</tr>
<tr>
<td>GENR0012</td>
<td>S1</td>
<td>Great Buildings of the World</td>
</tr>
<tr>
<td>GENR0013</td>
<td>S1</td>
<td>City Planning Today</td>
</tr>
</tbody>
</table>
### Faculty of the College of Fine Arts – Kensington Campus

<table>
<thead>
<tr>
<th>Course</th>
<th>Session</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEND3218</td>
<td>S1</td>
<td>Principles and Philosophy of Design</td>
</tr>
<tr>
<td>GEND3230</td>
<td>S1</td>
<td>Art, Money and Power</td>
</tr>
<tr>
<td>GEND3232</td>
<td>S1 &amp; S2</td>
<td>Pornography, Art and Politics</td>
</tr>
<tr>
<td>GEND3233</td>
<td>S2</td>
<td>Scandals of Modern Art</td>
</tr>
</tbody>
</table>

### Faculty of Commerce and Economics

<table>
<thead>
<tr>
<th>Course</th>
<th>Session</th>
<th>Title</th>
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<tbody>
<tr>
<td>GENC1003</td>
<td>S2</td>
<td>A User's Guide to Financial Management and Analysis</td>
</tr>
<tr>
<td>GENC2001</td>
<td>S1 &amp; S2</td>
<td>An Introduction to the Australian Economy (Class: CKC1)</td>
</tr>
<tr>
<td>GENC3003</td>
<td>S1</td>
<td>User's Guide to Personal Financial Planning</td>
</tr>
<tr>
<td>GENC6001</td>
<td>S1 &amp; S2</td>
<td>An Introduction to Marketing</td>
</tr>
<tr>
<td>GENC6002</td>
<td>S1 &amp; S2</td>
<td>Marketing and the Consumer</td>
</tr>
<tr>
<td>GENC6003</td>
<td>S1 &amp; S2</td>
<td>Tourism: the Global Future</td>
</tr>
<tr>
<td>GENC7002</td>
<td>S1 &amp; S2</td>
<td>Getting into Business</td>
</tr>
<tr>
<td>GENC7003</td>
<td>S1 &amp; S2</td>
<td>Managing your Business</td>
</tr>
<tr>
<td>GENC9002</td>
<td>S1 &amp; S2</td>
<td>Web Information Resources</td>
</tr>
<tr>
<td>GENC3001</td>
<td>S2</td>
<td>Understanding Asian Banking and Finance</td>
</tr>
</tbody>
</table>

### Faculty of Engineering

<table>
<thead>
<tr>
<th>Course</th>
<th>Session</th>
<th>Title</th>
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<tbody>
<tr>
<td>GENE1011</td>
<td>S1 &amp; S2</td>
<td>From Catchment to Ocean</td>
</tr>
<tr>
<td>GENE3051</td>
<td>S1</td>
<td>Solar Cars – Speed of Light</td>
</tr>
<tr>
<td>GENE4001</td>
<td>S1</td>
<td>Biomedical Engineering Technology in Medicine</td>
</tr>
<tr>
<td>GENE7001</td>
<td>S1</td>
<td>Oil &amp; Gas: The Life Blood of Society</td>
</tr>
<tr>
<td>GENE7801</td>
<td>S1 &amp; S2</td>
<td>Energy and Mineral Resources – Use or Abuse?</td>
</tr>
<tr>
<td>GENE8000</td>
<td>S1</td>
<td>Spreadsheet &amp; Database Applications</td>
</tr>
<tr>
<td>GENE8001</td>
<td>S2</td>
<td>Computer Game Design Workshop</td>
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### Faculty of Law

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>GENL0250</td>
<td>S1 &amp; S2</td>
<td>Sport, Law &amp; Society in Australia</td>
</tr>
<tr>
<td>GENL1020</td>
<td>S1 &amp; S2</td>
<td>World Religions: Laws and Customs</td>
</tr>
<tr>
<td>GENL1060</td>
<td>S2</td>
<td>Moral and Legal Foundations of Human Rights</td>
</tr>
<tr>
<td>GENL1061</td>
<td>S1</td>
<td>Religion and Terror</td>
</tr>
<tr>
<td>GENL2020</td>
<td>S1 &amp; S2</td>
<td>Introduction to the Australian Legal System</td>
</tr>
<tr>
<td>GENL2031</td>
<td>S1 &amp; S2</td>
<td>Cyberspace Law: Regulation of Networked Transactions</td>
</tr>
<tr>
<td>GENL5020</td>
<td>S1 &amp; S2</td>
<td>Business Fundamentals</td>
</tr>
<tr>
<td>GENL5030</td>
<td>S1</td>
<td>Understanding Tax</td>
</tr>
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</table>

### Faculty of Medicine

<table>
<thead>
<tr>
<th>Course</th>
<th>Session</th>
<th>Title</th>
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<tbody>
<tr>
<td>GENM0123</td>
<td>S1</td>
<td>Children – Growing Up in Society</td>
</tr>
<tr>
<td>GENM0701</td>
<td>S1 &amp; S2</td>
<td>Contemporary Bioethics</td>
</tr>
<tr>
<td>GENM0703</td>
<td>S1 &amp; S2</td>
<td>Concepts of Physical Fitness and Health</td>
</tr>
</tbody>
</table>

### Faculty of Science

<table>
<thead>
<tr>
<th>Course</th>
<th>Session</th>
<th>Title</th>
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<tbody>
<tr>
<td>GENS0450</td>
<td>S1</td>
<td>Measuring up the Universe</td>
</tr>
<tr>
<td>GENS0501</td>
<td>S1 &amp; S2</td>
<td>The Marine Environment</td>
</tr>
<tr>
<td>GENS2005</td>
<td>S2</td>
<td>History of Mathematics</td>
</tr>
<tr>
<td>GENS2006*</td>
<td>S1</td>
<td>Introduction to New Testament Greek</td>
</tr>
<tr>
<td>GENS3502*</td>
<td>S1</td>
<td>Materials in Sport</td>
</tr>
<tr>
<td>GENS4001</td>
<td>S1 &amp; S2</td>
<td>Astronomy</td>
</tr>
<tr>
<td>GENS4008</td>
<td>S2</td>
<td>Nuclear Arms and the New World Order</td>
</tr>
<tr>
<td>GENS4010</td>
<td>S1 &amp; S2</td>
<td>Science and Religion</td>
</tr>
<tr>
<td>GENS4011</td>
<td>S2</td>
<td>Science of Music</td>
</tr>
<tr>
<td>GENS4014</td>
<td>S1 &amp; S2</td>
<td>Are We Alone? The Search for Life Elsewhere in the Universe</td>
</tr>
<tr>
<td>Course</td>
<td>Session</td>
<td>Title</td>
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<tr>
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<tr>
<td>GENS4015</td>
<td>S1 &amp; S2</td>
<td>Brave New World: Science Fiction, Science Fact and the Future</td>
</tr>
<tr>
<td>GENS5001</td>
<td>S1 &amp; S2</td>
<td>Flight and Civilisation</td>
</tr>
<tr>
<td>GENS5002</td>
<td>S1 &amp; S2</td>
<td>Aviation: Contemporary Issues in a Complex Sociotechnical System</td>
</tr>
<tr>
<td>GENS6011</td>
<td>S1</td>
<td>The Consumer's Guide to DNA</td>
</tr>
<tr>
<td>GENS6013</td>
<td>S2</td>
<td>Plants and People: Murder, Magic and Medicine</td>
</tr>
<tr>
<td>GENS6014</td>
<td>S2</td>
<td>Genes and Society</td>
</tr>
<tr>
<td>GENS6033</td>
<td>S2</td>
<td>HIV and Other Unconquered Infections</td>
</tr>
<tr>
<td>GENS7201</td>
<td>S1 &amp; S2</td>
<td>Australian Wildlife Biology</td>
</tr>
<tr>
<td>GENS8002</td>
<td>S1</td>
<td>Sports Performance and Injury Prevention</td>
</tr>
<tr>
<td>GENS8003</td>
<td>S1 &amp; S2</td>
<td>Work and Safety</td>
</tr>
<tr>
<td>GENS8004</td>
<td>S1 &amp; S2</td>
<td>Ergonomics, Productivity and Safety</td>
</tr>
<tr>
<td>GENS8005</td>
<td>S1 &amp; S2</td>
<td>Environmental Management in the Workplace</td>
</tr>
<tr>
<td>GENS9001</td>
<td>S1</td>
<td>Psychology of the Individual and the Group</td>
</tr>
<tr>
<td>GENS9002</td>
<td>S2</td>
<td>Psychology of the Body and the Mind</td>
</tr>
<tr>
<td>GENS9007</td>
<td>S2</td>
<td>The Psychobiology of Sex, Love and Attraction</td>
</tr>
<tr>
<td>GENS9008</td>
<td>S1</td>
<td>Stereotyping and Prejudice</td>
</tr>
<tr>
<td>GENS9009*</td>
<td>S2</td>
<td>Sport and Exercise Psychology</td>
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</table>

* - Pending approval by Faculty Standing Committee

Paddington Campus

Faculty of the College of Fine Arts

<table>
<thead>
<tr>
<th>Course</th>
<th>Session</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEND1203</td>
<td>S1 &amp; S2</td>
<td>Drawing the World Within/Without</td>
</tr>
<tr>
<td>GEND1204</td>
<td>S1 &amp; S2</td>
<td>Studies in Painting</td>
</tr>
<tr>
<td>GEND1209</td>
<td>S1 &amp; S2</td>
<td>Studies in the Camera – Analogue Photography</td>
</tr>
<tr>
<td>GEND1210</td>
<td>S1 &amp; S2</td>
<td>Studies in the Print – Analogue Photography</td>
</tr>
<tr>
<td>GEND4202</td>
<td>S1</td>
<td>Design and Human Functioning</td>
</tr>
<tr>
<td>GEND4203</td>
<td>S1 &amp; S2</td>
<td>Design Management</td>
</tr>
<tr>
<td>GEND4208</td>
<td>S1 &amp; S2</td>
<td>Working with Ceramics</td>
</tr>
<tr>
<td>GEND4209</td>
<td>S1 &amp; S2</td>
<td>Working with Jewellery</td>
</tr>
<tr>
<td>GEND4210</td>
<td>S1 &amp; S2</td>
<td>Textiles and Fashion</td>
</tr>
<tr>
<td>GEND4211</td>
<td>S1 &amp; S2</td>
<td>Design in Performance</td>
</tr>
<tr>
<td>GEND4212</td>
<td>S1 &amp; S2</td>
<td>Design in Adornment and Costume</td>
</tr>
<tr>
<td>GEND4214</td>
<td>S1 &amp; S2</td>
<td>Surface and Image in Tapestry Weaving</td>
</tr>
</tbody>
</table>
A warm welcome to the Faculty of Arts and Social Sciences at the University of New South Wales. I am sure you will find your studies with us exciting, challenging and rewarding.

The Faculty has 350 staff and 3893 undergraduate students. Over recent years competition to enter the Faculty’s programs has become very vigorous, as our distinctive profile and provision of excellent teaching and learning experiences become more widely recognised. Our staff are highly qualified and experienced researchers as well as being dedicated teachers. The benefits to students which flow from the combination of research with teaching are widely recognised in the world’s top universities.

Employers in today’s world increasingly value the skills gained by students who have studied in the Arts and Social Sciences fields. These include the ability to write accurately and concisely, to express and critique a point of view, to analyse thoroughly and objectively, and to speak in public readily and with confidence. No matter what specific areas of interest our students follow, they will graduate with a high level of skill and experience in using computers, databases and research tools, the ability to document sources carefully, to manage time, and work in cross-cultural contexts. Many will have studied one or more languages in addition to their mother tongue, and in some areas of study they will have obtained high level skills in research design and statistical analysis.

Degrees can be tailored to meet students’ own aims and goals, by combining different disciplines and areas of specialised study. Graduates are highly valued in many occupations: in commerce and business, policy studies, governmental organisations, international bodies, the diplomatic service, corporate affairs and human resources, and will be found also in vocations and occupations such as education and social work, public health and community service, advertising, media and public relations. Many of our graduates are now renowned writers and film-makers, not to mention our distinguished History graduate, the former premier of NSW, Mr Bob Carr.

We encourage all our students who are qualified to do so to undertake a fourth year Honours program. This enhances the skill-base by permitting a student to undertake a sustained and significant piece of research under the supervision of a staff member. Employers are particularly impressed by a good Honours degree.

The Faculty fosters friendly and co-operative relations between staff and students. Advice can readily be obtained from the Faculty office, thence for more specialised assistance from your lecturers and tutors, and other administrative staff. You can also undertake a period of internship for credit, which will be arranged by our Internship Officer, and periods of international exchange are available for all students, usually in the second year, where you can be located for one semester’s study in a highly recognised university in a country of your choice. All arrangements for exchanges are managed by the University. Many other unique opportunities are open for students in the Faculty. I believe your period of study here will be highly rewarding both personally and professionally and welcome you as one of our most important assets, our fine students.

Annette Hamilton
Dean
Arts and Social Sciences

Faculty of Arts and Social Sciences
Faculty of Arts and Social Sciences Website
The Faculty of Arts and Social Sciences maintains its own web server at www.arts.unsw.edu.au which provides information to prospective students as well as timetable and course information for current students.

Course Descriptions
Descriptions of courses offered in 2006 can be found in alphabetical order by course code at the back of this Handbook or in the Online Handbook at www.handbook.unsw.edu.au

Advanced Standing
Students admitted with advanced standing are given credit towards the degree for all appropriate courses up to a maximum of two thirds of the total units of credit required for each degree. Specified credit will be given for courses closely related to courses offered within our degree programs; unspecified credit may be given for other “Arts-type” courses, if they are of appropriate standard and range.

ARTS2000 Faculty Internship
ARTS2000 offers selected second and third year Arts and Social Sciences students an internship experience in a range of organisations outside UNSW. This practical work-place experience is accompanied by a reading program. The reading component examines different approaches to the study of organisations, their structures, functions and policies, and links these issues to the internship experience. The internship component provides work experience in a host organisation for a minimum of one day a week throughout one session or an equivalent block of time. The internship may be undertaken at any time during the year but is subject to the availability of a suitable host organisation. The course may be included as part of a major sequence with the prior permission of the relevant Head of School. For more information, contact Zarni Jaugietis, telephone (02) 9385 1443, email zarni@unsw.edu.au

ARTS3000 Courses
Objective 5 of the University’s General Education program requires all faculties “to ensure that students examine the purposes and consequences of their education and experience at University, and to foster acceptance of professional and ethical action and the social responsibility of graduates.” In some programs administered by the Faculty of Arts and Social Sciences this objective is met entirely by the content of compulsory core courses, while in others it is met partly by the structure of the degree and partly by ARTS3000 level courses specifically designed for this purpose.

Degrees in which at least one ARTS3000 course must be included are the Bachelor of Arts and the Bachelor of International Studies. Bachelor of Music and Bachelor of Music/Bachelor of Arts students must complete either an ARTS3000 course or MUSC3101. ARTS3000 courses are also available as elective courses for students in other degrees. These courses should normally be taken in a student’s third year of study.

ARTS3001 Censorship and Responsibility in the Performing Arts, Film, Literature and Media
ARTS3002 Making Histories and Historians: Ethics, Scholarship and Public Roles
ARTS3005 Arts and Social Sciences Graduates in the Workplace: Ethical & Social Responsibility
ARTS3006 Corruption and Integrity in Public Life
ARTS3007 East Asian Values and Identities
ARTS3010 Feminist Thought and Action

Faculty Computing Facilities
The Faculty of Arts and Social Sciences provides general purpose Macintosh computer laboratories in the Morven Brown and Mathews buildings. Special purpose laboratories are located in the Robert Webster Building. Self-access to the general purpose laboratories is available 24 hours 7 days per week. Printing charges apply. Access to email and the Internet is available. Further information can be obtained from the Technical Resources Centre, Room 105, Morven Brown Building, Room G6.3 in the Morven Brown Building is available to students in the Faculty for enrolment purposes.

Faculty Timetable
The Faculty Timetable is published in a separate booklet and will be distributed to new students on final enrolment. Students are able to access the information on the web at www.arts.unsw.edu.au in November.
Students in Years 2, 3 and 4 are reminded that alterations to the published timetable are occasionally made before the beginning of session. A check should be made with the appropriate school/department in late February for times of Upper Level courses.

General Education Requirements

Where a General Education requirement is prescribed, students must complete the equivalent of 12 units of credit from the University's General Education program. Arts and Social Science students should choose their courses in accordance with the requirements set out in the General Education section of this Handbook. No more than three units of credit can be chosen from courses with a GENT prefix. Information concerning the substitution of other university courses or exemptions from some General Education courses on the basis of previous formal study is available from the Faculty Office.

Re-enrolment Procedures

All students of the Faculty are expected to re-enrol via the web, apart from those who intend to enrol in an Honours program in 2006. Honours pre-enrolment forms will be available from school offices in December and will need to be returned to the Faculty Office by the second last week of December. Failure to re-enrol a week before the beginning of session may incur a late fee.

Societies and Clubs

For information about societies and clubs in the Faculty of Arts and Social Sciences, refer to the Faculty website at www.arts.unsw.edu.au/currentstudents/undergraduate/clubs.shtml or contact the individual schools/departments.

Faculty Rules

Standard enrolment

1. (a) In any year of study, students must enrol in a minimum of 24 units of credit, unless they require less than that number to complete the requirements for the degree. (b) In their first year of study, full-time students will normally complete 48 units of credit; in subsequent semesters, they will normally complete 24 units, but may be permitted to enrol in an additional 6 units.

Prerequisite and corequisite requirements

2. A student enrolling in a course must satisfy the prerequisite and corequisite requirements for that course.

Progression

3. In order to obtain units of credit for a course, a student must in that course:
   (a) satisfy attendance requirements;
   (b) complete satisfactorily any assignments prescribed;
   (c) pass any prescribed examination.

4. Students are not permitted to enrol in Upper Level courses until they have completed at least 36 Level 1 units of credit.

5. Students are required to complete at least 12 units of credit at Level 3 in any program or major sequence offered by the Faculty of Arts and Social Sciences.

6. Students who fail to complete at least 24 units of credit in any year may be required to 'show cause' as to why they should be permitted to proceed with their studies.

7. Students whose progress is satisfactory may apply for leave of absence from their studies for no more than two semesters.

Concurrent study

8. No student may enrol in any course to be counted towards degrees offered by the Faculty of Arts and Social Sciences at the same time as he/she is enrolled in any other degree or diploma program, except in the case of approved concurrent programs.

Study at another university

9. With the prior approval of Faculty, up to 48 units may be completed at another university, unless equivalent courses are available at the University of New South Wales. Faculty will not approve courses offered by external study.

10. Students must have completed at least 48 units of credit in courses offered by the Faculty before a period of study overseas will be approved.

Advanced standing

11. Students seeking advanced standing must submit documentary evidence of courses completed elsewhere and specify the courses they wish to complete within the Faculty. Faculty will then determine the number of units of credit to be granted. Advanced standing will not be granted for courses completed more than 10 years previously.

Transfers

12. (a) The Faculty will grant the maximum credit possible to facilitate a student's transfer from one degree to another. The credit will vary depending on the degrees concerned. (b) A student enrolled in the combined Arts/Law program who does not wish to proceed to the combined degree BA LLB may apply to transfer to the BA degree with credit for all courses completed in the program.

Special admission to Honours

13. Students who have been awarded a degree at Pass level from the University of New South Wales or a comparable degree from another university may be admitted by Faculty to candidature for the award of that degree at Honours level with credit for all courses completed if, during their studies for the Pass degree, they have satisfied the prerequisites for entry to the Honours level program or completed an equivalent program of study. Permission will not be granted if more than three years have elapsed since the completion of the Pass degree.

Modification of requirements

14. Faculty may modify the requirements of any of these rules in special circumstances.

Key to Course Identifiers

The following table shows the organisational unit and faculty responsible for all courses offered in the Faculty of Arts and Social Sciences.

Courses whose prefixes are not listed below are not available for students enrolled in the Faculty of Arts and Social Sciences.

<table>
<thead>
<tr>
<th>Prefix</th>
<th>Organisational Unit</th>
<th>Faculty</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARTS</td>
<td>Faculty of Arts &amp; Social Sciences</td>
<td>Arts &amp; Social Sciences</td>
</tr>
<tr>
<td>ASIA</td>
<td>Faculty of Arts &amp; Social Sciences</td>
<td>Arts &amp; Social Sciences</td>
</tr>
<tr>
<td>ATSI</td>
<td>Nura Gili (Indigenous Programs)</td>
<td>Arts &amp; Social Sciences</td>
</tr>
<tr>
<td>AUSS1</td>
<td>Faculty of Arts &amp; Social Sciences</td>
<td>Arts &amp; Social Sciences</td>
</tr>
<tr>
<td>BEEH</td>
<td>School of Biological, Earth and Environmental Sciences</td>
<td>Arts &amp; Social Sciences</td>
</tr>
<tr>
<td>BIOS</td>
<td>School of Biological, Earth and Environmental Sciences</td>
<td>Science</td>
</tr>
<tr>
<td>CHEM</td>
<td>School of Chemical Sciences</td>
<td>Science</td>
</tr>
<tr>
<td>CHIN</td>
<td>Department of Chinese &amp; Indonesian Studies</td>
<td>Arts &amp; Social Sciences</td>
</tr>
<tr>
<td>COMD</td>
<td>Faculty of Arts &amp; Social Sciences</td>
<td>Arts &amp; Social Sciences</td>
</tr>
<tr>
<td>CCOMP</td>
<td>School of Computer Science &amp; Engineering</td>
<td>Engineering</td>
</tr>
<tr>
<td>CRIM</td>
<td>School of Social Science &amp; Policy</td>
<td>Arts &amp; Social Sciences</td>
</tr>
<tr>
<td>DANC</td>
<td>School of Media, Film and Theatre</td>
<td>Arts &amp; Social Sciences</td>
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<tr>
<td>HIST</td>
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The basic requirements for the degree are:

1. A total of 144 units of credit. Each course offered by the Faculty has a unit of credit rating, depending on the number of hours taught and the type of course.

2. A total of 66 units of credit must be gained in courses offered by schools, departments or programs within the Faculty.

3. A major sequence (List A) in one of the following:
   - AUSI: Australian Studies
   - CHIN: Chinese Studies
   - COMD: Development Studies
   - EDST: Education
   - ENGL: English
   - SOIL: Soil Environmental Studies
   - EURO: European Studies
   - FREN: French
   - GERS: German Studies
   - GREK: Greek
   - HIST: History
   - HPML: History and Philosophy of Science
   - INDO: Indonesian Studies
   - JAPN: Japanese Studies
   - KORE: Korean Studies
   - LING: Linguistics
   - MEFT: Media, Culture and Technology/Film/Theatre and Music Education Studies
   - MUSC: Music
   - PECO: Political Economy
   - PHIL: Philosophy
   - POLS: Politics and International Relations
   - RUSS: Russian Studies
   - SLSP: Policy Studies
   - SOCA: Sociology and Anthropology
   - SPAN: Spanish and Latin American Studies
   - WOMS: Women’s and Gender Studies

4. At least 66 units of credit must be gained in courses offered by schools, departments or programs within the Faculty.

5. At least 66 units of credit gained in schools, departments or programs outside the school/departments in which you are majoring, so that your program does not become too one-sided.


7. During their second and third years of study, students are also required to complete 12 units of credit from the University’s General Education Program.

8. 6 units of credit in an upper level ARTS3000 course detailed in the Handbook.

How to Choose Your First Year Program

You must include the first year requirements for at least two major sequences in schools or departments within the Faculty of Arts and Social Sciences, as you must complete at least one to qualify for the degree. Find the courses you need from the corresponding entries in the online handbook; this will normally account for 24 units of credit of your first year program. In deciding what other courses to enrol in, you should consider which courses best complement the ones you have chosen. These may not necessarily be ‘close relations’; for instance, a foreign language may be extremely useful for a history major, and vice versa. Unless you are a part-time student, you should enrol in courses carrying 48 units of credit.

Upper Level and Honours Entry

In structuring your program for second and third year Upper Level, it is essential that you fulfill the requirements for a major sequence in the school(s) or department(s) in which you are specializing. If you have any doubts about them, make sure you consult a member of staff before enrolling in second year. Try to complement your majors with courses which will provide you with skills and perspectives which will contribute to a broader and more critical approach to your special areas of interest. Major sequences offered by programs such as AUST Australian Studies are designed to provide this kind of context. They offer an interdisciplinary...
## BA - Sample Program - Example Only

### YEAR ONE - 48 units of credit

<table>
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<tr>
<th>Sequence</th>
<th>Course 1</th>
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<th>Course 3</th>
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<td>History (6)</td>
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### YEAR TWO - 48 units of credit

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<tr>
<td>S2</td>
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### YEAR THREE - 48 units of credit

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<td>S2</td>
<td>General Education (3)</td>
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<td>History (6)</td>
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</table>

**Total required for BA - 144 units of credit**

- **Major Sequence**, 42 units of credit
- **Second Major Sequence**, 42 units of credit

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### General Education Requirements

Students are also required to complete 12 units of credit from the University's General Education program during their second and third years of study. For further information, please refer to the General Education Requirements entry under Faculty Information and Assistance.

### Academic Rules

#### Pass Degree

To qualify for the award of the degree at Pass level, a student must obtain, normally over three years of study, a minimum of 144 units of credit in approved courses including:

1. a total of 48 Level 1 units of credit;
2. no more than 12 Level 1 units of credit in any one sequence of study from Lists A, B, and C below;
3. a major sequence of 42 units of credit from List A below;
4. at least 66 units of credit, including a minimum of 24 at Level 1, from sequences in Lists A and B;
5. at least 66 units of credit from courses offered outside the major sequence specified in 3. above, which may include major sequence(s) from Lists A, B or C;
6. 12 units of credit from the General Education program, normally taken in the second and third year of study;
7. 6 units of credit from a third year ARTS elective.

#### List A

- AUSTR Australian Studies
- CHIN Chinese Studies
- COMD Communication Studies
- EDST Education
- ENGL English
- Environmental Studies
- EURO European Studies
- FREN French
- GERS German Studies
- GREK Greek
- HIST History
- HPSC History and Philosophy of Science
- INDO Indonesian Studies
- JAPN Japanese Studies
- KORE Korean Studies
- LING Linguistics
- MFFTE Media Studies
- Film and Theatre
- MUSC Music
- PECO Political Economy
- PHIL Philosophy
- POLS Politics and International Relations
- RUSS Russian Studies
- SLSP Policy Studies
- SOCA Sociology
- SOCW Social Work
- STUD Studies
- THEO Theory

#### List B

- ASIA Asian Studies
- ATSI Aboriginal Studies
- IRSH Irish Studies
- JWST Jewish Studies
- LATN Latin
- Philosophy of Science

#### List C

- BIOS Biological Science
- CHEM Chemistry
- COMP Computing
- ECON Economics
- ECON/HIST Economic History
- GEOH/GEOS Geography
- Geology
- GMAT Surveying Spacial Information and Systems
- MATH Mathematics
- MGMT Human Resource Management
- Industrial Relations
- International Business
- PHYS Physics
- PSYC Psychology
- SAHT Art History
- Theory

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3402 Bachelor of Media and Communications

#### BA(Media)

##### Typical Duration

- 3 years

##### Minimum UOC for Award

- 144 units of credit

##### Typical UOC per Session

- 24 units of credit

##### Program Description

The program emphasises new computer-based multimedia skills and focuses on Australian media industries in relation to globalisation. The degree is vocationally relevant in its orientation and all students are given significant practical experience in new computer-based multimedia communication technologies.
In addition to studying the Media and Communications core program, students complete a major in the humanities or social sciences, to permit them to study a second field in depth by pursuing their interests in another area. First and second years cover multimedia writing and production and contextual media studies. The third year consolidates the program’s emphasis on production and analytical skills. This grounding enables students to interpret, create and apply the products of new media not only in the context of the mass information and entertainment industries but also in a variety of other public and private sector areas such as education, on-the-job training and specialised information services.

A fourth (Honours) year of study is an option for selected students.

Program Objectives and Learning Outcomes
The Media and Communications program aims to develop in students a sophisticated understanding of the history, scope and socio-cultural impact of new media technologies, and of the debates that have accompanied their development and use. Second, it offers extensive experience in the production of new media content appropriate for employment in the contemporary media.

Program Structure
The basic requirements for the degree are:

1. A total of 144 units of credit. Each course offered within the degree has a unit of credit rating, depending on the number of hours taught and the type of course.
2. 48 units of credit in the Media and Communications (MDCM) core program:
   - First Year
     - MDCM1000 New Media Technologies A
     - MDCM1001 New Media Technologies B
   - Second Year
     - MDCM2000 Writing for New Media
     - MDCM2002 Media Production
     - MDCM2003 Multimedia Production
   - Third Year
     - MDCM3000 Media Forms
     - MDCM3002 Advanced Media Production
     - MDCM3003 Multimedia Production
   - 3. 2 MDCM electives (12 Upper Level units of credit).
   - 4. 1 elective (6 Upper Level units of credit) from the offerings of the Faculty of Arts and Social Sciences.
5. A major sequence (List A) in one of the following:
   - AUST Australian Studies
   - CHIN Chinese Studies
   - COMD Development Studies
   - EDST Education
   - ENGL English
   - ENV Environment Studies
   - EURO European Studies
   - FREN French
   - GER German Studies
   - GREK Greek, Modern
   - HIST History
   - HPS History and Philosophy of Science
   - INDO Indonesian Studies
   - JAPN Japanese Studies
   - KORE Korean Studies
   - LING Linguistics
   - MEFT Media, Culture & Technology/Film/Theatre & Performance Studies
   - MUSC Music
   - PSLO Political Economy
   - PHIL Philosophy
   - POLS Politics and International Relations
   - RUSS Russian Studies
   - SLP Policy Studies
   - SOCA Sociology and Anthropology
   - SPAN Spanish and Latin American Studies
   - WOMS Women’s and Gender Studies

A major sequence is an approved progression of courses in a school, department or program: you will find details under the relevant entry.

6. 48 units of credit obtained in Level 1 (first year) courses, including MDCM1000 and MDCM1001, and any first year courses in your major sequence. No more than 12 units of credit can be obtained in first year courses from any one school, department, unit or program, with the exception of students wishing to pursue studies in Film, Theatre & Performance Studies or Media, Culture & Technology. These students can do up to 24 units of credit in Level 1 courses from the School of Media, Film and Theatre (MDCM1000, MDCM1001 and 12 units of credit in Level 1 courses with a MEFT prefix).

7. during their second and third years of study, students are also required to complete courses from the University’s General Education program carrying the equivalent of 12 units of credit.

How to Choose Your First Year Program
Enroll in the core courses MDCM1000 and MDCM1001 (see 2. above); then choose one or more areas from 5. above in which you might like to major, and enrol in the appropriate first year (Level 1) courses. Then select additional first year courses to make up a total of 48 units of credit. 24 Level 1 units of credit must be selected from courses offered by the Faculty of Arts and Social Sciences.

Upper Level
In your second and third year, enrol in the prescribed core courses (see 2. above) and the necessary courses for your major sequence. The additional units of credit should be taken in other Upper Level courses and in courses from the University’s General Education program. Try to spread your workload evenly over the four sessions of study.

General Education Requirements
Students are also required to complete 12 units of credit from the University’s General Education program during their second and third years of study. For further information, please refer to the General Education Requirements entry under Faculty Information and Assistance.

Academic Rules
Pass Degree
To qualify for the award of the degree at Pass level, a student must obtain, normally over three years of study, a minimum of 144 units of credit in approved courses including:

1. the core program (48 units) in MDCM Media and Communications;
2. a major sequence from List A of the BA Rules;
3. a total of 48 Level 1 units of credit, including no more than 12 in any one sequence of study, from Lists A, B and C of the BA Rules;
4. two Upper Level MDCM electives outside the core program;
5. 12 units of credit from the General Education program, normally taken in the second and third year of study;
6. The Pass degree of Bachelor of Arts (Media and Communications) may be awarded with Distinction where a candidate has achieved a weighted average mark (WAM) of at least 75% in all courses completed since enrollment at UNSW which are credited towards the degree.

Honours Degree
To qualify for the award of the degree at Honours level in one or two schools/specialisations, a student must:

7. have obtained 144 units of credit in accordance with 1.-5. above and satisfied the appropriate prerequisites for entry to the Honours level program;
8. obtain a further 48 units of credit in an approved Honours program.

The Honours degree is awarded in three classes (Class 1, Class 2 in two Divisions and Class 3). Students who fail to obtain one of these classes may proceed to graduate with the Pass degree.

3408 Bachelor of Arts (Dance) Bachelor of Education
BA(Dance)BEd
Typical Duration
4 years

Minimum UOC for Award
192 units of credit

Typical UOC per Session
24 units of credit

Program Description
The School of Media, Film and Theatre offers a four-year full-time double degree for intending specialist dance educators leading to the award of Bachelor of Arts (Dance) Bachelor of Education.

Entry to the BA(Dance) BEd program is by audition and satisfactory University academic entry requirements.
Program Objectives and Learning Outcomes
The Bachelor of Arts (Dance) Bachelor of Education is a professional double degree which qualifies successful graduates to be recognised as high school teachers with the NSW Department of Education and Training. The double degree also serves as an ideal basis from which to enter a range of dance and dance education professions.

Program Structure
To qualify for the award of the Bachelor of Arts (Dance) Bachelor of Education, students must complete courses to the value of at least 192 units of credit, including:

1. the relevant sequences in Dance Theory, Dance Practice, Dance Education and Education as prescribed by the School of Media, Film and Theatre for the BA (Dance) BEd degree.
2. at least 42 units of credit drawn from the following major sequences (List E) offered within the BA degree:
   - Chinese, Drama (Theatre), Economics/Business Studies, English, French, Geography, German, History, Indonesian, Japanese, Literacy/English as a Second Language (ESL), Spanish.
   - This major sequence functions as the students’ second teaching area. Students are strongly advised to familiarise themselves with the Department of School Education’s current pattern of employment prospects when choosing both their second teaching area and the elective courses within that program.
3. 12 units of credit in courses approved by the Faculty in the University’s General Education program.

Academic Rules
Pass Degree
To qualify for the award of the degree at Pass level, a student must obtain, normally over four years of study, a minimum of 192 units of credit in approved courses including:

1. the approved sequences in Dance Theory, Dance Practice, Dance Education and Education;
2. a sequence of 42 units of credit from List E below, including no more than 12 Level 1;
3. 12 units of credit from the General Education program, normally taken in the second and third year of study.

List E
- CHIN Chinese,
- ENGL English*,
- ECON Economics,
- FREN French,
- GEOH/GEOS Geography,
- GERS German,
- HIST History,
- INDO Indonesian,
- JAPN Japanese,
- LING Linguistics,
- MEFT Theatre & Performance Studies,
- SPAN Spanish

* A major sequence in ENGL English is the most appropriate background for Literacy/ESL teaching.

The Pass degree of Bachelor of Arts (Dance) Bachelor of Education may be awarded with Distinction where a candidate has achieved a weighted average mark (WAM) of at least 75% in all courses completed since enrolment at UNSW which are credited towards the degree.

Honours Degree
To qualify for the award of the degree at Honours level in one or two schools/specialisations, a student must:

1. have obtained 192 units of credit in accordance with 1.-3. above and satisfied the appropriate prerequisites for entry to the Honours level program;
2. obtain a further 48 units of credit in an approved Honours program.

The Honours degree is awarded in three classes (Class 1, Class 2 in two Divisions and Class 3). Students who fail to obtain one of these classes may apply to graduate with the Pass degree.

Admission Requirements
Entry to the BA (Dance) BEd program is by audition, satisfactory physiotherapy report, and satisfactory University academic entry requirements.
Bachelor of Arts (Dance) Bachelor of Education - Sample Program

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<tr>
<th>Year</th>
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<th>UOC</th>
<th>Dance Theory</th>
<th>UOC</th>
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Total: 42 30 60 48 12 192

For more information, please refer to the School website: http://media.arts.unsw.edu.au/dance/index.html

3417 Diploma in Languages

DipLang

Typical Duration
3 years

Minimum UOC for Award
42 units of credit

Typical UOC per Session
6 units of credit

Program Description
The Diploma in Languages requires a program of 42 units of credit in a language and related courses as approved by the School of Modern Language Studies. It may be taken concurrently with another degree program, and offers an ideal opportunity to acquire an additional language for professional purposes.

Program Objectives and Learning Outcomes
The objective of the Diploma is to provide a pathway for those wishing to gain a major in a language, following or in conjunction with another program.

Program Structure
The basic requirements for the award of the Diploma in Languages are:
1. Over a period of at least two semesters of study, 42 units of credit in language or related courses offered within the Bachelor of Arts (program 3400) as approved by the School of Modern Language Studies.

Academic Rules
1. To qualify for the award of the Diploma in Languages, students must complete, over a period of at least two semesters of study, 42 units of credit in language or related courses offered within the Bachelor of Arts (program 3400) as approved by the School of Modern Language Studies. Graduates must have achieved a minimum level of competence in the relevant language equivalent to that attained by students who have completed six semesters of study in a language commencing at Introductory Level.

2. A candidate for the Diploma shall:
(i) have been awarded the Bachelor from the University of New South Wales or another tertiary institution, or
(ii) with the approval of the program authorities concerned, be enrolled concurrently within the University of New South Wales in an undergraduate program of the University of New South Wales which does not offer a major sequence in the language concerned.

Admission Requirements
To be eligible to enrol in the Diploma program, students must already hold a tertiary degree or currently be enrolled in a degree program at UNSW.

3418 Diploma in Music

DipMus

Typical Duration
3 years

Minimum UOC for Award
42 units of credit

Typical UOC per Session
6 units of credit

Program Description
The Diploma in Music requires a program of 42 units of credit in Musicology, Musicianship skills and performance in an ensemble.

Program Objectives and Learning Outcomes
The objective of the Diploma is to provide a pathway for those wishing to gain a major in Music, following or in conjunction with another program.

Program Structure
The basic requirements for the award of the Diploma in Music are:
1. The completion of a sequence of courses totalling 42 units of credit and constituting the prescribed major sequence in Music of the Bachelor of Arts. Please refer to plan MUSCA13400 in the Online Handbook.
Academic Rules

1. To qualify for the award of the Diploma in Music, students must complete a sequence of courses totalling 42 units of credit and constituting the prescribed major sequence in Music of the Bachelor of Arts (program 3400).

2. A candidate for the Diploma shall:
   (i) have been awarded the Bachelor from the University of New South Wales or another tertiary institution, or
   (ii) with the approval of the program authorities concerned, be enrolled concurrently within the University of New South Wales in an undergraduate program of the University of New South Wales which does not offer a major sequence in Music.

3420 Bachelor of Social Science

BSocSc

Typical Duration
3 years

Minimum UOC for Award
144 units of credit

Typical UOC per Session
24 units of credit

Program Description

The Bachelor of Social Science degree combines a core program of study in social science, policy analysis and research methods with a major in a particular social science discipline.

Program Objectives and Learning Outcomes

The Bachelor of Social Science core program aims to provide students with skills in undertaking social research, particularly in an applied policy setting. These include written communication skills with particular emphasis on reports, submissions, position papers and proposals; the ability to undertake research and data analysis, both quantitative and qualitative; analysis and critical evaluation of research, arguments and policies; and the use of computers in social research and information processing.

The major study aims to equip students with a knowledge base in one of the social sciences.

Program Structure

The basic requirements for the degree are:

1. A total of 144 units of credit.
2. 48 units of credit in the core courses of the BSocSc degree program, each of which carries 6 units of credit:

   **First Year**
   - SLSP1001 Research & Information Management
   - and one of the following:
     - SLSP1000 Social Science & Policy
     - SLSP1002 Introduction to Policy Analysis

   **Second Year**
   - SLSP2000 Political Economy & the State
   - SLSP2001 Applied Social Research 1
   - SLSP2002 Policy Analysis Case Studies

Bachelor of Social Science - Sample Program - Example Only

<table>
<thead>
<tr>
<th>YEAR ONE</th>
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</thead>
<tbody>
<tr>
<td>S1</td>
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</tr>
<tr>
<td>S2</td>
<td>Philosophy (6)</td>
</tr>
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</table>

|       | Social Science and Policy (6) |
| Social and Information Management (6) | |
| History & Philosophy of Science (6) | Sociology (6) |
| History & Philosophy of Science (6) | Sociology (6) |

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<td>S2</td>
<td>General Education (3)</td>
</tr>
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</table>

|       | Political Economy and the State (6) |
| Applied Social Research 1 (6) | Policy Analysis Case Studies (6) |
| History & Philosophy of Science (6) | Sociology (6) |

<table>
<thead>
<tr>
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</tr>
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<td>S2</td>
<td>General Education (3)</td>
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</table>

|       | Social Theory & Policy Analysis (6) |
| Applied Social Research 2 (6) | Social Science & Policy Project (6) |
| History & Philosophy of Science (6) | History & Philosophy of Science (6) |
| History & Philosophy of Science (6) | History & Philosophy of Science (6) |

Total required for BSocSc Pass Degree - 144 units of credit

BSocSc Core Program, 48 units of credit

Major Sequence, 42 units of credit
Students who major in Film and Theatre must also complete a sequence of 24 units of credit in a discipline listed in 3. above.

A major sequence is an approved progression of courses in a school or program; you will find details under the relevant entry.

4. 48 units of credit obtained in Level 1 (first year) courses, including the two core courses, the first year courses of your major sequence and two other electives.

5. during their second and third years of study, students are also required to complete courses from the University's General Education program carrying the equivalent of 12 units of credit.

How to Choose Your First Year Program

Enrol in the core courses SLSP1001 and either SLSP1000 or SLSP1002 (see 2. above); then choose one area from the list in point 3. which you would like to major in, and enrol in the appropriate first year (Level 1) courses. Then select additional courses to make up a total of 48 units of credit. 24 Level 1 units of credit must be selected from courses offered by the Faculty.

Upper Level and Honours Entry

In second and third year, enrol in the prescribed core courses (see 2. above) and the necessary courses for your major sequence. The additional units of credit should be taken either in the area you chose as a possible second major or in other Upper Level courses. You must also enrol in the prescribed courses from the University’s General Education program. Try to spread your workload evenly over the four sessions of study.

In addition, if you intend to apply for entry to the Honours year, you should enrol in SLSP3911 Inquiry and Interpretation in the Social Sciences in your third year of study.

For entry to Honours in the BSoSc degree Program, you must have obtained an average of credit or better in your core program and major sequence; and a credit or above in SLSP3911. You have to apply to the Head of School for admission.

General Education Requirements

Students are also required to complete 12 units of credit from the University's General Education program, normally during their second and third years of study. For further information, please refer to the General Education Requirements entry under Faculty Information and Assistance.

Academic Rules

Pass Degree

To qualify for the award of the degree at Pass level, a student must obtain, normally over three years of study, a minimum of 144 units of credit in approved courses including:

1. the core program (48 units) in SLSP Social Science and Policy;

2. a major sequence from List F below;

3. a total of 48 Level 1 units of credit, including no more than 12 in any one sequence of study, from Lists A, B and C of the BA Rules;

4. at least 24 Level 1 units of credit, including 12 in SLSP; from Lists A and B of the BA Rules;

5. 12 units of credit from the General Education program, normally taken in the second and third year of study.

List F

AUST Australian Studies, COMD Development Studies, ECON Economics/Economic History, Environmental Studies, EURO European Studies, GEOH/GEOS Geography and Geology, HIST History, HPSL History and Philosophy of Science, MEFT Film/Theatre & Performance Studies, MGMT International Business/Industrial Relations/Human Resource Management, PECO Political Economy, PHIL Philosophy, POLS Politics and International Relations, PSYC Psychology, SOCA Sociology and Anthropology, SPAN Spanish and Latin American Studies (History Stream), WOMS Women's and Gender Studies.

Students who major in Film or Theatre & Performance Studies must complete at least 24 units of credit in other sequences from List F.

6. The Pass degree of Bachelor of Social Science may be awarded with Distinction where a candidate has achieved a weighted average mark (WAM) of at least 75% in all courses completed since enrolment at UNSW which are credited towards the degree.

Honours Degree

To qualify for the award of the degree at Honours level in one or two schools/specialisations, a student must:

7. have obtained 144 units of credit in accordance with 1.-5. above and satisfied the appropriate prerequisites for entry to the Honours level program;

8. obtain a further 48 units of credit in an approved Honours program. The Honours degree is awarded in three classes (Class 1, Class 2 in two Divisions and Class 3). Students who fail to obtain one of these classes may proceed to graduate with the Pass degree.

3422 Bachelor of Social Science in Criminology

BSocSc

Typical Duration
3 years

Minimum UOC for Award
144 units of credit

Typical UOC per Session
24 units of credit

Program Description

The Bachelor of Social Science in Criminology combines core studies in social science with core studies in criminal law, criminal procedures and criminal justice institutions; theories of crime; research in crime and justice, and electives in other criminological topics. The core sequence in social science includes courses in social and economic theory and policy, case studies in policy analysis, research methods and statistical applications, and social science research projects.

Program Objectives and Learning Outcomes

The Bachelor of Social Science in Criminology program gives students the skills to apply the social sciences to criminological problems. The program will provide students with a coherent program of knowledge about crime, its causes and social construction, the history and operation of crime control institutions, and the outcomes of criminal justice policies.

Program Structure

The basic requirements of the degree are:

1. a total of 144 units of credit,

2. 48 units of credit in the core courses of the BSocSc degree program and 24 units of credit in core courses in Criminology:

   First Year
   CRIM1000 Criminal Law and Justice 1
   CRIM1001 Criminal Law and Justice 2
   SLSP1000 Social Science & Policy
   SLSP1001 Research & Information Management

   Second Year
   CRIM2000 Criminological Theories
   SLSP2000 Political Economy & the State

3. a total of 48 Level 1 units of credit, including no more than 12 in any one sequence of study, from Lists A, B and C of the BA Rules;

4. at least 24 Level 1 units of credit, including 12 in SLSP; from Lists A and B of the BA Rules;

5. 12 units of credit from the General Education program, normally taken in the second and third year of study.

List F

AUST Australian Studies, COMD Development Studies, ECON Economics/Economic History, Environmental Studies, EURO European Studies, GEOH/GEOS Geography and Geology, HIST History, HPSL History and Philosophy of Science, MEFT Film/Theatre & Performance Studies, MGMT International Business/Industrial Relations/Human Resource Management, PECO Political Economy, PHIL Philosophy, POLS Politics and International Relations, PSYC Psychology, SOCA Sociology and Anthropology, SPAN Spanish and Latin American Studies (History Stream), WOMS Women's and Gender Studies.
SLSP2001  Applied Social Research 1
SLSP2002  Policy Analysis Case Studies

Third Year
CRIM3000  Researching Crime and Justice
SLSP3000  Social Theory and Policy Analysis
SLSP3001  Applied Social Research 2
SLSP3002  Social Science & Policy Project

The Social Science and Policy core program satisfies the University’s requirement for 56 hours of study relating to the purposes and consequences of university education, professional and ethical action, and social responsibility.

3. 24 units of credit in the approved list of criminology-related electives (an indicative list) below:
   - CRIM2010  Community Corrections
   - CRIM2011  Crime & Society
   - CRIM2012  Crime Prevention Policy
   - CRIM2013  Juvenile Justice
   - CRIM2014  Policing
   - CRIM2015  Sentencing: Law, Policy & Practice
   - CRIM2016  Criminal Justice System
   - CRIM2017  The ‘New’ Prosecutors
   - CRIM2018  Crime, Power and Human Rights
   - CRIM3010  Comparative Criminal Justice
   - ENGL2480  Crime fiction
   - HIST2468  History from Crime
   - POLS2020  Sex, Human Rights & Justice
   - PSYC3301  Psychology and Law
   - SLSP2820  Crime & Punishment
   - SOCA2208  Deviant Fieldwork
   - SOCA3103  Professions
   - SOCA3408  Crime in Australian Society
   - SOCA3409  Crime, Gender and Sexuality
   - SOCA3410  Deviance
   - SOCA3411  Forensic Sociology
   - SOCA3701  Discipline of the Law
   - SOCA3710  Moral Panics
   - SOCA3810  The Space of Terror

4. 48 units of credit obtained in Level 1 (first year) courses, including SLSP1000, SLSP1001, CRIM1000 and CRIM1001. No more than 12 units of credit can be obtained in first year courses from any one school, department, unit or program.

5. 12 units of credit from the University’s General Education program, normally during the second and third years of study.

How to Choose Your First Year Program
Enrol in the core courses CRIM1000, CRIM1001, SLSP1000 and SLSP1001; then select additional courses to make up a total of 48 units of credit. 24 Level 1 units of credit must be selected from courses offered by the Faculty.

Upper Level and Honours Entry
In second and third year, enrol in the prescribed core courses (see 2. above) and the 24 units of credit in the approved list of criminology-related electives. The additional units of credit should be taken in other Upper Level courses. You must also enrol in the prescribed courses from the University’s General Education program. Try to spread your workload evenly over the four sessions of study.

In addition, if you intend to apply for entry to the Honours year, you should enrol in SLSP3911 Inquiry and Interpretation in the Social Sciences your third year of study.

For entry to Honours in the BSocSc Criminology degree Program, you must have obtained an average of credit or better in your core program and criminology electives; and a credit or above in SLSP3911. You have to apply to the Head of School for admission.

General Education Requirements
Students are also required to complete 12 units of credit from the University’s General Education program, normally during their second and third years of study. For further information, please refer to the General Education Requirements entry under Faculty Information and Assistance.

Academic Rules
Pass Degree
To qualify for the award of degree at Pass level, a student must obtain, normally over three years of study, a minimum of 144 units of credit in approved courses including:

1. the core program (48 units) in SLSP Social Science and Policy;
2. the core courses (24 units) in CRIM Criminology;
3. 24 units of credit in the approved list of criminology-related elective courses;
4. a total of 48 Level 1 units of credit, including no more than 12 in any one sequence of study, from Lists A, B or C of the BA Rules;
5. 12 units of credit from the General Education program, normally taken in the second and third year of study;
6. The Pass degree of Bachelor of Social Science in Criminology may be awarded with Distinction where a candidate has achieved a weighted

Bachelor of Social Science in Criminology - Sample Program - Example Only

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<td>CRIM1000 Criminal Law and Justice 1</td>
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<td>CRIM2000 Criminology Theories Criminology Elective 1</td>
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<td>48</td>
<td>48</td>
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</table>
To qualify for the award of the degree at Honours level, a student must:

1. have obtained 144 units of credit in accordance with 1.-5. above and satisfied the appropriate prerequisites for entry to the Honours degree program,
2. obtained a further 48 units of credit in an approved Honours program.

The Honours degree is awarded in three classes (Class 1, Class 2 in two Divisions and Class 3). Students who fail to obtain one of these classes may proceed to graduate with the Pass degree.

3424 Bachelor of International Studies

Typical Duration
4 years

Minimum UOC for Award
192 units of credit

Typical UOC per Session
24 units of credit

Program Description
The Bachelor of International Studies is a four-year full-time degree program offered in the following five area-study concentrations: Asian Studies Plan, Development Studies Plan, European Studies Plan, Global Studies Plan, Language Studies Plan.

Program Objectives and Learning Outcomes
International Studies provides the knowledge and skills essential for understanding and working in the rapidly changing global environment. It examines the interactions of nations, economies, institutions, peoples, cultures, technologies and ideas against a background of increasing international integration and changing modernity. The program provides specialised sequences of courses in five area streams which are designed to give students a thorough preparation for further study and employment in areas vital to Australia's increasing participation in the international arena. The degree incorporates a period of overseas study during the third and fourth year for students who have made satisfactory progress towards the degree in their first and second years of study. The Faculty provides a contribution to the expenses of this study.

Program Structure
To qualify for the award of the degree, a student must obtain, normally over four years of study, a minimum of 192 units of credit in approved courses. The program includes a core sequence of courses in International Studies (INST) and an approved program (Overseas Study Program) at an overseas institution normally of two semesters, undertaken during the third and fourth years of study.

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<tr>
<th>Year</th>
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</tbody>
</table>

Bachelor of International Studies in Asian Studies - Sample Program

To proceed on the Overseas Study Program, students must have achieved satisfactory academic progress in their first and second years of study and must fulfill the requirements of the University's Exchange Program.

ASIAA13424 Asian Studies Plan
Coordinator: Karyn Lai, School of Philosophy

The Bachelor of International Studies specialising in Asian Studies is an integrated program combining language study, a core program of study in International Studies, and a core program in Asia-related study, together with an approved overseas program to be undertaken during the third and fourth years of study.

The study of Asian societies and Asian languages is increasingly important for Australia. Australia is located in the Asian region, most of its trade is with Asia and Asian countries are becoming important sources of investment in Australia. They are also becoming important areas of investment by Australian companies. Australia’s future lies in increasing social, economic and political interaction with Asian countries.

Graduates who combine proficiency in an Asian language and knowledge of one or more Asian countries with a professional qualification will be in increasing demand with both private and public employers.

Enquiries may be directed to the Coordinator listed above.

COMDB13424 Development Studies Plan
Coordinator: Michael Johnson, School of Social Science and Policy

In many parts of the developing world large numbers of people live in poverty and the natural environment is under pressure, making it difficult to access clean water, energy sources and natural materials for housing and other uses. Understanding these and other related global trends and how they can be addressed is the concern of the Development Studies Plan, an interdisciplinary program that introduces students to the field of development studies. Central issues and themes in Development Studies examined in the program include the history and political economy of development; the causes of poverty and inequality; the relationship between the environment and economic development; the problems that confront remedial efforts at local, state and international levels; social, economic, environmental and political institution-building and the debate about globalisation and development.

The Bachelor of International Studies in Development Studies requires the completion of a sequence of courses in Development Studies and a core sequence of courses in International Studies, together with an approved overseas program undertaken during the third or fourth year of study. There is scope in the degree for students to study a language in depth. Courses in the Bachelor of International Studies in Development Studies are offered at all levels; they are taught in English and require no previous knowledge of other languages.

Enquiries may be directed to the Coordinator listed above.

EUROA13424 European Studies Plan
Coordinator: Centre for European Studies

Studying Europe is an essential part of defining Australia’s role as a predominantly ‘European’ country located in the Asia-Pacific. Any attempt...
Globalisation has emerged as a defining trend of the early twenty-first century. This process addresses the main themes and debates that relate to globalisation. It locates this process in relation to world history, international relations, international political economy, global development and large-scale social change. Questions about the rising levels of inequality world-wide, the environment, the changing role of nation-states and the nation-state system, the relationship between globalisation and transnational corporations (TNCs), the growing power of international institutions and organisations, and the significance of technological change will be examined. The relationship between globalisation and national identity will also be explored as will the wider social and cultural significance of recent international changes.

The Bachelor of International Studies specialising in Global Studies requires the completion of a core sequence of courses in Global Studies and International Relations. This includes a core sequence of courses in Globalisation and National Identity, Globalisation and Political Economy, Globalisation and Society, and Globalisation and the Environment. Students will also be required to undertake an approved overseas program to be undertaken during the third or fourth year of study. There is scope in the degree for students to study a language in depth. Courses in the Bachelor of International Studies in Globalisation are offered at all levels; they are taught in English and require no previous knowledge of other languages.

Enquiries may be directed to the Coordinator listed above.

MODLA13424 Language Studies Plan
Coordinator: Carmen Cabot, School of Modern Language Studies

Australia's position in the world requires us to communicate in an informed manner with our neighbours and trading partners. We also have a rich heritage from the diverse cultures from which we have come. This continues to influence our experience of the world and represents a considerable resource in Australia's current efforts to 'internationalise' its economic and cultural systems. Genuine proficiency in other languages not only greatly expands personal horizons, but also enhances later opportunities for overseas study and employment.

The Bachelor of International Studies specialising in Language Studies is designed for students wishing to prepare themselves for a professional career in the fields of translation, interpreting, teaching, or working with international organisations.
career in the languages area, in Australia or overseas. It requires major sequences in two languages other than English, with the opportunity to acquire real fluency and competence through the overseas study period prescribed for the degree. Both within the language majors themselves, and in the courses offered in International Studies, students will acquire a thorough understanding of the social and cultural contexts in which their chosen languages are used, and be ideally equipped to be articulate communicators and representatives for Australia overseas.

Enquiries may be directed to the Coordinator listed above.

**General Education Requirements**

Students are also required to complete 12 units of credit from the University's General Education program during their second and third years of study. For further information, please refer to the General Education Requirements entry under Faculty Information and Assistance.

**Academic Rules**

**Asian Studies Plan (ASIAA13424)**

To qualify for the award of the degree, a student must obtain, normally over four years of study, a minimum of 192 units of credit in approved courses including:

1. 48 units of credit at Level 1, including no more than 12 in any one area of study;
2. a major sequence of 42 units of credit from the core program in International Studies;
3. a sequence of 36 units of credit in one of the following Asian languages: CHIN Chinese, INDO Indonesian, JAPN Japanese, KORE Korean;
4. at least 36 units of credit in Asia-related courses, including ASIA1001 and ASIA1002 at Level 1:
   - ASIA1001 Introduction to Contemporary Asia
   - ASIA1002 Introducing Southeast Asia
   - ECON2116 Economics of Japanese Business and Government
   - ECON3112 The Newly Industrialising Economies of East Asia
   - ECON3113 Economic Development in ASEAN Countries
   - HIST2050 Women in Southeast Asian Societies
   - HIST2054 Modern Japan: Political Culture, Popular Culture
   - HIST2055 Modern India
   - HIST2084 The Vietnam War/The American War
   - HIST2300 Between Dictatorship and Democracy: Contemporary Southeast Asia
   - HIST2351 Chinese Civilisation, 1600 BC to 1600 AD
   - HPSC2550 Sustainable Development, Globalisation and the Third World
   - PHIL2519 Introduction to Chinese Philosophy
   - PHIL2520 Aspects of Chinese Thought
   - POLS2003 The Political Development of Contemporary China
   - POLS2014 Regional Cooperation and Conflict in Southeast Asia
   - POLS2036 Political Development in Northeast Asia
   - SOCA3211 Sustainable Development
   - SPAN2430 Miracles of Modernisation/Crisis of Capitalism: Asia and the Americas

5. 48 units of credit at an approved overseas university over two sessions (INST3101 and INST3102);

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**Bachelor of International Studies in Global Studies - Sample Program**

<table>
<thead>
<tr>
<th>Year</th>
<th>INST</th>
<th>UOC</th>
<th>GLST</th>
<th>UOC</th>
<th>Language/ Elective</th>
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**Bachelor of International Studies in Languages - Sample Program**

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6. 6 units of credit in an Upper Level ARTS course;
7. 12 units of credit from the University's General Education program at Upper Level;
8. The Pass degree of Bachelor of International Studies may be awarded with Distinction where a candidate has achieved a weighted average mark (WAM) of at least 75% in all courses completed since enrolment at UNSW which are credited towards the degree.

Honours Degree

To qualify for the award of the degree at Honours level, a student must:
9. have obtained 192 units of credit in approved courses, satisfied the appropriate prerequisites for entry into the Honours level program;
10. obtain a further 48 units of credit in an approved Honours program.

The Honours degree is awarded in three classes (Class 1, Class 2 in two Divisions, and Class 3). Students who fail to obtain one of these classes may proceed to graduate with the Pass degree.

Development Studies Plan (COMDB13424)

To qualify for the award of the degree, a student must obtain, normally over four years of study, a minimum of 192 units of credit in approved courses including:
1. 48 units of credit at level 1, including no more than 12 in any one area of study;
2. a major sequence of 42 units of credit from the core program in International Studies;
3. a sequence of 36 units of credit in Development Studies (COMD) including COMD1002, COMD2000, COMD2050 and ECON3110:
   - COMD1001 Development Studies: The Emergence of Underdevelopment;
   - COMD2010 (Un)Making the Third World: History and Global Development B;
   - COMD2050 Sustainable Development, Globalisation and the Third World;
4. a sequence of at least 36 units of credit in one of the following European languages: FREN French, GERS German, GREK Greek, ITAL Italian, RUSS Russian, SPAN Spanish;
5. 6 units of credit in an Upper Level ARTS course;
6. 48 units of credit at an approved overseas university over two sessions (INST3101 and INST3102);
7. 12 units of credit from the University's General Education program at Upper Level;
8. The Pass degree of Bachelor of International Studies may be awarded with Distinction where a candidate has achieved a weighted average mark (WAM) of at least 75% in all courses completed since enrolment at UNSW which are credited towards the degree.

Honours Degree

To qualify for the award of the degree at Honours level, a student must:
9. have obtained 192 units of credit in approved courses, satisfied the appropriate prerequisites for entry into the Honours level program;
10. obtain a further 48 units of credit in an approved Honours program.

The Honours degree is awarded in three classes (Class 1, Class 2 in two Divisions, and Class 3). Students who fail to obtain one of these classes may proceed to graduate with the Pass degree.

Global Studies Plan (GLSTA13424)

To qualify for the award of the degree, a student must obtain, normally over four years of study, a minimum of 192 units of credit in approved courses including:
1. 48 units of credit at level 1, including no more than 12 in any one area of study;
2. a major sequence of 42 units of credit from the core program in International Studies;
3. a sequence of 36 units of credit in Global Studies (GLST) including GLST1100, GLST2104 and GLST3000:
   - GLST1100 Introduction to Globalisation;
   - GLST1200 Women, Gender and World History;
   - GLST2101 (Un)Making the Third World: History and Global Development B;
   - GLST2102 (Un)Making the Third World: History and Global Development A.
**BMus Requirements**

BMus students must take part in at least two of the performance ensembles offered by the School, one of which must be a major performing ensemble.

**General Education Requirements**

Students are also required to complete 12 units of credit from the University's General Education program, normally during their second and third years of study. For further information, please refer to the General Education Requirements entry under Faculty Information and Assistance.
Academic Rules

Pass Degree
To qualify for the award of the degree at Pass level, a student must obtain, normally over three years of study, a minimum of 144 units of credit in approved courses including:
1. 96 units of credit in the relevant sequences in Musicology, Musicianship and Professional Practices;
2. an additional 24 Level 1 and 6 Upper Level units of credit from Lists A, B or C of the BA Rules, including no more than 12 Level 1 in any one sequence;
3. 12 units of credit from the General Education program, normally taken in the second and third year of study;
4. 6 units of credit from a third year ARTS elective or equivalent course.
5. The Pass degree of Bachelor of Music may be awarded with Distinction where a candidate has achieved a weighted average mark (WAM) of at least 75% in all courses completed since enrolment at UNSW which are credited towards the degree.

Honours Degree
To qualify for the award of the degree at Honours level in one or two schools/specialisations, a student must:
6. obtain 144 units of credit in accordance with 1.-4. above and satisfied the appropriate prerequisites for entry to the Honours level program;
7. obtain a further 48 units of credit in an approved Honours program.

Musicology and Musicianship Options
MUSC2101 Music of the Baroque
MUSC2111 Introduction to Musicology
MUSC2112 Music of the 18th and 19th Centuries
MUSC2132 Music of the late Middle Ages and Renaissance
MUSC2201 Aboriginal Music
MUSC2332 Electronic Music
MUSC3101 Professional and Ethical Practices in Music
MUSC3112 Seminar in Music
MUSC3131 Jazz and Popular Music
MUSC3162 Twentieth Century Music
MUSC3212 Music of India
MUSC3301 Music Analysis
MUSC3302 Orchestration and Arrangement
MUSC3331 Advanced Electronic Music
MUSC4650 Conducting

Further Information
Admission to the program is subject to a satisfactory audition/interview and an acceptable level of attainment in year 12 studies or equivalent. Assumed knowledge: HSC Music 2 or Extension or equivalent qualification.

For more information, please refer to the School's website: http://music.arts.unsw.edu.au/futurestudents/undergraduate.php

3426 Bachelor of Music Bachelor of Education

BMusBEd

Typical Duration
4 years

Minimum UOC for Award
192 units of credit

Typical UOC per Session
24 units of credit

Program Description
The School of Music and Music Education offers a four-year full-time double degree for intending specialist music educators leading to the award of Bachelor of Music Bachelor of Education (BMusBEd).

Program Objectives and Learning Outcomes
The BMusBEd offers an integrated training in six major areas: Musicology, Musicianship, Music Education Studies, Performance Studies, Education Studies and Contextual Studies. Graduates are qualified to teach classroom and instrumental/vocal music from kindergarten to Year 12, and are accredited to teach in all Australian states.

Program Structure
To qualify for the Bachelor of Music, Bachelor of Education at Pass level, a student must obtain at least 192 units of credit normally taken from the six major components listed below:

1. **Musicology and Musicianship (66 units of credit)**
   MUSC1101 Music Reinvented
   MUSC1302 Musicianship A
   MUSC2201 Aboriginal Music
   MUSC2301 Musicianship B
   MUSC2302 Musicianship C
   MUSC2332 Electronic Music
   3 Musicology Options (18 units of credit):
   MUSC3101 Professional and Ethical Practices in Music
   MUSC3131 Jazz and Popular Music (highly recommended)
   2 Musicianship electives (12 units of credit)

2. **Music Education (36 units of credit)**
   MUSC1601 Introduction to Music Education
   MUSC2601 Introduction to Secondary Music Education
   MUSC3601 Specialist Music Education
   MUSC3602 Creativity in Music Education
   MUSC4601 Advanced Music Education
   MUSC4602 Music Teaching Experience

3. **Performance Studies (36 units of credit)**
   MUSC1501 Music Performance 1A
   MUSC1502 Music Performance 1B
   MUSC2501 Music Performance 2A
   MUSC2502 Music Performance 2B

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### Bachelor of Music - Sample Program

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| Total | 30 | 30 | 36 | 36 | 12 | 144 |
### Bachelor of Music Bachelor of Education - Sample Program

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MUSC3501  Advanced Music Performance 3A  
MUSC3502  Advanced Music Performance 3B

### 4. Education Studies (24 units of credit)

Four courses (each of 6 units of credit) selected from core and elective courses offered by the School of Education. The core courses EDUC1101 Educational Psychology 1 and either EDUC1103 Educational Psychology 2 or EDUC1104 Social Perspectives in Education are prerequisites for an additional three electives (of 12 units of credit) offered by the School of Education. The Year 4 core courses, EDUC4093 Special Education and EDUC4095 Gifted and Talented Students: Recognition and Response are required for registration by the NSW Department of Education and Training. At the discretion of the Program Coordinator for Music Education, students may be permitted to substitute MUSC3612 Principles and Processes of Music Education (6 units of credit) for one of the two School of Education electives.

### 5. Contextual Studies (18 units of credit)

A choice of courses available from the Faculty of Arts and Social Sciences programs.

### 6. General Education (12 units of credit)

Courses totalling 12 units of credit from those approved for students in the Faculty of Arts and Social Sciences.

### Program Requirements

The student's training involves practice teaching sessions in Years 1, 2, 3 and 4 in a variety of different schools.

### Honours Level

Prerequisite: Completion of all requirements for the Pass degree with an average of at least credit level in either music (in the case of Honours in music) or music education (in the case of Honours in music education) courses.

### Academic Rules

**Pass Degree**

To qualify for the award of the degree at Pass level, a student must obtain, normally over four years of study, a minimum of 192 units of credit in approved courses including:

1. the relevant sequences in Music, Music Education, Education and Performance Studies;
2. an additional 6 Level 1 and 12 Upper level units of credit from Lists A, B or C of the BA Rules;
3. 12 units of credit from the General Education program, normally taken in the second and third year of study.
4. The Pass degree of Bachelor of Music Bachelor of Education may be awarded with Distinction where a candidate has achieved a weighted average mark (WAM) of at least 75% in all courses completed since enrolment at UNSW which are credited towards the degree.

**Honours Degree**

To qualify for the award of the degree at Honours level in one or two schools/specialisations, a student must:

5. have obtained 192 units of credit in accordance with 1.-3. above and satisfied the appropriate prerequisites for entry to the Honours level program;
6. obtain a further 48 units of credit in an approved Honours program.

The Honours degree is awarded in three classes (Class 1, Class 2 in two Divisions and Class 3). Students who fail to obtain one of these classes may proceed to graduate with the Pass degree.

### Admission Requirements

Entry to the program is subject to a satisfactory audition/interview and acceptable level of attainment in Year 12 studies or equivalent. Assumed knowledge: HSC Music 2 or Extension or equivalent qualification.


### 3427 Bachelor of Music Bachelor of Arts

**BMus BA**

**Typical Duration**

4 years

**Minimum UOC for Award**

192 units of credit

**Typical UOC per Session**

24 units of credit

### Program Description

The School of Music and Music Education offers a four-year double degree leading to the award of Bachelor of Music Bachelor of Arts. The BMusBA provides an opportunity for students to undertake all of the courses required for the Bachelor of Music degree, including the Music Performance stream, as well as 84 units of credit from the Bachelor of Arts degree, including an approved major of 42 units of credit.

Entry to the program is subject to a satisfactory audition/interview and acceptable level of attainment in Year 12 studies or equivalent. Assumed knowledge: HSC Music 2 or Extension or equivalent qualification.

### Program Objectives and Learning Outcomes

The Bachelor of Music/Bachelor of Arts develops the full range of music skills in the areas of musicology, ethnomusicology, performance, composition, music technology and jazz studies as well as the skills and perspectives provided by more extensive studies in other parts of the Faculty.

The whole range of professional careers open to BMus graduates is available to BMusBA graduates. In addition, the BA qualification offers opportunities in public and private sector administrative and policy positions.

### Program Structure

The program is as follows:

**Year 1**

MUSC1101  Music Reinvented  
MUSC1302  Musicianship A  
MUSC1401  Professional Practices A  
MUSC1402  Professional Practices B  
First year BA courses (24 units of credit)
Bachelor of Music Bachelor of Arts - Sample Program

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Year 2
- MUSC2301 Musicianship B
- MUSC2302 Musicianship C
- MUSC2401 Professional Practices C
- MUSC2402 Professional Practices D
- 2 Upper Level Musicology Options (12 units of credit)
- 2 Upper Level BA courses (12 units of credit)

Year 3
- MUSC3401 Advanced Professional Practices A
- MUSC3402 Advanced Professional Practices B
- 2 Upper Level Musicology Options (12 units of credit)
- Upper Level BA courses (18 units of credit)
- General Education courses (6 units of credit)

Year 4
- Musicianship Option (6 units of credit)
- Musicology Option (6 units of credit)
- Either MUSC3101 Professional and Ethical Practices in Music or a course from the ARTS3000 series
- Upper Level BA courses (24 units of credit)
- General Education courses (6 units of credit)

BMus Requirements
BMus students must take part in at least two of the performance ensembles offered by the School, one of which must be a major performing ensemble.

BA Options
The BA courses must include one major sequence for the BA degree (List A) in addition to the Music major.

Academic Rules

Pass Degree
To qualify for the award of the degree at Pass level, a student must obtain, normally over four years of study, a minimum of 192 units of credit in approved courses including:

1. a total of 48 Level 1 units of credit;
2. no more than 12 Level 1 units of credit in any one sequence of study from Lists A, B or C of the BA Rules, other than MUSC courses;
3. 102 units of credit in the relevant sequences in Musicology, Musicianship and Professional Practices;
4. a major sequence (other than Music) of 42 units of credit from List A of the BA Rules;
5. 36 units of credit outside the major sequence in 4. above from Lists A, B or C of the BA Rules;
6. 12 units of credit from the General Education program, normally taken in the second and third year of study;
7. 6 units of credit from a third year ARTS elective or equivalent course;
8. The Pass degree of Bachelor of Music Bachelor of Arts may be awarded with Distinction where a candidate has achieved a weighted average mark (WAM) of at least 75% in all courses completed since enrolment at UNSW which are credited towards the degree.

Honours Degree
To qualify for the award of the degree at Honours level in one or two schools/specialisations, a student must:

9. have obtained 192 units of credit in accordance with 1.-7. above and satisfied the appropriate prerequisites for entry to the Honours level program;
10. obtain a further 48 units of credit in an approved Honours program.

The Honours degree is awarded in three classes (Class 1, Class 2 in two Divisions and Class 3). Students who fail to obtain one of these classes may proceed to graduate with the Pass degree.

4031 Bachelor of Social Work

BSW

Typical Duration
4 years

Minimum UOC for Award
192 units of credit

Typical UOC per Session
24 units of credit

Program Description
The School of Social Work offers a four-year degree leading to the award of Bachelor of Social Work (BSW). The BSW provides an opportunity for students to undertake core Social Work courses, which include studies in the areas of social work practice, social and behavioural sciences, and contextual studies.

Program Objectives and Learning Outcomes
The Bachelor of Social Work program requires four years of full-time study. It is designed to prepare students for the professional practice of social work including work in the wider field of welfare. The essence of social work is working with people, including individuals, couples, families, groups, organisations or communities, and this will span people of any age, from any walk of life, or from any ethnic or racial background.
Program Structure

Year 1
SOCW1001 Introduction to Social Work
SOCW1002 Communication and Social Work
SOCW1003 Human Behaviour 1
Psychology elective
Sociology elective
Level 1 Arts elective
Level 1 Arts elective

Year 2
SOCW2001 Human Behaviour 2
SOCW2002 Society and Social Work 1
SOCW2003 Social Work Practice: Individuals, Families & Groups 1
SOCW2004 Society and Social Work 2
SOCW2005 Research for Social Work
SOCW2006 Social Work Practice - Community Work
SOCW2100 Aboriginal People and Social Work
General Education course
General Education course
SOCW2007 Bridging (for students exempt from 1st year)

Year 3
SOCW3001 Social Work Practice - Third Year Practicum
SOCW3002 Social Work Practice: Individuals, Families & Groups 2
SOCW3004 Social Policy 1
SOCW3006 Socio-Legal Practice
SOCW3008 Social Work Practice
Research elective
General Education course
General Education course

Year 4
SOCW4002 Social Work Practice in Organisations
SOCW4003 Social Work Practice
SOCW4004 Social Philosophy
SOCW4006 Social Policy 2
SOCW4010 Social Work Practice

Program Requirements - Field Education

An integral aspect of the program is organised learning in the field and this is a basic requirement for the professional recognition of the degree. In the field education courses, a field educator, usually in a social welfare agency, is responsible for a student learning to apply the principles of professional practice in an actual practice setting. From year 3, a total of 140 seven-hour days are taken up in this way. Forty of these days are scheduled during academic recess periods. A student's two field education placements are in more than one type of practice setting. The settings vary and can include medical, psychiatric, local government, community health, community, family and child welfare, services to groups with disabilities, services to the aged, services to migrants, income security, and corrective services. Non-government social welfare agencies and all levels of government are utilised. For some students, their second field education placement may be located outside the Sydney metropolitan area.

General Education Requirements

Students are also required to complete 12 units of credit from the University's General Education program, normally during their second and third years of study. For further information, please refer to the General Education Requirements entry under Faculty Information and Assistance.

Honours

Students may graduate with Honours by enrolling in the Honours program in the third year of the degree. Students must complete SOCW3005 Research Honours in Year 3 and SOCW4006 Social Policy Honours in Year 4. Students are then required to enrol for an additional fifth year for one session to complete an Honours Thesis (SOCW4800) of 12,000 - 15,000 words.

The Honours degree is awarded in three classes (Class 1, Class 2 in two Divisions and Class 3). Students who fail to obtain one of these classes may proceed to graduate with the Pass degree.

Academic Rules

Pass Degree

To qualify for the award of the degree at Pass level, a student must obtain, normally over four years of study, a minimum of 192 units of credit in approved courses including:

1. the prescribed sequences in Social Work courses and electives;
2. a total of 18 Level 1 units of credit, including no more than 12 in any one sequence of study, from Lists A, B or C of the BA Rules;
3. 12 units of credit from the General Education program, normally taken in the second and third year of study.
4. The Pass degree Bachelor of Social Work may be awarded with Distinction where a candidate has achieved a weighted average mark (WAM) of at least 75% in all courses completed since enrolment at UNSW which are counted towards the degree.

Honours Degree

To qualify for the award of the degree at Honours level, a student must:

5. have obtained 192 units of credit in accordance with 1.-3. above and satisfied the appropriate prerequisites for entry to the Honours level program;
6. obtain a further 24 units of credit in an approved Honours program.

The Honours degree is awarded in three classes (Class 1, Class 2 in two Divisions and Class 3). Students who fail to obtain one of these classes may proceed to graduate with the Pass degree.
Professional Recognition
Graduates with the degree of Bachelor of Social Work from UNSW are eligible for membership of the Australian Association of Social Workers.

Further Requirements
It is a requirement that students who are undertaking placements in certain government departments and related organisations undergo a criminal record check.

4035 Bachelor of Social Work Bachelor of Arts

BSW BA
Typical Duration
5 years
Minimum UOC for Award
240 units of credit
Typical UOC per Session
24 units of credit

Program Description
The School of Social Work offers a five-year double degree leading to the award of Bachelor of Social Work Bachelor of Arts. The BSW BA provides an opportunity for students to undertake all the courses required for the Bachelor of Social Work program, as well as 60 units of credit from the Bachelor of Arts program, including an approved major sequence of 42 units of credit (see List A of the BA rules).

Program Objectives and Learning Outcomes
The Bachelor of Social Work is designed to prepare students for the professional practice of social work including work in the wider field of welfare. The essence of social work is working with people, including individuals, couples, families, groups, organisations or communities and this will span people of any age, from any walk of life, or from any ethnic or racial background.

Program Structure
The program is as follows:

Year 1
SOCW1001 Introduction to Social Work
SOCW1002 Communication and Social Work
SOCW1003 Human Behaviour 1
Psychology elective
Sociology elective
2 x Arts Major Level 1
1 x Arts Level 1 elective

Year 2
SOCW2001 Human Behaviour 2
SOCW2002 Society and Social Work 1
SOCW2004 Society and Social Work 2
SOCW2005 Research for Social Work
SOCW2100 Aboriginal People and Social Work
2 x Arts Upper Level electives
2 x General Education electives
SOCW2007 Bridging (for students exempt from 1st year)

Year 3
SOCW3001 Social Work Practice: Individuals, Families & Groups 1
SOCW3006 Social Work Practice - Community Work
SOCW3004 Social Policy 1
Research elective
3 x Arts Major Upper Level
2 x General Education electives

Year 4
SOCW3001 Social Work Practice - Third Year Practicum
SOCW3002 Social Work Practice: Individuals, Families & Groups 2
SOCW3006 Socio-Legal Practice
SOCW3008 Social Work Practice
2 x Arts Major Upper Level
3 x Arts elective Upper Level

Year 5
SOCW4002 Social Work Practice in Organisations
SOCW4003 Social Work Practice
SOCW4004 Social Philosophy
SOCW4006 Social Policy 2
SOCW4010 Social Work Practice

Academic Rules
Pass Degree
To qualify for the award of the degree at Pass level, a student must obtain, normally over five years of study, a minimum of 240 units of credit in approved courses including:
1. the prescribed sequences in Social Work courses and electives;
2. a total of 48 Level 1 units of credit;
3. no more than 12 Level 1 units of credit in any one sequence of study, from Lists A, B or C of the BA Rules, other than SOCW courses;
4. a major sequence of 42 units of credit from List A of the BA Rules;
5. 12 units of credit from the General Education program.
6. The Pass degree Bachelor of Social Work Bachelor of Arts may be awarded with Distinction where a candidate has achieved a weighted average mark (WAM) of at least 75% in all courses completed since enrolment at UNSW which are credited towards the degree.

Bachelor of Social Work Bachelor of Arts - Sample Program

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Honours Degree
To qualify for the award of the degree at Honours level in the Bachelor of Social Work or Bachelor of Arts, a student must have satisfactorily completed a prescribed period of extra study. The Honours degree is awarded in three classes (Class 1, Class 2 in two Divisions and Class 3). Students who fail to obtain one of these classes may proceed to graduate with the Pass degree.

Field Education
An integral aspect of the program is organised learning in the field, and this is a basic requirement for the professional recognition of the degree. In the field education courses, a field educator, usually in a social welfare agency, is responsible for a student learning to apply the principles of professional practice in an actual practice setting. From Year 3, a total of 140 seven-hour days are taken up in this way. Forty of these days are scheduled during academic recess periods. A student's two field education placements are in more than one type of practice setting. The settings vary and can include medical, psychiatric, local government, community health, community, family and child welfare, services to groups with disabilities, services to the aged, services to migrants, income security, and corrective services. Non-government social welfare agencies and all levels of government are utilised. For some students, their second field education placement may be located outside the Sydney metropolitan area.

Professional Recognition
Graduates with the degree of Bachelor of Social Work from UNSW are eligible for membership of the Australian Association of Social Workers.

Further Information
It is a requirement that students who are undertaking placements in certain government departments and related organisations undergo a security check.

4036 Bachelor of Social Work Bachelor of Social Science

BSW BSoSc
Typical Duration
5 years
Minimum UOC for Award
240 units of credit
Typical UOC per Session
24 units of credit

Program Description
The School of Social Work offers a five-year double degree leading to the award of a Bachelor of Social Work Bachelor of Social Science. The BSW BSoSc provides an opportunity for students to undertake all the courses required for the Bachelor of Social Work program, as well as a prescribed 48 units of credit from the School of Social Science and Policy.

Program Objectives and Learning Outcomes
The BSW BSoSc is designed to prepare students for the professional practice of social work while providing extended study in social science, policy analysis and social research.

Program Structure
Year 1
SOCW1001 Introduction to Social Work
SOCW1002 Communication and Social Work
SOCW1003 Human Behaviour 1
SLSP1000 Social Science & Policy
Psychology elective
Sociology elective
2 x Arts Level 1 electives

Year 2
SOCW2001 Human Behaviour 2
SOCW2002 Society and Social Work 1
SOCW2004 Society and Social Work 2
SOCW2005 Research for Social Work
SOCW2100 Aboriginal People & Social Work
SLSP2000 Political Economy & the State
SLSP2002 Policy Analysis Case Studies
1 x Upper Level elective
SOCW2007 Bridging (for students exempt from 1st year)

Year 3
SOCW2003 Social Work Practice: Individuals, Families & Groups 1
SOCW2006 Social Work Practice - Community Work
SOCW3004 Social Policy 1
SLSP2001 Applied Social Research 1
SLSP3000 Social Theory and Policy Analysis
4 x General Education electives
1 x Upper Level elective

Year 4
SOCW3001 Social Work Practice - Third Year Practicum
SOCW3002 Social Work Practice: Individuals, Families & Groups 2
SOCW3006 Socio-Legal Practice
SOCW3008 Social Work Practice - Selected Studies 1
SLSP3001 Applied Social Research 2
SLSP3002 Social Science and Policy Project
SLSP3911 Inquiry and Interpretation

Year 5
SOCW4002 Social Work Practice in Organisations
SOCW4003 Social Work Practice - Selected Studies 2

Bachelor of Social Work Bachelor of Social Science - Sample Program

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Field Education
An integral aspect of the program is organised learning in the field and this is a basic requirement for the professional recognition of the degree. In the field education courses, a field educator, usually in a social welfare agency, is responsible for a student learning to apply the principles of professional practice in an actual practice setting. From Year 3, a total of 140 seven-hour days are taken up in this way. Forty of these days are scheduled during academic recess periods. A student's two field education placements are in more than one type of practice setting. The settings vary, and can include medical, psychiatric, local government, community health, community, family and child welfare, services to groups with disabilities, services to the aged, services to migrants, income security, and corrective services. Non-government social welfare agencies and all levels of government are utilised. For some students, their second field placement may be located outside the Sydney metropolitan area.

Academic Rules
Pass Degree
To qualify for the award of the degree at Pass level, a student must obtain, normally over five years of study, a minimum of 240 units of credit in approved courses including:
1. the prescribed sequence of 156 units of credit in courses for the Bachelor of Social Work;
2. the prescribed core sequence of 48 units of credit in courses from the Bachelor of Social Science;
3. a total of 48 Level 1 units of credit;
4. 24 units of credit from Lists A, B or C (excepting SOCW and SLSP) of the BA Rules;
5. 12 units of credit from the General Education program.
6. The Pass degree Bachelor of Social Work Bachelor of Social Science may be awarded with Distinction where a candidate has achieved a weighted average mark (WAM) of at least 75% in all courses completed since enrolment at UNSW which are credited towards the degree.

Honours Degree
To qualify for the award of the degree at Honours level in the Bachelor of Social Work or Bachelor of Social Science, a student must have satisfactorily completed a prescribed period of extra study.

The Honours degree is awarded in three classes (Class 1, Class 2 in two Divisions and Class 3). Students who fail to obtain one of these classes may proceed to graduate with the Pass degree.

Professional Recognition
Graduates with the degree of Bachelor of Social Work from UNSW are eligible for membership of the Australian Association of Social Workers.

Further Requirements
It is a requirement that students who are undertaking placements in certain government departments and related organisations undergo a security check.

4055 Bachelor of Arts Bachelor of Education

BABEd

Typical Duration
4 years

Minimum UOC for Award
192 units of credit

Typical UOC per Session
24 units of credit

Program Description
The combined degree of Bachelor of Arts Bachelor of Education at pass level is a four-year program for intending secondary school teachers. Students combine studies in two approved teaching disciplines with both theoretical and practical aspects of education. In the final two years of the program, students develop skills in classroom competence and spend 50 days on supervised teaching practice in allocated secondary schools.

Program Objectives and Learning Outcomes
The combined degree of Bachelor of Arts Bachelor of Education at pass level is a four-year program designed to prepare students for teaching in secondary schools.

Program Structure
To qualify for the Bachelor of Arts Bachelor of Education at pass level it is necessary to complete at least 192 units of credit.

<table>
<thead>
<tr>
<th>Year</th>
<th>Major Sequence 1</th>
<th>UOC</th>
<th>Major Sequence 2</th>
<th>UOC</th>
<th>Other Courses</th>
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<tr>
<td>1</td>
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<td>EDST4092</td>
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</tr>
</tbody>
</table>

Total | 42 | 42 | 30 | 78 | 192 |
1. Education courses

Students must complete two Level 1 courses (12 units of credit) including EDST1101, EDST3090 (6 units of credit) and EDST4093 (3 units of credit) are compulsory Year 3 courses. EDST4095, EDST4081, EDST4094 and EDST4092 (27 units of credit) are compulsory Year 4 courses. A further 18 units of credit must be selected from Education Upper Level elective courses for Years 2, 3 or 4.

2. Teaching Method courses

Students must complete 12 units of credit in approved teaching method courses from two single method courses over years 3 and 4.

3. Arts courses as Preparation for Teaching

Major sequences of at least 42 units of credit must be completed in two schools/divisions to provide suitable background for teaching the following school subjects:

Chinese, Drama (Theatre), Economics/Business Studies, English, French, Geography, German, History, Indonesian, Japanese, Literacy/English as a Second Language (ESL)*, Spanish.

*A major sequence in English is the most appropriate background for Literacy/ESL teaching. Students who wish to teach Literacy/ESL may undertake a Linguistics major but they must also include two Level 1 English courses in their program.

Students should be aware that certain combinations of teaching courses may not lead to satisfactory employment opportunities and may result in timetable difficulties in Year 4. For more details, consult the School of Education.

4. Other Arts courses

The remaining Arts courses in Years 1 and 2 (12 Level 1, 6 Upper Level) should be selected from those available in the Faculty of Arts and Social Sciences.

5. General Education courses

12 units of credit must be selected from those approved for students in the Faculty of Arts and Social Sciences.

6. English Proficiency

Proficiency in English is essential in all Education courses. Prospective teachers must be able to communicate effectively with school students and staff members.

Honours Level

Students may elect to undertake an Honours program in either their fourth or fifth year of study (ie before the intensive teacher preparation year or afterwards). The Honours program may be undertaken in either Education or in an Arts discipline. Students with a good credit average in Year 1 are normally invited to undertake additional study in the relevant discipline over Years 2 and 3.

Academic Rules

Pass degree

To qualify for the award of the degree at Pass level, a student must obtain, normally over four years of study, a minimum of 192 units of credit in approved courses including:

1. a total of 48 Level 1 units of credit;
2. no more than 12 Level 1 units of credit in any one sequence of study from Lists A, B and C or the BA Rules;
3. 78 units of credit in EDST Education including compulsory core courses in Years 1, 3 and 4;
4. two sequences of 42 units of credit from List E below;
5. an additional 6 Upper Level units of credit from Lists A, B and C of the BA Rules;
6. 12 units of credit from the General Education program, normally taken in the second, third or fourth year of study.

List E

CHIN Chinese, ENGL English*, ECON Economics, FREN French, GEOH/GEOS Geography, GERS German, HIST History, INDO Indonesian, JAPN Japanese, LING Linguistics, MEFT Theatre, SPAN Spanish

*A major sequence in ENGL English is the most appropriate background for Literacy/ESL teaching.

7. The Pass degree Bachelor of Arts Bachelor of Education may be awarded with Distinction where a candidate has achieved a weighted average mark (WAM) of at least 75% in all courses completed since enrolment at UNSW which are credited towards the degree.

Honours Degree

To qualify for the award of the degree at Honours level in one or two schools/specialisations, a student must:

8. have obtained 192 units of credit in accordance with 1.–6. above and satisfied the appropriate prerequisites for entry to the Honours level program;
9. obtain a further 48 units of credit in an approved Honours program. The Honours degree is awarded in three classes (Class 1, Class 2 in two Divisions and Class 3). Students who fail to obtain one of these classes may proceed to graduate with the Pass degree.

Further Requirements

A police record check is required before students can be employed as a teacher and all schools require student teachers and potential applicants to have signed the mandatory “Working with Children Check”.

Combined Degree Programs

The Faculty strongly encourages combined program study. The following programs are available to students from other faculties:

Faculty of the Built Environment

Bachelor of Architecture/Bachelor of Arts (3262)
BArch BA (Faculty of Built Environment)
Bachelor of Architecture/Bachelor of Social Science (3263)
BArch BSoSc (Faculty of Built Environment)

College of Fine Arts

Bachelor of Art Theory/Bachelor of Arts (4806)
BArrTh BA (College of Fine Arts)
Bachelor of Art Theory/Bachelor of Social Science (4807)
BArrTh BSoSc (College of Fine Arts)
Bachelor of Fine Arts/Bachelor of Arts (4812)
BFA BA (College of Fine Arts)

Faculty of Commerce and Economics

Bachelor of Commerce/Bachelor of Arts (3525)
BCom BA (Faculty of Commerce and Economics)
Bachelor of Commerce/Bachelor of Social Science (3327)
BCom BSoSc (Faculty of Commerce and Economics)
Bachelor of Economics/Bachelor of Arts (3526)
BEC BA (Faculty of Commerce and Economics)
Bachelor of Economics/Bachelor of Social Science (3528)
BEC BSoSc (Faculty of Commerce and Economics)

Faculty of Engineering

Bachelor of Engineering/Bachelor of Arts (various)
BE BA (Faculty of Engineering)

Faculty of Law

Bachelor of Arts/Bachelor of Laws (4760)
BA LLB (Faculty of Law)
Bachelor of Arts (Media & Communications)/Bachelor of Laws (4764)
BA (Media) LLB (Faculty of Law)
Bachelor of International Studies/Bachelor of Laws (4765)
BIntSt LLB (Faculty of Law)
Bachelor of Social Science/Bachelor of Laws (4761)
BSoSc LLB (Faculty of Law)
Bachelor of Social Work/Bachelor of Laws (4785)
BSW LLB (Faculty of Law)

Faculty of Medicine

Bachelor of Arts/Bachelor of Medicine (3841)
BA BSc(Medi)MBBS (Faculty of Medicine)

Faculty of Science

Bachelor of Environmental Science/Bachelor of Arts (3932)
BEnvSc BA (Faculty of Science)
Bachelor of Science/Bachelor of Arts (3930/3931)
BSc BA (Faculty of Science)
Bachelor of Science/Bachelor of Education (4075)
BSc BEd (Faculty of Science)
Bachelor of Science/Bachelor of Social Science (3935/3936)
BSc BSoSc (Faculty of Science)

For details of these combined degree programs, consult the relevant Faculty.
Plan Rules and Information

Aboriginal Studies
Coordinator: Celia Moon, Academic Coordinator, Nura Gili Indigenous Programs Centre
Office: Nura Gili Resource Centre
Tel: (02) 9385 3805
Email: nuragili@unsw.edu.au

Aboriginal Studies provides an integrated, progressive exploration of Indigenous cultures, society and epistemologies and Australian race relations historically and in contemporary Australian society. Aboriginal Studies places Indigenous experience and Indigenous conceptual frameworks at the centre of the program. All courses are taught by academic staff of Nura Gili with input from elders from the local Indigenous community and Indigenous specialists. Aboriginal Studies critiques received notions of Australian history and identity, policy and contemporary relations between non-Indigenous and Indigenous Australians.

The Level 1 core courses offer students an introduction to Aboriginal identity and culture and to how Indigenous Australians represent themselves both here in Australia and overseas. These foundational courses provide the key conceptual frameworks which set the context for the Aboriginal Studies program. Level 2 courses provide a detailed political historical analysis of Aboriginal cultures and their interface with non-Indigenous Australia from pre-colonisation to contemporary Australia across a range of areas including health, law, education, arts and culture. Level 3 courses provide theoretical frameworks from anthropology, sociology, politics, social work, cultural heritage, gender studies, race theory and Indigenous research perspectives, of the complexities of inter-racial relations in Australia. Courses may be studied individually and are all designed to be self-contained. They are available to all students within the Faculty and many from outside. As well as providing the basis for a major sequence, Aboriginal Studies courses also form excellent ‘extensions’ to majors in Australian Studies, History, History and Philosophy of Science, Politics and International Relations, Sociology and Anthropology, Social Work and Film and Theatre.

Major Sequence
Aboriginal Studies may be taken as a major sequence. This requires the completion of 36 units of credit in Aboriginal Studies’ approved courses. Students must complete the program’s two core courses at Level 1 (ATS11001 and ATS11002) and two core courses at Level 2 (ATS21001 and ATS21002) as well as at least two Level 3 Aboriginal Studies courses, at least one in session one (ATS31001; ATS31003) and one in session two (ATS31002; ATS31003; ATS31004).

First Year Core Courses (12 UOC)
ATS11001 Introduction to Aboriginal People and Society S1
ATS11002 Australia: Representations, Identities and Difference S2

Second Year Core Courses (12 UOC)
ATS21001 Aboriginal Australia: The Pre-Colonial and Colonial Experience S1
ATS21002 Aboriginal Australia: The Post-Colonial Experience S2

Third Year Core Courses (12 UOC)
ATS31001 Colonisation and Indigenous Identity Formation S1
ATS31002 Indigenous Australia: Gendered Identities S2
ATS3103 Cultural Heritage Management S2
ATS3104 Aboriginal People and Social Work S2
ATS3105 Whiteness - Beyond Colour: Identity and Difference S1

Art History and Theory
Coordinator: Peter McNeil, School of Art History and Theory
Tel: (02) 9385 0777
Email: artth@unsw.edu.au
Website: www.cola.unsw.edu.au/schools/arthistorytheory/

Courses in Art History and Theory are offered by the School of Art History and Theory at the College of Fine Arts and taught on the Paddington Campus. There may be a limit on the number of places available to Arts students.

Art History and Theory offers an interdisciplinary approach to the study of visual arts and culture. These courses, taken individually or as a plan, will provide an intriguing and useful ‘set’ of strategies for understanding art objects, images and visual culture.

Courses offered within the Art History and Theory program include such topics as notions of Western art history, forms of visuality, the relationships of Western to non-Western art, the mass culture of television, films, the popular press, advertising and the culture of museums. Other issues explored include the social relationship of art and design to the themes of science, sexuality, trauma and memory. Students may choose courses which lay foundations for professional practice in art writing and arts-related work. (The School also offers a wide range of electives and General Education courses, which complement the list below.)

Major Sequence
A major sequence consists of 36 units of credit in Art Theory courses offered by the College of Fine Arts (12 Level 1 and 24 Upper Level units of credit).

Level 1
SAHT1211 Theories of the Image
SAHT1212 Theories of Art History and Culture
SAHT1221 Contexts of Art
SAHT1122 The Production of Art

Upper Level
SAHT2211 Eurocentred Visions: Grand Narratives in Western Art
SAHT2212 Art and Cultural Difference
SAHT2213 Memory and Self
SAHT2214 Approaches to Australian Art
SAHT2221 Writing for Art and Design
SAHT2222 Methods of Research and Writing on Art and Design
SAHT3211 Art after Postmodernism
SAHT3212 Art and Everyday Life
SAHT3213 Museum Studies: Exhibitions, Collections and Material Culture

Asian Studies
Coordinator: A/Prof David Reeve, Department of Chinese and Indonesian Studies
Office: Room 238, Morven Brown Building
Tel: (02) 9385 1019
Email: d.reece@unsw.edu.au

Asian Studies is an interdisciplinary area of study focusing on modern Asian societies and cultures and their historical traditions, with a particular focus on China, Indonesia, Japan and Korea. Asian Studies brings together various perspectives and approaches from culture, Economics, History, Politics, Sociology, literature and media to explore the changes that have happened in the Asian region over the last century, the integration of Asian countries in a global environment and Australia’s relations with its Asian neighbours.

Students who wish to specialise in Asian studies are encouraged to learn a relevant Asian language.

Major Sequence
At an undergraduate level, the study of Asian Studies is available in the Bachelor of Arts and related combined degree programs. Students may take a major sequence in Asian Studies as their second major, together with a major in a school-based discipline within the Faculty of Arts and Social Sciences. Alternatively, students may take one or more Asian Studies courses toward the general requirements of their Bachelor degree.

Students wishing to gain a major sequence in Asian Studies must obtain 6 Level 1 and 36 Upper Level (or 12 Level 1 and 30 Upper Level) units of credit from the following courses. Students who wish to count any other course towards their major sequence in Asian Studies should consult the Coordinator.

Level 1
ASIA1001 Introduction to Contemporary Asia S2
ASIA1002 Introducing Southeast Asia S1

Or 12 UOC from approved language courses in Chinese, Japanese, Korean or Indonesian language.

Upper Level
CHIN2301 Chinese Social and Cultural Change through Visual Art S1
CHIN2312 Chinese Cinema S1
CHIN2303 Gender in Contemporary Chinese Culture and Society S2
### List A: First Year Core Courses

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<thead>
<tr>
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<tr>
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<td>Australia: Representations, Identities and Difference</td>
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<tr>
<td>AUS11003</td>
<td>Paradise Lost? Australia Environmental History</td>
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### List A: Upper Level Core Courses

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<td>AUST2004</td>
<td>Aboriginal Australia: The Pre-Colonial and Colonial Experience</td>
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<td>AUST2005</td>
<td>Aboriginal Australia: The Post-Colonial Experience</td>
<td>S2</td>
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<tr>
<td>AUST2006</td>
<td>Australian Playwriting</td>
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<tr>
<td>AUSI2108</td>
<td>In the Firing Line: Australians go to War</td>
<td>S2</td>
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<td>AUST2009</td>
<td>Australian Urban Environments</td>
<td>S2</td>
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<tr>
<td>AUSI2101</td>
<td>Society &amp; Environmental Process: Botany Bay</td>
<td>S1</td>
</tr>
<tr>
<td>AUST2011</td>
<td>Australian Migration Issues</td>
<td>S1</td>
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<tr>
<td>AUST2012</td>
<td>Indigenous Australia: Gendered Identities</td>
<td>S2</td>
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<tr>
<td>AUST2013</td>
<td>Australian Children's Literature and Literacy*</td>
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<td>AUST2014</td>
<td>Twentieth-century Australian Literature</td>
<td>S1</td>
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<td>AUST2015</td>
<td>Contemporary Australian Women Writers</td>
<td>S2</td>
</tr>
<tr>
<td>AUST2017</td>
<td>Labour History</td>
<td>S2</td>
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<tr>
<td>AUSI2108</td>
<td>Australian Sport: History and Culture</td>
<td>S1</td>
</tr>
<tr>
<td>AUST2019</td>
<td>A Commonwealth for a Continent: Australia 1901-1949</td>
<td>S1</td>
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<tr>
<td>AUST2020</td>
<td>Australia Since World War II</td>
<td>S2</td>
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<tr>
<td>AUST2023</td>
<td>Regional Australia: Geographies of Uneven Development</td>
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<tr>
<td>AUST2024</td>
<td>Power &amp; Policy in Australian Politics</td>
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<td>AUST2025</td>
<td>Sex, Human Rights and Justice*</td>
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<td>Music of Aboriginal Australians</td>
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<td>AUSI2107</td>
<td>Staging Australia</td>
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<td>AUST2028</td>
<td>Australian Cinema and Television</td>
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<td>AUSI2109</td>
<td>Cities: Experiencing Sydney</td>
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<td>AUST2030</td>
<td>Approaches to Australian Art</td>
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<td>AUST2031</td>
<td>Transport, Land Use and Environment</td>
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<td>AUST2032</td>
<td>Environmental Impact Assessment</td>
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<td>AUST2033</td>
<td>Australian Masculinities: Reading Gender, Sex and Culture*</td>
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<td>AUST2034</td>
<td>Women and Men: Gender in Australia*</td>
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<td>AUSI2109</td>
<td>Values and Beliefs in Australian Culture*</td>
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<td>AUST3103</td>
<td>Urban Legends: The History of Sydney</td>
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<tr>
<td>AUSI3105</td>
<td>The Face of Battle*</td>
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### List B: Upper Level Electives

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<td>SOCA3208</td>
<td>Modern Southeast Asia: Society and Culture*</td>
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<tr>
<td>SOCA3210</td>
<td>Whiteness Beyond Colour: Identity and Difference</td>
<td>S1</td>
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</table>

*Not offered in 2006.

### Honours Entry

At present only the Combined Honours program is available in Australian Studies. Students must have obtained:

1. Combined Honours prerequisites in a discipline.
2. 42 units of credit at Credit level or better in prescribed Australian Studies and Australia related courses, including 12 units of credit in Level 1 AUST courses, and at least one of the Australian Studies Aboriginal courses.

### Biological Science

**Coordinator:** A/Prof Michel Beal, School of Biological, Earth and Environmental Sciences  
**Tel:** (02) 9385 2116  
**Email:** m.beal@unsw.edu.au  
**Website:** www.bees.unsw.edu.au

Biological Science encompasses all aspects of plants and animals including their relationship to each other and to the environment. Areas of study in Biological Science include cell biology, plant and animal physiology, ecology, genetics, taxonomy, marine biology, and evolutionary studies. Knowledge of the Biological Sciences is particularly relevant in...
the fields of wildlife and vegetation management, agriculture, forestry, conservation and other related environmental sciences.

**Major Sequence**

A major sequence consists of 12 units of credit at Level 1 (BIOS1101 and one of BIOS1201 or BIOS1301) plus 30 units of credit at Upper Level. Note that many Level III courses assume knowledge acquired in Level II courses.

**Level 1**

B IOS1201  Molecules, Cells and Genes  S1
B IOS1301  Ecology and Sustainability  S1
B IOS1101  Evolutionary and Functional Biology  S2

**Upper Level**

B IOS2041  Data Analysis for Life and Earth Sciences  S1
B IOS2011  Evolutionary and Physiological Ecology  S1
B IOS2031  Biology of Invertebrates  S2
B IOS2051  Flowering Plants  S2
B IOS2061  Vertebrate Zoology  S1
B IOS3011  Animal Behaviour  S2
B IOS3021  Comparative Animal Physiology  S1
B IOS3061  Plant Ecosystem Processes  S1
B IOS3071  Conservation Biology and Biodiversity  S1
B IOS3081  Ocean Biology and Fisheries  S1
B IOS3091  Marine and Aquatic Ecology  S2
B IOS3111  Population and Community Ecology  S2
B IOS3601  Advanced Field Biology  S1

**Chemistry**

**Office**: Room 102, Heffron Building

No more than two Level 1 courses (12 units of credit) and three Upper Level courses (18 units of credit) may be counted towards the degree of Bachelor of Arts or related programs.

**Level 1**

CHEM1011  Fundamentals of Chemistry 1A  S1
CHEM1021  Fundamentals of Chemistry 1B  S1
CHEM1031  Higher Chemistry 1C  S1
CHEM1041  Higher Chemistry 1D  S1

**Upper Level**

Chemistry offers a number of Upper Level courses in the four main discipline areas. Consult the School of Chemistry as to the appropriate choice to make. The following courses are available:

CHEM2011  Physical Chemistry  S2
CHEM2021  Organic Chemistry  S2
CHEM2031  Inorganic Chemistry and Structure  S2
CHEM2041  Chemical and Spectroscopic Analysis  S2
CHEM2083  Inorganic Chemistry  S1

**Note**: Chemistry is not available as a major sequence within the Faculty of Arts and Social Sciences.

**Chinese Studies**

**Coordinator**: Associate Professor Hans Hendrichke

**Administrative Assistant**: Rosanna Cheung

**Office**: Room 240, Morven Brown Building

**Tel**: (02) 9385 2416

**Email**: rosanna.cheung@unsw.edu.au

**Website**: http://languages.arts.unsw.edu.au/chinese/chinese.html

The Department offers a flexible language and academic program for students with different interests and different Chinese language backgrounds. Students can enter Chinese language courses at different levels, depending on their knowledge of Chinese characters. Chinese Studies courses enable students to study aspects of Chinese culture and society. Students who wish to study additional subjects on China and Asia may concurrently enrol in Asian Studies.

In order to count Chinese Studies as a major sequence, students must complete 42 units of credit in Chinese language and Chinese Studies courses, including two Level 3 or two Level 4 courses.

**Major Sequences (42 units of credit)**

**Beginners’ entry level**

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<td>Year 2</td>
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<td>Year 3</td>
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</tr>
<tr>
<td>1 Chinese Studies/Professional Elective course</td>
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**Intermediate entry level**

<table>
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<tbody>
<tr>
<td>Year 1</td>
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</tr>
<tr>
<td>Year 2</td>
<td>CHIN3006/7</td>
<td>12</td>
</tr>
<tr>
<td>Year 3</td>
<td>1 Professional Elective course plus 2 Chinese Studies/Professional Elective courses</td>
<td>18</td>
</tr>
</tbody>
</table>

**Advanced entry level**

<table>
<thead>
<tr>
<th>Year</th>
<th>CHIN3006/7</th>
<th>UOC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 1</td>
<td>CHIN3006/7</td>
<td>12</td>
</tr>
<tr>
<td>Year 2</td>
<td>1 Professional Elective course plus 3 Chinese Studies/Professional Elective courses</td>
<td>18</td>
</tr>
<tr>
<td>Year 3</td>
<td>3 Chinese Studies/Professional Elective courses</td>
<td>18</td>
</tr>
</tbody>
</table>

**Professional Studies entry level**

<table>
<thead>
<tr>
<th>Year 1</th>
<th>Professional Elective courses</th>
<th>UOC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 1</td>
<td>1 Chinese Studies/Professional Elective course</td>
<td>6</td>
</tr>
<tr>
<td>Year 3</td>
<td>3 Chinese Studies/Professional Elective courses</td>
<td>18</td>
</tr>
</tbody>
</table>

**Honours**

**Prerequisite**: 54 units of credit in Chinese Studies, including CHIN3900 and CHIN3901 and a grade average of at least 70% in Chinese Studies courses. Honours candidates have to enrol in the two pre-Honours courses worth 6 units of credit each in Year 2 and/or Year 3. Intending Honours students are recommended to contact the Head of Department at an early stage in their undergraduate studies to discuss their selection of courses and their proposal for the Honours research project.

**Chinese Language Courses**

### Level 1

**Introductory**

<table>
<thead>
<tr>
<th>CHIN1006</th>
<th>Introductory Chinese 1</th>
<th>S1</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHIN1007</td>
<td>Introductory Chinese 2</td>
<td>S2</td>
</tr>
</tbody>
</table>

### Level 2

**Intermediate**

<table>
<thead>
<tr>
<th>CHIN2006</th>
<th>Intermediate Chinese 1</th>
<th>S1</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHIN2007</td>
<td>Intermediate Chinese 2</td>
<td>S2</td>
</tr>
</tbody>
</table>

### Level 3

**Advanced**

<table>
<thead>
<tr>
<th>CHIN3004</th>
<th>Advanced Chinese (In-Country)</th>
<th>X1</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHIN3006</td>
<td>Advanced Chinese Language 1</td>
<td>S1</td>
</tr>
<tr>
<td>CHIN3007</td>
<td>Advanced Chinese Language 2</td>
<td>S2</td>
</tr>
</tbody>
</table>

### Level 4

**Professional Electives**

<table>
<thead>
<tr>
<th>CHIN3030</th>
<th>Professional Communication 1</th>
<th>S1</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHIN3031</td>
<td>Professional Communication 2</td>
<td>S2</td>
</tr>
<tr>
<td>CHIN2210</td>
<td>Chinese English Translation</td>
<td>S1 &amp; S2</td>
</tr>
<tr>
<td>CHIN2211</td>
<td>Interpreting between Chinese and English</td>
<td>S1 &amp; S2</td>
</tr>
<tr>
<td>CHIN2220</td>
<td>Contemporary Chinese Literature</td>
<td>S1</td>
</tr>
<tr>
<td>CHIN2221</td>
<td>Classical Chinese Literature</td>
<td>S2</td>
</tr>
<tr>
<td>CHIN2222</td>
<td>The Chinese Lyric Journey: Classical Poetry and Painting</td>
<td>S1</td>
</tr>
<tr>
<td>CHIN2500</td>
<td>Advanced Chinese Business Language</td>
<td>S1</td>
</tr>
<tr>
<td>CHIN2502</td>
<td>Commercial Chinese</td>
<td>S2</td>
</tr>
</tbody>
</table>

**Chinese Studies Courses**

<table>
<thead>
<tr>
<th>CHIN2301</th>
<th>Chinese Social and Cultural Change through Visual Art</th>
<th>S1</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHIN2302</td>
<td>Chinese Cinema</td>
<td>S1</td>
</tr>
<tr>
<td>CHIN2303</td>
<td>Gender in Contemporary China</td>
<td>S2</td>
</tr>
<tr>
<td>CHIN2310</td>
<td>Along the Silk Road: Conquerors, Traders and Explorers</td>
<td>X1</td>
</tr>
<tr>
<td>CHIN2313</td>
<td>Introduction to Chinese Performing Arts</td>
<td>S1</td>
</tr>
<tr>
<td>CHIN2314</td>
<td>Introduction to Chinese Musical Culture</td>
<td>S2</td>
</tr>
<tr>
<td>CHIN2315</td>
<td>Transnational Chinese Media*</td>
<td>S2</td>
</tr>
<tr>
<td>CHIN2400</td>
<td>China Imagined and Perceived</td>
<td>S2</td>
</tr>
<tr>
<td>CHIN2501</td>
<td>Chinese Business Enterprise</td>
<td>S1</td>
</tr>
<tr>
<td>CHIN3900</td>
<td>Advanced Chinese Studies</td>
<td>S1</td>
</tr>
<tr>
<td>CHIN3901</td>
<td>Research Methods in Chinese Studies</td>
<td>S2</td>
</tr>
</tbody>
</table>

* Offered every second year; not offered in 2006.

**Honours Level**

<table>
<thead>
<tr>
<th>CHIN4000</th>
<th>Chinese Honours (Research) Full-Time</th>
<th>S1</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHIN4050</td>
<td>Chinese Honours (Research) Part-Time</td>
<td>S1</td>
</tr>
<tr>
<td>CHIN4500</td>
<td>Combined Chinese Honours (Research) Full-Time</td>
<td>S2</td>
</tr>
<tr>
<td>CHIN4550</td>
<td>Combined Chinese Honours (Research) Part-Time</td>
<td>S2</td>
</tr>
</tbody>
</table>

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Cognitive Science

Coordinator: Dr Anthony Corones, School of History and Philosophy of Science
Office: Room LG24, Morven Brown Building
Tel: (02) 9385 2357
Email: a.corones@unsw.edu.au

In the last twenty years, Cognitive Science has emerged as an exciting and fruitful domain of enquiry in which there is a convergence of interests in a number of disciplines which deal with mind, language, knowledge and intelligence. The Cognitive Science movement is based on a broad consensus that the problems and issues do not belong exclusively to any one discipline, but fall collectively to all of them.

The Cognitive Science program is designed to complement a school-based major sequence by grouping courses within the fields of Philosophy, Psychology, Linguistics, and Computer Science, which have special relevance to Cognitive Science. It provides the opportunity for students who undertake one or more of the Level 1 courses in the relevant disciplines to become acquainted with the broader enterprise of Cognitive Science through participation in the core course 'HPSC2610 Computers, Brains and Minds', and to build upon that acquaintance in selecting further courses from the program. Students should take the core course in their second year of study.

Major Sequence

Entry to the program requires 12 units of credit from the Level 1 prerequisite courses listed below. A major in Cognitive Science requires not less than 24 units of credit from the Upper Level courses listed in the program, including the core course. If you wish to major in Cognitive Science, these Upper Level courses may not be counted toward a major sequence in a School or Department. In planning your program for the degree, you should make sure that you meet the prerequisite requirements of individual courses, unless granted exemption by the course authority.

Level 1

Prerequisite: 12 units of credit obtained in any of the following courses:
- HPSC1200 Science, Good, Bad and Bogus
- LING1000 The Structure of Language
- PHIL1010 Thinking about Reasoning
- PHIL1011 Minds, Bodies and Persons*

Upper Level

Core course:
- HPSC2610 Computers, Brains and Minds

plus at least 18 units of credit obtained in any of the following courses:
- COMP3411 Artificial Intelligence
- HPSC2620 Body, Mind and Soul: The History and Philosophy of Psychology*
- LING2520 Generative Grammar*
- LING2680 Language Universals and Linguistic Typology*
- LING3003 Theoretical and Descriptive Linguistics
- PHIL2020 Philosophy of Language
- PHIL2206 Philosophy of Mind
- PHIL2207 Philosophy of Psychology
- PHIL2218 Philosophical Foundations of Artificial Intelligence
- PSYC2071 Perception and Cognition
- PSYC2081 Learning and Physiological Psychology

*Not offered in 2006.

Computing

Coordinator: Dr Tim Lambert
Office: Room G03, K17 Building
Email: undergrad@cse.unsw.edu.au
Website: www.cse.unsw.edu.au

Major Sequence

A major sequence in Computing within the Faculty of Arts and Social Sciences consists of 42 units of credit comprising: COMP1081, COMP1091, COMP2091 plus COMP2011 and at least 18 units of credit Level III Computer Science courses.

Students with well developed IT skills may omit COMP1081 and enrol in an extra level III Computer Science elective, alternatively the other option is to replace COMP1081, COMP1091 and COMP2091 with COMP1711 and COMP1721. MATH1131 and MATH1101 are recommended to be taken with these courses.

Note: No more than 12 units of Level I units of credit in Computer Science can be taken.

Level 1

COMP1081 Harnessing the Power of Information Technology
COMP1091 Solving Problems with Software and Tools

Upper Level

COMP2091 Computing 2
COMP2011 Data Organisation
COMP2041 Software Construction: Techniques and Tools
COMP2121 Microprocessors and Interfacing
COMP2711 Higher Data Organisation
COMP2920 Professional Issues and Ethics
COMP3111 Software Engineering
COMP3120 Introduction to Algorithms
COMP3121 Algorithms and Programming Techniques
COMP3131 Programming Languages and Compilers
COMP3141 Software System Design and Implementation
COMP3151 Foundations of Concurrency
COMP3211 Computer Architecture
COMP3231 Operating Systems
COMP3311 Database Systems
COMP3331 Computer Networks and Applications
COMP3411 Artificial Intelligence
COMP3421 Computer Graphics
COMP3431 Robotic Software Architecture
COMP3441 Cryptography and Security
COMP3531 Human Computer Interaction

The School of Computer Science and Engineering offers advanced versions of some of the courses listed here. Please consult the webpages at www.cse.unsw.edu.au for updated versions of timetables and availability of these courses.

Criminology

Coordinator: Professor Janet Chan, School of Social Science and Policy
Office: Room G30, Morven Brown Building
Tel: (02) 9385 2292
Email: slsp@unsw.edu.au
Website: http://slsp.arts.unsw.edu.au

From its original narrow inquiry into the causes of crime and punishment of offenders, criminology has developed into a multidisciplinary area of study involving contributions from sociology, political science, law, psychology, history and other disciplines. The Bachelor of Social Science in Criminology has a research and policy analysis orientation. It builds on the core curriculum in Bachelor of Social Science, which provides solid training in quantitative and qualitative research methods, social and economic theory, and policy analysis. The Criminology core courses provide students with substantive knowledge about criminal law and procedures, criminal justice institutions, theoretical debates in criminology and issues in criminal justice research and policy. A range of elective courses on criminological topics are available from the Faculty of Arts and Social Sciences and the Faculty of Law.

The Core Program in the Bachelor of Social Science in Criminology

First Year
- CRIM1000 Criminal Law and Justice 1
- CRIM1001 Criminal Law and Justice 2
- SLSP1001 Research and Information Management
- SLSP1000 Social Science and Policy

Second Year
- CRIM2000 Criminological Theories
- SLSP2000 Political Economy and the State
- SLSP2001 Applied Social Research 1
- SLSP2002 Policy Analysis Case Studies

Third Year
- CRIM3000 Researching Crime and Justice
- SLSP3000 Social Theory and Policy Analysis
- SLSP3001 Applied Social Research 2
- SLSP3002 Social Science and Policy Project

Electives

24 units of credit in the approved list of criminology-related electives (an indicative list):
- CRIM2001 Community Corrections
- CRIM2011 Crime and Society
- CRIM2012 Crime Prevention Policy
- CRIM2013 Juvenile Justice
- CRIM2014 Issues in Policing
- CRIM2015 Sentencing
- CRIM2016 The Criminal Justice System
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CRIM2017 The ‘New’ Prosecutors
CRIM2018 Crime, Power and Human Rights: Transnational Social Sciences
CRIM3010 Comparative Criminal Justice: From Investigation to Trial
ENGL2480 Crime Fiction, Film and Theatre
HIST2468 History from Crime
POL2020 Sex, Human Rights and Justice
PSYC3301 Psychology and Law
SLS2020 Crime and Punishment in Historical Perspective
SoCA2208 Deviant Fieldwork, Data Collection and Analysis
SoCA3103 Professions: Discipline, Knowledge, Power
SoCA3408 Crime in Australian Society
SoCA409 Crime, Gender and Sexuality
SoCA410 Deviance
SoCA411 Forensic Sociology: Evidence, Implications and Responsibility
SoCA3701 Discipline of the Law
SoCA3710 Moral Panics
SoCA3802 Fear and Hatred in Everyday Life
SoCA3810 The Space of Terror

Honours Level
Students must have obtained 144 units of credit in accordance with the requirements for the BSoSc in Criminology pass degree including the pre-Honours course SLS2093 Inquiry and Interpretation in the Social Sciences. Students need to have attained a good credit or better average in their SLP and CRIM core and related courses.

Level 1
CRIM1000 Criminal Law and Justice 1
CRIM1001 Criminal Law and Justice 2
SLS2001 Research and Information Management
SLS1000 Social Science and Policy

Upper Level
CRIM2000 Criminological Theories
CRIM3000 Researching Crime and Justice
CRIM4000 Criminology Honours
SLS2000 Political Economy and the State
SLS2001 Applied Social Research 1
SLS2002 Policy Analysis Case Studies
SLS2820 Crime and Punishment in Historical Development
SLS3000 Social Theory and Policy Analysis
SLS3001 Applied Social Research 2
SLS3002 Social Science and Policy Project

Development Studies
Coordinator: A/Prof Michael Johnson, School of Social Science and Policy
Office: Room G29, Morven Brown Building
Email: michael.johnson@unsw.edu.au
Website: http://www.arts.unsw.edu.au/futurestudents/developmentstudies/undergrad.html

The Development Studies program is an interdisciplinary program that introduces students to the issues that concern the developing world such as poverty and inequality and the theories, policies and practical measures introduced to address these issues. Central issues and themes that are examined include the history, sociology and political economy of development; the causes of poverty and global inequality; the relationship between the environment and development; the debates about globalisation and the relationships of international institutions to developing countries. A range of electives grouped by their focus on development practice, historical development, political economy, regional and cultural studies including human rights are offered.

Development Studies may be taken as a major sequence (42 units of credit). Students are advised that the program is designed to complement, most particularly, related majors in Politics and International Relations, Sociology and Anthropology, Economics, Economic History, Geography, History, History and Philosophy of Science, Policy Studies, Political Economy, Politics and Spanish and Latin American Studies. Bachelor of Social Science students majoring in Development Studies as part of the Bachelor of Social Science will complete the normal core courses for Social Science and Development Studies (Note that SLS2000 excludes PECO2000).

To complete a major sequence you must take at least two compulsory COMD courses (from COMD1001 or, COMD1002 or, SoCA1006 or, GEOR1601 and COMD2000) and two from the list of core elective COMD courses listed below, totalling 24 units of credit, and a further 18 units of credit from the other approved elective courses listed below. The Upper Level courses selected must include at least 12 units of credit at the 3000 level. With the approval of the Coordinator of the Development Studies program, courses from other schools may be substituted for up to 12 of the optional units of credit. Many of these courses will have their own prerequisites, and you must also fulfill Faculty of Arts and Social Sciences requirements concerning your distribution of courses. Please check school entries for availability, and consult the Coordinator about the best combinations of courses.

Major Sequence
Level 1
Compulsory courses
From 6 to a maximum of 12 units of credit in the core program selected from:
COMD1001 Development Studies: The Emergence of Underdevelopment
COMD1002 Development Studies: Poor World, Rich World
S1
S1
SOCA1006 Introduction to Globalisation
(except if majoring in INST)
GEOH1601 Australian and Global Geographies: Integration and Divergence
S2
S2

Upper Level Courses
At least two courses (12 units of credit) including the compulsory course (COMD2000) selected from the Upper Level Core courses and three elective courses (18 units of credit) if only six credit point course completed at Level 1:

Compulsory course
COMD2000 The Theory and Practice of Development
S1

And at least one of the following:
COMD2010 (Un)Making the Third World: History and Global Development B
COMD2050 Sustainable Development, Globalisation and the Third World
S1
S1
ECON3110 Development Economics
S2
S2
POLS2023 Globalisation and Uneven Development
ECON3111
SOCA3701 The Politics of the Third World
S2
S2

Electives
Students majoring in Development Studies must select a minimum of an additional 18 units of credit made up of additional courses taken from the core electives list or selected from the following electives listed by focus of study. The additional requirement of 6 units of credit for students intending to enrol in Combined Honours is detailed below. Students should carefully check any prerequisite requirements are met.

Development Practice
GEOR2001 Field Research
S2
GEOR3641 Regional Australia: Geographies of Uneven Development
X2
GEOR3651 Geographies of Migration and Settlement
S2
SOCA2204 Anthropology Research Fieldwork
S2

Political Economy
ECON3109 Economic Growth, Technology and Structural Change
S1
MFF3304 Transnational Media in the Asia Pacific
S1
PECO2000 Political Economy and the State (excludes SLS2000)
S1
PECO3000 Political Economy (excludes ECON3111)
S2
POLS2049 Asia in the International Political Economy*
S1
POLS3058 Theorising International Political Economy
S1
SOCA3711 Political Economy of Media and Culture*
S2

Globalisation
HIST2510 The United States and Changing Global Orders
S2
S2
POLS3054 Theorising the International Political Economy
S1
SOCA2103 Globalisation and Fragmentation
S2

Historical Development
HIST2039 Environmental History*
HIST2039 Environmental History*

Office:
Room G29, Morven Brown Building
Email: michael.johnson@unsw.edu.au
Website: http://www.arts.unsw.edu.au/futurestudents/developmentstudies/undergrad.html
Economics courses must be chosen from Options (i) or Options (ii). At least one option must be selected from Options (ii).

**Options (i):**
- ECON2101 Microeconomics 2
- ECON2102 Macroeconomics 2
- ECON2103 Business and Government
- ECON2104 Applied Macroeconomics
- ECON2105 Economics of Corporations
- ECON2107 Economics of Information and Technology
- ECON2109 Economics of Natural Resources
- ECON2111 Globalisation
- ECON2112 Game Theory and Business Strategy
- ECON2113 Economics of E-Commerce
- ECON2116 Economics of Japanese Business & Government
- ECON2117 Economics of Tourism
- ECON2127 Environmental Economics
- ECON2291 Quantitative Methods A
- ECON2292 Quantitative Methods B
- ECON2305 Modern Asian Economic History
- ECON2313 Australian Economic Development
- ECON2319 Economic and Social Policy in Australia
- ECON2321 Growth and Development of International Business
- ECON2322 European Integration
- ECON3191 Political Economy
- ECON3290 Introductory Econometrics

All other Economics courses have prerequisites which are associated with other major sequences.

**Options (ii):**
- ECON3291 Econometric Methods
- ECON3101 Markets and Public Choice
- ECON3104 International Macroeconomics
- ECON3105 Economic Analysis of Productivity
- ECON3106 Public Finance
- ECON3107 Economics of Finance
- ECON3109 Economic Growth, Technology and Structural Change
- ECON3110 Development Economics
- ECON3112 The Newly Industrialising Economies of East Asia
- ECON3113 Economic Development in ASEAN Countries
- ECON3114 Superannuation and Retirement Benefits
- ECON3116 International Economics
- ECON3120 Economic Reasoning
- ECON3121 Managerial Economics

**Major Sequence Professional Level in Economics**

For a major sequence in Economics at the professional level, all students must complete at least 42 units of credit in Economics courses, including:

- ECON1101 and ECON1102
- ECON2101 and ECON2102

Economics courses must be chosen from Options (i) or Options (ii). At least two options must be chosen from Options (ii).

**Options (i):**
- ECON2101 Microeconomics 2
- ECON2102 Macroeconomics 2
- ECON2103 Business and Government
- ECON2104 Applied Macroeconomics
- ECON2105 Economics of Corporations
- ECON2107 Economics of Information and Technology
- ECON2109 Economics of Natural Resources
- ECON2111 Globalisation
- ECON2112 Game Theory and Business Strategy
- ECON2113 Economics of E-Commerce
- ECON2116 Economics of Japanese Business & Government
- ECON2117 Economics of Tourism
- ECON2127 Environmental Economics
- ECON2291 Quantitative Methods A
- ECON2292 Quantitative Methods B
- ECON2305 Modern Asian Economic History
- ECON2313 Australian Economic Development
- ECON2319 Economic and Social Policy in Australia
- ECON2321 Growth and Development of International Business
- ECON2322 European Integration
- ECON3191 Political Economy
- ECON3290 Introductory Econometrics
- ECON3291 Econometric Methods
All other Economics courses have prerequisites which are associated with other major sequences.

**Options (ii):**

- ECON3101 Markets and Public Choice
- ECON3104 International Macroeconomics
- ECON3105 Economic Analysis of Productivity
- ECON3106 Public Finance
- ECON3107 Economic Growth, Technology and Structural Change
- ECON3110 Development Economics
- ECON3114 Superannuation and Retirement Benefits
- ECON3116 International Economics
- ECON3120 Economic Reasoning
- ECON3121 Managerial Economics

Students may count up to 60 units of credit in ECON courses within the total required by the BA degree.

**Major Sequence in Economic History**

Students may undertake either a Level 1 major or an Upper Level major in Economic History. A major sequence consists of at least 36 units of credit in courses offered in Economic History, of which no more than 12 units of credit may be from Level 1 courses. In order to enrol in a 6 unit credit Upper Level course in Economic History a candidate must have passed 36 Level 1 units of credit in Arts and completed any specific prerequisite course or courses listed.

**Level 1 Courses**

- ECON1101 Microeconomics 1 S1 & S2
- ECON1102 Macroeconomics 1 S1 & S2
- ECON1301 Australia in the Global Economy S1
- ECON1302 Australia and the Asia-Pacific Economies S2

**Upper Level Courses**

- ECON2305 Modern Asian Economic History S1
- ECON2313 Australian Economic Development S1
- ECON2319 Economic and Social Policy in Australia S1
- ECON2321 Growth and Development of International Business S1
- ECON2322 European Integration S2

**Honours in Economics (Arts)**

Students intending to do Honours in Economics should be completing ECON1101, ECON1102, ECON2101, ECON2102, ECON2291, ECON2292, ECON3290, ECON3291 and obtain at least an average of Credit or better in Upper Level courses. They then take ECON4120 Economics Honours (Arts) in their fourth year.

**Honours in Economic History (Arts)**

In order to enter Year 4 Honours, a candidate must have completed 36 units of credit in Economic History plus ECON1101 and ECON1102:

1. ECON1101 + ECON1102 - 12 units of credit.
2. Five Upper Level courses in Economic History - 30 units of credit.
3. 1 other Upper Level course from the School of Economics - 6 units of credit.

Students take ECON4321 Economic History 4 Honours.

**Economics**

- ECON2101 Microeconomics 2 S1
- ECON2102 Macroeconomics 2 S2
- ECON2103 Business and Government S2
- ECON2104 Applied Macroeconomics S1
- ECON2105 Economics of Corporations S2
- ECON2107 Economics of Information and Technology S1
- ECON2109 Economics of Natural Resources S1
- ECON2111 Globalisation S2
- ECON2112 Game Theory and Business Strategy S1
- ECON2113 Economics of E-Commerce S2
- ECON2116 Economics of Japanese Business and Government S1
- ECON2117 Economics of Tourism S1
- ECON2127 Environmental Economics S2
- ECON2291 Quantitative Methods A (Arts) S1 & S2
- ECON2292 Quantitative Methods B (Arts) S1 & S2
- ECON3101 Markets and Public Choice S1
- ECON3104 International Macroeconomics S1
- ECON3105 Economic Analysis of Productivity S2
- ECON3106 Public Finance S2
- ECON3107 Economics of Finance S1
- ECON3109 Economic Growth, Technology and Structural Change S1
- ECON3110 Development Economics S2
- ECON3112 The Newly Industrializing Economies of East Asia S2
- ECON3113 Economic Development in ASEAN Countries S1
- ECON3114 Superannuation and Retirement Benefits S2
- ECON3116 International Economics S2
- ECON3119 Political Economy S2
- ECON3120 Economic Reasoning S2
- ECON3121 Managerial Economics S1
- ECON3290 Introductory Econometrics S1
- ECON3291 Econometric Methods S2

**Economic History**

- ECON2305 Modern Asian Economic History S1
- ECON2313 Australian Economic Development S1
- ECON2319 Economic and Social Policy in Australia S1
- ECON2321 Growth and Development of International Business S2
- ECON2322 European Integration S2

**Honours**

- ECON4120 Economics Honours (Arts) S1 & S2
- ECON4321 Economic History 4 Honours S1 & S2

**Education**

Coordinator: A/Prof Paul Chandler  
Administrative Officer: Nancy He  
Administrative Assistant: Jacinta d’Souza  
Practicum Administrator: Michelle Kubie  
Office: Room 1307, Mathews Building  
Tel: (02) 9385 1977/1988  
Email: education@unsw.edu.au  
Website: http://education.arts.unsw.edu.au

As an area of study, Education crosses the boundaries between a number of disciplines including aspects of philosophy, sociology and psychology, and addresses their interaction with the learning and teaching process. The School of Education offers a range of courses to all students in the Faculty. While some Education courses are compulsory for students in the combined Education programs (BA BEd, BMus BEd, BA(Dance) BEd, BSc BEd), they are also available to students with an interest in education who are not undertaking teaching programs. For further details or special permission to have prerequisites waived, consult the School of Education.

**1. Bachelor of Arts (BA) with an Education major**

A major sequence in Education comprises

42 units of credit including:

12 Level 1 units of credit (EDST1101 and either EDST1103 or EDST1104) and

30 units of credit chosen from: EDST2030, EDST2032, EDST2041, EDST2044, EDST2045, EDST3102, EDST3103, EDST3105, EDST3106, EDST2060, EDST2070, EDST2090, EDST4081, EDST4093, EDST4095.

**2. Bachelor of Arts Bachelor of Education (BA BEd)**

Students in the combined BA BEd program should follow the sequence of core and elective courses shown below.

**Level 1 Courses**

12 units of credit from Level 1 courses  
EDST1101 Educational Psychology 1 S1 and either  
EDST1103 Educational Psychology 2 S2 or  
EDST1104 Social Perspectives in Education S2

**Upper Level Elective Courses**

18 units of credit from Upper Level courses:  
EDST2030 History, Philosophy and Science Teaching S2  
EDST2032 Philosophical Issues in Education S2  
EDST2041 Stress and Anxiety in Students and Teachers S1  
EDST2044 Motivation in Learning and Teaching S2
EDST2045 Teacher Effectiveness, Research and Practice $S1
EDST2046 Language and Literacy in the Classroom $S1
EDST2052 Relationships between Personality, Mood, Motivation and Learning $S1
EDST2053 Human Variation and Education $S2
EDST2054 Managing the Classroom Environment $S1
EDJS1260 Educational Programs and Curricula for Intellectually Gifted Students $S2
EDST2070 Culture, Identity and Education $S1
EDJS1290 Student Learning, Thinking and Problem Solving $S2
EDST4081 Professional Issues in Teaching $S1
EDST4093 Special Education $S1
EDST4095 Gifted and Talented Students: Recognition and Response $S1

The following Year 3 and 4 courses are compulsory for all BA BEd students.

Year 3 Compulsory Courses
EDJS1390 Introductory Teaching Experience $S1
EDST4095 Gifted and Talented Students: Recognition and Response $S1
EDJS1XXX Appropriate Method Course $S1

Year 4 Compulsory Courses
EDST4081 Professional Issues in Teaching $S1
EDST4092 Computer Skills for Teachers $S1
EDST4093 Special Education $S1
EDST4094 Teaching Experience $S2

Method Courses
EDST4121 Chinese Method 1 $S1
EDST4122 Chinese Method 2 $S2
EDJS1425 Drama Method 1 $S1
EDJS1426 Drama Method 2 $S2
EDST4127 English Method 1 $S1
EDJS1428 English Method 2 $S2
EDST4129 English Double Method 1* $S1
EDST4130 English Double Method 2* $S2
EDJS1411 Literary/English as a Second Language Method 1 $S1
EDJS1412 Literary/English as a Second Language Method 2 $S2
EDST4133 French Method 1 $S1
EDST4134 French Method 2 $S2
EDST4135 Geography Method 1 $S1
EDST4136 Geography Method 2 $S2
EDST4137 German Method 1 $S1
EDST4138 German Method 2 $S2
EDJS1411 History Method 1 $S1
EDJS1412 History Method 2 $S2
EDST4145 Indonesian Method 1 $S1
EDJS1416 Indonesian Method 2 $S2
EDST4147 Japanese Method 1 $S1
EDST4148 Japanese Method 2 $S2
EDJS1419 Mathematics Method 1 $S1
EDJS1420 Mathematics Method 2 $S2
EDST4151 Science Method 1 $S1
EDST4152 Science Method 2 $S2
EDST4153 Spanish Method 1 $S1
EDJS1415 Spanish Method 2 $S2
EDST4157 Computing Studies Method 1 $S1
EDJS1418 Computing Studies Method 2 $S2
EDST4161 Economics and Business Studies Method 1 $S1
EDST4162 Economics and Business Studies Method 2 $S2
EDJS1416 Junior HSIE Method 1 $S1
EDJS1416 Junior HSIE Method 2 $S2

*Only available in program $S560.

Honours Level
The prerequisites for entry to the Education Honours program are: 42 units of credit in EDST courses, plus 12 units of credit in approved courses offered by other schools, at an average of credit level or better.

EDJS1400 Education Honours Full-Time
EDJS4050 Education Honours Part-Time

English
Head of School: A/Prof Sue Kossew
Office: Room 145, Morven Brown Building
Tel: (02) 9385 2298 Fax: (02) 9385 1047

Email: english@unsw.edu.au
Website: http://english.arts.unsw.edu.au
English is a discipline for students with a special interest in English literature and language. The study of English is not compulsory within the Faculty of Arts and Social Sciences. Therefore, courses within the School of English are planned for students who have a genuine interest in English and want to develop a special ability in it, including the ability to read perceptively and to write good English, and the ability to write creatively.

Students who have successfully completed English at Level 1 (6 Level 1 units of credit may enrol in Level 2 English courses without necessarily pursuing a major in English. (Arts and Social Science students are only allowed to count 12 English Level 1 units of credit towards their degree.)

The usual prerequisite for enrolment in a Level 2 English course is a Pass in one Level 1 English course. The choices of courses in Level 1 for 2006 are: ENGL1001 Ways of Writing: An Introduction to Literary Genres, ENGL1006 Imagining the City, ENGL1007 The Canon of English Literature and ENGL1009 Literature of Revolution. A student who has not completed 6 Level 1 units of credit but is interested in one or more of our Level 2 courses may seek the special permission of the Head of School to have the prerequisite waived. In considering such requests, the School gives strong preference to a candidate with a Credit or higher result in a related discipline.

Major Sequence
Any student who wishes to gain a major sequence in English must complete 6 Level 1, 24 Level 2 and 12 Level 3 (or 12 Level 1, 18 Level 2 and 12 Level 3) units of credit in English. Students undertaking a major sequence are permitted to enrol in other courses offered by the School which are additional to the requirements of their basic major sequence.

Honours Entry
Students may choose one of two available Honours programs.

1. Honours in English (Research)
The normal entry requirement for a student seeking admission to the Honours Program in English is a minimum of 54 units of credit in English which must include 6 or 12 Level 1 units of credit, 30 or 24 Level 2 units of credit and 18 Level 3 units of credit. The School also requires students to have an average of 70% or better in all previous ENGL courses.

With the permission of the Head of School, a student who is studying a combined Arts degree (e.g. BA LLB, BA BEd) may substitute one related 6 unit course from another discipline.

2. Combined Honours (Research)
The Combined Honours Program allows a student to undertake the Honours year in both English and another discipline. The normal School of English entry requirement for a student seeking admission to a Combined Honours Program is 48 units of credit in English including at least 6 Level 1 units of credit, at least 12 Level 3 units of credit and an average of 70% or higher.

Entry into the Combined Honours program is subject to the approval of both the Head of the School of English and the Head of the other School concerned.

Assessment
In all English courses, assessment is by a combination of the following: essays, class tests, tutorial participation, tutorial presentation, and examinations. Further details of assessment will be available at the first class in each course.

Level 1
ENGL1001 Ways of Writing: An Introduction to Literary Genres $S1
ENGL1006 Imagining the City $S1
ENGL1007 The Canon of English Literature $S2
ENGL1009 Literature of Revolution $S2

Upper Level
Level 2
ENGL2101 Women on the Shakespearean Stage $S2
ENGL2104 Poetry, Virtue, Corruption: Milton to Burns $S1
ENGL2206 Nineteenth Century Prose $S1
ENGL2321 Twentieth Century: Modernism & Modernity $S2
ENGL2340 Contemporary Irish Literature $S2
ENGL2422 Frontiers and Crossings $S1
ENGL2460 Refiguring Dreams: Twentieth Century American Literature $S2
ENGL2520  Twentieth Century Australian Literature  S1
ENGL2621  Contemporary Australian Women Writers  S2
ENGL3821  Visual Communication  S2
ENGL2921  Creative Writing A  S1
ENGL2930  Professional Writing  S2

Level 3
ENGL3122  Jane Austen in Context  S2
ENGL3320  Modernism: Joyce  S1
ENGL3423  African Resistance Writing  S1
ENGL3442  Narrative  S2
ENGL3631  Contemporary Critical & Cultural Theory  S2

Honours Level
ENGL4000  English Literature Honours (Research) Full-Time  S2
ENGL4050  English Literature Honours (Research) Part-Time  S2
ENGL4500  Combined English Literature Honours (Research) Full-Time  S2
ENGL4550  Combined English Literature Honours (Research) Part-Time  S2

Environmental Studies

Coordinators:
Dr Paul Brown, School of History & Philosophy of Science
Office: Room LG16, Morven Brown Building
Tel: (02) 9385 1497
Email: paul.brown@unsw.edu.au

Dr Stephen Healy, School of History & Philosophy of Science
Office: Room LG11, Morven Brown Building
Tel: (02) 9385 1597
Email: s.healy@unsw.edu.au

The Environmental Studies program is designed for students who wish to undertake a major sequence concentrating on the historical, theoretical, and policy implications of the environmental construction and transformation of the environment. Honours and Combined Honours in Environmental Studies are also available (see below).

Major Sequence
The interdisciplinary program in Environmental Studies constitutes a stand-alone major, with the following requirements:

Level 1
24 Level 1 units of credit in Arts. There are no compulsory Level 1 courses. However, a typical program would include:

- HPSC1400 Science, Technology, Society and Environment  S1
- HPSC1500 Understanding Environmental Controversy  S2

The attention of students is also drawn to other Level 1 courses that may be of particular relevance to this major sequence, as follows:

- AUST1003 Paradise Lost: Australian Environmental History  S1
- POLS1014 Global Politics and the Environment  S2

and courses offered under the Geography program in the Faculty of Science.

Upper Level
For a pass degree you must have a total of 42 units of credit at Upper Level, from the courses listed below. Note that the core course is compulsory and that you must also take at least one of the fundamental knowledge courses. Apart from the core course, you must also include at least one other course numbered with a ‘3000’ code.

Core Course (compulsory and normally taken in the third year of study):

- HPSC3500 Society and Environmental Process: Botany Bay  S2

Fundamental knowledge courses (you must take at least one)

- HPSC2350 Environment, Technology and Politics  S1
- HPSC2550 Sustainable Development, Globalisation, and the Third World  S1

Electives

- ARTS2000# Arts and Social Sciences Internship X1 S1 X2 S2
- HNS12039 Environmental History  S2
- HPSC2750 Energy and its Politics*  S2
- HPSC2881 Cultural Heritage Management  S2
- HPSC3150 Life Science in the Twentieth Century  S2
- HPSC3920 Reading Option (must be an Environmental topic) X1 S1 X2 S2
- PHIL2418 Bioethics*  S1
- PHIL2420 Environmental Ethics  S1
- PHIL2422 Biopolitics and Biotechnology*  S1
- PHIL2424 Human Nature and Technology  S1
- SLSP2002 Policy Analysis Case Studies  S2
- SOCA2104 Technology, Work, Culture  S1
- SOCA2204 Pacific Islands Research Fieldwork  S2
- SOCA3204 Modernity & Development in the Pacific Islands*  S2
- SOCA3211 Development and Modernity  S2
- SOCA3212 Environment, Society and Culture  S1
- SOCA3704 Social Movements and Society: Current Debates*  S2
- SPAN2418 Amazonia*  S2

and, by approval of the Environmental Studies Coordinator, selected courses offered under the Geography program in the Faculty of Science.

Please check school entries to confirm availability.

* These courses run in alternate years and will not be offered in 2006.

Honours Level
Prerequisites:
1. At least 54 units of credit from the above list of nominated courses for the interdisciplinary major in Environmental Studies, with an average of Credit or better. This must include the core course HPSC3500, at least one other ‘3000’ course, and at least one fundamental knowledge course, and may include only two of the Level 1 courses recommended above. 2. Permission of the Environmental Studies Honours Coordinator.

Normal requirements are a thesis (50%), seminar (25%) and an additional component (25%) which could be a second seminar, an internship or a project. Environmental Studies Honours is coordinated by the School of History and Philosophy of Science.

- HPSC4510 Environmental Studies Honours (Research) Full-Time  S2
- HPSC4520 Environmental Studies Honours (Research) Part-Time  S2

Honours in Environmental Studies may also be combined with Honours study in a school or department. Typical combinations are with History and Philosophy of Science, Sociology and Anthropology, History, Geography, Politics and International Relations or Philosophy. For combined honours the above assessment scheme may vary depending on the requirements of the participating school or department.

Prerequisite for Combined Honours: 1. Combined Honours prerequisites in a discipline. 2. At least 48 units of credit from the interdisciplinary major in Environmental Studies, with an average of Credit or better. This must include the core course HPSC3500, at least one other ‘3000’ course, and at least one fundamental knowledge course, and may include only two of the Level 1 courses recommended above. 3. Permission of the Environmental Studies Honours Coordinator.

- HPSC4500 Combined Honours (Research) in Environmental Studies Full-Time  S2
- HPSC4550 Combined Honours (Research) in Environmental Studies Part-Time  S2

European Studies

Coordinator: TBA, Centre for European Studies
Office: Room G64, Morven Brown
Tel: (02) 9385 2325
Email: TBA
Website: www.centre.unsw.edu.au/euro/

Studying Europe is not a ‘cultural cringe’: it is an essential part of defining Australia’s role as a predominantly “European” country located in the Asia-Pacific. Any attempt to define Australian identity must be based not only on a new relationship with our neighbours, but on a critical understanding of our European heritage and the continuing dialogue with European thought and practice. The momentous changes which are taking place in Eastern and Western Europe will have an extraordinary impact on world developments over the next years, and on the part Australia will play in them.

EURO courses are designed to provide an interdisciplinary European context which addresses basic issues and problems in the study of European culture and society, seen from the perspective of current attempts to establish a new role for a united Europe. They focus both on the enormous contribution of the European Enlightenment to our concepts of freedom, humanity and citizenship, and its troubled relationship to the...
realities of European world domination and power politics. The “New Europe” has become an economic power second only to the United States; will it be able to resolve these dilemmas, and regain some kind of moral and political leadership in world affairs as well? We can learn much from both Europe’s failures and its achievements, especially the astonishing success of European integration in overcoming centuries-old hostilities, and its development of new political structures more appropriate to representing cultural diversity within a rapidly globalising economy.

EURO courses are an ideal complement to majors in history, philosophy, politics and sociology with a European ‘focus’, or in English or European languages. Courses are offered at both Level 1 and Upper Level; they are taught in English, require no previous knowledge of other languages, and are available to all students enrolled in the Faculty.

The program also offers a major sequence. It requires the completion of seven EURO courses (42 units of credit). You may, however, request the Coordinator to approve the substitution of other appropriate courses focusing on Europe up to a total of 18 units of credit. A major sequence in European Studies is a requirement for the Bachelor of International Studies degree in European Studies (program 3424), which is described in the Program Rules and Information section of this Faculty entry.

Students who wish to specialise in European Studies are encouraged to learn a relevant European language.

The European Studies notice-board is located opposite the Centre for European Studies (MB G64).

Major Sequence
A minimum of 42 units of credit in European Studies, including at least 30 units of credit in Upper Level courses.

Honours Level
Combined Honours (recommended): Students must satisfy the single Honours prerequisite for the School concerned and have completed a major in EURO with an average of 70%. They are required to present a thesis on a cross-disciplinary topic approved by the Coordinator and the relevant Head of School.

Single Honours: This program is primarily intended for students enrolled in combined degrees who are unable to meet the requirements for Combined Honours. The prerequisite is a WAM of 70% in the EURO major and related courses. Students must complete a thesis on a cross-disciplinary topic and a program of coursework negotiated between the program authority and the appropriate school(s).

Level 1
EURO1000 The New Europe A $1
EURO1001 The New Europe B $2

Upper Level
EURO2000 Concepts of Europe $1
EURO2201 Text Workshop A* $2
EURO2311 The Attractions of Communism* $1
EURO2331 Understanding Nazi Germany $2
EURO2410 Nineteenth Century Europe 1848-1918: Nation, Empire, Revolution $2
EURO2411 Spain: From Loss of Empire to European Integration $1
EURO2482 Europe, 1914-1945: Dark Continent? $2
EURO2483 Decadence, Dada & All That Jazz $1
EURO2600 European Integration $2
EURO2700 What is Postcommunism? $1
EURO3000 Central and Eastern Europe after 1989 $1
EURO3010 Evidence and Interpretation $1
EURO3101 Barbarians, Peasants & Vampires $1
EURO3900 Advanced Program A $2
EURO3901 Advanced Program B $2

*Subject to staff availability.

Honours Level
EURO4000 Honours (Research) in European Studies F/T $1
EURO4050 Honours (Research) in European Studies P/T $2
EURO4500 Combined Honours (Research) in European Studies F/T $2
EURO4550 Combined Honours (Research) in European Studies P/T $2

French
Coordinator: Dr Maurice Blackman
Office: Room 258, Morven Brown Building
Tel: (02) 9385 2321
Email: m.blackman@unsw.edu.au
Website: http://languages.arts.unsw.edu.au/french/french.html

French is available as a major in Arts and also to students of all faculties as a co-major, minor, elective/option, General Education unit or as a major in the Diploma in Languages. The program includes courses in Language and Linguistics, Literature and Thought, French Culture and Society and Francophone studies. French is the language of instruction in most courses.

The program has a flexible entry-point policy, which allows students to enrol in the language program that builds on their existing language skills. Students with prior knowledge of French sit for a placement test in order to gain entry to an appropriate language course.

Honours Level
Prerequisite: At least 54 units of credit, including FREN3102 or higher language core, and FREN3910 at an average of at least 70%.

With permission of the Head of Department, Honours students who started from FREN1101 may arrange to write their Honours thesis in English rather than French. Combined Honours requires 48 units of credit in French including FREN3910.

Language Core
FREN1101 French Language and Culture 1A $1
FREN1102 French Language and Culture 1B $2
FREN2101 French Language and Culture 2A $1
FREN2102 French Language and Culture 2B $2
FREN3101 French Language and Culture 3A $1
FREN3102 French Language and Culture 3B $2
FREN3103 French Language and Culture 4A $1
FREN3104 French Language and Culture 4B $2

Upper Level Electives
FREN3105 French Today $1
FREN3106 Discourse Studies: Media, Politics & Society $2
FREN3210 French Prose Fiction $2
FREN3211 Special Reading Program $1 or $2
FREN3214 Modern French Poetry $1
FREN3312 French Cinema and Society $1

Advanced Upper Level Courses
FREN3901 Reading Program 1 (Advanced) $1 or $2
FREN3910 Honours Preparatory Seminar $2

Honours Level
FREN4000 French Honours (Research) Full-Time $1
FREN4050 French Honours (Research) Part-Time $2
FREN4500 Combined French Honours (Research) Full-Time $1
FREN4550 Combined French Honours (Research) Part-Time $2

Geography
Coordinator: Dr Kevin Dunn (GEOH)
Office: Biological Sciences Building
Tel: (02) 9385 5737
Email: k.dunn@unsw.edu.au
Dr Scott Mooney (GEOH)
Office: Biological Sciences Building, Room 519C
Tel: (02) 9385 4389
Email: s.mooney@unsw.edu.au

Geography is the study of social and environmental relationships. The cultural significance of geography lies in its contribution to an understanding of the total environment. Geographers are employed as professionals in urban management, regional planning, and environmental assessment.

First year courses involve systematic studies of the physical, human, and technological basis of geography. There is a progressive specialisation in the following years, with an emphasis on field observation, data handling, policy and management.

Many courses in geography include laboratory and field work, involving the use of qualitative and quantitative techniques. Assessment in Geography is normally by a combination of coursework and examinations, although the procedure varies between courses.
Major Sequence
At least 6 Level 1 units of credit plus another 36 Upper Level units of credit in GEOH or GEOS courses, including GEOH2001 (up to 12 units of credit of Social Science and Policy courses can be counted towards a Geography major).

Honours (Research) Entry
Students must satisfy Faculty of Arts and Social Sciences requirements for entry to Honours programs. They must have obtained at least 6 Level 1 units of credit in GEOH or GEOS, and have completed SLSP1001. Students must complete another 42 Upper Level units of credit in GEOH or GEOS or related courses, two of which must include SLSP2001, GEOH2001 and GEOH3111. (Substitute courses may be approved by the Geography coordinators.) A minimum cumulative average at Credit grade is required for all Upper Level GEOH or GEOS courses taken.

Combined Honours (Research) Entry
At least 6 Level 1 units of credit plus another 36 Upper Level units of credit in GEOH or GEOS or related courses, including two of SLSP2001, GEOH2001 and GEOH3111. (Substitute courses may be approved by the Geography coordinators.) A minimum cumulative average at Credit grade is required for all Upper Level GEOH or GEOS courses taken.

Level 1
GEOH1601 Australian and Global Geographies S2
LtS1701 Environmental Systems and Process S1

Upper Level
GEOH2001 Field Research S1
GEOH2611 Geographies of the Asia-Pacific S1
LtH2641 Australian Urban Environments S2
GEOH2801 Geographical Information Systems for Built Environment S2
GEOH3111 Advanced Qualitative Methods for Geography S1
GEOH3411 Special Topic S1 & S2
LtH3421 Place, Identity and Difference S1
LtH3461 Regional Australia: Geographies of Uneven Development S2
GEOH3651 Geographies of Migration & Settlement S2
GEOH3661 Cities and Urbanism S2
GEOH3671 Transport, Land Use and Environment S1
LtH3911 Environmental Impact Assessment S1
GEOH3921 Coastal Resource Management S2
GEOS2711 Australian Climate and Vegetation S2
GEOS2721 Australian Surface Environments and Landforms S1
LtA2381 Remote Sensing Applications S1
GEO2821 Geographic Information Systems S2
GEO3731 Catchment and Coastal Geomorphology S2
GEO3761 Environmental Change S2
GEO3811 Advanced Techniques in Remote Sensing S2
LtH3621 Remote Sensing & GIS Applications S2
GEO4721 Soil Degradation & Conservation S1

Honours Level
Students who wish to enrol in a 48 unit of credit thesis course enrol in:
LtH4418 Geography Honours (Research) Full-Time S1 & S2
or
GEOH4424 Combined Honours (Research) in Geography Full-Time S1 & S2

Students who wish to undertake the School of Biological, Earth and Environmental Sciences (BEES) Honours program enrol in the following:
GEO5418 Physical Geography Honours S1 & S2
BEE5411 Professional Skills S1
and either:
BBS4521 Literature Review S1
and 12 units of credit of electives approved by the BEES Honours committee or 18 units of credit of electives approved by the BEES Honours committee.

Geology
Coordinate: Dr Paul Lennox, School of Biological, Environmental and Earth Sciences
Tel: (02) 9385 8096
Email: p.lennox@unsw.edu.au
Website: www.bees.unsw.edu.au/future/geology.html

Geology is the study of the nature and evolution of our Earth. It spans many areas, including the relationship between humans and the physical environment. Geology is an important complement to other disciplines in Arts and Social Studies for those wishing to pursue careers in various areas of public and corporate policy, including resource assessment, environmental regulation, environmental management and urban planning.

Field tutorials are an essential part of some of these courses, and may be held during weekends and/or recesses. Dates and costs are available during the first week of the course. Attendance is compulsory.

Major Sequence
A major sequence in Geology comprises:
12 Level 1 units of credit and 30 Upper Level units of credit, including at least one and not more than two Level 3 courses. MSCI6300 is considered to be a Level 3 course. Course selection must be made in consultation with the Geology program advisor.

Level 1
GEO5111 Fundamentals of Geology S1
GEO5121 Environmental Earth Science S2

Upper Level
GEO5201 Life Through Time S1
GEO5210 Sedimentary Environments S1
GEO5217 Earth Structures S2
LtS2181 Earth Materials S1
GEO5229 Ground and Surface Water S1
GEO5311 Field Methods and Mapping S1
GEO5314 Mineral and Energy Resources S1
GEO5328 Environmental and Contaminant Geochemistry S2
MSCI6201 Coastal Monitoring Techniques S1
MSCI6300 Coastal Environment Assessment S1

German Studies
Coordinate: Dr Bettina Boss
Tel: (02) 9385 3649
Email: german@unsw.edu.au
Website: http://languages.arts.unsw.edu.au/german/german.html

German Studies is available as a major in Arts and also to students of all faculties as a co-major, minor, elective option, General Education unit or as a major in the Diploma in Languages. Language study and the study of literature and linguistics are integrated in the German Studies program. Seminars in German literature and civilisation support the development of language proficiency and communicative competence. Practical language work involving a wide range of topics contributes to an increased awareness and understanding of the forces that have shaped the development of modern German speaking societies.

The program has a flexible entry-point policy, which allows students to enrol in the language program that builds on their existing language skills. Students are advised to consult the German Studies staff to plan their entry point in the language sequence.

Note: Students with any proficiency must consult the staff in German Studies prior to enrolment, unless they have taken German in the previous session at UNSW. Please see: http://languages.arts.unsw.edu.au/main/placetest.html

Major Sequence
Major sequences in German Studies require 42 units of credit in GERS courses. Students completing the German language core with GERS3701 will be recognised as having completed the German Studies Advanced Program.

Honours Level
Entry into the Honours program requires 54 units of credit in German Studies, including GERS3900 and GERS3901, with an average of at least 70%.

Combined Honours requires 48 units of credit in German Studies, including GERS3900, with an average of at least 70%.

Language Core
GERS1400 Introductory German 1 S1
GERS1401 Introductory German 2 S2
GERS2400 Intermediate German 1 S1
GERS2401 Intermediate German 2 S1
GERS3410 Advanced German 1 S1
GERS3411 Advanced German 2 S2
GERS3700 Advanced German 3 S1
GERS3701 Advanced German 4 S2

Seminar Courses
GERS3800 Modernism and Cultural Innovation in Weimar Germany S1
GERS3801 Language and Society in the German-speaking Countries S2
GER3802 German Culture and Society: 19th and 20th Century  S1
GER3803 Post-war German Literature and Culture: Hans Magnus Enzensberger  S2

Advanced Upper Level Courses
These courses are compulsory for students intending to proceed to Honours.
GERK3900 German Option 1  S1
GERK3901 German Option 2  S2

Honours Level
GERK4000 German Honours (Research) Full-Time  S1
GERK4050 German Honours (Research) Part-Time  S2

Greek
Coordinator: Dr Eleni Amvrazi
Office: Room 231, Morven Brown Building
Tel: (02) 9385 3649
Email: greek@unsw.edu.au
Website: http://languages.arts.unsw.edu.au

Greek Studies is available as a major in Arts and also to students of all faculties as a co-major, minor, elective/option, General Education unit or as a major in the Diploma in Languages. Greek Studies provide students with proficiency in spoken and written Greek through practical language work and an understanding of the way Greek society has developed through the study of Greek literature and history and culture.

The program has a flexible entry-point policy, which allows students to enrol in the language program that builds on their existing language skills. Students are advised to consult the Greek Studies staff to plan their entry point in the language sequence.

Modern Greek programs are also offered by correspondence. The correspondence program provides an opportunity for students who have full-time work commitments or timetable clashes to study Greek.

Note: Students with any proficiency in Greek must consult the Greek Studies staff prior to enrolment, unless they have taken Greek in the previous session at UNSW. Please see: http://languages.arts.unsw.edu.au/main/placetest.html

Major Sequence
Major sequences in Greek Studies require 42 units of credit in GREEK courses including at least four consecutive language courses and GREEK3506. Students completing the Greek language core with GREEK402 will be recognised as having completed the Greek Studies Advanced Program.

Honours Level
Intending Honours students are recommended to contact the Greek Studies staff at an early stage in their undergraduate studies to discuss their selection of programs and their proposal for the Honours research project. For entry to the Greek Honours program, the completion of 54 units of Greek courses, including GREEK3900 and GREEK3901, with an average of 70% is required. The entry for Combined Honours with GREEK3402 will be recognised as having completed the Greek Studies Advanced Program.

Language Core
GREEK1301 Introductory Modern Greek 1A  S1
GREEK1302 Introductory Modern Greek 1B  S2
GREEK2301 Intermediate Modern Greek 2A  S1
GREEK2302 Intermediate Modern Greek 2B  S2
GREEK3301 Advanced Modern Greek 3A  S1
GREEK3302 Advanced Modern Greek 3B  S2
GREEK3401 Advanced Modern Greek 4A  S1
GREEK3402 Advanced Modern Greek 4B  S2

History and Culture Courses
GREEK3506 The Modern Greek World (1453-present day)  S1

Electives
GREEK3500 Greek Traditional Culture  S2
GREEK3501 Pandora’s Box  S1
GREEK3502 Greek Women Writers  S2
GREEK3503 The Modern Greek Experience  S1
GREEK3504 Greek Music: From Homer to Haroula  S2
GREEK3505 Born to Purple: The Byzantine World (330-1453)  S1

Advanced Upper Level Courses
GREEK3900 Culture, Ethnicity & Identity in Greek Australian Literature  S1
GREEK3901 The History and Development of the Greek Language  S2

Honours Level
GREEK4000 Modern Greek Studies Honours (Research) Full-Time  S1
GREEK4050 Modern Greek Studies Honours (Research) Part-Time  S2

History
Coordinator: Associate Professor Rae Frances
School Office: Room 351, Morven Brown
Tel: (02) 9385 2343
Email: history@unsw.edu.au
Website: http://history.arts.unsw.edu.au/

The School of History offers a variety of Level 1 and Upper Level courses, giving students a wide range of options at all levels. Courses are mainly concerned with aspects of modern history and related to periods and themes in Australian, Asian, European, Middle Eastern and American history. Ancient History is taught, both as part of the World History courses and in a few specialist courses. General theories and problems of historical explanation are also studied, as well as techniques of researching and writing history.

Class contact in most courses is three hours per week. Level 1 courses offered in each of the following fields – Australian, European or world history – can be taken separately or as a complementary pair of courses over two sessions. (Details and timetables of lectures are available from the School of History.) Most of a history student’s working time, however, is spent in the University library or in private study, preparing papers for tutorials and seminars, and writing the required essays.

Assessment in each course usually involves one essay and a written tutorial contribution. Most courses also use end of session tests as a form of assessment. For details of assessment in particular courses, consult the School of History Handbook or individual course guides.

Details of a major in History, and of the requirements for entry into Honours (4th year), are listed below. Under Faculty rules: (i) a student may complete only two Level 1 History courses (12 Level 1 units of credit), and (ii) for entry into Upper Level courses in History, students should have completed 36 units of credit.

The study of History develops important skills in research, interpretation, evaluation of evidence, reasoning and writing. Study at Honours or postgraduate level further refines these skills and permits students to demonstrate an ability to undertake independent and original research and to communicate the results of this research clearly and persuasively.

Major Sequence
A major sequence in History consists of at least 42 units of credit in courses offered by the School of History. Students enrolling in the Faculty of Arts and Social Sciences from 2005 and wishing to complete a major in History must include at least two 3000 Advanced upper level courses. In order to enrol in one of these 3000 level courses you need to have completed at least 12 History units of credit in 2000 level courses (or other courses approved by the Head of School). Pre-Honours courses, which are distinguished by the prefix HIST39+ may be included in this Major requirement. However, these courses are restricted to students with a credit average (or better) in History.

Honours Entry
Students must satisfy Faculty of Arts and Social Sciences requirements for entry to Honours programs, and must have obtained at least 54 units of credit at an average of 70% or better in the School of History, including 6 units of credit from the Pre-Honours HIST3900 courses.

For entry to a Combined Honours program, students must have obtained at least 48 units of credit at an average of 70% or better in the School of History including 6 units of credit from the HIST3900 courses.

Level 1
HIST1003 The Fatal Shore: Aborigines, Immigrants and Convict Society  S1
HIST1004 Making Australia 1850-1910: Land, People and Culture  S2
HIST1010 Introducing Southeast Asia  S1
HIST1011 The Emergence of Modern Europe (A)  S1
HIST1012 The Emergence of Modern Europe (B)  S2
HIST1014 Enter the Dragons: Continuity and Change in East Asia  S2
HIST1015 The 60s: Australia and the United States S2
HIST1016 World History: The Big Picture S1
HIST1020 Women, Gender and World History S1
HIST1021 World History: The Twentieth Century S2
HIST1030 The Modern Jewish Experience: Emancipation to the Holocaust S1
HIST1031 The Modern Jewish Experience: Nationalism and Statehood S2

Upper Level
HIST2015 Women in the Modern World S2
HIST2016 Film in History S2
HIST2019 Identity, Culture and Politics: Ireland and Australia in the 20th Century S1
HIS12025 Slavery and Freedom: American History 1750-1890 S1
HIS12027 Inventing Australia: Race, Nation, Identity, 1901-1949 S1
HIST2028 Australia Since World War 2 S2
HIST2041 Australian Sport: History and Culture S1
HIST2045 Modern America S1
HIST2049 Working Lives: Historical Perspectives S1
HIST2054 Modern Japan: Political Culture, Popular Culture S2
HIST2055 Modern India S2
HIST2060 The Modern Olympics S2
HIST2060 (Un)Making the Third World: History & Global Development B S1
HIST2061 (Un)Making the Third World: History & Global Development A S2
HIST2074 Holocaust and Genocide in Historical Perspective S2
HIS12078 In the Firing Line: Australians go to War S2
HIST2090 The Transformations of Warfare S1
HIS12201 The Medieval World S2
HIST2202 Born to the Purple: The Byzantine World (330-1453) S1
HIST2203 The Modern Greek World (1453 to Present Day) S1
HIST2351 Chinese Civilisation, 1600 BC to 1600 AD S1
HIST2352 Modern China, 1600-present S2
HIST12400 Concepts of Europe S1
HIST2410 Nineteenth Century Europe 1848-1918: Nation, Empire, Revolution S2
HIST2482 Europe, 1914-1945: Dark Continent? S2
HIST2483 Decadence, Dada & All That Jazz: European Cultural History, 1880-1945 S2
HIST2484 Europe in the Age of Revolutions S1
HIST2485 The German-Jewish Experience* S1
HIST2489 The Attractions of Communism* S1
HIST12491 Text Workshop A* S2
HIST2510 The United States and Changing Global Orders S2
HIS12311 The United States and Conflict in the Middle East S2
HIST2600 Islamic Worlds: From Muhammad to the Present S1
HIST2662 Rome: From Kingdom to Republic S1
HIST2665 Early Greece: Bronze Age to Archaic Greece S2
HIST2666 The Expansion of Greece: Classical to Roman Greece S2
HIST2751 Nightlife and the Metropolis: Moulin Rouge to Rave S1
HIST2752 Religion in World History S1
HIS12780 A History of Sexualities S2

* Subject to staff availability.

Advanced Upper Level Courses
HIST3101 Understanding Nazi Germany: Origins, Structures, Explanations S2
HIST3102 Pre-Modern Japan: Status, Sex and Power S1
HIST3103 Urban Legends: The History of Sydney S1
HIST3106 Environmental History S2
HIST3108 The Mediterranean in History: From Odyssey to Club Med S2
HIST3109 Barbarians, Peasants, Vampires: Eastern Europe in History and Imagination S1
HIST3111 The Ages of Homer S2

Pre Honours Upper Level Courses
HIST3900 Historiography of Southeast Asia S2
HIST3902 Australian History and its Constructions S1

HIST3904 Going Public: Public History and the Historian S2
HIST3905 Evidence and Interpretation: Controversies in European History S1
HIST3907 Clio's Craft: Writing Feminist Histories S2
HIST3912 Researching and Writing History S2

Honours Level
HIST4000 History Honours (Research) Full-Time S1
HIST4050 History Honours (Research) Part-Time S1
HIST4500 Combined History Honours (Research) Full-Time S2
HIS4550 Combined History Honours (Research) Part-Time S2

History and Philosophy of Science
Coordinator: Dr Nicholas Rasmussen, School of History & Philosophy of Science
School Office: Room LG19, Morven Brown Building
Tel: (02) 9385 2356
Email: n.rasmussen@unsw.edu.au
Website: http://hps.arts.unsw.edu.au

History and Philosophy of Science (HPS) is the field that deals with the nature, history, social shaping and social impacts of science, technology and medicine. Courses in the School of HPS therefore cover a number of related themes: the historical origins and philosophical foundations of modern science; the social, political and economic dimensions of technological change; the history and politics of medicine and health, as well as contemporary environmental studies, environmental policy and management. Courses in HPS make ideal complements to courses in intellectual and social history, philosophy, sociology, politics and international relations, psychology and public policy.

While not everyone is trained in science or engineering, everybody is affected by science and technology in their private and working lives. Issues concerning the impact and risks of technological and scientific change are inescapable. HPS courses provide critical and contextual understanding of these issues, both for students of humanities and social sciences, as well as natural sciences, medicine and engineering.

No previous study of mathematics or science is required. Entry to most Upper Level courses is possible without having studied Level 1 HPS courses.

* The School of History and Philosophy of Science was previously named the School of Science and Technology Studies. Courses in the School of History and Philosophy of Science, coded HPS, replace courses in the two streams previously offered by the School of Science and Technology Studies (HPST and SCTS).

Major Sequence
For students commencing in 2002 or earlier, a major sequence in History and Philosophy of Science consists of at least 42 units of credit in HPS courses (or their HPST and SCTS predecessors), of which no more than 12 units of credit may be from Level 1 courses.

For students commencing in 2005 or later, a major sequence in History and Philosophy of Science consists of at least 42 units of credit in HPS courses, of which no more than 12 units of credit may be from Level 1 courses; at least 2 courses from Level 2 fundamental knowledge courses & 2 from Level 3 courses; plus at least one elective from any Upper Level HPS course.

By permission of the Head of School, up to 6 units of credit obtained in approved Upper Level courses in other Schools may be counted towards a major sequence.

Interdisciplinary Programs
The School coordinates interdisciplinary programs in Environmental Studies, Cognitive Science, and the Philosophy of Science. See entries under those headings for further information.

Level 1
HPSC1100 Cosmos and Culture S1
HPSC1200 Science, Good, Bad & Bogus S2
HPSC1400 Science, Technology, Society and Environment S1
HPSC1500 Understanding Environmental Controversy S2

Level 2
Fundamental Knowledge Courses
HPSC2150 Darwin and the Order of Nature S1
HPSC2200 Philosophy of Science S2
HPSC2300 Sociology of Science & Technology: How Science Works S2
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>HPSC2500</td>
<td>Environment, Technology and Politics</td>
<td>S1</td>
</tr>
<tr>
<td>HPSC2550</td>
<td>Sustainable Development, Globalisation and the Third World</td>
<td>S1</td>
</tr>
</tbody>
</table>

**Branch Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>HPSC2600</td>
<td>Galileo, Science &amp; Religion</td>
<td>S1</td>
</tr>
<tr>
<td>HPSC2610</td>
<td>Computers, Brains and Minds</td>
<td>S2</td>
</tr>
<tr>
<td>HPSC2630</td>
<td>God, Life, the Universe and Everything: Science and Meaning</td>
<td>S1</td>
</tr>
<tr>
<td>HPSC2650</td>
<td>Worrying Ourselves to Death? Health, Risk &amp; Modern Medicine</td>
<td>S2</td>
</tr>
<tr>
<td>HPSC2665</td>
<td>On Drugs: Pharmaceuticals, Medicine, and Culture</td>
<td>S2</td>
</tr>
<tr>
<td>HPSC2666</td>
<td>Cheating Death: A History of Medicine</td>
<td>S1</td>
</tr>
<tr>
<td>HPSC2881</td>
<td>Cultural Heritage Management</td>
<td>S2</td>
</tr>
</tbody>
</table>

**Level 3**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Semester</th>
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<tbody>
<tr>
<td>HPSC3100</td>
<td>Advanced History of Science</td>
<td>S2</td>
</tr>
<tr>
<td>HPSC3200</td>
<td>Topics in the Philosophy of Science</td>
<td>S2</td>
</tr>
<tr>
<td>HPSC3300</td>
<td>Technology &amp; Culture</td>
<td>S1</td>
</tr>
<tr>
<td>HPSC3500</td>
<td>Society &amp; Environmental Process: Botany Bay</td>
<td>S2</td>
</tr>
<tr>
<td>HPSC3920</td>
<td>Reading Option</td>
<td>X1 S1 X2 S2</td>
</tr>
</tbody>
</table>

**Honours**

Students thinking of studying for Honours in the School of History and Philosophy of Science should consult the School in session 3 of their study.

A program of study will be worked out for each student according to his or her needs and interests. It is, however, possible to move to Honours at a later stage, and students wishing to do so should contact the School.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>HPSC4000</td>
<td>History and Philosophy of Science Honours (Research)</td>
<td>F/T I</td>
</tr>
<tr>
<td>HPSC4050</td>
<td>History and Philosophy of Science Honours (Research)</td>
<td>P/T</td>
</tr>
<tr>
<td>HPSC4200</td>
<td>History and Philosophy of Science Combined Honours (Research) F/T</td>
<td></td>
</tr>
<tr>
<td>HPSC4250</td>
<td>History and Philosophy of Science Combined Honours (Research) P/T</td>
<td></td>
</tr>
<tr>
<td>HPSC4510</td>
<td>Environmental Studies Honours (Research) F/T</td>
<td></td>
</tr>
<tr>
<td>HPSC4520</td>
<td>Environmental Studies Honours (Research) P/T</td>
<td></td>
</tr>
<tr>
<td>HPSC4500</td>
<td>Combined Honours in Environmental Studies Research</td>
<td>F/T</td>
</tr>
<tr>
<td>HPSC4350</td>
<td>Combined Honours in Environmental Studies Research</td>
<td>P/T</td>
</tr>
</tbody>
</table>

**Indonesian Studies**

Coordinator: A/Prof David Reeve
Administrative Assistant: Rosanna Cheung
Office: Room 238, Morven Brown Building
Tel: (02) 9385 1019
Email: d.reeve@unsw.edu.au

Courses in Indonesian Studies are offered both for students with no prior knowledge of the language (Beginners’ level entry) and for those with HSC Indonesian (Intermediate or Advanced level entry). There are also courses available for native speakers (Professional level entry).

In order to count Indonesian Studies as a major sequence, students must complete 42 units of credit in Indonesian language and Indonesian Studies courses. Those interested in doing Honours must in addition complete two qualifying one semester courses worth 6 units of credit each in Year 2 and/or Year 3.

**Major Sequences**

1. **Beginner’s Entry level – 42 units of credit**
   - Year 1
     - IND01001 Introductory Indonesian 1
     - IND01002 Introductory Indonesian 2
   - Year 2
     - IND02001
     - IND02002
   - Year 3
     - IND03001
     - IND03002
     - plus one Indonesian Studies course
   - Year 2
     - IND03001
     - IND03002

2. **Intermediate Entry Level – 42 units of credit**
   - Year 1
     - IND01001
     - IND01002
   - Year 2
     - IND02001
     - IND02002

**Indonesian Language Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>UOC</th>
</tr>
</thead>
<tbody>
<tr>
<td>IND01001</td>
<td>Introductory Indonesian 1</td>
<td>6</td>
</tr>
<tr>
<td>IND02001</td>
<td>Introductory Indonesian 2</td>
<td>6</td>
</tr>
<tr>
<td>IND03001</td>
<td>Intermediate Indonesian 1</td>
<td>6</td>
</tr>
<tr>
<td>IND03002</td>
<td>Intermediate Indonesian 2</td>
<td>6</td>
</tr>
<tr>
<td>IND03003</td>
<td>Advanced Indonesian 1</td>
<td>6</td>
</tr>
<tr>
<td>IND03002</td>
<td>Advanced Indonesian 2</td>
<td>6</td>
</tr>
</tbody>
</table>

**Indonesian Studies Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>UOC</th>
</tr>
</thead>
<tbody>
<tr>
<td>IND03035</td>
<td>Indonesian Popular Culture (taught in Indonesian)</td>
<td>S1</td>
</tr>
<tr>
<td>IND03500</td>
<td>Contemporary Indonesian Society (taught in Indonesian)</td>
<td>S2</td>
</tr>
<tr>
<td>IND03502</td>
<td>Islam in Indonesia</td>
<td>S1</td>
</tr>
<tr>
<td>IND03503</td>
<td>Indonesian Political Culture</td>
<td>S2</td>
</tr>
<tr>
<td>IND03901</td>
<td>Introduction to Indonesian Studies (Pre-Honours course)</td>
<td>S1</td>
</tr>
<tr>
<td>IND03901</td>
<td>Indonesian Studies Research Methods (Pre-Honours course)</td>
<td>S2</td>
</tr>
</tbody>
</table>

**Electives**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>UOC</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST2053</td>
<td>Understanding Indonesia: Identity, Civil Rights and Jihad</td>
<td></td>
</tr>
<tr>
<td>HIST2081</td>
<td>Traditions, Colonialisms &amp; Revolutions: Southeast Asian Histories</td>
<td></td>
</tr>
</tbody>
</table>

*Not offered in 2006.*

**Honours Level**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>UOC</th>
</tr>
</thead>
<tbody>
<tr>
<td>IND04000</td>
<td>Indonesian Honours (Research) Full-Time</td>
<td></td>
</tr>
<tr>
<td>IND04050</td>
<td>Indonesian Honours (Research) Part-Time</td>
<td></td>
</tr>
<tr>
<td>IND04500</td>
<td>Combined Indonesian Honours (Research) Full-Time</td>
<td></td>
</tr>
<tr>
<td>IND04550</td>
<td>Combined Indonesian Honours (Research) Part-Time</td>
<td></td>
</tr>
</tbody>
</table>

**International Studies**

Coordinator: Professor Roger Bell, International Studies Program
Office: Room G66, Morven Brown Building
Tel: (02) 9385 2431
Email: r.bell@unsw.edu.au
Website: www.arts.unsw.edu.au/futurestudents/undergraduate/internationalstudies.html

The Bachelor of International Studies is a four-year full-time program offered in the following five area-study concentrations: Asian Studies Plan, Development Studies Plan, European Studies Plan, Global Studies Plan, Language Studies Plan.

Students must complete the core sequence of courses (42 units of credit - 12 Level 1 and 30 Upper Level units of credit) as listed below:

### Level 1

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Title</th>
<th>Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>INST1100</td>
<td>World History A</td>
<td>S1</td>
</tr>
<tr>
<td>INST1200</td>
<td>World History B</td>
<td>S2</td>
</tr>
<tr>
<td>or</td>
<td>INST1300 International Relations in the Twentieth Century</td>
<td>S1</td>
</tr>
<tr>
<td>INST1400</td>
<td>International Relations: Continuity and Change</td>
<td>S2</td>
</tr>
</tbody>
</table>

### Upper Level

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Title</th>
<th>Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>INS12200</td>
<td>Globalisation &amp; Fragmentation (core)</td>
<td>S2</td>
</tr>
<tr>
<td>INST2300</td>
<td>International Law</td>
<td>S1</td>
</tr>
<tr>
<td>or</td>
<td>INST2301 Global Governance (Not offered in 2006)</td>
<td></td>
</tr>
<tr>
<td>or</td>
<td>INST2302 International Security</td>
<td>S2</td>
</tr>
<tr>
<td>or</td>
<td>INST2400 The Theory and Practice of Development</td>
<td>S1</td>
</tr>
<tr>
<td>or</td>
<td>INST2401 Sustainable Development, Globalisation and the Third World</td>
<td>S1</td>
</tr>
<tr>
<td>INST3300</td>
<td>Theorising International Political Economy</td>
<td>S1</td>
</tr>
<tr>
<td>or</td>
<td>INST3301 Economic Growth, Technology and Structural Change</td>
<td>S1</td>
</tr>
<tr>
<td>INST3900</td>
<td>International Studies Advanced Seminar (core)</td>
<td>S2</td>
</tr>
</tbody>
</table>

### International Studies - Asian Studies

**Coordinator:** Karyn Lai, School of Philosophy  
**Office:** Room G41, Morven Brown Building  
**Tel:** (02) 9385 1194  
**Email:** k.lai@unsw.edu.au  
**Website:** www.arts.unsw.edu.au/futurestudents/undergraduate/internationalstudies.html

The Bachelor of International Studies in Asian Studies requires the completion of a sequence of 36 units of credit in Asian Studies including ASIA1001 and ASIA1002 (Year 1).

### Level 1

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Title</th>
<th>Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASIA1001</td>
<td>Introduction to Contemporary Asia</td>
<td>S2</td>
</tr>
<tr>
<td>ASIA1002</td>
<td>Introducing Southeast Asia</td>
<td>S1</td>
</tr>
</tbody>
</table>

### Upper Level

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Title</th>
<th>Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON2116</td>
<td>Economics of Japanese Business and Government</td>
<td>S1</td>
</tr>
<tr>
<td>ECON3113</td>
<td>Economic Development in ASEAN Countries</td>
<td>S1</td>
</tr>
<tr>
<td>HIST2050</td>
<td>Women in Southeast Asian Societies *</td>
<td>S1</td>
</tr>
<tr>
<td>HIS12054</td>
<td>Modern Japan: Political Culture, Popular Culture</td>
<td>S2</td>
</tr>
<tr>
<td>HIST2055</td>
<td>Modern India</td>
<td>S2</td>
</tr>
<tr>
<td>HIST2084</td>
<td>The Vietnam War/The American War *</td>
<td>S2</td>
</tr>
<tr>
<td>HIST2085</td>
<td>Australia’s Asian Context: Resistance and Engagement *</td>
<td>S2</td>
</tr>
<tr>
<td>HIST2300</td>
<td>Between Dictatorship and Democracy: Contemporary Southeast Asia *</td>
<td>S1</td>
</tr>
<tr>
<td>HPCS2550</td>
<td>Sustainable Development, Globalisation and the Third World</td>
<td>S1</td>
</tr>
<tr>
<td>PHIL2519</td>
<td>Introduction to Chinese Philosophy</td>
<td>S2</td>
</tr>
<tr>
<td>PHIL2520</td>
<td>Aspects of Chinese Thought</td>
<td>S2</td>
</tr>
<tr>
<td>POLS2003</td>
<td>The Political Development of Contemporary China</td>
<td>S2</td>
</tr>
<tr>
<td>POLS2014</td>
<td>Regional Cooperation and Conflict in Southeast Asia *</td>
<td>S1</td>
</tr>
<tr>
<td>POLS2036</td>
<td>Political Development in Northeast Asia</td>
<td>S1</td>
</tr>
<tr>
<td>SOCA2305</td>
<td>Modern Southeast Asia: Society and Culture *</td>
<td>S1</td>
</tr>
<tr>
<td>SPAN2430</td>
<td>Miracles of Modernisation/Crises of Capitalism: Asia and Americas *</td>
<td>S1</td>
</tr>
</tbody>
</table>

or approved courses in CHIN, INDO, JAPN, and KORE.  
* Not offered in 2006.  

**Note:** The courses on offer vary from year to year depending on staff availability. Check the Online Handbook for course descriptions and availability.

### International Studies - Development Studies

**Coordinator:** Michael Johnson, School of Social Science and Policy  
**Office:** Room G29, Morven Brown Building  
**Tel:** (02) 9385 3481  
**Email:** michael.johnson@unsw.edu.au  
**Website:** www.arts.unsw.edu.au/futurestudents/undergraduate/internationalstudies.html

The Bachelor of International Studies in Development Studies requires the completion of a sequence of 42 units of credit in Development Studies including COMD1002, COMD2000, COMD2050 and ECON3110.

### Level 1

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Title</th>
<th>Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMD1001</td>
<td>Development Studies: The Emergence of Underdevelopment</td>
<td>S2</td>
</tr>
<tr>
<td>COMD1002</td>
<td>Development Studies: Poor World, Rich World (core)</td>
<td>S1</td>
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</table>

### Second Year

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Title</th>
<th>Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMD2000</td>
<td>The Theory and Practice of Development (core)</td>
<td>S1</td>
</tr>
<tr>
<td>COMD2050</td>
<td>Sustainable Development, Globalisation and the Third World (core)</td>
<td>S1</td>
</tr>
<tr>
<td>LJML2201U</td>
<td>(Un)Making the Third World: History and Global Development B</td>
<td>S1</td>
</tr>
<tr>
<td>AK125000</td>
<td>Arts and Social Sciences Internship</td>
<td>X1 S1 X2 S2</td>
</tr>
<tr>
<td>HIST2300</td>
<td>Between Dictatorship and Democracy: Contemporary Southeast Asia *</td>
<td>S2</td>
</tr>
<tr>
<td>POLS2023</td>
<td>Anthropology of Human Rights *</td>
<td>S2</td>
</tr>
<tr>
<td>SOCA2210</td>
<td>Colonising the Americas: The Spanish and Portuguese Empires</td>
<td>S1</td>
</tr>
</tbody>
</table>

### Third Year

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Title</th>
<th>Semester</th>
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</thead>
<tbody>
<tr>
<td>ECON3109</td>
<td>Economic Growth, Technology and Structural Change</td>
<td>S1</td>
</tr>
<tr>
<td>ECON31110</td>
<td>Development Economics (core)</td>
<td>S2</td>
</tr>
<tr>
<td>SOCA3104</td>
<td>Global Migrations, Global Refugees</td>
<td>S1</td>
</tr>
<tr>
<td>SOCA3106</td>
<td>Anthropology and Tourism</td>
<td>S2</td>
</tr>
<tr>
<td>SOCA3204</td>
<td>Modernity and Development in the Pacific Islands *</td>
<td>S2</td>
</tr>
<tr>
<td>SOCA3211</td>
<td>Development and Modernity</td>
<td>S2</td>
</tr>
<tr>
<td>SOCA3212</td>
<td>Environment, Society and Culture</td>
<td>S1</td>
</tr>
<tr>
<td>SOCA3810</td>
<td>The Space of Terror</td>
<td>S1</td>
</tr>
</tbody>
</table>

* Not offered in 2006.  

**Note:** The courses on offer vary from year to year depending on staff availability. Check the Online Handbook for course descriptions and availability.

### International Studies - European Studies

**Coordinator:** To be advised  
**Office:** To be advised  
**Tel:** To be advised  
**Email:** To be advised  
**Website:** www.arts.unsw.edu.au/futurestudents/undergraduate/internationalstudies.html

The Bachelor of International Studies in European Studies requires the completion of a sequence of 36 units of credit European Studies including EURO1000 and EURO1001.

### Level 1

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Title</th>
<th>Semester</th>
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<tbody>
<tr>
<td>EURO1000</td>
<td>New Europe A</td>
<td>S1</td>
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<tr>
<td>EURO1001</td>
<td>New Europe B</td>
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### Upper Level

<table>
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<tbody>
<tr>
<td>EURO2000</td>
<td>Concepts of Europe</td>
<td>S1</td>
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<tr>
<td>EURO2001</td>
<td>Gender Race Nature &amp; Reason*</td>
<td>S1</td>
</tr>
<tr>
<td>EURO2002</td>
<td>Experience of the City*</td>
<td>S2</td>
</tr>
<tr>
<td>EURO2003</td>
<td>European Modernism*</td>
<td>S2</td>
</tr>
<tr>
<td>EURO2103</td>
<td>The Italian Renaissance*</td>
<td>S2</td>
</tr>
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<td>EURO2107</td>
<td>Journeys with Love and Death*</td>
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<td>Course Code</td>
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<tr>
<td>EURO2201</td>
<td>Text Workshop A</td>
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<tr>
<td>EURO2300</td>
<td>The German-Jewish Experience*</td>
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<tr>
<td>EURO2301</td>
<td>The Attractions of Fascism*</td>
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<tr>
<td>EURO2302</td>
<td>The Messiah Complex*</td>
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<tr>
<td>EURO2311</td>
<td>The Attractions of Communism</td>
<td>S1</td>
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<tr>
<td>EURO2321</td>
<td>German Revolutions*</td>
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<tr>
<td>EURO2331</td>
<td>Understanding Nazi Germany</td>
<td>S2</td>
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<tr>
<td>EURO2401</td>
<td>Modern Italy*</td>
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<tr>
<td>EURO2410</td>
<td>Nineteenth Century Europe</td>
<td>S2</td>
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<tr>
<td>EURO2421</td>
<td>Modern Spain</td>
<td>S1</td>
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<td>EURO2433</td>
<td>The Russian Revolution*</td>
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<td>EURO2470</td>
<td>Modern France*</td>
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<tr>
<td>EURO2482</td>
<td>Dark Continent: Europe 1914-45</td>
<td>S1</td>
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<td>EURO2483</td>
<td>Decadence, Dada and All that Jazz</td>
<td>S2</td>
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<tr>
<td>EURO2500</td>
<td>The Russian Experience*</td>
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<tr>
<td>EURO2504</td>
<td>Thatcher, Blair and Beyond*</td>
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<tr>
<td>EURO2600</td>
<td>European Integration</td>
<td>S2</td>
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<tr>
<td>EURO2700</td>
<td>What is Post-communism?</td>
<td>S2</td>
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<tr>
<td>EURO3000</td>
<td>Evidence and Interpretation</td>
<td>S1</td>
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<tr>
<td>EURO3001</td>
<td>Barbarians, Peasants and Vampires</td>
<td>S1</td>
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<tr>
<td>EUKJ3900</td>
<td>Advanced Program A</td>
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<tr>
<td>EUKJ3901</td>
<td>Advanced Program B</td>
<td>S2</td>
</tr>
<tr>
<td>* Not offered in 2006.</td>
<td></td>
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</tbody>
</table>

**Note:** The courses on offer vary from year to year depending on staff availability. Check the Online Handbook for course descriptions and availability.

### International Studies - Global Studies

**Coordinator:** Roger Bell, International Studies

**Office:** Room G66, Morven Brown Building

**Tel:** (02) 9385 2431

**Email:** r.bell@unsw.edu.au

**Website:** www.arts.unsw.edu.au/futurestudents/undergraduate/internationstudies.html

The Bachelor of International Studies in Global Studies requires the completion of a sequence of 42 units of credit in Global Studies (GLST) including GLST1100, GLST2104 and GLST3000. A maximum of 12 Level 1 units of credit can be completed.

#### First Year

- **GLST1100** Introduction to Globalisation (core) S1
- plus one of the following:
  - **GLST1200** Women, Gender and World History S1
  - **GEOH1601** Australia and Global Geographies: Integration and Convergence S2
  - **PECO1001** Australia in the Global Economy S1
  - **SOCA1100** Cultural Identities S1

#### Second Year

- **GLST2104** Globalisation and Uneven Development (core) S2
  - plus two of the following:
    - **GLST1201** (Un)Making the Third World: History and Global Development B S1
    - **GLST2102** (Un)Making the Third World: History and Global Development A S2
    - **GLST2103** The United States and Changing Global Orders S1
    - **GLST2105** Theories and Concepts of International Relations S1
    - **ECON2111** Globalisation S2
    - **EUKJ2600** European Integration S2
    - **EURO2700** What is Post-communism? S2
    - **HIST2085** Australia’s Asian Context S2
    - **MFT2100** Global Media: Markets, Flows and Culture Regional Cooperation and Conflict in Southeast Asia S2
    - **SOCA2101** Encountering Modernity S1
    - **SOCA2210** Anthropology of Human Rights S1

#### Third Year

- **GLST3000** Global Studies and Global Transformations (core) S2
  - plus two of the following:
    - **GLST3302** States, Nations and Ethnic Identities S2
    - **GEOH3661** Cities and Urbanisation S2
    - **MFT2305** Cinemas and Cultures S2
    - **POLS3050** Theories of Nationalism S2
    - **SOCA3104** Global Migration, Global Refugees S1
    - **SOCA3106** Anthropology and Tourism S2
    - **SOCA3703** Nationalism, Citizenship and Cultural Identity S2
    - **SOCA3801** The Space of Terror S2

*Not offered in 2006.*

### Irish Studies

**Coordinator:** Dr Peter Kuch, School of English

**Tel:** (02) 9385 2364

**Email:** p.kuch@unsw.edu.au or irish@unsw.edu.au

**Website:** http://irishstudies.arts.unsw.edu.au/

The major in Irish Studies provides an interdisciplinary exploration of Irish history, culture and society over the past two hundred years that takes particular account of Ireland’s relationships with Australia and with Europe. While attention is paid to issues such as identity, ethnicity, and ‘nation-building’, and the history of their contestation in Ireland, the principal focus is on ways these can be situated within readings of the cultural, social and political forces that shaped Ireland’s interaction with Australia and Europe. From being subject to the British Empire and thus a major source-country for the European settlement of Australia, Ireland has become a wealthy, technologically advanced, highly educated and culturally sophisticated European nation.

The Level 1 core courses offer students an understanding of the Irish contribution to the history of Australia and an understanding of contemporary Europe, of which Ireland is now part. Given the literary component of the major, students are strongly advised to enrol in either ENGL1001 and/or ENGL1006 and/or ENGL1007 and/or ENGL1009 in their first year.

Upper Level courses are taught by different schools in the Faculty and consequently the major enables students to enjoy a range of disciplinary and interdisciplinary approaches. Courses may be studied individually and, though all complement one another, all are designed to be self-contained.

### Major Sequence in Irish Studies

The major in Irish Studies comprises 12 units of credit at Level 1 and 24 Upper Level units of credit.

#### Level 1 Core Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Level</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>EURO1000</td>
<td>The New Europe A</td>
<td>S1</td>
<td></td>
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<tr>
<td>EURO1001</td>
<td>The New Europe B</td>
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<tr>
<td>or HIST1011</td>
<td>The Emergence of Modern Europe (A)</td>
<td>S1</td>
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<tr>
<td>HIST1012</td>
<td>The Emergence of Modern Europe (B)</td>
<td>S2</td>
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<tr>
<td>or HIST1003</td>
<td>The Fatal Shore: Aborigines, Immigrants and Convict Society</td>
<td>S1</td>
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<tr>
<td>HIST1004</td>
<td>Making Australia 1830-1901: Land, People &amp; Culture</td>
<td>S2</td>
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</table>

#### Upper Level Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>IRSH2001</td>
<td>Irish History from 1800*</td>
<td>S2</td>
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<tr>
<td>IRSH2002</td>
<td>Identity, Culture and Politics: Ireland and Australia in the 20th Century</td>
<td>S2</td>
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<td>IRSH2012</td>
<td>Contemporary Irish Literature</td>
<td>S2</td>
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<td>IRSH2013</td>
<td>Myths of Self and Society — Irish Writing and its Relevance for Australian Society*</td>
<td>S2</td>
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<td>IRSH2021</td>
<td>Contemporary Theatre</td>
<td>S2</td>
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<tr>
<td>IRSH2101</td>
<td>Ireland: States of Being, States of Mind</td>
<td>S2</td>
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<tr>
<td>IRSH2104</td>
<td>Poetry, Virtue, Corruption: Milton to Burns</td>
<td>S1</td>
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<td>IRSH2410</td>
<td>Nineteenth Century Europe 1848-1918: Nation, Empire, Revolution</td>
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<tr>
<td>IRSH3472</td>
<td>Modernism: Joyce</td>
<td>S1</td>
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</tbody>
</table>

*Not offered in 2006.*
Italian
Coordinator: Dr Diana Palaversich, Department of Spanish & Latin American Studies
Tel: (02) 9385 1188/1681
Email: italian@unsw.edu.au
Website: http://languages.arts.unsw.edu.au/italian/italian.html

Italian is currently offered at beginners’ level only within the School. Students wishing to continue their studies in Italian may be able to do so by enrolling in courses offered by the University of Sydney. Students with prior Italian language knowledge may be able to commence study at a course higher than ITAL1001 at the University of Sydney.

Level 1
ITAL1001 Introductory Italian 1 S1
ITAL1002 Introductory Italian 2 S2

Japanese Studies
Coordinator: Dr Gi-Hyun Shin
Office: Room 203, Morven Brown Building
Tel: 9385 3760
Email: japankorea@unsw.edu.au
Website: www.languages.arts.unsw.edu.au/japan/japan.html

Japanese Studies is available as a major in Arts and also to students of all faculties as a co-major, minor, elective/opption, General Education unit or as a major in the Diploma in Languages. The program offers a range of Japanese language and non-language based courses to students, including courses in Japanese cultural studies, and professional language.

The program has a flexible entry-point policy, which allows students to enrol in the language program that builds on their existing language skills. Students with prior knowledge of Japanese sit for a placement test in order to gain entry to an appropriate language course.

Note: For students admitted in their first year of studies into JAPN2000 or higher on the grounds of ability and/or previous study, such courses will be counted as Level 1 courses in terms of degree regulations. No student will be permitted to enrol in courses carrying more than 12 Upper Level units of credit in any School/area of studies under this provision.

Major Sequence
A major sequence in Japanese Studies comprises 42 units of credit and requires (1) 24 units or more from Japanese language core or JAPN3700 series; (2) either JAPN2500 (or JAPN3900*); and (3) the remaining units from Culture and Professional Language courses. Students completing the Japanese Studies major including two or more courses from the JAPN3700 series will be recognised as having completed the Japanese Studies Advanced Program.

LOTE
Those pursuing a LOTE qualification in the BA BEd program should take 36 LUC from Language core or JAPN3700 series as well as JAPN2500 (or JAPN3900*).

Honours Level
Prerequisite: The completion of 54 units of credit, including JAPN3901 and JAPN3902 in Japanese Studies, a WAM of 65 or above in all courses, Distinction or higher in all JAPN courses, and the major with a minimum language level of JAPN3001.

Entry to the Combined Honours program requires the completion of 48 units of credit, including JAPN3901 and JAPN3902, a WAM of 65 or above in all courses, Distinction or higher in all JAPN courses, and the major with a minimum language level of JAPN3001.

Language Core
JAPN1000 Japanese Communication 1A S1
JAPN1001 Japanese Communication 1B S2
JAPN2000 Japanese Communication 2A S1
JAPN2001 Japanese Communication 2B S2
JAPN3000 Japanese Communication 3A S1
JAPN3001 Japanese Communication 3B S2
JAPN4000 Japanese Communication 4A S1
JAPN4010 Japanese Communication 4B S2

JAPN3700 Series
JAPN3700 Expressing Oneself in Japanese** S1
JAPN3701 Advanced Study of Spoken Japanese** S2
JAPN3702 Politeness in Interaction with (the) Japanese S1
JAPN3703 Approaches to Japanese Discourse Analysis S2
JAPN3704 Contact Situations in Japanese** S2

Culture and Professional Language Courses
Core
JAPN2500 Introduction to Japanese Studies S1 & S2
or JAPN3900 Introduction to Japanese Studies (Advanced)* S1

Electives
JAPN2501 Japan’s Others: Assimilation, Exclusion, and Resistance** S1
JAPN2510 Japan and Korea: Cultures in Conflict S1
JAPN2513 Cultures of War and Peace in Japan** S1
JAPN2600 Hospitality Japanese S1
JAPN2700 Talking Japanese Pop Culture S1
JAPN2701 Learning Japanese by Reading Manga S2
JAPN2705 Business Japanese S2
JAPN3300 Discover Japanese Grammar A S1
JAPN3301 Discover Japanese Grammar B** S1
JAPN3301 Japanese Studies Internship** S1
JAPN3601 Cultural Studies and Japan S2
JAPN3602 Gender & Sexuality in Contemporary Japan** S2
JAPN3605 Japan in the World** S2
JAPN3901 Introduction to Research in Japanese Studies* S1
JAPN3902 Readings in Japanese Studies (Advanced)* S2
HIST2054 Modern Japan: Political Culture, Popular Culture S1
HIST3102 Premodern Japan S1
MODL2000 Intercultural Communication S1

*Advanced Upper Level courses usually taken by those students who are intending to enrol in Honours.

**Not offered in 2006.

Honours level
JAPN4500 Japanese Studies Honours (Research) Full-Time
JAPN4550 Combined Japanese Honours (Research) Full-Time
JAPN4555 Japanese Studies Honours (Research) Part-Time

Jewish Studies
Coordinator: Dr Julie Kalman, School of History
Office: Room 351, Morven Brown Building
Email: history@unsw.edu.au
Website: www.arts.unsw.edu.au/jewishstudies/

Jewish Studies is an interdisciplinary program focusing on the modern Jewish experience. It brings together various perspectives and approaches from History, Politics, Sociology, Literature, and Law to explore the subject of the Jews – their religion, culture and politics and their interrelations with non-Jews and the wider society – with an emphasis on the past two centuries.

Major Sequence
Students may take a major sequence in Jewish Studies as their second major, together with a major in a school-based discipline within the Faculty of Arts and Social Sciences. A major sequence consists of 36 units of credit in the Jewish Studies program, including at least 24 units of credit in Upper Level courses. With the approval of the Coordinator, up to 12 units of credit in other courses related to Jewish Studies may be counted towards the major.

Level 1
JWST1000 The Modern Jewish Experience: Emancipation and Statehood S1
JWST1001 The Modern Jewish Experience: Nationalism and Statehood S2

Upper Level
JWST2101 Holocaust and Genocide in Historical Perspective S2
JWST1203 The German-Jewish Experience* S1

Elective
HIS12511 United States and Conflict in the Middle East S2

*Keeper subject to staff availability.

Korean Studies
Coordinator: Dr Gi-Hyun Shin
Office: Room 203, Morven Brown Building
Tel: 9385 1731
Email: g.shin@unsw.edu.au
Website: www.languages.arts.unsw.edu.au/korean/korea.html
Korean Studies is available as a major in Arts and also to students of all faculties as a co-major, minor, elective/option, General Education unit or as a major in the Diploma in Languages. The program offers a range of Korean language and non-language based courses to students, including courses in Korean cultural studies, and professional language.

The program has a flexible entry-point policy, which allows students to enrol in the language program that builds on their existing language skills. Students with prior knowledge of Korean sit for a placement test in order to gain entry to an appropriate language course.

**Note:** For students admitted in their first year of studies into KORE2000 or higher on the grounds of ability and/or previous study, such courses will be counted as Level 1 courses in terms of degree regulations. No student will be permitted to enrol in courses carrying more than 12 Upper Level units of credit in any School/area of studies under this provision.

**Major Sequence**

A major sequence in Korean Studies comprises 42 units of credit. A major sequence in Korean Studies requires: (1) the completion of at least 4 consecutive language courses; (2) the completion of KORE3001 or higher; (3) the remaining units from Culture courses. In exceptional cases, a student may take Culture courses instead of Language courses with the Department's permission. Students who complete the language core with KORE3001 or higher will be recognised as having completed the Korean Studies Advanced Program.

**Honours**

**Prerequisite:** The completion of 54 units of credit, including KORE3000 and KORE3001 in Korean Studies, a WAM of 65 or above in all courses, Distinction or higher in all KORE courses, and the major with a minimum language level of KORE3001.

**Language Core**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Level</th>
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<tbody>
<tr>
<td>KORE1000</td>
<td>Korean Communication 1A</td>
<td>S1</td>
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<tr>
<td>KORE1001</td>
<td>Korean Communication 3B</td>
<td>S2</td>
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<tr>
<td>KORE2000</td>
<td>Korean Communication 2A</td>
<td>S1</td>
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<tr>
<td>KORE2001</td>
<td>Korean Communication 2B</td>
<td>S2</td>
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<tr>
<td>KORE3000</td>
<td>Korean Communication 3A</td>
<td>S1</td>
</tr>
<tr>
<td>KORE3001</td>
<td>Korean Communication 3B</td>
<td>S2</td>
</tr>
<tr>
<td>KORE3002</td>
<td>Advanced Korean A</td>
<td>S1</td>
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<tr>
<td>KORE3003</td>
<td>Advanced Korean B</td>
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<tr>
<td>KORE3004</td>
<td>Professional Korean A</td>
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<td>KORE3005</td>
<td>Professional Korean B</td>
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<tr>
<td>KORE3600</td>
<td>Korean Translation A</td>
<td>S1</td>
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**Culture Courses**

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Level</th>
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<tbody>
<tr>
<td>KORE2500</td>
<td>Korean Civilisation and Culture</td>
<td>S1</td>
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<tr>
<td>KORE2600</td>
<td>Modern Korean Society</td>
<td>S1</td>
</tr>
<tr>
<td>KORE2601</td>
<td>Gender/Politics in Korean Literature</td>
<td>S2</td>
</tr>
<tr>
<td>KORE2602</td>
<td>Korean Literature: A Survey in English**</td>
<td>S1</td>
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<tr>
<td>KORE2603</td>
<td>Korean Encounters and Worldly Visions**</td>
<td>S1</td>
</tr>
<tr>
<td>KORE3900</td>
<td>Introduction to Korean Studies (Advanced)*</td>
<td>S1</td>
</tr>
<tr>
<td>KORE3901</td>
<td>Special Topics in Korean Studies (Advanced)*</td>
<td>S1</td>
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<tr>
<td>JAPN2510</td>
<td>Japan &amp; Korea: Cultures in Conflict</td>
<td>S1</td>
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**Level 1:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>LING1000</td>
<td>The Structure of Language</td>
<td>S1</td>
</tr>
<tr>
<td>LING1500</td>
<td>The Use of Language</td>
<td>S2</td>
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**Upper Level**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Level</th>
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<tbody>
<tr>
<td>LING2400</td>
<td>Language, Text and Context</td>
<td>S1</td>
</tr>
<tr>
<td>LING2510</td>
<td>Analysing Talk</td>
<td>S1</td>
</tr>
<tr>
<td>LING2520</td>
<td>Generative Grammar*</td>
<td>S1</td>
</tr>
<tr>
<td>LING2530</td>
<td>Visual Communication</td>
<td>S2</td>
</tr>
<tr>
<td>LING2540</td>
<td>Semantics and Pragmatics</td>
<td>S2</td>
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<tr>
<td>LING2551</td>
<td>Contemporary English Grammar</td>
<td>S1</td>
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<tr>
<td>LING2590</td>
<td>The English Language*</td>
<td>S2</td>
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<td>LING2680</td>
<td>Language Universals and Linguistic Typology*</td>
<td>S2</td>
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<td>LING2700</td>
<td>Social Contexts of Language Learning and Teaching</td>
<td>S1</td>
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<td>LING2900</td>
<td>The Linguistics of Signed Languages</td>
<td>S2</td>
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<tr>
<td>LING3000</td>
<td>Analysing Talk – Advanced</td>
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<td>LING3001</td>
<td>Current Issues in English Grammar</td>
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<td>LING3002</td>
<td>Institutional Factors in Language Learning</td>
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<tr>
<td>LING3003</td>
<td>Theoretical and Descriptive Linguistics</td>
<td>S2</td>
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**Level 2:**

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<th>Course Code</th>
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<th>Level</th>
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</thead>
<tbody>
<tr>
<td>LATN1000</td>
<td>Introductory Latin A</td>
<td>S1</td>
</tr>
<tr>
<td>LATN1001</td>
<td>Introductory Latin B</td>
<td>S2</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>LATN2001</td>
<td>Reinventing the Past: Roman Mythological Epic</td>
<td>S1</td>
</tr>
</tbody>
</table>

**Note:** Latin is not available as a major sequence within the Faculty of Arts and Social Sciences.

**Linguistics**

**Coordinator:** A/Prof Peter Collins

**Office:** Room 231, Morven Brown Building

**Tel:** (02) 9385 3649

**Email:** linguistics@unsw.edu.au

**Website:** www.arts.unsw.edu.au/languages/linguistics

Linguistics is the study of human language. Its practitioners address questions such as: How do people use language in various situations? What is the biological basis for language? Is language unique to the human species? How and why do languages change? How do children learn language? What is the meaning of ‘meaning’? Can machines talk? As well, linguistics provides a basis for a variety of practical applications, including the teaching and learning of foreign languages, translating and interpreting, facilitating cross-cultural communication, diagnosing and treating language disorders, providing linguistic support for such professions as law and medicine, developing language curricula in schools, improving literacy skills, generating speech by computer, producing ‘plain English’ documents, and so on.

Students who have successfully completed either or both of the Level 1 Linguistics courses may enrol in Upper Level Linguistics courses. A student who has not fulfilled this prerequisite but is interested in a particular Upper Level course may request the permission of the Head to have the prerequisite waived. In considering such requests, the Head will give preference to a candidate with a successful year’s work in another language, or in English, or a Credit or better in another related discipline.

**Major Sequence**

A major sequence in Linguistics requires 12 units of credit in Linguistics at Level 1 and 30 units of credit in Upper Level courses, including at least 12 units of credit at 3000 level. Students may count up to 6 units of credit in approved Upper Level courses taught outside the Linguistics Department towards a major sequence in Linguistics. Approved courses are MODL2000 Intercultural Communication, MODL2002 Introduction to Professional Interpreting, JAPN330 Discover Japanese Grammar A and JAPN3301 Discover Japanese Grammar B. Students who wish to count any other course from outside the Linguistics Department towards a major sequence in Linguistics should consult the Department.

**Honours Level**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Level</th>
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<tbody>
<tr>
<td>LING4000</td>
<td>Linguistics Honours (Research) Full-Time</td>
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<tr>
<td>LING4050</td>
<td>Linguistics Honours (Research)Part-Time</td>
<td>S2</td>
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<tr>
<td>LING4500</td>
<td>Combined Linguistics Honours Full-Time</td>
<td>S2</td>
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<tr>
<td>LING4550</td>
<td>Combined Linguistics Honours Part-Time</td>
<td>S2</td>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Level</th>
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</thead>
<tbody>
<tr>
<td>LATN2002</td>
<td>Mothers and Sons: Suetonius and Tacitus on Families</td>
<td>S2</td>
</tr>
</tbody>
</table>

**Note:** Students are strongly advised to consult the Head on their eligibility to enter Honours programs.
Mathematics

Coordinator: School of Mathematics Office
Office: Room 3070, Red Centre
Tel: (02) 9385 7111
Email: info@maths.unsw.edu.au
Website: www.maths.unsw.edu.au

While Mathematics as a major study is usually taken in one of the Science, Advanced Science or Science/Arts programs, it may also be taken within an Arts program.

Students wishing to do a Honours degree in Mathematics or to specialise in one of the disciplines of Applied Mathematics, Pure Mathematics or Statistics must transfer from the Arts program to one of the Science, Advanced Science or Science/Arts programs. This should normally be done prior to commencing Year 2, but may be possible at the end of Year 2 depending on the courses selected.

First Year Mathematics
MATH1131 and MATH1231 are the standard courses and are generally selected by students who intend to pursue further studies in Mathematics. There is an assumed knowledge for these courses of HSC Mathematics Extension 1.

MATH1141 and MATH1241 are aimed at the more mathematically able students. They cover all the material in MATH1131 and MATH1231 at greater depth and sophistication. There is an assumed knowledge for these courses of HSC Mathematics Extension 2.

MATH1011, MATH1031 and MATH1041 are courses available for students who do not intend studying Mathematics beyond Level I, but whose studies require some knowledge of basic mathematical ideas and techniques. Only a very limited number of Upper Level Mathematics courses are available to students who have done these courses. There is an assumed knowledge for these courses of HSC Mathematics (this does not include HSC General Mathematics).

Higher Level Mathematics
Many courses in the School are offered at two levels. The Higher level caters for students with superior mathematical ability. Where a prerequisite is mentioned at the ordinary level, the corresponding Higher level course may be substituted.

Students with Low Mathematical Qualifications
The University organises a bridging course in Mathematics which is available for those students intending to enrol in MATH1131 who have inadequate mathematical background. The bridging course covers the gap between HSC Mathematics and Mathematics Extension 1 and is a very useful refresher course generally. The course is held at the University during February each year. Students who do not have a background equivalent to at least HSC Mathematics should not take Mathematics at UNSW.

Major Sequences in Mathematics
A major sequence in Mathematics consists of 42 units of credit, subject to the following rules.

Level I
12 units of credit (MATH1131 or MATH1141, MATH1231 or MATH1241)

Upper Level
30 units of credit in which:
(a) at least 12 units of credit are at Level II
(b) at least 12 units of credit are at Level III
(c) MATH2501 and MATH2011 are compulsory
(d) additional courses recommended at Level II are:
MATH2120 and MATH2520, or MATH2801 and MATH2810

Students should also consult the School concerning their choice of Upper Level courses before enrolling in Year 2.

Level I
MATH1011 General Mathematics 1B
MATH1031 Mathematics for Life Sciences
MATH1041 Statistics for Life and Social Sciences
MATH1131 Mathematics 1A
MATH1141 Higher Mathematics 1A
MATH1231 Mathematics 1B
MATH1241 Higher Mathematics 1B

Upper Level
Mathematics Level II
MATH2011 Several Variable Calculus
MATH2111 Higher Several Variable Calculus

Applied Mathematics Level II
MATH2120 Mathematical Methods for Differential Equations
MATH2130 Higher Mathematical Methods for Differential Equations
MATH2140 Operations Research: Methods and Applications
MATH2240 Introduction to Oceanography and Meteorology
MATH2260 Dynamical Systems
MATH2281 Biomathematics
MATH2301 Mathematical Computing

Pure Mathematics Level II
MATH2400 Finite Mathematics
MATH2501 Linear Algebra
MATH2510 Real Analysis
MATH2520 Complex Analysis
MATH2601 Higher Linear Algebra
MATH2620 Higher Complex Analysis

Statistics Level II
Note: The course MATH2841 Statistics SS is available for students who wish to take only 6 units of credit of Level II Statistics. It cannot be followed by any Level III statistics courses.

MATH2801 Theory of Statistics
MATH2830 Statistical Computing for Categorical Data
MATH2831 Linear Models
MATH2841 Statistics SS
MATH2871 Data Management for Statistical Analysis
MATH2901 Higher Theory of Statistics
MATH2910 Higher Statistical Computing for Categorical Data
MATH2931 Higher Linear Models

Mathematics Level III
MATH3041 Mathematical Modelling for Real World Systems

Applied Mathematics Level III
Before attempting any Level III Applied Mathematics course a student must have completed at least 12 units of credit of Level II Mathematics courses including the prerequisites specified for individual courses.

MATH3101 Computer Methods for Differential Equations
MATH3121 Mathematical Methods
MATH3161 Optimisation Methods
MATH3181 Optimal Control
MATH3201 Dynamical Systems and Chaos
MATH3241 Fluid Dynamics
MATH3261 Atmosphere-Ocean Dynamics
MATH3301 Advanced Mathematical Computing

Pure Mathematics Level III
Before attempting any Level III Pure Mathematics courses, except MATH3411 or MATH3421, students must normally have completed at least 12 units of credit of Level II Mathematics including the prerequisites specified for individual courses. For higher courses the performance in these courses should be at distinction level. Subject to the approval of the Head of the Department, this may be relaxed. Students wishing to enrol in Level III Higher Pure Mathematics courses should consult with the Pure Mathematics Department before enrolling.

The courses MATH3511, MATH3680 and MATH3740 are normally offered only in even numbered years and the courses MATH3531, MATH3780 and MATH3790 only in odd numbered years.

MATH3411 Information, Codes and Ciphers
MATH3421 Logic and Computability
MATH3511 Transformations, Groups and Geometry
MATH3521 Algebraic Techniques in Number Theory
MATH3531 Topology and Differential Geometry
MATH3541 Differential Equations
MATH3560 History of Mathematics
MATH3570 Foundations of Calculus
MATH3610 Foundations of Analysis
MATH3620 Higher Analysis 2: Functional Analysis
MATH3630 Higher Analysis 3: Integration
MATH3641 Higher Differential Equations
MATH3680 Higher Complex Analysis
MATH3690 Higher Algebraic Topology
MATH3700 Higher Differential Geometry
MATH3710 Higher Algebra 1: Group Theory
MATH3720 Higher Algebra 2: Rings and Fields
MATH3740 Higher Number Theory
MATH3780 Higher Geometry
MATH3790 Higher Computational Combinatorics
Statistics Level III
Note: Not all Level III Statistics courses are offered every year. Contact the Department of Statistics for details.

MATH3801 Probability and Stochastic Processes
MATH3811 Statistical Inference
MATH3821 Statistical Modelling and Computing
MATH3830 Design and Analysis of Experiments
MATH3831 Statistical Methods in Social and Market Research
MATH3841 Statistical Analysis of Dependent Data
MATH3880 Advanced Probability
MATH3890 Special Topics in Statistics
MATH3901 Higher Probability and Stochastic Processes
MATH3911 Higher Statistical Inference
MATH3930 Higher Design and Analysis of Experiments
MATH3931 Higher Statistical Methods in Social and Market Research
MATH3941 Higher Statistical Analysis of Dependent Data
MATH3980 Higher Advanced Probability

Media, Film and Theatre
Coordinator: Professor Philip Bell
School Office: Room 311U, Robert Webster Building
Administrative Assistants: Jennifer Beale, Julie Miller
Tel: (02) 9385 4856 Fax: (02) 9385 6812
Email: mft@unsw.edu.au
Website: http://media.arts.unsw.edu.au

The School of Media, Film and Theatre teaches undergraduate and postgraduate programs in media production and its contexts, film aesthetics and history, the analysis and history of drama and theatrical performance, and dance education.

The School is housed in the Sir Robert Webster Building and employs sophisticated production, post-production digitally-equipped laboratories, excellent rehearsal spaces and theatres, as well as modern teaching spaces.

Bachelor of Arts
Major Sequences in Media, Culture and Technology, Film, and Theatre and Performance Studies

Students may take a major sequence, which will consist of no fewer than 42 units of credit and normally involve two years of Upper Level study in 1. Media, Culture and Technology, or 2. Film, or 3. Theatre and Performance Studies.

Before proceeding to a major sequence at Upper Level, all students must take at least 6 or 12 units of credit in Level 1 core courses. Please see the major sequences below for the relevant core course:

Level 1
MFT1100 An Introduction to Media: Television, Telephones and Everyday Life
MFT1200 Introduction to Film
MEFT2101 Working with Image and Sound
MEFT2100 Reading Performance
MEFT1301 Introduction to Theatre and Performance Studies

1. Major Sequence in Media, Culture and Technology

The major in Media, Culture and Technology provides students with a progressive understanding of the social, cultural and phenomenological impacts of media and communication technologies in the twentieth and twenty-first centuries. The major consists of no fewer than 42 units of credit.

After completion of the core course MFT1100 An Introduction to Media: Television, Telephones and Everyday Life at Level 1, the major must include the following:

At Level 2, at least 12 units of credit from:
MEFT2100 Global Media: Markets, Flows and Cultures
MEFT2101 Media Uses: Practices of Cultural Consumption*
MEFT2102 Media Technologies and Cultural Change
MEFT2103 Reading Media*
MEFT2201 Australian Cinema and Television
MEFT2351 Live Entertainment and Popular Culture

At Level 3, at least 12 units from:
MEFT3100 Media, Tastes and Values*
MEFT1302 Electronic and Digital Aesthetics
MEFT3103 Media Democracies*
MEFT1304 Transnational Media in the Asia Pacific
MEFT3105 Media Forms*
MEFT3353 Performance in a Mediatized Culture S1
* Courses not offered in 2006 but will be offered in future years as part of the major sequence.

2. Major Sequence in Film

The major in Film provides students with a sophisticated understanding of the history and contemporary significance of film as a medium and cinema as an institution. The study of film is set in a broader context of screen cultures and audio-visual industries – including television, video and emerging new media – both in Australia and globally. The major consists of no fewer than 42 units of credit.

After completion of the core course MFT11200 Introduction to Film at Level 1, the major must include the following:

At Level 2, at least 12 units of credit from:
MEFT2200 Contemporary Approaches to Cinema S1
MEFT2201 Australian Cinema and Television S1
MEFT2202 Movie World: National Cinema S2
MEFT1203 The Hollywood System S2

At Level 3, at least 12 units from:
MEFT3200 Video Exercise S1
MEFT3201 Aspects of Film History S1
MEFT3202 Explorations in Contemporary Film Theory S1
MEFT3203 Film Genres and Styles S2
MEFT3204 Special Program in Film Studies S1 & S2
MEFT3205 Cinemas and Cultures S2

3. Major Sequence in Theatre and Performance Studies

The major in Theatre and Performance Studies concentrates on the history, theory and practice of theatre and performance. It will consist of no fewer than 42 units of credit.

After completion of at least one of the core courses MFT11300 Reading Performance or MFT11301 Introduction to Theatre and Performance Studies at Level 1, the major must include the following:

At Level 2, at least 6 units of credit from:
MEHT1200 Staging Australia S2
MEFT3206 Theories of Acting and Performing S2
MEHT1251 Live Entertainment and Popular Culture S1

At Level 3, at least 12 units from:
MEHT1300 Aspects of Theatre and Performance History S1
MEFT3301 Building a Repertoire for Contemporary Stage *
MEFT3302 Production Exercise S1
MEFT3303 Workshop Exercise S2
MEFT3304 Writing for Performance*
MEFT3351 Live Art and Physical Theatres S2
MEFT3352 Studies in World Theatre S2
MEFT3353 Performance in a Mediatised Culture S1
MEFT3354 Performance Making S1
* Courses not offered in 2006 but will be offered in future years as part of the major sequence.

Honours Level
For entry to Honours students must have completed 54 units of credit in a major sequence in Media, Culture and Technology, Film or Theatre and Performance Studies, with a grade average of at least 70%.

MEFT4000 Media, Film and Theatre Honours Full-time
MEFT4050 Media, Film and Theatre Honours Part-time

Bachelor of Arts (Media and Communications)

The Media and Communications core program gives students a sophisticated understanding of the history, scope and socio-cultural impact of new media technologies, and of the debates that have accompanied their development and use. Important features of this core program are its emphasis on new computer-based multimedia and its focus on Australian media industries in relation to globalisation. The degree is vocationally relevant in its orientation and all students are given significant practical experience in new computer-based multimedia communication technologies.

The program emphasises analytical skills combined with extensive production experience to equip students with a thorough knowledge of the rapidly changing fields of media and communications. This grounding enables them to interpret, create and apply the products of new media not only in the context of the mass information and entertainment industries but also in a variety of other public and private sectors such as education, on-the-job training and specialised information services.
In addition to the Media and Communications core program, students must complete two elective courses and a major in the humanities or social sciences, to permit them to study a related field in depth or to pursue their interests in other areas.

Core Courses
The core program is only available to students enrolled in the BA (Media and Communications) (program 3402), BSc (Media and Communications) (program 3994), and BA (Media) LLB (program 4764).

Level 1
- MDCM1000 New Media Technologies A S1
- MDCM1001 New Media Technologies B S2

Level 2
- MDCM2000 Researching and Writing for New Media S1
- MDCM2002 Media Production S1
- MDCM2003 Multimedia Production S2

Level 3
- MDCM3000 Media Forms S1
- MDCM3002 Advanced Media Production S1
- MDCM3003 Multimedia Production in Industry Contexts S2

Elective Courses
These courses are available to all Faculty of Arts and Social Sciences students at Upper Level.
- MFT2100 Global Media: Markets, Flows and Cultures S2
- MFT2102 Media Technologies and Cultural Change S2
- MFT2201 Australian Cinema and Television S1
- MFT3102 Electronic and Digital Aesthetics S2
- MFT3104 Transnational Media in the Asia Pacific S1
- MFT3353 Performance in the Mediatised Culture S1

Honours Level
For entry to Honours in Media and Communications, students must have normally completed 60 units of credit in MDCM courses with a grade average of at least 70%.
- MLCM4000 Media and Communications Honours Full-time
- MLCM4050 Media and Communications Honours Part-time

Bachelor of Arts (Dance) Bachelor of Education
The BA(Dance) BEd (program 3408) is a specialist double degree in Dance and Dance Education. Although a wide variety of dance careers is open to graduates, the primary focus of the double degree program is to equip graduates to serve as dance teachers in schools and in the community.

The program offers extended study in four major areas (plus the General Education program). Dance Practice offers dance styles classes designed to improve and consolidate students’ dance skills. Dance Theory is a sequence of mainly theoretical courses which provide an intellectual rationale for understanding the course. Dance Education and Education both give dance a pedagogic context as well as introduce students to educational theories. A major sequence in a second course area from within the Faculty provides students with their second teaching subject.

The program carries 192 units of credit and consists of:

**Level 1**
- DANC1001 Dance Styles 1 S1
- DANC1002 Dance Styles 2 S2
- DANC1101 Anatomical Foundations of Dance Education S1
- DANC1102 Teaching Safe Dance S2
- EDST1101 Educational Psychology 1 S1
- EDST1103 Educational Psychology 2 or S2
- EDST1104 Social Perspectives in Education S2

**Upper Level**
- DANC2000 Dance Analysis and Composition 1 S1
- DANC2002 Theatre Production S2
- DANC2005 Dance Analysis and Composition 2 S2
- DANC2007 History of Dance S1
- DANC2103 Dance Styles 3 S1
- DANC2104 Dance Styles 4 S2
- DANC2105 Dance Styles 5 S1
- DANC2106 Dance Styles 6 S2
- DANC2107 Dance Styles 7 S1
- DANC2201 The Teaching-Learning Process in Dance S2
- DANC2203 Dance Teaching Practice S2
- DANC2209 Dance Method A S1

**Level 2**
- DANC2211 Dance Method B S2
- EDST4080 Special Education S1
- EDST4081 Professional Issues in Teaching S1
- EDST4095 Gifted and Talented Students: Recognition and Response S1

plus 30 units of credit from Upper Level courses in the approved major sequences

plus 6 units of credit in the requisite Second Teaching Method course offered by the School of Education

and

12 units of credit in courses approved by the Faculty in the General Education program.

Outside Credits
In special circumstances students may be given permission to include towards a major sequence in the School up to a maximum of 6 units of credit in a related course or courses offered by another school/department. It is imperative, however, that they seek the written authorisation of the Head of School prior to making their enrolment.

Honours Level
Students seeking permission to undertake Dance Honours must have completed 192 units of credit as detailed above and achieved a minimum average grade of Credit in dance courses. Those intending to enroll in the Honours program must seek the permission of the Dance Program Coordinator so that an appropriate course of study can be planned.

DANC4000 Dance Honours Full-time
DANC4050 Dance Honours Part-time

Modern Language Studies
School Office: Reception Room 258, Moran Brown Building
Email: languages@unsw.edu.au
Website: http://languages.arts.unsw.edu.au/

The School of Modern Language Studies teaches majors in Chinese and Indonesian Studies, French, German Studies, Japanese and Korean Studies, Linguistics, Greek, Russian Studies and Spanish and Latin American Studies. Some courses are also available in Italian and Latin. The courses listed below are taught in English and are available to all students who meet the prerequisites. They are team-taught by staff members from different cultural backgrounds and will emphasise cross-cultural analysis.

**Upper Level**
- MODL2000 Intercultural Communication S1
- MODL2002 Introduction to Professional Interpreting S2

Music and Music Education
Coordinator: Dr Christine Logan
School Office: Room G19, Robert Webster Building
Tel: (02) 9385 4871
Email: music@unsw.edu.au
Website: http://music.arts.unsw.edu.au/

The School of Music and Music Education offers the following undergraduate degrees and courses of study:

1. A major sequence and an Honours program within the Bachelor of Arts (BA) or some other Bachelor programs
2. The Bachelor of Music degree (BMus)
3. The combined Bachelor of Music Bachelor of Education degree (BMus BEd)
4. The combined Bachelor of Music Bachelor of Arts degree (BMus BA)
5. Fundamentals of Music, which serves as an introductory course in musicianship and musical techniques

6. A Diploma in Music which may be undertaken concurrently with another program of study or by students who already hold a Bachelor Degree in another discipline other than music

**The Bachelor of Arts (BA)**  with a major in music is a three year degree designed to develop musicianship and performing skills in association with an exploration of musicology; music history, style, musical perception and analysis, music technology, and the study of music in its cultural contexts (ethnomusicology). There are two possible major sequences. The first is:

**Year 1**
- MUSC1101 Music Reinvented
- MUSC1312 BA Musicianship A
4. The Bachelor of Music Bachelor of Arts (BMus BA) is a four year double degree which combines the full professional training of the BMus with an extensive range of other options within the Faculty of Arts and Social Sciences. The music degree develops musicianship and musical skills in general through courses in musicology and ethnomusicology – including music history, style, musical perception and analysis, music in its cultural contexts – and musical technology, performance, jazz studies and composition. The Arts degree offers a wide range of options for specialist studies in two or three other areas within the Faculty. The whole range of professional work open to BMus graduates in performance, private teaching, broadcasting, recording, arts administration, concert planning, music and general arts journalism, arranging and composition will be open to the BMus BA graduates. In addition, the BA will qualify them for public and private sector administrative and policy positions.

Assumed knowledge: HSC Music 2 or Extension or equivalent qualification.

5. Music Fundamentals serves as an introductory course in musicianship and musical techniques. It is open to all undergraduates and does not have a musical prerequisite.

6. The Diploma in Music (program 3418) may be taken either concurrently with a non-music Bachelor program (with approval from a student's program authority) or as a three year, part-time program for students who already hold a Bachelor degree (with approval from the Faculty of Arts and Social Sciences). The structure of the Diploma follows that of the Bachelor of Arts major in music (item 1 above).

University Performance Ensembles – Music studies in the Faculty concentrate on the texts and contexts of music, and involve the active development of the student's musicianship and practical abilities. Performance groups run by the School include: The Collegium Musicum Choir, the UNSW Orchestra, the Pipers Wind Band (Concert Band), a vocal chamber group the Burgundian Consort, chamber music ensembles, Traditional Music Group, Handbell Ensemble, Jazz Groups.

The Collegium Musicum Choir of UNSW is open to all students and staff of the University interested in choral singing. The choir rehearses each Wednesday evening from 4.30–7.30 pm and gives several public concerts each year, often with the Collegium Musicum Orchestra who are based on the Australia Ensemble and resident at UNSW. For audition and further details, please contact the School of Music and Music Education.

The University of New South Wales Orchestra and Concert Band are open to all Australian students and staff with the necessary instrumental performance standards. The student's training involves practice teaching sessions in Years 1, 2 and 3 and 4 in a variety of different schools.

Admission to the program is subject to satisfactory audition/interview and an acceptable level of attainment in Year 12 studies or equivalent.

Assumed knowledge: HSC Music 2 or Extension or equivalent qualification.

Core Courses

<table>
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<tr>
<th>Course Code</th>
<th>Course Name</th>
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<tr>
<td>MUSC1001</td>
<td>Music Fundamentals</td>
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<tr>
<td>MUSC1101</td>
<td>Music Reinvented</td>
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<tr>
<td>MUSC1302</td>
<td>Musicianship 1A</td>
</tr>
<tr>
<td>MUSC1312</td>
<td>BA Musicianship A</td>
</tr>
<tr>
<td>MUSC1401</td>
<td>Professional Practices A</td>
</tr>
<tr>
<td>MUSC1402</td>
<td>Professional Practices B</td>
</tr>
<tr>
<td>MUSC1501</td>
<td>Music Performance 1A</td>
</tr>
<tr>
<td>MUSC1502</td>
<td>Music Performance 1B</td>
</tr>
</tbody>
</table>
Restrictions to the domestic context. Specialist knowledge and skills are required to be successful in international business. For example, strategic decisions have to be made about which countries to operate in and whether or not to export or license, whether to set up a new facility, establish a joint venture or acquire an existing business, and how to sustain competitiveness internationally. Cultural differences also have to be understood to conduct effective business negotiations and to manage people in a cross-border context.

The School's program of study in Industrial Relations focuses on the institutions, practices and processes associated with contemporary employment relations. It is designed on a multidisciplinary social science basis to foster an appreciation of the many important questions relating to the role of individuals, trade unions, employers and government bodies in the world of work.

**Major Sequence in Industrial Relations**
A total of 42 units of credit obtained in the following Required and Option courses:

**Required Courses (Minimum 18 units of credit)**
- MGMT1701 Industrial Relations
- MGMT1702 Labour Organisation
- MGMT2702 Industrial Law

**Option List A (Minimum 12 units of credit)**
- MGMT2704 Social Organisation of Work
- MGMT2715 Labour History*
- MGMT3705 Management and Employment Relations
- MGMT3706 Industrial Relations Policies and Processes*

**Option List B (Minimum 6 units of credit)**
- MGMT1203 International Employment Relations*
- MGMT2718 Human Resource Management
- MGMT2724 Health and Safety at Work
- MGMT3702 International Human Resource Management Practice
- MGMT3708 Research Methods in Employment and Management
- MGMT3721 Negotiation Skills
- MGMT3724 Strategic Human Resource Management
- MGMT3728 Managing Pay and Performance
- MGMT3729 Managing Workplace Training

* This course is not offered every year, see the timetable for offerings in 2006.

**Honours Entry**
To progress to Year 4 Honours in Industrial Relations a student must:
1. Complete the specified number of Required and Options courses, plus MGMT3703**
2. Pass all these courses and obtain average grades of 71% or better in these courses
3. Obtain the permission of the Honours Coordinator to undertake the Honours year

** MGMT3703 is a prerequisite for Honours & should normally be taken as an Option in the session preceding the Honours year.

** Honours Level
Students need to complete the following:
1. A thesis of 20,000 words
2. Honours Seminar (both sessions)
3. Two approved MGMT courses, one per session. (Details of approved courses may be obtained from the Head of School.)
4. A thesis of 20,000 words

** This course is not offered every year, see the timetable for offerings in 2006.

**Major Sequence in Human Resource Management**
A total of 42 units of credit obtained in the following Required and Option courses:

**Required Courses (18 units of credit)**
- MGMT1701 Industrial Relations
- MGMT1712 Management of Organisations
- MGMT12718 Human Resource Management

**Option List A (minimum 12 units of credit)**
- MGMT3702 International Human Resource Management Practice
- MGMT3724 Strategic Human Resource Management
- MGMT3728 Managing Pay and Performance
- MGMT3729 Managing Workplace Training
Option List B (minimum 6 units of credit)

- MGMT2702 Industrial Law*
- MGMT2703 International Employment Relations*
- MGMT2704 Social Organisation of Work
- MGMT2715 Labour History*
- MGMT2724 Health and Safety at Work
- MGMT3705 Management and Employment Relations
- MGMT3706 Industrial Relations Policies and Processes*
- MGMT3708 Research Methods in Employment and Management*
- MGMT3721 Negotiation Skills

* This course is not offered every year, see the timetable for offerings in 2006.

Honours Entry

To progress to Year 4 Honours in Human Resource Management a student must:

1. Complete the specified number of Required and Options courses, plus MGMT3708**
2. Pass all these courses and obtain average grades of 71% or better in these courses
3. Obtain the permission of the Honours Coordinator to undertake the Honours year

** MGMT3708 is a prerequisite for Honours and should normally be taken as an Option in the session preceding the Honours year.

Honours Level

1. A thesis of 20,000 words
2. Honours Seminar (both sessions)
3. Two approved MGMT courses, one per session. (Details of approved courses may be obtained from the Head of School.)

Students undertaking Honours in Human Resource Management should enrol in one of the following course numbers in each session:

- MGMT4740 Human Resource Management 4 Honours Full-Time
- MGMT4741 Human Resource Management 4 Honours Part-Time

Major Sequence in International Business

A total of 42 units of credit obtained in the following required and option courses.

Required Courses

Level 1 (12 units of credit)
- MGMT11101 Global Business Environment
- MGMT11102 Managing Across Cultures

Upper Level (18 units of credit)
- MGMT2101 International Business and Multinational Operations
- MGMT21010 International Business Strategy
- MGMT3102 Asia-Pacific Business

Options (12 units of credit)
- MGMT2103 Chinese Business Enterprise
- MGMT2106 Comparative Management Systems in East Asia
- MGMT2110 Alliance Management and International Co-operation*
- MGMT3103 Global Stakeholder Management

* This course is not offered every year, see the timetable for offerings in 2006.

Other courses in Arts and Social Sciences may be substituted for the above options with the approval of the Head, School of Organisation and Management.

Honours Entry

To progress to Year 4 Honours in International Business a student must:

1. Complete 48 units of credit in International Business satisfying the requirements of a major sequence**
2. Pass all these courses and obtain average grades of 71% or better in these courses
3. Obtain the permission of the Honours Coordinator to undertake the Honours year

** Students are highly encouraged to take MGMT3708 as a Free Option in the session preceding the Honours year.

Honours Level

1. A thesis of 20,000 words
2. Honours Seminar (both sessions)
3. Two approved MGMT courses, one per session. (Details of approved courses may be obtained from the Head of School.)

Students undertaking Honours in International Business should enrol in one of the following course numbers in each session:

- MGMT4000 International Business Honours Full-Time
- MGMT4050 International Business Honours Part-Time
- MGMT4200 Combined International Business Honours Full-Time
- MGMT4250 Combined International Business Honours Part-Time

Philosophy

Head of School: A/Prof Stephen Cohen
School Office: Room G34, Morven Brown Building
Tel: (02) 9385 2371
Email: philosophy@unsw.edu.au
Website: http://philosophy.arts.unsw.edu.au

Studying Philosophy provides intellectual skills that can help you to think critically, to better organise your thoughts and to present them logically and persuasively. Philosophy also addresses fundamental questions about the nature of reality, language, meaning, human knowledge and values. It provides a useful complement to studies in many disciplines but especially those in which logical thinking and clear expression are important. The range of Upper Level courses makes it possible for students majoring in other disciplines to select courses complementing their interests.

Level 1

There are four Level 1 courses. Students can gain Upper Level status by completing one, but it is suggested that two be completed if you wish to complete a major sequence in Philosophy.

Upper Level

Students must be in at least Year 2 of study in the Faculty in order to take Upper Level courses in Philosophy. Each course is designed to be self-contained, but particular groupings of courses will enable students to pursue sustained treatments of particular areas or historical developments in the treatment of issues. The School recommends that students intending to continue upper level courses enrol in one or more PHIL2000 gateway courses. In certain circumstances the prerequisites specified for courses may be waived. Students who feel they have a case for a concession of this kind should consult the School.

Major Sequence

A major sequence in Philosophy is a sequence of courses offered by the School carrying a total of at least 42 units of credit including no more than 12 units of credit in Level 1 courses and at least 18 units of credit in PHIL2100 courses or above. Subject to the approval of the School, a student may be permitted to count up to 6 units of credit offered outside the School toward a major sequence in Philosophy. Some Philosophy courses may be counted towards a major sequence in the School of History and Philosophy of Science and in the School of Education.

Honours Entry

For entry to Philosophy Honours (Research), students must normally have completed 54 units of credit in Philosophy, consisting of 6 or 12 units of credit at Level 1 and the remainder at Upper Level. Upper Level courses must include at least 24 units of credit in PHIL2100 courses or above, including PHIL3910 Advanced Philosophy Seminar. Students must also normally have a grade average of at least 70 per cent in their Philosophy courses, including at least one Distinction result.

For Combined Honours (Research), the requirement is normally 48 units of credit in Philosophy, consisting of 6 or 12 units of credit at Level 1 and the remainder at Upper Level. Upper Level courses must include no more than 12 units of credit at the PHIL2000 level, at least 24 units of credit in PHIL2100 courses or above, including PHIL3910 Advanced Philosophy Seminar. Students must also normally have a grade average of at least 70 per cent in their Philosophy courses, including at least one Distinction result. The School recognises that the particular overall programs of some students enrolling in Combined Honours (Research) might be such as to make it desirable to vary the Philosophy course requirements for admission. Students are invited to consult the School about this matter with regard to their particular situations.

Subject to approval of the School, which considers the individual courses nominated by a student and the student's overall program in Philosophy, a student may be permitted to count up to 6 units of credit offered outside the School toward satisfying the Honours entry requirements.

Level 1

- PHIL1007 Knowledge and Reality
- PHIL1008 Ethics and Society
- PHIL1010 Thinking about Reasoning
- PHIL1014 Introduction to European Philosophy

Upper Level

- PHIL2001 Logic
- PHIL2002 Ways of Reasoning
PHIL2005 20th Century European Philosophy  S2  
PHIL2008 Issues in Applied Ethics  S1  
PHIL2020 Philosophy of Language  S2  
PHIL2109 Contemporary Metaphysics  S1  
PHIL2206 Philosophy of Mind  S1  
PHIL2207 Philosophy of Psychology  S2  
PHIL2208 Contemporary Epistemology  S1  
PHIL2218 Foundations of Artificial Intelligence  S1  
PHIL2309 Introduction to Hegel  S1  
PHIL2310 Heidegger  S2  
PHIL2316 Philosophy of Religion  S1  
PHIL2416 Nietzsche and Philosophy  S2  
PHIL2420 Environmental Ethics  S1  
PHIL2421 Philosophy, Education and Society  S1  
PHIL2424 Human Nature and Technology  S1  
PHIL2510 Political Philosophy: Equality, Freedom and Justice  S1  
PHIL2517 Representation and Sexual Difference  S1  
PHIL2519 Introduction to Chinese Philosophy  S2  
PHIL2520 Aspects of Chinese Thought  S2  
PHIL2708 Reading Option  S1 & S2  
PHIL2709 Ethics and Accountability  S2  
PHIL3910 Advanced Philosophy Seminar  S2  

Honours Level  
PHIL4000 Philosophy Honours (Research) Full-Time  
PHIL4050 Philosophy Honours (Research) Part-Time  
PHIL4500 Combined Philosophy Honours (Research) Full-Time  
PHIL4550 Combined Philosophy Honours (Research) Part-Time  

Philosophy of Science  
Coordinator: Anthony Corones, School of History & Philosophy of Science  
Office: Room LG24, Morven Brown Building  
Tel: (02) 9385 2357  
Email: a.corones@unsw.edu.au  

The Philosophy of Science program is jointly taught by the School of Philosophy and the School of History and Philosophy of Science. It is designed to provide a coherent sequence of courses both for students who wish to prepare themselves for undertaking advanced study within the areas of logic, methodology and philosophy of science, and those who merely wish to deepen their comprehension of the course matter of a major in another field. While a second major may be taken in any discipline available, the program is designed in such a way that students can pursue a second major in either Philosophy or History and Philosophy of Science.

A major sequence is made up of not less than 36 units of credit. Students should note, however, that they may not ‘double-count’ courses towards a second major and they must satisfy general Faculty regulations. Students may also need to meet certain prerequisite requirements within the program. The program given below may be varied by the Coordinator.

Level 1  
6 units of credit obtained from one of the following courses:  
HPSC1100 Cosmos and Culture  
HPSC1200 Science, Good, Bad and Bogus  
PHIL1007 Knowledge and Reality  
PHIL1008 Ethics and Society  
PHIL1010 Thinking about Reasoning  
PHIL1011 Minds, Bodies and Persons#  

Upper Level  
18 units of credit obtained in the following courses:  
HPSC2200 Philosophy of Science  
HPIL2001 Logic  
HPIL3200 Topics in the Philosophy of Science  
or  
PHIL2107 Advanced Philosophy of Science#*  
or  
PHIL2117 Philosophical Logic#*  
12 units of credit obtained in the following:  
HPSC2100 The Scientific Revolution#  
HPIL2600 Galileo, Science and Religion  
HPIL2610 Computers, Brains and Minds  
HPIL3200 Topics in the Philosophy of Science  
PHIL2107 Advanced Philosophy of Science*  
PHIL2116 Scientific Method#  

PHIL2117 Philosophical Logic#*  
PHIL2118 Philosophy and Biology#  
PHIL2206 Philosophy of Mind  
PHIL2207 Philosophy of Psychology  
PHIL2208 Contemporary Epistemology  
PHIL2218 Philosophical Foundations of Artificial Intelligence  

*Students may not count the same course toward satisfaction of both the 12 units of credit requirement and the 18 units of credit requirement from the above list.  
# Not offered in 2006.  

Physics  
Coordinator: A/Prof G Morriss  
Tel: (02) 9385 4353  
Email: info@phys.unsw.edu.au  
Website: www.phys.unsw.edu.au  
The School of Physics is in the Faculty of Science. The 1st Year Office is in Room LG03, Old Main Building. Enquiries about Upper Level courses are dealt with by the Physics Friend, School Office, Room 62, Old Main Building.

Level 1  
PHYS1111 Fundamentals of Physics  
PHYS1211 Physics 1A  
PHYS1221 Physics 1B  

Upper Level  
PHYS2010 Mechanics  
PHYS2020 Computational Physics  
PHYS2030 Laboratory A  
PHYS2040 Quantum Physics  
PHYS2050 Electromagnetism  
PHYS2060 Thermal Physics  
PHYS2160 Astronomy  
PHYS2170 The Search for Life Elsewhere in the Universe  
PHYS2410 Biophysics 1  
PHYS2630 Electronics  
PHYS2801 Atmospheric Science  
PHYS2810 Atmospheric Physics  
PHYS3020 Statistical Physics  
PHYS3030 Quantum Mechanics  
PHYS3210 Quantum Mechanics  
PHYS3230 Electromagnetism  
PHYS3630 Electronics  
PHYS3710 Lasers and Applications  
PHYS3720 Optoelectronics  
PHYS3770 Laser and Spectroscopy Laboratory  
PHYS3780 Photonics Laboratory  

Note: Physics is not available as a major sequence within the Faculty of Arts and Social Sciences.

Political Economy  
Coordinator: Dr George Argyrous, School of Social Science and Policy  
Office: G23, Morven Brown Building  
Email: g.argyrous@unsw.edu.au  
Website: http://www.arts.unsw.edu.au/futurestudents/undergraduate/politicaleconomy.html  
The major in Political Economy consists of seven courses, each of 6 units of credit, for a total of 42 units of credit with at least 12 units of credit from the 3000 level.

First year  
PECO1000 Introduction to Political Economy  S1  
PECO1001 Australia in the Global Economy  S2  

Upper Level  
PECO2000/  
SLS2000 Political Economy and the State*  S1  
PECO3000 Political Economy  S2  

Bachelor of Arts  
BA students majoring in Political Economy must complete the core courses PECO1000, PECO1001, PECO2000 and PECO3000. They must also
complete any three courses from the list of electives below including at least one 3000 level course.

**Bachelor of Social Science**

Students majoring in Political Economy as part of the Bachelor of Social Science must complete the core courses PECO1000, PECO1001 and PECO3000. Students must also select four courses from the list of electives below including at least one 3000 level course.

* Please note that students who complete SLSP2000 cannot enrol in PECO2000, and vice versa.

**Electives**

- ARTS2000: Arts and Social Sciences Internship
- COMD2000: The Theory and Practice of Development (SLSP2701)
- COMD2050: Sustainable Development, Globalisation and the Third World (HPSC2550)
- ECON3109: Economic Growth, Technology and Structural Change
- ECON3110: Development Economics
- ECON3120: Economic Reasoning
- EURO2600: European Integration
- HIST2047: Winners and Losers: Poverty, Welfare, Justice in Australia
- POLS2023: Globalisation and Uneven Development
- POLS2040: Politics and Business
- PURNS2049: Asia and the International Political Economy
- POLS3047: Theories of the Market and its Critics
- POLS3054: Theorising International Political Economy
- SOCA2103: Globalisation and Fragmentation
- SOCA2104: Technology, Work, Culture
- SOCA3604: Gender, Work and Employment

**Honours**

Students who have completed 48 units of credit in Political Economy, including all compulsory courses, at a good credit average, may be admitted to a Combined Honours program. They must also have met the requirements for a single Honours program in one of the Schools or Departments teaching in the Bachelor of Arts program. For Combined Honours, students are required to present a thesis as approved by the Heads of the participating Schools or Departments.

**Combined Political Economy Honours (Research)**

- Full-time: PECO4500
- Part-time: PECO4550

**Politics and International Relations**

- Coordinator: Professor Gavin Kitching
- Administration: Pat Hall-Ingrey & Samantha Prats
  - Tel: (02) 9385 7876
  - Email: p.hall-ingrey@unsw.edu.au & s.prats@unsw.edu.au
- School Email: politics_ir@unsw.edu.au
- School Office Fax: (02) 9385 1555
- Website: http://politics-ir-arts.unsw.edu.au/

The School of Politics and International Relations is concerned with the study of political action, ideas, institutions and actors, from the local to the global. It deals with governments and how policies are made on a wide range of issues, such as the economy, the environment, and social issues. It explores ideas and the important thinkers who have helped shape political beliefs. It analyses different political systems, cultures and societies. It also covers the study of International Relations, in theory and practice, the global economy, international law, regionalism and institutions such as the United Nations. Our objective is to describe, analyse and understand the politics of our own country, of other countries and of the global community, as well as evaluate ideas about politics.

**Major Sequence**

Any student who wishes to gain a major sequence in Politics and International Relations must obtain 6 Level 1 and 36 Upper Level (or 12 Level 1 and 30 Upper Level) units of credit including 12 units of credit in POLS3### courses in Politics and International Relations.

**Level 1**

Normally students take only one Level 1 course in each session. Students cannot count more than 12 units of credit from Level 1 Politics and International Relations courses towards their degree.

- POLS1002: Power and Democracy in Australia
- POLS1003: Australian Political Practice
- POLS1005: Politics and Crisis: An Introduction to Western Political Theory

**POLS1013**: Thinking about Politics
**S1**

**POLS1017**: International Relations in the 20th Century
**S1**

**POLS1020**: International Relations: Continuity and Change
**S2**

**Upper Level**

Courses commencing with the numbers POLS2### have as their minimum prerequisite 36 units of credit; those commencing with the numbers POLS3### are advanced Upper Level lecture courses and require 36 units of credit including 6 units of Politics and International Relations at Credit level; while those commencing with the numbers POLS30### and POLS39### are Upper Level seminar courses and require at least a 65% average in 18 units of Politics and International Relations.

**Upper Level Lecture Courses**

- POLS2003: The Political Development of Contemporary China
- POLS2008: Power and Policy in Australian Politics
- POLS2020: Sex, Human Rights and Justice
- POLS2023: Globalisation and Uneven Development
- POLS2024: Theories and Concepts of International Relations
- POLS2036: Political Development in Northeast Asia
- POLS2037: International Law: Power, Politics and Ideology
- POLS2040: Politics and Business
- POLS2041: Sexuality and Power: The Social Relations of Sex and the Sexes
- POLS2043: Free Speech
- POLS2046: Political Rhetoric
- POLS2048: International Security

**Pre-Honours Seminar Courses**

- POLS3943: US Hegemony and International Law
- POLS3948: Language, Satire and Politics
- POLS3952: Sovereignty, Order and the State

**Upper Level Seminar Courses**

- POLS3045: Politics and Policy: Theory and Practice
- POLS3024: Australian Foreign Policy
- POLS3040: Early Political Texts
- POLS3054: Theorising International Political Economy

**Honours Level**

Coordinator: Dr Katherine Gelber
- Email: k.gelber@unsw.edu.au

For entry to the Politics and International Relations Honours Program (Research) students must normally have completed 54 units of credit (9 courses) at 70% or higher average, including at least 6 Level 1 units of credit and 12 units of credit at 70% or higher from Pre-Honours POLS3### (or equivalent) courses. Courses equivalent to Pre-Honours POLS3### are all those POLS3### courses which had a credit entry requirement and were successfully completed prior to the end of 2005. With the permission of the Head of School, a student may include up to 12 units of credit from related courses in other schools.

**Combined Honours**

The Combined Honours Program allows a student to undertake an Honours year in both Politics and International Relations and another discipline. The normal School of Politics and International Relations entry requirement for a student seeking admission to a Combined Honours Program is 48 units of credit (8 courses) at 70% or higher average in Politics and International Relations, including at least 6 Level 1 units of credit and 12 units of credit at 70% or higher from Pre-Honours POLS3### (or equivalent) courses. Courses equivalent to Pre-Honours POLS3### are all those POLS3### courses which had a credit entry requirement and were successfully completed prior to the end of 2005. With the permission of the Head of School, a student may include up to 12 units of credit from related courses in other schools.

**Psychology**

The School of Psychology is in the Faculty of Science.
- Coordinator: Professor Peter Lovibond
- School Office: Room 1011, Mathews Building
- Tel: (02) 9385 3041
- Email: Enquiries@psy.unsw.edu.au
- Website: www.psy.unsw.edu.au
Psychology is the scientific study of human behaviour. It is a diverse discipline that includes study of the processes of perceiving, learning and memory; the assessment of abilities and attitudes; the origins of personality and emotional states; the nature and effects of social interactions with other people; brain-behaviour relationships; and the causes of abnormal behaviour. Study in the scientific discipline of psychology provides the background necessary for further training in the application of psychology in a variety of professional contexts (see below for details about the requirements for registration as a professional psychologist).

Psychologists work in clinical, correctional, counselling, legal, educational and other professional settings. People with training in psychology also pursue careers in diverse areas including academic and health research; rehabilitation; occupational health and safety; advertising and marketing; and personnel selection, training and management.

Students enrolled in the Bachelor of Arts or the Bachelor of Social Science degrees can study psychology for one or two years in order to learn about themselves and other people, develop analytic skills and enhance their employability. Psychology can also be taken as a major sequence within these degrees and is an ideal complement to majors in other domains when an understanding of the nature and causes of human behaviour is relevant to your chosen profession.

Students should be aware that a Psychology major sequence in the Bachelor of Arts or Bachelor of Social Science degrees does not satisfy the requirements for an “accredited three-year sequence in Psychology” as described below. To satisfy these requirements, students must complete three courses in addition to the major sequence.

It is not possible to satisfy the requirements for entry to Honours in Psychology within the Bachelor of Arts or Bachelor of Social Science degrees, but students with this goal can apply to transfer to the Bachelor of Psychology at the end of Stage 2. Students with this aim should consult with the School of Psychology for advice about program selection.

What is required to become a professional psychologist?

To become a member of the professional body, the Australian Psychological Society, and for registration as a psychologist in NSW, students first need a university Bachelor degree which includes an accredited three-year sequence in psychology as approved by the Australian Psychological Society, plus an approved fourth year. Students must also follow this by completing an accredited 5th and 6th year academic program such as one of the Master of Psychology degrees (Clinical, Forensic or Organisational) or a combined Doctor of Philosophy/Master of Psychology degree as offered by this University. An alternative of two years of supervised experience in professional practice may be undertaken for registration as a psychologist in NSW.

English Proficiency

A high proficiency in English is necessary to pass Psychology courses.

Major Sequence

A major in Psychology is obtained by the completion of 42 units of credit (7 courses) which consist of PSYC1001 and PSYC1011, PSYC2001, and four other Psychology Upper Level II or Level III courses (either one Level II and three Level III, or two Level II and two Level III).

An accredited three-year sequence in Psychology is obtained by the completion of 60 units of credit (10 courses) which consist of PSYC1001 and PSYC1011, PSYC2001 and three other Psychology Upper Level II courses, and PSYC3001 and three other Psychology Upper Level III courses including one course from at least two of the following three elective groups: Advanced Perceptual-Cognitive – PSYC3151, PSYC3211, PSYC3221, PSYC3311, PSYC3321; Advanced Biological – PSYC3051, PSYC3241, PSYC3251, PSYC3261; Advanced Social – PSYC3121, PSYC3271, PSYC3281.

Level I

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<tr>
<th>Course Code</th>
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<tr>
<td>PSYC1001</td>
<td>Psychology 1A</td>
<td>S1</td>
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<tr>
<td>PSYC1011</td>
<td>Psychology 1B</td>
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Upper Level II

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<tr>
<td>PSYC2001</td>
<td>Research Methods 2</td>
<td>S1</td>
</tr>
<tr>
<td>PSYC2061</td>
<td>Social and Developmental Psychology</td>
<td>S1</td>
</tr>
<tr>
<td>PSYC2071</td>
<td>Perception and Cognition</td>
<td>S2</td>
</tr>
<tr>
<td>PSYC2081</td>
<td>Learning and Physiological Psychology</td>
<td>S1</td>
</tr>
<tr>
<td>PSYC2101</td>
<td>Assessment and Personality</td>
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Upper Level III

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<td>PSYC3001</td>
<td>Research Methods 3A</td>
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<tr>
<td>PSYC3011</td>
<td>Research Methods 3B</td>
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<td>PSYC3051</td>
<td>Physiological Psychology</td>
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<tr>
<td>PSYC3121</td>
<td>Social Psychology</td>
<td>S2</td>
</tr>
</tbody>
</table>

PSYC3141 Behaviour in Organisations S1
PSYC3201 Psychopathology S2
PSYC3211 Cognitive Science S2
PSYC3221 Vision and Brain S1
PSYC3241 Psychobiology of Memory and Motivation S1
PSYL3271 Personality and Individual Differences S1
PSYC3301 Psychology and Law S1
PSYL3311 The Psychology of Language S1
PSYC3331 Health Psychology S2
PSYC3341 Development Psychology S2

Russian Studies

Coordinator: Dr Ludmila Stern
Tel: (02) 9385 3649
Email: russian@unsw.edu.au
Website: http://languages.arts.unsw.edu.au/russian.html

Russian Studies is available as a major in Arts and also to students of all faculties as a co-major, minor, elective/option, General Education unit or as a major in the Diploma in Languages. Russian Studies offers a range of courses designed to develop an informed understanding of Russia and the former Soviet Union through the study of Russian language, literature, civilisation and history. Russian language courses cater both for complete beginners and also for advanced or native speakers. Although language study is required for a major sequence in Russian Studies, several of the Upper Level courses require no knowledge of the Russian language and can be taken by students from other schools interested in learning about Russian literature, society and history.

Note: Students with any proficiency in Russian must consult the staff in Russian Studies prior to enrolment, unless they have taken Russian in the previous session at UNSW. Please see: http://languages.arts.unsw.edu.au/main/placetest.html

Major Sequence

Major sequences require 42 units of credit in Russian Studies. It requires (1) 12 units or more from the language core; (2) the completion of RUSS2112 or higher (3) the completion of 18 units or more from upper level electives. Students are advised to consult with the Russian Studies staff to plan their program.

Honours Level

Entry into the Honours program requires 54 units of credit in an approved sequence with an average of at least 70% or better in Russian courses or 48 units of credit in an approved sequence with an average of at least 70% or better for entry to the Combined Honours program.

Language Core

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>RUSS1111</td>
<td>Introductory Russian 1</td>
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<tr>
<td>RUSS1112</td>
<td>Introductory Russian 2</td>
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<td>RUSS2111</td>
<td>Intermediate Russian 1</td>
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<tr>
<td>RUSS2112</td>
<td>Intermediate Russian 2</td>
<td>S2</td>
</tr>
<tr>
<td>RUSS3111</td>
<td>Advanced Russian 1</td>
<td>S1</td>
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<tr>
<td>RUSS3112</td>
<td>Advanced Russian 2</td>
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Upper Level

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<th>Course Title</th>
<th>Code</th>
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<tr>
<td>RUSS2100</td>
<td>Nineteenth Century Russian Classics*</td>
<td>S2</td>
</tr>
<tr>
<td>RUSS2101</td>
<td>20th-Century Russian Literature and Society</td>
<td>S2</td>
</tr>
<tr>
<td>RUSS2102</td>
<td>The Great Terror</td>
<td>S1</td>
</tr>
<tr>
<td>RUSS2103</td>
<td>The Russian Revolution*</td>
<td>S2</td>
</tr>
<tr>
<td>RUSS2200</td>
<td>Soviet Cinema</td>
<td>S1</td>
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<tr>
<td>EURO2500</td>
<td>The Russian Experience*</td>
<td>S2</td>
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<tr>
<td>MODL2002</td>
<td>Introduction to Professional Interpreting</td>
<td>S2</td>
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</table>

* Not offered in 2006.

Honours Level

<table>
<thead>
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<th>Course Title</th>
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<tbody>
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<td>RUSS4000</td>
<td>Russian Honours (Research) Full-Time</td>
<td>S1</td>
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<tr>
<td>RUSS4050</td>
<td>Russian Honours (Research) Part-Time</td>
<td>S2</td>
</tr>
<tr>
<td>RUSS4500</td>
<td>Combined Russian Honours (Research) Full-Time</td>
<td>S1</td>
</tr>
<tr>
<td>RUSS4330</td>
<td>Combined Russian Honours (Research) Part-Time</td>
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</tbody>
</table>

Social Science and Policy

Coordinator: Dr Rogelia Pe-Pua, School of Social Science and Policy
School Office: Room G30, Morven Brown Building
Tel: (02) 9385 2292
Email: slsp@unsw.edu.au
Website: http://slsp.arts.unsw.edu.au

The School of Social Science and Policy offers programs in social science and policy studies. These include the core program in the Bachelor of...
Social Science degree, Bachelor of Social Science in Criminology and a major sequence in Policy Studies in the Bachelor of Arts degree.

The programs offered are interdisciplinary, drawing from all the social sciences to achieve an integrated social scientific approach to many of the key issues and problems facing societies today. They encourage and cultivate creativity and a critical perspective and develop skills in conducting research and in the application of social science to the policy process.

Special emphasis is placed on familiarising students with the ways in which social science is put into practice by using case studies drawn from current projects being undertaken or commissioned by governments, non-government and private sector organisations. The School aims to equip graduates with the skills and knowledge necessary to plan and conduct social research projects and to hold responsible positions in policy analysis and social research in either the public or private sectors.

The Bachelor of Social Science combines a core program of study in social science, policy analysis and research methods with a major study in a particular social science discipline.

The core program aims to provide students with skills in undertaking social research particularly in an applied policy setting. These include written communication skills with particular emphasis on reports, submissions, position papers and proposals; the ability to undertake research and data analysis, both quantitative and qualitative; analysis and critical evaluation of research, arguments and policies; and the use of computers in social research and information processing.

The major study aims to equip students with a knowledge base in one of the social sciences.

The Core Program in the Bachelor of Social Science

The core program is a 48 unit credit sequence consisting of eight courses taken over three years.

SLSP1000 Social Science and Policy
SLSP1002 Introduction to Policy Analysis
SLSP1001 Research and Information Management
SLSP2000 Political Economy and the State
SLSP2001 Applied Social Research 1
SLSP2002 Policy Analysis Case Studies
SLSP3000 Social Theory and Policy Analysis
SLSP3001 Applied Social Research 2
SLSP3002 Social Science and Policy Project

Major Sequence in Policy Studies in the Bachelor of Arts

This sequence is designed for students enrolled in the Bachelor of Arts degree who wish to major in Policy Studies without completing the full Social Science and Policy core program including all the research methods courses. It would be suitable for students seeking employment in policy work which does not involve a substantial research component.

The major sequence in Policy Studies consists of at least 42 units of credit in courses offered by the School of Social Science and Policy of which no less than 6 and no more than 12 units of credit must be from Level 1 courses and no more than 6 units of credit from approved courses offered by other schools. Students should consult the School for a list of these approved courses.

Honours Level

The BSocSc Honours degree may be taken in two ways. All programs require completion of fourth year seminars and a substantial research project:

1. Social Science and Policy Honours, with a Major in an approved area

Prerequisite: Completion of the minimum requirements for a BSocSc Pass degree including the 48 units of credit BSocSc core program, SLSP3911 Inquiry and Interpretation in the Social Sciences, and a Major concentration in an approved area, both with a good Credit or better average.

2. Combined Social Science and Policy Honours (Research)

Prerequisite: Completion of the minimum requirements for a BSocSc Pass degree including the 48 units of credit BSocSc core program, SLSP3911 Inquiry and Interpretation in the Social Sciences or equivalent in the relevant school, and the prerequisites for Combined Honours in the school/department in which the student has taken an approved Major concentration, both at a level of performance determined by the relevant course authorities.

Honours in Policy Studies in the Bachelor of Arts

Entry to honours in Policy Studies requires completion of 54 units of credit with a Credit or better average in courses offered by the School of Social Science and Policy, including at least 6 Level 1 units. The 54 units of credit may include up to 12 units of credit taken from approved courses offered by other schools and must include the following:

SLSP2000 Political Economy and the State
SLSP2002 Policy Analysis Case Studies
SLSP3000 Social Theory and Policy Analysis
SLSP3911 Inquiry and Interpretation in the Social Sciences

Level 1

SLSP1000 Social Science & Policy
SLSP1001 Research & Information Management
SLSP1002 Introduction to Policy Analysis

Upper Level

SLSP2000 Political Economy and the State
SLSP2001 Applied Social Research 1
SLSP2002 Policy Analysis Case Studies
SLSP2711 The Theory and Practice of Development
SLSP2820 Crime and Punishment in Historical Perspective
SLSP3000 Social Theory and Policy Analysis
SLSP3001 Applied Social Research 2
SLSP3002 Social Science and Policy Project

Advanced Upper Level Course

SLSP3911 Inquiry and Interpretation in the Social Sciences

Honours Level

SLSP4000 Social Science and Policy Honours (Research) Full-Time
SLSP4050 Social Science and Policy Honours (Research) Part-Time
SLSP4100 Policy Studies Honours (Research) Full-Time
SLSP4150 Policy Studies Honours (Research) Part-Time
SLSP4500 Combined Social Science and Policy Honours (Research) Full-Time
SLSP4550 Combined Social Science and Policy Honours (Research) Part-Time

Social Work

Coordinator: Professor Richard Hugman
School Office: Room 1519, Mathews Building
Administrative Assistant: Maggie O’Keeffe
Email: Social.Work@unsw.edu.au
Website: http://socialwork.arts.unsw.edu.au

At the undergraduate level, the School of Social Work offers programs leading to the award of the degree of Bachelor of Social Work, and the combined degrees of Bachelor of Social Work/Bachelor of Laws, Bachelor of Social Work/Bachelor of Arts and Bachelor of Social Work/Bachelor of Social Science.

Bachelor of Social Work

The BSW degree (program 4031) is designed to prepare students for the professional practice of social work. It is expected to be undertaken as a four year full-time program, although part-time enrolment can be negotiated. The Honours program is available to students who have achieved appropriate results.

The aim is to produce a social worker who has a general foundation for continuing professional learning, and can undertake independent professional practice at a basic level of competence, utilising relevant knowledge and skills in accordance with the profession’s values. Some courses are subject to prerequisite and corequisite requirements.

Year 1 - Level 1 UOC

<table>
<thead>
<tr>
<th>Session One</th>
<th>Session Two</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOCW1001 Introduction to Social Work*</td>
<td>SOCW1002 Communication and Social Work Practice*</td>
</tr>
<tr>
<td>Psychology Elective</td>
<td>Level 1 Arts Elective</td>
</tr>
<tr>
<td>Sociology Elective</td>
<td>Level 1 Arts Elective</td>
</tr>
<tr>
<td>Level 1 Arts Elective</td>
<td>Level 1 Arts Elective</td>
</tr>
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SOCW2002 Society and Social Work 1* 6
SOCW2005 Research for Social Work* 6
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General Education Elective 3
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SOCW2003 Social Work Practice: Individuals, Families and Groups 1 6
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SOCW2100 Aboriginal People and Social Work 6

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Session One
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SOCW3001 Social Work Practice – Third Year Practicum 12
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General Education Elective 3
Session Two
SOCW3004 Social Policy 1* 6
SOCW3008 Social Work Practice – Selected Studies 1 6
SOCW3006 Socio-Legal Practice* 6
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SOCW3005 Research Honours 6

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Session One
SOCW4002 Social Work Practice in Organisations 6
SOCW4003 Social Work Practice – Selected Studies 2 6
SOCW4004 Social Philosophy* 6
SOCW4006 Social Policy 2* 6
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SOCW4005 Social Policy Honours 6
Session Two
SOCW4010 Social Work Practice – Fourth Year Practicum 24

Year 5 - Honours
Session One
SOCW4800 Honours Thesis 24

*Students outside the School of Social Work may take these as electives.
**Students who have gained entry to the 2nd year of the program with a Welfare Diploma must complete this course.

Bachelor of Social Work Bachelor of Arts
The School also offers a combined Bachelor of Social Work/Bachelor of Arts. This is a five year program leading to the award of the two degrees of Bachelor of Social Work and Bachelor of Arts. An Honours program is available to students who have achieved appropriate results.
For details regarding the Bachelor of Social Work/Bachelor of Arts program, refer to the section ‘Program Rules and Information’.

Bachelor of Social Work Bachelor of Social Science
The School also offers a combined Bachelor of Social Work/Bachelor of Social Science. This is a five year program leading to the award of the two degrees of Bachelor of Social Work and Bachelor of Social Science. An Honours program is available to students who have achieved appropriate results.
For details regarding the Bachelor of Social Work/Bachelor of Social Science program, refer to the section ‘Program Rules and Information’.

Sociology and Anthropology
Coordinator: Professor Michael Humphrey
School Office: Room 159, Morven Brown Building
Tel: (02) 9385 1807
Email: sociology@unsw.edu.au
Website: http://sociology arts.unsw.edu.au

Sociology is a discipline for students with a special interest in human relationship and the multiplicity of interactive cooperation, conflict and communication which constitutes any society. The School of Sociology and Anthropology offers a diverse program where students may choose courses in sociology, social anthropology, cultural theory, cultural studies, sociological approaches to communication and the public media, political sociology and policy-related studies.

Level 1
First year sociology offers a broad introduction to sociology as a profound and productive way of describing, analysing and understanding society. Students commencing their first year in 2006 of studying Sociology and Anthropology can choose between four introductory courses. Those students intending to take a major must do two first year courses. As the course descriptions indicate, Level 1 courses may focus on different societies and cultures, but each is an introduction for university students beginning their study of the discipline and is preliminary and prerequisite for more advanced study in later years of the degree.

SOCN1002 Australian Society  S2
SOCN1004 Relationships: Sociology and Everyday Life  S1
SOCN1005 Australia’s Media: Sociological Perspectives  S2
SOCN1006 Introduction to Globalisation  S1

Major Sequence
Students must complete 42 units of credit in order to gain a major in Sociology, including 12 units of credit in Level 1 courses and at least 12 units at Level 3.
While a major in Sociology consists of 42 units of credit, students may extend their study further and take one or two more sociology courses as part of their program.

Part-time (Evening) Study
Part-time and evening students are advised that the School teaches selected first year and Upper Level courses in the evening. It is possible to complete a major in Sociology by attending evening classes.

Upper Level Courses
SOCN2113 Globalisation and Fragmentation  S2
SOCN2104 Technology, Work, Culture  S1
SOCN2106 Cities: Experiencing Sydney  S1
SOCN2108 Social Anthropology: Diversity, Difference, Identity  S1
SOCN2110 Anthropology: Identity and the Cinema  S2
SOCN2204 Anthropology Research Fieldwork  S2
SOCN2205 Society and Desire  S2
SOCN2206 Embodiment  S2
SOCN3103 Professions  X2
SOCN3104 Global Migration, Global Refugees  S1
SOCN3123 Oceanic Societies: Pacific Island Living  S1
SOCN3206 Anthropology of Celebration  S2
SOCN3208 Colonisation and Indigenous Identity Formation  S1
SOCN3209 Indigenous Australia: Gendered Identities  S2
SOCN3210 Whitness – Beyond Colour: Identity and Difference  S1
SOCN3211 Development and Modernity  S2
SOCN3212 Environment, Society and Culture  S1
SOCN3301 Critical Reason: Modern Sociological Theory  S1
SOCN3407 Australian Migration Issues  X1
SOCN3409 Crime, Gender and Sexuality  X1
SOCN3410 Deviance  X2
SOCN3411 Forensic Sociology  S1
SOCN3403 Quality of Life  S1
SOCN3607 Sociology of Ageing  S1
SOCN3702 Social Power: Theories and Structures  S1
SOCN3703 Nationalism, Citizenship and Cultural Identity  S2
SOCN3806 Medicine, the Body and Culture  S1
SOCN3912 Risk and Trust in Modern Society  S2

Honours Program
Honours in Sociology and Anthropology requires a further year of study after completing the requirements for a Pass degree including a more concentrated study of Sociology in second and third year. Students who are achieving good grades are encouraged to plan a four-year program leading to an Honours degree in Sociology and Anthropology.
The last year of studying for an Honours degree is directed to students’ development of research and writing skills which will prepare them for entering a career or proceeding to postgraduate research studies. The experience will provide skills in critical thinking, research and writing that will be invaluable in future pursuits, whether academic or otherwise.
Honours Entry
Prior to enrolment in the Honours year, students must have:

- completed up to 54 units of credit in Sociology, including no more than two Level 1 Sociology courses;
- achieved an average of 70%.

All students should consult with any of their lecturers during the second year of enrolment about the Honours year and the courses to be taken in preparation for that enrolment.

Combined Honours Entry
Students may also undertake a combined Honours program in Sociology and another approved discipline. Prior to enrolment in the Honours year, students must have:

- completed up to 48 units of credit in Sociology, including no more than two Level 1 Sociology courses;
- achieved an average of 70%;
- completed the requisite number of units of credit at a standard set by the other School in the combined Honours program.

Honours Level
SOCA4000 Sociology Honours (Research) Full-Time
SOCA4050 Sociology Honours (Research) Part-Time
SOCA4500 Combined Sociology Honours (Research) Full-Time
SOCA4550 Combined Sociology Honours (Research) Part-Time

Spanish and Latin American Studies
Coordinator: Dr Peter Ross
Tel: (02) 9385 2421/2418
Email: p.ross@unsw.edu.au
Website: http://languages.arts.unsw.edu.au/spanish/spanish.html

The Department of Spanish and Latin American Studies offers a major in the Faculty of Arts and Social Sciences. Major sequences may be followed in language, literature, cultural studies and/or history. Spanish is also available to students of other faculties as a co-major, minor, elective or as a major in the Diploma in Languages. A major in Spanish and Latin American history may be completed with no knowledge of Spanish but a reading knowledge of the language is a prerequisite for entry to the Honours year.

Major Sequences

1. Language courses

- Elementary Level
  - SPAN1001 Introductory Spanish 1A
  - SPAN1002 Introductory Spanish 1B

- Intermediate
  - SPAN2003 Intermediate Spanish A
  - SPAN2004 Intermediate Spanish B

- Advanced
  - SPAN3003 Advanced Spanish A
  - SPAN3004 Advanced Spanish B

2. Literature, Cultural Studies, and Linguistics Upper Level Courses

- SPAN3040 Spanish Linguistics
- SPAN3539 Latin American Culture and Globalisation: From Macondo to McOndo
- SPAN3343 Topics in Latino American Cinema
- SPAN3345 Spanish as a World Language

3. History Stream

A major in History in the Department requires 42 units of credit including SPAN2428 and SPAN3401.

Year 1

SPAN1001 and SPAN1002, or other approved 12 units of credit in Level 1 courses from History, Economic History, Development Studies, Politics and International Relations, and Sociology and Anthropology.

Year 2 and 3

SPAN2428 and SPAN3401 +18 Upper Level units of credit from the Department’s history, literature/cultural studies/linguistics/language options (entry to these courses may require a certain level of fluency in the Spanish language).

Upper Level History Courses

- SPAN2406 Modern Spain: From Loss of Empire to European Integration
- SPAN2421 Special Topic in Latin American History 1
- SPAN2425 The Americas Before Columbus
- SPAN2428 (Un)Making the Third World:
  - History and Global Development B
  - History and Global Development A
- SPAN2431 The United States and Changing Global Orders
- SPAN3401 Colonising the Americas:
  - The Spanish and Portuguese Empires
  - Special Topic in Latin American History 2

Honours Entry

Prerequisite: At least 54 units of credit in SPAN courses or other approved courses at a Credit level of 70% or better. Students are reminded that they must have a proven reading competence in Spanish before they can be admitted to an Honours program. Honours theses may be written in English or Spanish.

Students thinking of doing Honours can consult any member of staff at any time during their undergraduate years and should obtain the advice and approval of the Head of Department in the third year of study prior to enrolment.

Combined Honours Entry

Prerequisite: At least 48 units of credit in SPAN courses or other approved courses at a Credit level of 70% or better. Students wishing to undertake study at Honours Level in Spanish and Latin American Studies and another discipline should enrol in SPAN4500 Combined Honours (Research).

Honours Level

- SPAN4000 Spanish and Latin American Studies Honours Full-Time
- SPAN4050 Spanish and Latin American Studies Honours Part-Time
- SPAN4550 Combined Spanish and Latin American Studies Honours Part-Time

Surveying and Spatial Information Systems

Coordinator: Professor Chris Rizos
School Office: Room 426, Electrical Engineering
Email: l.daras@unsw.edu.au
Tel: (02) 9385 4182
Website: www.gmat.unsw.edu.au

The School of Surveying and Spatial Information Systems offers two Upper Level courses in the Faculty of Arts and Social Sciences. The courses (listed below) are of particular interest to students majoring in Environmental Studies or other majors where knowledge of mapping, geographic information and its analysis is increasingly required. Many decisions made on future developments in the community will affect the environment. To be able to manage these developments, knowledge of the relative positions of objects and features on the terrain will be required.

GMAT3500 covers the acquisition and analysis of images from air and space for determining details of features and terrain cover types and GMAT0753 deals with the management and analysis of spatial data. Excellent facilities are available in the School for these courses. Further details can be obtained from the School.

The courses involve an integrated approach to the acquisition, analysis, storage, distribution, management and application of spatially-referenced data. The School also offers other courses that embrace the traditional area of surveying and mapping, as well as the comparatively new fields of remote sensing and spatial information systems.

Fields of specialisation within Surveying and Spatial Information Systems, also known as Geomatics, include: Satellite Surveying (position determination techniques using satellite signals); Geodesy (determining the mathematical model of the Earth, and its gravity field, and the practice of control network surveying); Engineering Surveying (precise surveying for engineering projects); Cadastral Surveying (knowledge of the laws and practices for survey of property boundaries); Land Management and Development (environmental assessment and design for resource...
management and change of land use); Land Information Management (the use of computer-based information systems of spatially related data for planning and administration purposes); Geographic Information Systems (computer-based information systems for environmental assessment and monitoring); Photogrammetry and Remote Sensing (the use of airborne and spaceborne equipment to remotely sense images for mapping, monitoring and resource surveys).

**Upper Level**

GMAT0753 Introduction to Spatial Information Systems  
GMAT3500 Photogrammetry & Remote Sensing

**Note:** Surveying is not available as a major sequence within the Faculty of Arts and Social Sciences.

**Women's and Gender Studies**

**Coordinators:** Dr Elizabeth McMahon and Dr Brigitta Olubas, School of English  
**Office:** Room 145, Morven Brown  
**Tel:** (02) 9385 2298  
**Email:** womenstudies@unsw.edu.au  
**Website:** www.arts.unsw.edu.au/womenstudies/

The undergraduate program in Women's and Gender Studies enables students to construct an interdisciplinary major focusing on feminist scholarship, debates and issues and the study of women, gender and sexualities. The Level 1 core course WOMS1001: Introduction to Feminism, convened by the Coordinators is designed to introduce students to some central preoccupations of feminist theorising from a range of perspectives and positions. Other Level 1 and Upper Level courses are taught and administered through different Schools in the Faculty and offer a range of disciplinary and interdisciplinary approaches.

**Major Sequence**

Women's and Gender Studies may be taken as a major sequence. This requires the completion of a total of 42 units of credit in Women's and Gender Studies approved courses (listed below). Students must complete the program's introductory core course at Level 1, WOMS1001, as well as two further core courses. The remaining 24 units of credit (or 4 courses) may be selected either from other core offerings or from the list of electives.

**List A**

**Level 1 Core Courses**

WOMS1001 Introduction to Feminism  
WOMS1003 Women, Gender and World History

**Upper Level Core Courses**

WOMS2001 Twentieth Century Women Writers*  
WOMS2002 Gender, Race, Nature and Reason*  
WOMS2003 A History of Sexualities  
WOMS2004 Sex, Human Rights and Justice  
WOMS2005 Society and Desire  
WOMS2006 Sexuality and Power: The Social Relations of Sex and the Sexes  
WOMS2104 Women and Men: Gender in Australia*  
WOMS2105 Women in Southeast Asian Societies*  
WOMS2106 Embodiment  
WOMS3005 Australian Masculinities: Reading Gender, Sex and Culture*  
WOMS3006 Crime, Gender and Sexuality

**List B**

**Upper Level Electives**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARTS3010</td>
<td>Feminist Thought and Action</td>
<td>X1</td>
</tr>
<tr>
<td>CHIN2303</td>
<td>Gender in Contemporary Chinese Culture and Society</td>
<td>S2</td>
</tr>
<tr>
<td>ENGL2101</td>
<td>Women on the Shakespearean Stage</td>
<td>S2</td>
</tr>
<tr>
<td>ENGL2621</td>
<td>Contemporary Australian Women Writers</td>
<td>S2</td>
</tr>
<tr>
<td>GKEK3501</td>
<td>Pandora's Box</td>
<td>S1</td>
</tr>
<tr>
<td>GREE3502</td>
<td>Greek Women Writers</td>
<td>S2</td>
</tr>
<tr>
<td>HIS12013</td>
<td>Women in the Modern World</td>
<td>S2</td>
</tr>
<tr>
<td>HIST2050</td>
<td>Women in Southeast Asian Societies*</td>
<td></td>
</tr>
<tr>
<td>HIST2080</td>
<td>Rights and Riots: Gender &amp; Politics in 18th-century France*</td>
<td></td>
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<tr>
<td>HIST2721</td>
<td>Feminism, A History: Transnational Issues, Ideas and 'Difference'*</td>
<td></td>
</tr>
<tr>
<td>HIST3907</td>
<td>Clio's Craft: Writing Feminist Histories</td>
<td>S2</td>
</tr>
<tr>
<td>JAPN3602</td>
<td>Gender and Sexuality in Contemporary Japan*</td>
<td></td>
</tr>
<tr>
<td>KORE2601</td>
<td>Gender/Politics in Korean Literature</td>
<td>S2</td>
</tr>
<tr>
<td>PHIL2419</td>
<td>Existential Phenomenology and its Critics*</td>
<td></td>
</tr>
<tr>
<td>PHIL2517</td>
<td>Representation and Sexual Difference</td>
<td>S1</td>
</tr>
<tr>
<td>POLS2043</td>
<td>Free Speech</td>
<td>S1</td>
</tr>
<tr>
<td>POLS2047</td>
<td>Human Rights and Wrongs in Australia*</td>
<td></td>
</tr>
<tr>
<td>SAHT2642</td>
<td>Art, Gender, Sexuality and the Body*</td>
<td></td>
</tr>
<tr>
<td>SOCA3209</td>
<td>Indigenous Australia: Gendered Identities</td>
<td>S2</td>
</tr>
<tr>
<td>SOCA3410</td>
<td>Deviance</td>
<td></td>
</tr>
<tr>
<td>SOLA3704</td>
<td>Social Movements and Society: Current Debates*</td>
<td></td>
</tr>
<tr>
<td>SOCA3812</td>
<td>Post-Human Subjects*</td>
<td></td>
</tr>
<tr>
<td>SPAN3343</td>
<td>Topics in Latin(o) American Cinema</td>
<td>S1</td>
</tr>
<tr>
<td>SPAN3350</td>
<td>Performing Passion &amp; Pain: The Case of Frida Kahlo*</td>
<td>*Not offered in 2006.</td>
</tr>
</tbody>
</table>

**Honours Entry**

Students who have met the requirements for a major in Women's and Gender Studies may apply to be admitted to a Combined Honours Program in Women's and Gender Studies together with an approved discipline (from the A, B or C lists). The normal requirement for a student seeking admission to a Combined Honours Program is 48 units of credit in approved WGS courses (including WOMS1001 and 2 Upper Level core courses) at 70% average or better. Students may request to substitute up to 6 units of credit of the Women's and Gender Studies component with other courses particularly relevant to their proposed topic areas. This will be decided at the discretion of the Program Coordinator. When a student undertakes Combined Honours, arrangements are made between the relevant Schools or programs to determine, in conjunction with the student, the thesis topic, the Honours courses undertaken and the supervisors. In the case of WGS, students would be expected to do either one 2 hour per week seminar or a reading program for one session (see WOMS4500 or WOMS4550) in addition to a thesis on an approved topic, with joint supervision, if appropriate.

**Honours Level**

WOMS4500 Combined Women's and Gender Studies Honours (Research) Full-Time  
WOMS4550 Combined Women's and Gender Studies Honours (Research) Part-Time
Faculty of the Built Environment

A Message from the Dean

Welcome to the Faculty of Built Environment (FBE) at UNSW. I hope you find the information in this Handbook helpful in understanding the programs offered in our Faculty. The structure of FBE is unique in Australia in the range of disciplines it offers including Architecture, Building, Industrial Design, Interior Architecture, Landscape Architecture and Planning & Urban Development. FBE is structured to encourage synergy between the disciplines and flexibility for students in the range of courses they can take. Students have the opportunity to gain both expertise in their chosen disciplines and to become familiar with the concepts and ideas of the other disciplines in the Faculty. In reading this Handbook you will discover the wide range of courses on offer.

The undergraduate and postgraduate programs offered by the Faculty are well established and well regarded by employers. Each program integrates the academic knowledge and practical skills required for professional practice. Undergraduate students also have the option of selecting from a number of combined degrees offered in conjunction with other faculties.

Around 20 per cent of our students are international students. FBE has a reputation for the excellence of its staff and students and is professionally recognised nationally and internationally. The Faculty receives strong industry support and extensive international academic links provide opportunities for exchange and collaboration in learning and research.

If you have further questions after reading through this Handbook, please do not hesitate to obtain advice from your lecturers and from the Faculty administrative staff at all stages of your study. You may also wish to visit FBE's website at: www.fbe.unsw.edu.au

Peter A Murphy
Dean
Faculty of the Built Environment

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Faculty Information and Assistance

Who Can Help?

This section of the Handbook is designed as a detailed source of information in all matters related to the Faculty of the Built Environment.

If you require advice about enrolment, degree requirements, progression within programs, information and advice about course content and requirements, contact the Faculty Student Centre, Level 3, Red Centre Building.

To speak to any of the Undergraduate Program Heads, you need to make an appointment through the Undergraduate Programs Office located on Level 4, Red Centre Building.

For assistance with access to the computing resources of the Faculty, please visit the Built Environment Computing Unit office located in room 2032, Level 2, Red Centre Building.

The Faculty of the Built Environment Website

Please refer to the Faculty website for further information. The website provides detailed information on the Faculty's programs, staff, research and events as well as exhibits of student work and an extensive online learning resource. Here you will find ready information on almost any matter that affects your life within the FBE: www.fbe.unsw.edu.au

The Faculty

The Faculty of the Built Environment offers the following undergraduate degree programs: BArch, BSc(Arch), BIA, BBCM, BlindDes, BArch and BPlan. These programs provide professional education in the fields of architecture, industrial design, building, quantity surveying, interior architecture, landscape architecture and planning. Put more generally, these programs provide education and training in the arts and sciences involved in the design and construction of buildings, in the development of cities, in landscape design and the development of manufactured products. In addition to professional and vocational training, the programs include general education courses to provide graduates with a broad understanding of the humanities and the social sciences. In addition, the Faculty offers a range of combined degrees with other faculties such as Arts and Social Sciences, Law and the Institute of Environmental Studies.
Course Descriptions
Descriptions of courses offered in 2006 can be found in alphabetical order by the course code at the back of this Handbook or in the Online Handbook at www.handbook.unsw.edu.au

Computing Information
The Faculty has five major computing laboratories containing 80 personal computers available for general use by students in the Faculty. These laboratories are used for teaching formal classes, as well as providing general network and computing access for students 24 hours a day. The computers are higher end PC workstations configured to support a wide range of applications including: CAD, modelling, rendering, visualisation, multimedia presentations, GIS, analysis, general office applications and much more. The Faculty’s Resource Centre and Postgraduate labs add a further 40 computers to this mix which is complemented by the student accessible wireless networking in and around the Faculty.

These laboratory resources are supported by a range of devices and services from standard printers, plotters and scanners to notebooks, digital cameras and projectors for presentations. The Faculty offers a printing service providing large format colour printing, photo-quality output and laminating. This will allow student presentations to exceed professional quality. The labs provide an environment where the computing technology can be utilised throughout the wide range of courses offered across the Built Environment’s disciplines.

All these computers are connected to the Campus Wide Network, providing secure and reliable file storage, access for students to the information resources supported by the Faculty and the University generally, as well as the international resources of the Internet.

Student Ownership of Personal Computers
The Faculty encourages all students to consider the purchase of a personal computer to support their studies. The prevailing policy is that the Faculty endeavours to provide for the high-end computing needs of students in the belief that many students are able to meet their own needs for more basic applications. To that end, the Faculty publishes a document which is available on the website, providing advice to students regarding the purchase of personal computers, software and network connectivity.

Enrolment Procedures
All students re-enrolling in the Faculty will re-enrol online via myUNSW. Instructions can be found on the FBE website.

Faculty Electives
The Faculty offers a broad range of over 100 elective courses that may be selected as part of any of the undergraduate programs. They are also generally available to all students in the University, subject to appropriate prerequisites knowledge. These may be identified in the course descriptions at the end of this Handbook as they all have course codes in the form BENVXXXX. These courses are generally offered in only one session each year and students are advised to check availability and timetabling for these electives on the Faculty website.

In addition, students may take many of the core courses associated with the other programs in the Faculty as electives. Details of these options are explained on the website.

General Education Requirements
The University’s basic requirements are the same for students in all single degree programs.

(a) Students must satisfactorily complete a minimum of 12 units of credit in General Education courses or their equivalent (unless entitled to exemption as prescribed in the University rules). Combined degrees offered with another faculty are deemed to satisfy this requirement within the prescribed program.

(b) Students must undertake 56 hours of study which examine the purposes and consequences of their university education and which fosters socially, ethically and professionally responsible behaviour. Most programs in the Faculty of the Built Environment fulfill this requirement as part of the normal program curriculum. However, in the case of both the BBCM and BSc(Arch) programs, students are required to take BENV1382 Social Responsibility and Professional Ethics in part fulfillment of this requirement.

Student Exchange
The University has established an extensive and growing number of student exchange programs with universities around the world. The Faculty strongly encourages all students to consider participating in one of the programs for one or two semesters. Contact UNSW Exchange Office for detailed information on course options and scholarships or refer to the website: www.international.unsw.edu.au

Societies and Clubs
The Faculty of the Built Environment has a number of student clubs including BIAS (Bachelor of Interior Architecture Students), TAC (The Architecture Club), BUGS (Building Undergraduate Society), IDSOC (Industrial Design Society), SOLA (Society of Landscape Architects) and OOPS (Organisation of Planning Students).

Faculty of the Built Environment Resource Centre
The Resource Centre is located on the ground floor of the Red Centre Building and serves the day-to-day needs of the staff and students in the Faculty. It provides information services based on both print and electronic resources. The reference collection, which has no lending facilities, consists of textbooks and recommended reading, background information to programs, serials and standards (these being duplicated in the Physical Sciences Library). Unique materials held consist of donations, undergraduate theses, trade catalogues and an open reserve collection of specific materials left by lecturers to supplement program work.

The Resource Centre computers provide access to library catalogues and other online databases, email facilities and the Internet and six of the computers have word processing facilities. Photocopying facilities are also provided.

Assistance is provided by the librarian in using the Centre’s resources and developing information retrieval skills. In addition, a printed guide on how to use the Resource Centre is issued to each student. During Session 1 & 2, the Resource Centre is open from 8.30am to 6.00pm Monday to Thursday, 8.30am to 4.00pm on Friday. Out of session, the Resource Centre is open from 8.30am to 4.00pm Monday to Friday, closed all January, weekends and public holidays.

Faculty Regulations for Undergraduate Study
1. Open Elective courses may be selected from any program offered at the University of New South Wales, provided such course has not been taken to fulfill any other requirement of the Degree Rules. There is a wide range of electives offered within the Faculty. Open electives selected outside the Faculty of the Built Environment are subject to the approval of the Faculty. Open Electives may also be selected from courses offered by other institutions, but only with the approval of the Program Head and at an agreed unit value approved by the Program Head.

2. As a general guide, expected normal student workload is 2 hours per week per unit of credit, including both class contact time as well as individual study, completion of assigned work and exam preparation where appropriate. Students are strongly advised not to over commit themselves to paid work or voluntary activities that will impinge on their studies. Such external commitments will not be taken into consideration in relation to matters such as extensions of time for submission of project work or failure to attend classes or examinations.

3. Where reference is made to the requirement that a student complete units of credit by taking one or more courses, that requirement shall be construed as meaning that the student shall:
   - attend at least 80% of all lectures, studios, tutorials or other classes, including site visits or other activities as may be prescribed in that course, always maintaining a satisfactory standard of preparation for and participation in such classes and activities.
   - perform satisfactorily in such exercises, essays, theses, and other work (whether written, oral or practical) as may be prescribed in that course, and undertake any prescribed reading related to that subject.
   - achieve a satisfactory standard in all examinations and other assessable tasks assigned for that course.

4. In general, students admitted with advanced standing into programs within the Faculty are given units of credit towards the degree for all appropriate courses completed at UNSW or other approved institutions. This is in the form of full session exemptions and/or specified exemptions in particular courses. Such credit will not normally be given for study undertaken more than 7 years before the date of admission to the program, except with the approval of the Program Head.

5. Notwithstanding any advanced standing that may have been granted upon entry to a program, students may seek exemptions in specific courses on the basis of appropriate study or experience. Where such an exemption is granted for study at an approved institution, students are normally awarded the appropriate units of credit, unless such credit
has already been allowed as part of admission with advanced standing. Where the exemption is granted on the basis of knowledge or skills gained through experience, students would normally be required to complete the equivalent units of credit as open electives.

6. In general, progression in all programs offered by the Faculty is managed by individual course prerequisites. Except with the permission of the Program Head, students are required to complete all stated prerequisites before enrolling in any course, and must always repeat any failed course on the next occasion that it is offered.

7. Except with the permission of the Program Head, where two courses are shown as corequisite, they must be taken concurrently on the first occasion any one is attempted.

8. Students wishing to take courses additional to those required for the award should be aware that the relevant courses will attract an additional fee, payable up front.

9. Students may not enrol in two design studios as core courses in any one session.

Program Rules and Information

3255 Bachelor of Interior Architecture

BIA

Typical Duration
4 years

Minimum UOC for Award
192 units of credit

Typical UOC per Session
24 units of credit

Program Head: Judith O’Callaghan

Program Description

Interior Architecture is the specialist area of architecture concerned predominantly with interior environments. The professional practice of the discipline demands simultaneously a broad theoretical as well as a focused practical education in both the art and science of architecture and design. The interior designer must have a professional understanding and concern for client and community in a seamless integration of the work with all elements of the built environment. (It should be noted that, unlike elsewhere in the world, use of the title ‘Interior Architect’ in Australia is not permitted under current Australian legislation).

The Bachelor of Interior Architecture is a four-year full-time semester-based program consisting of core and elective courses with design as the central concern. The Design Studio is the focus for the application of the theoretical material delivered in all courses in the program as well as developing and presenting its own.

Program Objectives and Learning Outcomes

On completion of the program, students will have attained a sound knowledge base in the field of Interior Architecture.

Program Structure

Year 1

Session One
 INTA2101 Design Studio 1 (6 UOC)  
 INTA2111 Theory 1 (3 UOC)  
 INTA2121 History 1 (3 UOC)  
 INTA2141 Communications 1 (6 UOC)  
 INTA2171 Technology 1 (6 UOC)

Session Two
 INTA2172 Technology 2 (6 UOC)  
 INTA2102 Design Studio 2 (6 UOC)  
 INTA2112 Theory 2 (3 UOC)  
 INTA2122 History 2 (3 UOC)  
 INTA2142 Communications 2 (6 UOC)

Year 2

Session One
 INTA2271 Technology 3 (3 UOC)  
 INTA2201 Design Studio 3 (6 UOC)  
 INTA2211 Theory 3 (3 UOC)  
 INTA2221 History 3 (3 UOC)  
 INTA2241 Communications 3 (3 UOC)  
 General Education/Open electives (6 UOC)

Session Two
 INTA2272 Technology 4 (3 UOC)  
 INTA2202 Design Studio 4 (6 UOC)  
 INTA2212 Theory 4 (3 UOC)  
 BENV1242 Computer-Aided Design (3 UOC)  
 INTA2222 History 4 (3 UOC)  
 General Education/Open electives (6 UOC)

Year 3

Session One
 INTA2371 Technology 5 (3 UOC)  
 INTA2301 Design Studio 5 (6 UOC)  
 BENV1341 Design Modelling and Visualisation (3 UOC)  
 General Education/Open electives (12 UOC)

Session Two
 INTA2372 Technology 6 (3 UOC)  
 INTA2302 Design Studio 6 (6 UOC)  
 INTA2382 Professional Practice 1 (3 UOC)  
 General Education/Open electives (12 UOC)

Year 4

Session One
 INTA2401 Design Studio 7 (6 UOC)  
 INTA2411 Dissertation (6 UOC)  
 INTA2441 Project Research (6 UOC)  
 Open electives (6 UOC)

Session Two
 INTA2402 Graduation Project (15 UOC)  
 INTA2482 Professional Practice 2 (3 UOC)  
 Open electives (6 UOC)

Student Exchange

Students in the BIA program may go on exchange any time after the completion of Year 2.

Honours

The Bachelor of Interior Architecture degree may be awarded with Honours based upon the quality of performance in the program and in accordance with current program policy. Honours are Class 1 or Class 2 Division 1 or Class 2 Division 2.

Academic Rules

1. The degree of Bachelor of Interior Architecture is awarded at either Pass or Honours level after the successful completion of a minimum of 192 units of credit.

2. To fulfil these requirements, students must complete:
   - 144 units of core courses, being all those prescribed in the Faculty regulations for this program;
   - 18 units of open electives, selected in accordance with the Faculty regulations for undergraduate study in the Faculty of the Built Environment;
   - 18 units of FBE electives, selected in accordance with the Faculty regulations for this program;
   - 12 units of General Education courses in accordance with University requirements.

3. The standard duration of the program is 4 years consisting of 8 semesters of full-time study (24 units of credit per semester).

4. General Education courses may not be taken before a student enters Year 2 of the Program.

Professional Recognition

The UNSW degree of Bachelor of Interior Architecture is recognised by the Design Institute of Australia (DIA - the professional body representing Interior Architecture/Interior Design in Australia) and the International Federation of Interior Architects (IFi). Students enrolled in the program are eligible to apply for student membership of the DIA and Associate membership upon graduation. Full membership requires two years of approved professional experience after graduation.

The BIA program at UNSW is also a member of IDEA (Interior Design/Interior Architecture Educators Association) representing all 4 year university degree programs in the discipline in the region.
3260 Bachelor of Architecture

BArch

Typical Duration
5.5 years

Minimum UOC for Award
264 units of credit

Typical UOC per Session
24 units of credit

Program Head: To be advised

Program Description

The Bachelor of Architecture degree provides academic education and practical experience leading to professional qualifications in architecture. It requires full time attendance for five years plus six months work experience that must be completed prior to the Graduation Project. Progression through the program is by years, each comprising two semester-long design studios and their corresponding corequisites. In most years these design studios and corequisites may be taken in either order in any one year to facilitate mid-year entry to the program where required. However courses must be taken in the session they are offered at the first available opportunity. Admission to each year is subject to the successful completion of the preceding design stages and a majority of their corequisite courses, except where approval has been given by the Program Head.

Program Objectives and Learning Outcomes

There are two central goals. The primary goal is to equip students with the theoretical and practical knowledge, skills and techniques needed for the design, documentation and administration of building construction. A more general goal is to provide students with an all-round general problem-solving education. Lectures and practical sessions cover theoretical knowledge in the following areas:

- Architectural Design
- Architectural Communications
- Architectural History and Theory
- Architectural Technology
- Architectural Practice

Program Structure

Year 1

Session One

- ARCH1171 Architectural Technologies 1 (9 UOC)
- BENV1141 Computers and Information Technology (3 UOC)
- ARCH1121 Architectural History and Theory 1 (4 UOC)
- BENV1101 Design Fundamentals: Studio 1 (8 UOC)

Session Two

- ARCH1172 Architectural Technologies 2 (8 UOC)
- ARCH1102 Architectural Design Workshop 1 (8 UOC)
- ARCH1122 Architectural History and Theory 2 (4 UOC)
- ARCH1142 Communications 1 (4 UOC)

Year 2

Session One

- ARCH1271 Architectural Technologies 3 (6 UOC)
- ARCH1201 Architectural Design Workshop 2 (8 UOC)
- ARCH1221 Architectural History and Theory 3 (4 UOC)
- ARKL1241 Communications 2 (3 UOC)
- General Education (3 UOC)

Session Two

- ARCH1272 Architectural Technologies 4 (4 UOC)
- ARCH1202 Architectural Design Workshop 3 (8 UOC)
- ARCH1282 Research Practice (3 UOC)
- BENV1242 Computer-Aided Design (3 UOC)
- ARCH1222 Architectural History and Theory 4 (3 UOC)
- General Education (3 UOC)

Year 3

Session One

- ARCH1371 Architectural Technologies 5 (4 UOC)
- ARCH1301 Architectural Design Studio 1 (8 UOC)
- BENV1341 Design Modelling and Visualisation (3 UOC)
- ARKL1321 Architectural History and Theory 5 (3 UOC)

Electives (3 UOC)

General Education (3 UOC)

Session Two

- ARCH1302 Architectural Design Studio 2 (9 UOC)
- ARCH1382 Practicum (3 UOC)
- Electives (3 UOC)
- General Education (3 UOC)

Opportunity for alternate off-campus Exchange Program with the approval of the Program Head

Year 4

Session One

- ARCH1401 Architectural Design Studio 3 (9 UOC)
- Electives (15 UOC)

Opportunity for alternate off-campus Exchange Program with the approval of the Program Head

Session Two

- ARCH1470 Building Services 1 & 2 (6 UOC)
- ARCH1381 Professional Practice 1 (3 UOC)
- ARCH1402 Architectural Design Studio 4 (9 UOC)
- Electives (6 UOC)

Opportunity for alternate off-campus Exchange Program with the approval of the Program Head

Additional Requirement

(Completed after Year 1 and before Year 5)

- ARCH1583 Work Experience (24 UOC)

Year 5

Session One

- ARKL1501 Investigation Workshop (9 UOC)
- ARCH1582 Professional Practice 2 (6 UOC)
- Electives (9 UOC)

Session Two

- ARCH1502 Graduation Project (9 UOC)
- Electives (15 UOC)

General Education Requirements

Students in this program must also satisfy the University's General Education requirements. For further information, please refer to the Academic Rules section and the General Education section in this Handbook.

Honours

The Bachelor of Architecture degree may be awarded with Honours based on the quality of performance in the program and in accordance with current program policy. Honours are Class 1 or Class 2 Division 1 or Class 2 Division 2.

In order to be considered for the University Medal, students must have completed at least 3 years of study towards their BArch degree at the University of New South Wales.

Academic Rules

1. The degree of Bachelor of Architecture is awarded at either pass or honours level after the successful completion of a minimum of 264 units of credit.

2. To fulfil these requirements, students must complete:
   - 171 units of core courses, being all those prescribed in the in the faculty regulations for this program;
   - 24 units of work experience completed after Year 1 and before Year 5 as prescribed in the faculty regulations for this program;
   - 18 units of FBE electives, selected in accordance with the faculty regulations for this program;
   - 39 units of open electives, selected in accordance with the faculty regulations for undergraduate study in the Faculty of the Built Environment;
   - 12 units of General Education in accordance with University regulations.

3. The standard duration of the program is 5.5 years consisting of 10 semesters of full-time study (24 units of credit per semester) plus 1 semester of required work experience.

4. General Education courses may not be taken before a student enters Year 2 of the Program.

5. Students are not able to enrol in two design studios concurrently.
Professional Recognition
The Degree of Bachelor of Architecture from the University of New South Wales is accredited by the Board of Architects of New South Wales for the purpose of registration and is recognised by the Royal Australian Institute of Architects (RAIA).

Graduates are eligible for Graduate Membership of the Royal Australian Institute of Architects. Students enrolled in the BArch program (3260) or the BSc(Arch) program (3265) or any of the combined BArch programs are eligible to become Student Members of the Royal Australian Institute of Architects. SONA (Student Organised Network for Architecture Australia) is the national student organisation affiliated with RAIA.

In addition, for registration as an architect in NSW, candidates must satisfy the following requirements:
1. Produce evidence of two years approved work experience, at least one of which has been subsequent to the completion of the program; and
2. Pass an examination in Architectural Practice administered by the NSW Board of Architects.

Faculty Regulations for the BArch

FBE Electives
Faculty of the Built Environment (FBE) electives must be selected from those offered by the FBE. General Education Electives may not be substituted for either FBE or Open Electives.

Work Experience
Each student is required to undertake 24 weeks of off-campus activity in the pursuit of architectural work experience. Ideally, this is undertaken as a single block of time working in an architectural design office. Where this is the case and it overlaps a normal academic session, students should enrol in ARCH1583 and are not permitted to enrol in any other courses concurrently.

Work experience may also be carried out in several smaller components during summer breaks, provided that no such component is less than eight weeks in duration. Where this is the case, students must enrol in ARCH1583 for the summer session in which they are completing their work experience requirements.

If students wish to propose an alternative experience to that carried out in a registered architect's office, approval must be given by the Program Head.

In all events, assessment is only within the terms of the course ARCH1583 Work Experience in the Bachelor of Architecture degree program. The Architecture Program takes no responsibility for any assessment or consideration for registration with the Board of Architects of New South Wales or membership of the Royal Australian Institute of Architects.

Composite Courses
Where a composite course is failed, all component parts must be repeated. This includes the courses in the technology core. To achieve a pass result in technology core courses, at least two components must be passed.

Progression
After Year 2, progression in the Design stream requires a pass level to be gained in the previous session’s Design Studio. No two design studios can be taken concurrently.

A Progress Portfolio will be submitted at the end of third year as part of the assessment for ARCH1302 and to determine progression into fourth year of design. Similarly another Progress Portfolio will be submitted at the end of fourth year which will determine progression into final year.

A Progress Portfolio will also be submitted during third year as part of the assessment for ARCH1371 and to determine progression into the fourth year course ARCH1470.

3265 Bachelor of Science (Architecture)

BSc(Arch)
Typical Duration
3 years
Minimum UOC for Award
144 units of credit
Typical UOC per Session
24 units of credit
Program Head: Graham Bell
Program Coordinator: Stephen Peter

Program Description
This program provides an opportunity for students to undertake studies within the discipline of architecture, generally within a well-defined area of specialisation.

At present, a formal specialisation is offered in the area of architectural computing, but the opportunity exists for any major to be identified through consultation with the Program Coordinator. Where at least 24 units of electives and both research projects have been completed within the area of specialisation, then that major will be identified on the degree testamur. The program can also be undertaken with no identified major, in which case it is referred to as the generalist stream and no major is identified on the testamur at graduation.

The program is normally completed in three years of full-time study. Year 1 is taken in common with BArch students. In Year 2, students undertake courses in their area of specialisation. During Year 3 of the program, students undertake two research projects that provide an opportunity to explore areas of specialised interest in considerable depth.

The program allows students to select courses based on their interests. These could include: technology, history, theory and communications. The computing major educates students in architectural computing and allows students to specialise in an area of computing such as: computer-aided design (CAD), building modelling, rendering, animation, multimedia and IT management.

Program Objectives and Learning Outcomes
The Bachelor of Science (Architecture) degree is a three year full-time program with an optional fourth year for Honours. The first year introduces the fundamental concepts of Architecture and is undertaken as a common year with the Bachelor of Architecture program. During the second and third years, students concentrate on an area of specialisation. At present, the main area of specialisation is architectural computing.

Program Structure

Year 1

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Year 4

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Suggested Electives for the Computing Major

This table shows the recommended electives for Year 2 and 3 for the computing major. Note that students are required to complete 24 units of credit (and the 2 projects) to receive the major, while this recommended program includes 42 UOC of computing electives. It should be noted that students are not obliged to complete these electives in the order set out in the schedule. Also, the list is not an exhaustive list of the available computing electives, so some students may choose to complete courses not listed here.
The Bachelor of Building Construction Management is a four-year full-time program which allows students to specialise for careers in Construction and Project Management, Quantity Surveying, Property Development and Property Management.

The program is offered over a period of 4 years of full-time study, or a minimum of eight sessions, leading to the award of the degree of Bachelor of Building Construction Management (BBCM). The program is structured as follows:

- **Years 1-3** consist of a fixed program of compulsory courses.
- **Year 4** consists of electives and a compulsory thesis.

### Program Objectives and Learning Outcomes

Students will acquire a sound foundation of knowledge which will prepare them for graduate careers in areas such as Construction and Project Management, Quantity Surveying, Property Development and Property Management.

### Program Structure

#### Year 1

**Session One**
- BENV1141 Computers and Information Technology (3 UOC)
- BLDG1260 Construction Management 1 (6 UOC)
- BLDG1281 Construction Law 1A (3 UOC)
- BLDG1121 Construction Science (6 UOC)
- BLDG1211 Construction Technology 1A (6 UOC)

**Session Two**
- BLDG1282 Construction Law 1B (3 UOC)
- BLDG1050 Structures 1 (6 UOC)
- BLDG1212 Construction Technology 1B (6 UOC)
- BLDG1302 Construction Economics (6 UOC)
- GMAT0411 Surveying in Building and Construction (3 UOC)

#### Year 2

**Session One**
- BLDG2212 Construction Technology 2B (6 UOC)
- BLDG2482 Computer Applications in Construction (3 UOC)
- BLDG2332 Measurement & Documentation (6 UOC)
- BLDG2282 Construction Management 2B (6 UOC)
- General Education (3 UOC)

**Session Two**
- BLDG3301 Advanced Measurement & Documentation (6 UOC)
- BENV1382 Social Responsibility and Professional Ethics (3 UOC)
- BLDG3101 Construction Technology 3A (6 UOC)
- BLDG3281 Construction Management 3A (6 UOC)
- General Education (3 UOC)

#### Year 3

**Session One**
- BLDG3284 Construction Management 3B (6 UOC)
- BLDG3402 Research Skills (3 UOC)
- BLDG3332 Construction Cost Estimating (6 UOC)
- BLDG3102 Construction Technology 3B (6 UOC)
- General Education (3 UOC)

**Session Two**
- BLDG3302 Advanced Measurement & Documentation (6 UOC)
- BENV1382 Social Responsibility and Professional Ethics (3 UOC)
- BLDG3101 Construction Technology 3A (6 UOC)
- BLDG3281 Construction Management 3A (6 UOC)
- General Education (3 UOC)

### Additional Requirement

To be completed before start of Year 4

Successful completion of one of the following:
- BLDG9998 Quantity Surveying Industry Program (12 UOC)
- BLDG9999 Building Industry Program (12 UOC)

#### Year 4

**Session One**
- BLDG4501 Thesis Foundation (6 UOC)
- Electives (18 UOC)

### General Education Requirements

It is UNSW policy that all students must complete up to 56 hours of study that fosters acceptance of professional and ethical action as well as social and environmental responsibility. The BSc(Arch) program satisfies half of that requirement within the courses that are taken in common with the BArch program. Taking the course BENV1382 Social Responsibility and Professional Ethics in the third year of study satisfies the remaining 28 hours.

### Honours

The Bachelor of Science (Architecture) degree may be awarded with Honours after the successful completion of a two-semester Honours program following the completion of the BSc(Arch) program, and in accordance with current Faculty regulations. Honours are Class 1 or Class 2 Division 1 or Class 2 Division 2.

Students must qualify by achieving a minimum Credit average during the first three years of study before being admitted to the Honours year.

### Academic Rules

1. The degree of Bachelor of Science (Architecture) is awarded at Pass level after the successful completion of a minimum of 144 units of credit.

2. The degree of Bachelor of Science (Architecture) is awarded at Honours level after the successful completion of a minimum of 192 units of credit including 48 units in an approved Honours program.

3. To fulfil these requirements, students must complete:
   - 75 units of core courses, being all those prescribed in the faculty regulations for this program;
   - 18 units of FBE electives, selected in accordance with the faculty regulations for this program;
   - 39 units of open electives, selected in accordance with the faculty regulations for undergraduate study in the Faculty of the Built Environment;
   - 12 Units of General Education in accordance with University requirements.

4. A student may undertake a major by completing a minimum of 24 units in an approved disciplinary stream (in lieu of an equivalent unit value of open electives) plus undertaking approved topics related to that disciplinary stream for both the core Research Project courses (ARCH1398 and ARCH1399).

5. The standard duration of the program is 3 years consisting of 6 semesters of full-time study (24 units of credit per semester). This is extended by 1 year (or 2 semesters), if the Honours program is attempted.

6. General Education courses may not be taken before a student enters Year 2 of the Program.
Session Two
BLDG4502 Thesis (12 UOC)
Electives (12 UOC)

Electives
Students' attention is drawn to the list of suggested electives below. These courses are offered specifically to meeting the requirements for membership of professional bodies as defined below under the section ‘Professional Recognition’.

Session 1 Electives
BENV2813 Construction Marketing (3 UOC)
BENV2814 Property Law (6 UOC)
BENV2815 Construction Management 4A (6 UOC)
BENV2986 Property Management & Development (6 UOC)
BLDX4285 Professional Practice & Procedure (6 UOC)
BENV2718 Construction Technology 4 (3 UOC)
BLDG4403 Design Evaluation (6 UOC)

Session 2 Electives
BENV2408 Building Information Systems (6 UOC)
BENV2985 Land Economics & Valuation (6 UOC)
BLDG4273 Dispute Avoidance & Resolution (3 UOC)
BENV2816 Construction Organisational Behaviour (6 UOC)
BLDG4304 Forecasting, Bidding & Cost Control (6 UOC)
BENV2719 Housing Delivery Systems (3 UOC)
BLDG4315 Business & Financial Control (6 UOC)

Honours
The award of Honours is based on performance throughout the whole program, without requiring an additional Honours program. Honours are determined on the basis of a score which is calculated by weighting more heavily the courses taken in the later years of the program.

Academic Rules
1. The degree of Bachelor of Building Construction Management is awarded at either Pass or Honours level after the successful completion of a minimum of 204 units of credit.
2. To fulfil these requirements, students must complete:
   - 147 units of core courses, being all those prescribed in the faculty regulations for this program;
   - 12 units of work experience prior to entry into Year 4 as prescribed in the faculty regulations for this program;
   - 30 units of open electives, selected in accordance with the faculty regulations for undergraduate study in the Faculty of the Built Environment;
   - 12 units of General Education in accordance with University requirements.
3. The standard duration of the program is 4 years consisting of 8 semesters of full-time study (24 units of credit per semester) plus the required work experience.
4. General Education courses may not be taken before a student enters Year 2 of the program.

Work Experience
Prior to commencing their final year, all students are required to have gained a minimum of 80 days work experience by appropriate employment in the building industry. Notwithstanding the above, for registration with the Australian Institute of Quantity Surveyors or the Board of Quantity Surveyors Malaysia or the Royal Institution of Chartered Surveyors, students must undertake 6 months approved work experience to be completed before the start of the final year of the program.

A proposal for employment must be submitted to the Program Head for approval prior to starting work. Students will be required to produce documented evidence of their work experience. In order to complete this requirement, students must enrol in BLDG9999 Building Industry Program or in BLDG9998 Quantity Surveying Industry Program.

Progression
In the event of failure in one or more courses, students may carry the failed course(s) provided that:
- prerequisite courses have been completed to the satisfaction of the Program Head;
- the total number of courses taken at any time does not exceed 6 including General Education;
- the total contact hours do not exceed 20 per week.

Assumed Knowledge
Before entry to the Bachelor of Building Construction Management program it is recommended that students complete studies in at least HSC Mathematics.

Career Information
This program prepares students for professional and executive employment within one of Australia's largest industries, the construction industry. Careers in a wide variety of areas, in both private enterprise and in the public sector are available to building construction management graduates. More specifically, these include positions as project manager, master builder, construction consultant, building estimator, quantity surveyor, building economist, property manager and building scientist.

Professional Recognition
The award of the degree, Bachelor of Building Construction Management is recognised for admission to membership by:
1. The Australian Institute of Building
2. The Australian Institute of Quantity Surveyors, subject to completion of all compulsory courses and elective courses nominated by the Australian Institute of Quantity Surveyors plus BLDG9998 Quantity Surveying Industry Program
3. The Board of Quantity Surveyors Malaysia, subject to completion of all compulsory courses and elective courses nominated by the Board of Quantity Surveyors Malaysia plus BLDG9998 Quantity Surveying Industry Program
4. The Australian Property Institute, subject to the completion of the following electives in addition to all compulsory courses and selection of a thesis topic in the area of Land Economics.
5. The Royal Institution of Chartered Surveyors, subject to completion of all compulsory courses and elective courses nominated by RICS plus BLDG9998 - Quantity Surveying Industry Program

The electives nominated by each of these accrediting bodies are listed on the FBE web site under the Building Construction Management program.

3360 Bachelor of Planning

BPlan
Typical Duration
5 years
Minimum UOC for Award
240 units of credit
Typical UOC per Session
24 units of credit
Program Head: Susan Thompson

Program Description
The Bachelor of Planning program provides academic education and applied learning leading to professional qualifications in planning. The program is of four years full time duration with an additional mandatory year of work experience, normally taken after completing Session 1 of Year 3.

Planning has as its focus the management and development of urban and rural areas; ranging from small local precincts to metropolitan areas and regions. The planner's task is often to integrate and coordinate the aims and actions of a large number of government and private organisations and individuals to provide an equitable and efficient distribution of resources. Working at the interface of development and the environment, this involves collecting and analysing information; identifying needs and options; making forecasts; preparing policies, plans and programs for implementation; exercising development control; investigating development proposals; and evaluating results, communicating outcomes and consultation.

The Bachelor of Planning is also offered in combination with the Master of Environmental Management (PLANG23360). Please refer to the Bachelor of Planning Master of Environmental Management (BPlan MEM) entry under 'Combined Degree Programs'.
Program Objectives and Learning Outcomes
The objectives of the program are to create an awareness of the context in which planning operates, impart knowledge of how planning can influence the community and the physical environment, equip students with the competence to apply this knowledge at different levels in a wide range of situations, create an understanding of the contribution other disciplines can make to planning and vice versa, and develop skills in policy formulation, land use allocation and control, design and communication.

The program is structured to allow students to study a secondary specialisation in a particular area or to sample a wide range of educational experiences from across the University.

Program Structure
Year 1
Session One
PLAN1241 Planning Theory and Practice (6 UOC)
PLAN1101 Understanding Design (6 UOC)
PLAN1011 Urban Society (6 UOC)
GEOS1701 Environmental Systems and Processes (6 UOC)

Session Two
PLAN1122 Development Processes (6 UOC)
PLAN1042 Local Planning (6 UOC)
GEOH2801 Geographical Information Systems for Built Environment (6 UOC)
Electives (6 UOC)

Year 2
Session One
PLAN2111 Economics of Planning and Development (6 UOC)
PLAN2032 Urban Design (6 UOC)
PLAN2041 Integrated Planning 1 (6 UOC)
Electives (6 UOC)

Session Two
PLAN2122 History, Heritage and the Built Environment (6 UOC)
PLAN2152 Resources, Planning and the Natural Environment (6 UOC)
PLAN1052 Quantitative Methods (6 UOC)
General Education (6 UOC)

Year 3
Session One
PLAN3031 Integrated Plan 2 (6 UOC)
PLAN3041 Planning Law & Administration (6 UOC)
GEOH3671 Transport, Land Use and Environment (6 UOC)
PLAN3051 Development Assessment (6 UOC)

Session Two
PLAN0081 Work Experience (24 UOC)

Year 4
Session One
PLAN0082 Work Experience (24 UOC)

Session Two
PLAN3032 Integrated Plan 3 (6 UOC)
PLAN3015 Social Planning (6 UOC)
PLAN3052 Qualitative Methods (6 UOC)
Electives (6 UOC)

Year 5
Session One
PLAN4031 Research Design (3 UOC)
PLAN4121 Spatial Policy (6 UOC)
Electives (9 UOC)
General Education (6 UOC)

Session Two
PLAN4132 Thesis Project (12 UOC)
PLAN4142 Professionalism, Ethics and Politics (6 UOC)
Electives (6 UOC)

Program Minor
Students are strongly encouraged to use the elective courses to develop a specialisation in addition to their core planning studies.

Honours
Honours are awarded in the Bachelor of Planning degree on the basis of quality of performance throughout the whole program and in accordance with current faculty policy. For the purpose of calculating Honours at graduation, the Honours value of each course is indicated by the units of credit associated with that course. Units of credit generally reflect the workload required of students in courses in which grades are awarded. Honours grades are Class 1, Class 2 Division 1, or Class 2 Division 2.

Academic Rules
1. The degree of Bachelor of Planning is awarded at either Pass or Honours level after the successful completion of a minimum of 240 units of credit.
2. To fulfil these requirements, students must complete:
   • 147 units of core courses, being all those prescribed in the Faculty regulations for this program;
   • 48 units of work experience normally undertaken in 2nd session of Year 3 and 1st session of Year 4 as prescribed in the Faculty regulations for this program;
   • 33 units of open electives selected in accordance with the Faculty regulations for undergraduate study in the Faculty of the Built Environment;
   • 12 units of General Education in accordance with University requirements.
3. The standard duration of the program is 5 years, consisting of 8 sessions of full-time study plus 2 sessions of required work experience, with each session worth 24 units of credit.
4. General Education courses may not be taken before a student enters Year 2 of the program.

Work Experience
During the program, students must undertake 48 weeks of approved employment related to the program. The program assists with placements in state government agencies, planning consultants, private firms, and local councils. This is normally undertaken in the twelve months following Session 1 of Year 3 as indicated in the Program Structure. Work experience requirements must be completed prior to graduation. The type of employment proposed must be submitted to the Program Head for approval.

Progression
Courses are to be taken in the year sequence listed above, except with the permission of the Head of the Planning and Urban Development Program.

Professional Recognition
The Bachelor of Planning Degree is recognised by the Planning Institute of Australia as an academic qualification for Corporate Membership after at least one additional year of practical experience following graduation. Corporate Membership of the Planning Institute of Australia confers reciprocal recognition in many countries.

3380 Bachelor of Landscape Architecture
BLArch
Typical Duration
4 years
Minimum UOC for Award
216 units of credit
Typical UOC per Session
24 units of credit
Program Head: Catherine Evans

Program Description
The Bachelor of Landscape Architecture program is of four years duration and requires full-time attendance throughout. Students are introduced to the theory and practice of landscape architecture through an exploration of design principles, graphic techniques, ecological processes and studies of human modification of the environment. As students progress through the program, increasing emphasis is laid upon creative design with particular application to Australian conditions. Projects are related to the subject matter of concurrent lectures and culminate in landscape studies of regional and national significance.

The majority of courses are taught specifically within the Landscape Architecture Program. However, contact with the students and staff of other programs is ensured by the inclusion of courses from other programs in the Faculty of the Built Environment, the University's General Education program and the program of elective courses. In the final two years of
the program students are able to undertake a significant component of elective courses from the Landscape Architecture Program, other programs within the Faculty or from other faculties, which effectively allows them to develop a major specialisation.

Program Objectives and Learning Outcomes
The program seeks the synthesis of knowledge and skills through project based learning in a sequence of eight Design Studios. Support courses are grouped into strands: environment, history and theory, communication, technology and practice.

Program Structure

**Year 1**

**Session One**

- **BENV1141** Computers and Information Technology (3 UOC)
- **LANU1101** Design Fundamentals: Studio 1 (9 UOC)
- **LAND1121** Intro Landscape Architecture (3 UOC)
- **GEOS1701** Environmental Syst. & Analysis (6 UOC)
- **LANU1131** Horticulture (3 UOC)

**Session Two**

- **LAND1152** Landscape Analysis (9 UOC)
- **LAND1171** Landscape Technology 1 (3 UOC)
- **LAND1102** Land Design 2: Design Process (6 UOC)
- **LAND1122** History of Landscape Arch. (3 UOC)
- **LAND1142** Design Communication (3 UOC)

**Year 2**

**Session One**

- **LAND1251** Advanced Horticulture (3 UOC)
- **LAND1271** Landscape Technology 2 (3 UOC)
- **LAND1201** Landscape Design 3: Site Planning (9 UOC)
- **LAND1221** Environmental Sociology for Landscape Architects (3 UOC)
- **BENV1242** Computer-Aided Design (3 UOC)
- **LAND1202** Landscape Design 4: Landform and Planting Design (9 UOC)
- **LAND1222** History and Theory Elective* (3 UOC)
- **LAND1221** Environmental Sociology for Landscape Architects (3 UOC)
- **LAND1272** Landscape Technology 3 (3 UOC)
- **LAND1251** Advanced Horticulture (3 UOC)
- **LAND1271** Landscape Technology 2 (3 UOC)
- **LAND1201** Landscape Design 3: Site Planning (9 UOC)
- **LAND1222** History and Theory Elective* (3 UOC)
- **LAND1221** Environmental Sociology for Landscape Architects (3 UOC)
- **LAND1272** Landscape Technology 3 (3 UOC)

**Session Two**

- **LAND1301** Landscape Design 5 (9 UOC)
- **LAND1321** Research Methods (3 UOC)
- **LAND1321** Research Methods (3 UOC)
- **LAND1251** Advanced Horticulture (3 UOC)
- **LAND1271** Landscape Technology 2 (3 UOC)
- **LAND1201** Landscape Design 3: Site Planning (9 UOC)
- **LAND1222** History and Theory Elective* (3 UOC)
- **LAND1221** Environmental Sociology for Landscape Architects (3 UOC)
- **LAND1301** Landscape Design 5 (9 UOC)
- **LAND1321** Research Methods (3 UOC)
- **LAND1321** Research Methods (3 UOC)
- **LAND1301** Landscape Design 5 (9 UOC)

**Additional Requirement**

(completed before the start of Year 3)

- **LAND1311** Landscape Practice 1 (12 UOC)

**Year 3**

**Session One**

- **LAND1351** Landscape Management (3 UOC)
- **LAND1311** Landscape Practice 1 (12 UOC)
- **LAND1371** Landscape Engineering (3 UOC)
- **LAND1301** Landscape Design 5 (9 UOC)
- **LAND1251** Advanced Horticulture (3 UOC)
- **LAND1271** Landscape Technology 2 (3 UOC)
- **LAND1201** Landscape Design 3: Site Planning (9 UOC)
- **LAND1222** History and Theory Elective* (3 UOC)
- **LAND1221** Environmental Sociology for Landscape Architects (3 UOC)
- **LAND1301** Landscape Design 5 (9 UOC)

**Session Two**

- **LAND1302** Land Design 6 (9 UOC)
- **LAND1321** Research Methods (3 UOC)
- **LAND1321** Research Methods (3 UOC)
- **LAND1251** Advanced Horticulture (3 UOC)
- **LAND1271** Landscape Technology 2 (3 UOC)
- **LAND1201** Landscape Design 3: Site Planning (9 UOC)
- **LAND1222** History and Theory Elective* (3 UOC)
- **LAND1221** Environmental Sociology for Landscape Architects (3 UOC)
- **LAND1301** Landscape Design 5 (9 UOC)

**Additional Requirement**

(completed before the start of Year 4)

- **LAND1481** Landscape Practice 2 (12 UOC)

**Year 4**

**Session One**

- **LAND1421** Landscape Thesis (15 UOC)
- **LAND1431** Advanced Research Project (9 UOC)
- **BENV2106** Landscape Design 9: Integrated Studio (6 UOC)
- **LAND1401** Landscape Design 7: Urban Landscape Design (12 UOC)
- **LAND1402** Landscape Design 8: Graduating Studio (12 UOC)

**Honours**

The Bachelor of Landscape Architecture degree may be awarded with Honours based upon the quality of performance in the program and in accordance with current program policy. Honours are Class 1 or Class 2 Division 1 or Class 2 Division 2.

**Academic Rules**

1. The degree of Bachelor of Landscape Architecture is awarded at either Pass or Honours level after the successful completion of a minimum of 216 units of credit.
2. To fulfill these requirements, students must complete:
   - 156 units of core courses, being all those prescribed in the faculty regulations for this program;
   - 24 units of work experience prior to Year 4 as prescribed in the faculty regulations for this program;
   - 24 units of open electives, selected in accordance with the faculty regulations for undergraduate study in the Faculty of the Built Environment;
   - 12 units of General Education in accordance with University requirements.
3. The standard duration of the program is 4 years consisting of 8 semesters of full-time study (24 units of credit per semester) plus the required work experience.
4. General Education courses may not be taken before a student enters Year 2 of the Program.
5. Students who achieve a final mark above 65 in the prerequisite course, LAND1321 Research Methods, will be directed to the Landscape Design Thesis, and those who pass LAND1321 but whose final mark is 65 or less will be directed to the Advanced Research Project in Landscape Architecture. Students doing the Research Project will also be required to enrol in the co-requisite, Landscape Design 9: Integrated Studio.
6. A Progress Portfolio will be submitted at the end of second year as part of the assessment for LAND1202 and to determine progression into the third year of design. Similarly, another Progress Portfolio will be submitted at the end of third year which will determine progression into the final year of design.
7. Design Studios are considered to be a linear sequence, which requires that each design studio must be passed before a student can advance to the next level.

**Work Experience**

Students of the undergraduate program must obtain a total of 90 days work experience prior to graduation, of which a minimum of 40 days must be in landscape industry work and a minimum of 40 days in a landscape design office. This normally takes the form of employment during long student vacations supervised by a landscape architect, landscape contractor or nursery. Each student undertaking work experience must obtain prior approval of the Work Experience Coordinator.

Each student must obtain from the employer a statement of experience gained, maintain an accurate record in logbook form and submit a written report describing the work undertaken during the various work experience components. Details of these arrangements are available on the Faculty website.

**Professional Recognition**

The program is accredited by the Australian Institute of Landscape Architects and graduates holding the BLArch degree may qualify for corporate membership of the Institute.

**3385 Bachelor of Industrial Design**

**BIndDes**

**Typical Duration**

4 years

**Minimum UOC for Award**

204 units of credit

**Typical UOC per Session**

24 units of credit

**Program Head:** To be advised

**Program Description**

Industrial design involves the research and design of the whole range of consumer and capital products used by people. These are as diverse as telephones and transportation, kitchen appliances and exhibition systems. Ideally, the industrial designer works as part of a team involving engineering, production and marketing. The industrial designer initially concentrates on establishing the concept as a marketable, producible,
useable and socially responsible product; and subsequently details the human factors (ergonomics), appearance (style) and mode of operation. Frequently the designer becomes involved in the corporate image of companies and their products as well as the graphics of the product’s packaging and the associated retail support systems. The Bachelor of Industrial Design Program provides academic education and practical experience leading to professional qualifications in industrial design. It requires full time attendance for four years culminating in the Major Project.

**Program Objectives and Learning Outcomes**

There are two central goals. The primary goal is to equip students with the theoretical and practical knowledge, skills and techniques needed for the design, documentation and administration of design and product development. A more general goal is to provide students with an all-round general problem-solving education. Lectures and practical sessions cover theoretical knowledge in the following areas:

1. Industrial Design Studio
2. Visual Communication of Design (Computer aided and manual methods)
3. Marketing
4. Technology (Engineering materials and manufacture)
5. History and Theory

**Program Structure**

**Year 1**

**Session One**

IDES1101 Industrial Design Fundamentals (6 UOC)
IDES1012 Safe Workshop Practices (3 UOC)
BENV1141 Computers and Information Technology (3 UOC)
MATH1011 General Mathematics 1B (6 UOC)
IDES1161 Industrial Design Communication A (6 UOC)

**Session Two**

MATH2389 Statistics SM 1 (3 UOC)
IDES1031 Design Studio 1 (6 UOC)
IDES1121 History of Industrial Design (3 UOC)
IDES1071 Materials and Technology Workshop A (6 UOC)
IDES1162 Industrial Design Communication B (6 UOC)

**Year 2**

**Session One**

IDES2072 Materials and Technology Workshop B (6 UOC)
IDES2163 Industrial Design Communication C (6 UOC)
IDES2201 Ergonomics (6 UOC)
IDES2161 Industrial Design Studio 2A (6 UOC)

**Session Two**

IDES2162 Industrial Design Studio 2B (6 UOC)
IDES2171 Computer Applications in Industrial Design (6 UOC)
IDES2092 Industrial Design Theory and Process (6 UOC)
MARK1012 Marketing Fundamentals (6 UOC)

**Year 3**

**Session One**

IDES3073 Materials and Technology Workshop C (6 UOC)
MARK2051 Consumer Behaviour (6 UOC)
MARK2052 Marketing Research (6 UOC)
IDES3221 Industrial Design Studio 3A (6 UOC)

**Session Two**

IDES3222 Industrial Design Studio 3B (6 UOC)
Electives (12 UOC)
General Education (6 UOC)

**Year 4**

**Session One**

IDES4291 Industrial Design Studio 4 (6 UOC)
IDES4301 Project Research (6 UOC)
IDES4372 Industrial Design Management and Practice (6 UOC)
Electives (6 UOC)

**Session Two**

IDES4352 Industrial Design Project (12 UOC)
Electives (6 UOC)
General Education (6 UOC)

**Honours**

The Bachelor of Industrial Design degree may be awarded with Honours based upon the quality of performance in the program, and in accordance with current program policy. Honours are Class 1 or Class 2 Division 1 or Class 2 Division 2.

**Academic Rules**

1. The degree of Bachelor of Industrial Design is awarded at either Pass or Honours level after the successful completion of a minimum of 192 units of credit.
2. To fulfil these requirements, students must complete:
   - 156 units of core courses, being all those prescribed in the faculty regulations for this program.
   - 24 units of open electives, selected in accordance with the faculty regulations for undergraduate study in the Faculty of the Built Environment.
   - 12 units of General Education in accordance with University requirements.
3. The standard duration of the program is 4 years consisting of 8 semesters of full-time study (24 units of credit per semester).
4. General Education courses may not be taken before a student enters Year 2 of the program.

**Career Information**

The program prepares students for professional and executive employment in areas involving the research, design and development of new manufactured products. Whilst it is anticipated that most graduates will be initially employed in an industrial design capacity either in manufacturing companies or consultancies, it is likely that some graduates may subsequently choose to specialise in aspects of marketing, engineering, product management or design management.

**Professional Recognition**

The Degree of Bachelor of Industrial Design from the University of New South Wales is recognised by the Design Institute of Australia.

**Combined Degree Programs**

3262 Bachelor of Architecture Bachelor of Arts

**BArch BA**

- **Typical Duration**: 6 years
- **Minimum UOC for Award**: 288 units of credit
- **Typical UOC per Session**: 24 units of credit
- **Program Head**: To be advised

**Program Description**

The BArch BA program is administered by the Architecture Program in the Faculty of the Built Environment. The program requires students to obtain the approval of the Faculty of Arts and Social Sciences for the BA components of their program. The final program and timetable must be approved by the Architecture Program Head in the Faculty of the Built Environment.

The program is open to all students who satisfy both the Architecture and Arts entry conditions. Students may enter directly in Year 1 or may apply to transfer from the Architecture program after the completion of at least one year if they have a credit or higher average or the permission of the Architecture Program Head. Transfer after the second year may result in the student taking more than minimum time to complete the combined degree.

Students should start discussing their program with representatives of the Architecture Program and the Faculty of Arts and Social Sciences as early as possible. Students should themselves determine the Arts program that they wish to undertake. The Arts and Social Sciences section in this Handbook describes the options. There are rules that prescribe what may be taken in each year and students should be aware of the Architecture requirements prior to choosing Arts preferences.

Students will also need to refer to the Faculty of Arts and Social Sciences section in this Handbook for complete program and course details.
Program Objectives and Learning Outcomes

This combined degree allows students to add their choice of an Arts program to the standard, professionally accredited Architecture program offered by the Faculty of the Built Environment. It provides flexibility in the choice of courses with the full Arts program and enables students to gain a broad education in Arts as well as the specialised studies of Architecture. Since both the Architecture and Arts programs can have common subject areas, and the Architecture program contains a percentage of open electives, the combined program requires only one additional session of study on top of the standard BArch program to gain the additional qualification of Bachelor of Arts. In general, the BA courses are taken concurrently with the BArch program so that both can be completed in eleven sessions.

The award of this combined degree demands an amalgamation of the conditions governing both the BArch degree and the BA degree with changes to the requirements for participation in General Education programs and total units of credit.

### Program Structure

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#### Year 6

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<td>BA Courses</td>
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Honours

Students may be awarded a BA (Honours) degree through successfully completing an Honours year.

It should be noted that entry into a particular BA (Honours) program may require completion of courses additional to those specified in the Degree Rules and Faculty Regulations. The Honours year would be outside the suggested time for the combined degree.

The Bachelor of Architecture degree may be awarded with Honours based on the quality of performance in the program and in accordance with current program policy. Honours are Class 1 or Class 2 Division 1 or Class 2 Division 2.

In order to be considered for the University Medal, students must have completed at least 3 years of study towards their BArch degree at UNSW. Where appropriate, BArch (Honours) is conferred at graduation for the combined degree unless students carry out the additional BA Honours program.

Academic Rules

1. The degrees of Bachelor of Architecture and Bachelor of Arts are awarded at either Pass or Honours level (BArch only) after successful completion of a minimum of 210 units of credit from the Architecture Program and 78 units of credit from the Arts Program. The combined total units of credit is 288. To gain Honours in Arts, students are required to carry out an extra year of study (48 units of credit) with a Major in an approved area.

2. To fulfil these requirements, students must complete:
   - 171 units of core courses in Architecture, being all those prescribed in the in the faculty regulations for this program.
   - 24 units of work experience completed after Year 1 and before Year 5 as prescribed in the faculty regulations for this program.
   - 15 units of FBE electives in the Faculty of the Built Environment, selected in accordance with the faculty regulations for this program.
   - 78 units of credit from the range of Arts majors in accordance with the Faculty of Arts and Social Science Rules. Students in the combined degree should undertake no more than 24 units of credit in Level 1 courses.

3. The standard duration of the program is 6 years consisting of 11 semesters of full-time study (24 units of credit per semester) plus 1 semester of required work experience.

4. Arts courses may not be taken until after the student has completed 96 units of credit points from the BArch program.

5. To fulfil the requirements of the BA component of the program, students must undertake a major by completing 42 units of credit in one of the approved disciplinary streams identified in the faculty regulations for this program.

Faculty Regulations for the BArch BA

Core Courses in Architecture

The core courses prescribed for the program are all those named in Program Structure above.

FBE Electives

Faculty of the Built Environment (FBE) electives must be selected from those offered by the FBE.
Arts Major
For the Arts Majors and course selection restriction, please see the Faculty of Arts and Social Sciences.

Course Selection Restrictions
No course included for credit in the BArch program can be included in the 78 units of credit required in Rule 1 for the BA program.

Work Experience/Composite Courses/Progression rules
Please see the BArch (program code 3260) for work experience regulations.

Professional Recognition
Please refer to the BArch (program code 3260) professional recognition section for complete details.

3263 Bachelor of Architecture Bachelor of Social Science

BArch BSocSc

Typical Duration
6 years

Minimum UOC for Award
288 units of credit

Typical UOC per Session
24 units of credit

Program Head: To be advised

Program Description
The BArch BSocSc program is administered by the Architecture Program of the Faculty of the Built Environment. The program requires the student to obtain approval of the Faculty of Arts and Social Sciences for the BSocSc components of their program. The program and timetable must be approved by the Architecture Program Head in the Faculty of the Built Environment.

Students should start discussing their program with representatives of the Architecture Program and the Faculty of Arts and Social Sciences as early as possible. Students should themselves determine the Social Science Major that they wish to undertake. The Faculty of Arts and Social Science section in this Handbook describes the options available and students will need to refer to this section for complete program and course details. There are rules that prescribe what may be taken in each year and students should be aware of the Architecture requirements prior to choosing Social Science preferences.

Program Objectives and Learning Outcomes
This combined degree allows students to add their choice of a Social Science program to the standard, professionally accredited Architecture program offered by the Faculty of the Built Environment. It provides flexibility in the choice of courses with the full Social Science program and enables students to gain a broad education in Social Science as well as in the specialisations of Architecture. Because Architecture and Social Science programs can have common subject areas, and the Architecture program contains a percentage of open electives, the program requires only one additional session of study to gain the additional qualification of Bachelor of Social Science. In general, the BSocSc courses are taken concurrently with the BArch program so that both can be completed in eleven sessions.

The award of this combined degree demands an amalgamation of the conditions governing both the BArch degree and the BSocSc degree with changes to the requirements for participation in General Education programs and total units of credit.

Program Structure

Year 2

Session One
ARCH1271 Architectural Technologies 3 (6 UOC)
ARCH1201 Architectural Design Workshop 2 (8 UOC)
ARCH1221 Architectural History and Theory 3 (4 UOC)
ARCH1241 Communications 2 (3 UOC)
FBE elective (3 UOC)

Session Two
ARCH1272 Architectural Technologies 4 (4 UOC)
ARCH1202 Architectural Design Workshop 3 (8 UOC)
ARCH1282 Research Practice (3 UOC)
BENV1242 Computer-Aided Design (3 UOC)
ARCH1222 Architectural History and Theory 4 (3 UOC)
FBE elective (3 UOC)

Year 3

Session One
ARCH1371 Architectural Technologies 5 (4 UOC)
ARCH1301 Architectural Design Studio 1 (8 UOC)
BENV1341 Design Modelling and Visualisation (3 UOC)
ARCH1321 Architectural History and Theory 5 (3 UOC)
BSocSc courses (6 UOC)

Session Two
ARCH1302 Architectural Design Studio 2 (9 UOC)
ARCH1382 Practicum (3 UOC)
BSocSc courses (12 UOC)

Opportunity for alternate off-campus Exchange Program with the approval of the Program Head

Year 4

Session One
ARCH1401 Architectural Design Studio 3 (9 UOC)
BSocSc Courses (12 UOC)
FBE Elective (3 UOC)
Opportunity for alternate off-campus Exchange Program with the approval of the Program Head

Session Two
ARCH1470 Building Services 1 & 2 (6 UOC)
ARCH1381 Professional Practice 1 (3 UOC)
ARCH1402 Architectural Design Studio 4 (9 UOC)
BSocSc Courses (6 UOC)

Opportunity for alternate off-campus Exchange Program with the approval of the Program Head

Additional Requirement
(After Year 1 and before Year 5)
ARCH1583 Work Experience (24 UOC)

Year 5

Session One
ARCH1501 Investigation Workshop (9 UOC)
ARCH1582 Professional Practice 2 (6 UOC)
BSocSc Courses (6 UOC)
FBE Elective (3 UOC)

Session Two
ARCH1502 Graduation Project (9 UOC)
BSocSc Courses (12 UOC)
FBE Elective (3 UOC)

Year 6

Session One
BSocSc Courses (24 UOC)

Honours
Students may be awarded Honours in the BSocSc degree by successful completion of an Honours year. It should be noted that entry into a particular BSocSc Honours program may require completion of courses additional to those specified in the Degree Rules and Faculty Regulations.

The Honours year would be outside the suggested time for the combined degree.

The Bachelor of Architecture degree may be awarded with Honours based on the quality of performance in the program and in accordance with current program policy. Honours are Class 1 or Class 2 Division 1 or Class 2 Division 2. In order to be considered for the University Medal, students must have completed at least 3 years of study towards their BArch degree at the University of New South Wales.
4707 Bachelor of Planning Bachelor of Arts

BPlan LLB

This program provides an opportunity to obtain two professional degrees. It allows students to add the professionally recognised Law program to the professionally accredited Planning program offered by the Faculty of the Built Environment. The Law courses satisfy the requirements for the award of the professional LLB degree. Because the Planning program contains a percentage of open electives that can be replaced by Law courses, the combined program requires only four additional sessions of study to gain both qualifications. In general, this study is taken concurrently with the BPlan program and both can be completed in a minimum of seven years, consisting of twelve academic sessions (six years), plus two sessions of compulsory work experience. This compares with the five-year BPlan program, which consists of eight academic sessions and two sessions (12 months) of compulsory work experience.

For full details of this program, please refer to the Faculty of Law section of this Handbook.

3360 Bachelor of Planning Master of Environmental Management

BPlan MEM – Plan PLANG23360

Program Head: Susan Thompson

This program provides an opportunity to obtain two professional degrees. It allows students to add the Masters in Environmental Management program offered by the Institute of Environmental Studies to the professionally accredited Bachelor of Planning program offered by the Faculty of the Built Environment. Because the Planning program contains a percentage of open electives which can be replaced by MEM courses, the linked program requires only two additional sessions of study to gain both qualifications. Both degrees can be completed in a minimum of twelve sessions. As an alternative, the final 48 units of credit in the MEM program may also be taken part-time or by distance learning.

Students may transfer to this program following three years of study in the Bachelor of Planning program having achieved a weighted average of 65 or higher in all graded courses undertaken.

Students in the BPlan MEM program will not be eligible for the award of the Graduate Certificate in Environmental Management nor the Graduate Diploma in Environmental Management.

The BPlan MEM program is administered by both the Faculty of the Built Environment (Years 1–5) and the Institute of Environmental Studies (Year 6). The final program and timetable for Years 1–5 must be approved by the Head of the Planning and Urban Development Program in the Faculty of the Built Environment and for Year 6 by the Director of the Institute for Environmental Studies.

Registration/Professional Recognition

Please refer to the BPlan professional recognition section for complete details.

Plan Structure – PLANG23360

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4705 Bachelor of Architecture Bachelor of Laws

BArch LLB

This program provides an opportunity to obtain two professional degrees. It allows students to add the professionally recognised Law program to the professionally accredited Architecture program offered by the Faculty of the Built Environment. The Law courses, while fewer in number than the Jurisprudence/Law program, satisfy the requirements for the award of the professional LLB degree. Because the Architecture program contains a percentage of open electives which can be replaced by Law courses, the combined program requires only three additional sessions of study to gain both qualifications. In general, this study is taken concurrently with the BArch program and both can be completed in thirteen sessions, although students are considered to have a significant workload throughout these thirteen sessions.

For full details of this program, please refer to the Faculty of Law section of this Handbook.
Session Two
PLAN2152 Resources, Planning and the Natural Environment (6 UOC)
PLAN2122 History, Heritage and the Built Environment (6 UOC)
Electives (6 UOC)
General Education (6 UOC)
Total 24 UOC

Year 3
Session One
PLAN3031 Integrated Planning 2 – Strategic Planning (6 UOC)
PLAN3041 Planning Law and Administration (6 UOC)
PLAN3051 Development Assessment (6 UOC)
GEOH3671 Transport, Land Use and Environment (6 UOC)
Total 24 UOC

Session Two
PLAN0081 Work Experience 24 UOC

Year 4
Session One
PLAN0082 Work Experience 24 UOC

Session Two
PLAN3032 Integrated Planning 3 – Master Planning (6 UOC)
PLAN3015 Social Planning (6 UOC)
PLAN3052 Qualitative Methods (6 UOC)
IEST5001 Frameworks for Environmental Management (6 UOC)
Total 24 UOC

Year 5
Session One
PLAN4121 Spatial Policy (6 UOC)
PLAN4031 Research Design (3 UOC)
CVEN9895 Fundamental Knowledge in Environmental Management: Engineering (6 UOC)
BIOS9001 Fundamental Knowledge in Environmental Management: Ecology* (6 UOC)
General Education (3 UOC)
Total 24 UOC

Session Two
PLAN4132 Thesis Project (12 UOC)
PLAN4142 Professionalism, Ethics and Politics (6 UOC)
CHEM7300 Fundamental Knowledge in Environmental Management: Physical Science (6 UOC)
Total 24 UOC

Year 6
Session One
IEST5002 Tools for Environmental Management (6 UOC)
ECON5125 Fundamental Knowledge in Environmental Management: Economics (6 UOC)
MEM Electives** (12 UOC)
Total 24 UOC

Session Two
IEST5003 Addressing Environmental Issues (6 UOC)
MEM Electives** (18 UOC)
Total 24 UOC

*BIOSS9001 Fundamental Knowledge in Environmental Management: Ecology is undertaken as a Summer Session course between Years 4 and 5.
**Students cannot undertake MEM elective courses which have course identifier prefixes of BENV or UDES offered by the faculty of the Built Environment.

Note: That Sessions 1 and 2 of Year 6 may also be undertaken part-time or by distance learning.

Plan Award Rules
1. The degree of Bachelor of Planning will be awarded at either Pass or Honours level after the successful completion of a minimum of 240 units of credit including 24 units of credit from the MEM program. The degree of Master of Environmental Management will be awarded at Pass level after the successful completion of 72 units of credit from the MEM program, 24 of which are carried out during the final two years of the BPlan program.

2. To fulfill these requirements, students must complete:
   - 147 units of core courses in Planning, being all those prescribed in the faculty regulations for this program.
   - 48 units of work experience as prescribed in the faculty regulations for this program.
   - 9 units of open electives selected in accordance with the faculty regulations for undergraduate study in the Faculty of the Built Environment.
   - 42 units of core courses in Environmental Management, being all those prescribed in the regulations for the MEM program.
   - 12 units of General Education in accordance with University requirements.
   - 30 units of program electives in Environmental Management selected in accordance with the regulations for the MEM program.

3. The standard duration of the program is 5 years consisting of 10 semesters of full-time study (24 units of credit per semester) plus 1 year of required work experience.

4. The student must complete 144 units of credit in the Bachelor of Planning program before attempting any courses from the MEM Program.

Faculty Regulations for the BPlan MEM
Core Courses in Planning
The core courses prescribed for the BPlan program are all those named in Plan Schedule up to and including the end of Year 5 and excluding the four courses named in MEM Core Courses.

Transfer Arrangements
Students may transfer to this program following the successful completion of at least 144 units of credit in the Bachelor of Planning program provided they have achieved a weighted average mark across all graded courses of 65 or higher.

Students in the BPlan MEM program may transfer back to the BPlan program. They will receive credit toward their BPlan degree of up to 24 units of credit for MEM courses completed while undertaking the program. Students in the BPlan MEM program who do not complete the BPlan degree including 24 units of credit of MEM courses cannot transfer directly to the MEM program, but may subsequently apply for admission to the MEM upon completion of the BPlan and may request credit for MEM courses completed while they were undertaking the joint program.

Course Selection Restrictions
During the final three sessions of the BPlan program students must complete the four MEM courses listed in MEM Core Courses table.

MEM Core Courses
IEST5001 Frameworks for Environmental Management
CVEN9895 Fundamental Knowledge in Environmental Management: Engineering
BIOS9001 Fundamental Knowledge in Environmental Management: Ecology
CHEM7300 Fundamental Knowledge in Environmental Management: Physical Science

Honours
The Bachelor of Planning degree may be awarded with Honours based on the quality of performance in the program of study undertaken to fulfill the requirements of that degree, and in accordance with current faculty regulations. Honours are Class 1 or Class 2 Division 1 or Class 2 Division 2.

Work Experience
During the degree, students must undertake 48 weeks of approved planning-related employment. The Planning and Urban Development Program assists with placements in state government agencies, planning consultants, private firms, and local councils. This is normally undertaken in the twelve months following Session 1 of Year 3 as indicated in the Program Schedule. Work experience requirements must be completed prior to graduation. The type of employment proposed must be submitted to the Head of the Planning and Urban Development Program for approval.
Faculty of the College of Fine Arts

A Message from the Dean

The College of Fine Arts is one of the ten dynamic faculties of the University of New South Wales. Studying at COFA is characterised by rigorous studio activities, high levels of scholarship and research, exposure to the best and most exciting art and design practice Sydney can offer, and participation in collaborative international art projects. Located in Paddington, the centre of Sydney’s gallery and museum district, COFA offers a comprehensive range of undergraduate, postgraduate and research degrees through its five professional schools (School of Art, School of Art Education, School of Art History and Theory, School of Design Studies and School of Media Arts). The College is unique amongst Australian art and design institutions in that it provides studio practice as well as professional studies in theory, history, education and management.

Staff and students at the College are engaged in scholarship and research across a wide range of visual arts and design disciplines including painting, drawing, printmaking, sculpture/performance/installation, photography, film/video, mixed media, digital media, ceramics, textiles, jewellery, graphics/media, applied/object and environments/spatial. Specialist degrees are offered in the areas of art education, design education, art and design history and theory, and arts administration. Cross-disciplinary courses that link COFA and other UNSW teaching and research expertise are also available, combining, for example, arts administration with law or commerce.

The teaching and research of both studio and theoretical activities is based on three principles. Firstly, the increased cross-disciplinary nature of the visual arts and design is recognised. Secondly, the acquisition of traditional skills and the application of new technologies (often regarded as mutually exclusive) are integral to all aspects of teaching and learning. Thirdly, students are offered a college and a wider university experience that enhances their capacity to respond in a significant way to the personal, artistic, cultural and political issues of our time.

COFA has a commitment to the international engagement of its students, staff, curriculum and research activities. Within an overall enrolment of approximately 2200, 210 are international students who come from more than 25 countries across Asia and the Pacific, Europe and the Americas. The College has cooperative agreements with specialist art and design institutions throughout the world. For example, the International Drawing Research Institute (located at the College) places COFA staff and students in key learning roles alongside colleagues in Beijing and Glasgow.

COFA has the expertise, resources and experience to offer specialised yet flexible cross-disciplinary degree programs in visual arts and design. The extensive holdings of the Clement Semmler Library, the vibrant and challenging exhibition programs of the COFA student gallery and internationally renowned Ivan Dougherty Gallery, the excellent materials handling and fabrication workshops, AV support and computer facilities that are essential learning and research tools within art and design make a major contribution to the student experience at COFA. The research activities of students and staff are supported by individual staff and student initiatives, specialist conferences, centres and institutes.

It gives me great pleasure to welcome you into the community of artists, designers, theorists and educators that make up the Faculty of the College of Fine Arts, UNSW.

Professor Ian Howard
Dean
College of Fine Arts

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Faculty Information and Assistance

The College of Fine Arts
Research and scholarship in the disciplines of art and design is organised and administered through five faculties. Undergraduate degree programs allow specialised studies, combined and interdisciplinary student plans. The College includes the Clement Semmler Library, a specialist art and design research library; the Ivan Dougherty Gallery, the COFA Exhibition/Performance Spaces, and Three Foot Square; and four research centres: the International Drawing Research Institute, the iCINEMA Centre for Interactive Cinema Research and the Centre for Contemporary Art and Politics.

Who Can Help?
If you require advice about enrolment, degree requirements, progression within programs or any other general matters, contact the Student Centre, ground floor, B Block, phone (02) 9385 0684.
Faculty timetables and official University forms are also available from the Student Centre.
The location of the College of Fine Arts is:
Cnr. Oxford Street and Greens Road
Paddington NSW 2021 Australia
All enquiries should be addressed to:
The Student Centre
College of Fine Arts,
The University of New South Wales
PO Box 259
Paddington NSW 2021
Tel: (02) 9385 0684
Fax: (02) 9385 0706
email: cofa@unsw.edu.au

The College of Fine Arts Website
Please refer to the College of Fine Arts’ website for further information: www.cofa.unsw.edu.au

The School of Art
Web address: www.cofa.unsw.edu.au/art

The School of Art Education
Web address: www.cofa.unsw.edu.au/arted

The School of Art History and Theory
Web address: www.cofa.unsw.edu.au/artht

The School of Design Studies
Web address: www.cofa.unsw.edu.au/design

The School of Media Arts
Web address: www.cofa.unsw.edu.au/media

COFA Online
Web address: www.cofa.unsw.edu.au/online

Course Descriptions
Course descriptions for 2006 can be found in alphabetical order by course code at the back of this Handbook. Many non-core courses are offered on a rotating two or three year schedule, and the full list is available in the Online Handbook at www.handbook.unsw.edu.au

Units of Credit
The University has introduced a university-wide units of credit system for all courses offered to both undergraduate and postgraduate students. The system means that a course will have the same units of credit value irrespective of which faculty’s program it is counting towards. Students are able to determine the value of courses taken from other faculties when planning their programs of study. The student load for a course is calculated by dividing the units of credit value of a course by the total units of credit required for that year of the program. Student load is used to determine both student contribution charges and tuition fees. Students who take more or less than the standard load for that year of a program will be charged accordingly.

Prerequisite and Corequisite Requirements
A student enrolling in a course must satisfy the prerequisite and corequisite requirements for that course.

General Education Requirements
The objectives of General Education and details of the courses offered across the University are available at the front of this Handbook. Please contact the College of Fine Arts for further information regarding the Faculty’s rules and regulations on General Education.
The following courses are not available as General Education for students in the following degrees:
Bachelor of Art Education
Bachelor of Design Bachelor of Art Education

GENB4001 Psychology of the Individual and the Group
GENT1502 Student Learning, Thinking and Problem Solving
GENT1503 Introduction to Educational Psychology
GENT1504 Ethics and Education
GENT1506 Social Foundations of Education
GENT1507 Learning Process and Instructional Procedures

Applicants for exemption from General Education courses on the basis of prior studies, must complete the Application Form for General Education Exemption and submit it to the Associate Dean, Academic at the College of Fine Arts at the time of enrolment at COFA. Students may apply for approval to substitute any course(s) from other faculties for General Education courses up to a total maximum of 6 units of credit (or 50%) of General Education. Applicants for substitution must complete the Application Form for General Education Substitution and submit it to the Associate Dean, Academic. Application forms are available from the Student Centre or the office of the Associate Dean, Academic.

Advanced Standing
Credit can be gained for relevant equivalent courses completed at another recognised institution within the previous ten years. The maximum advanced standing available is 50% of the program.

Attendance
Except where leave is granted:
• students must attend and participate in all classes for courses in which they are enrolled;
• where absences in excess of 3 classes occur, students may be given a fail grade (UF).

Computing Information
For general details of computing services, see ‘General University Rules and Student Information’ in this Handbook.
Computing resources at the College include 4 main teaching labs, a general access lab, smaller specialist labs, specialist audio and video studios, workstations and control rooms. In total, COFA provides over 150 general and specialist workstations equipped with hardware and software complementary to course requirements. All workstations are connected to the University Wide Network, which in turn is connected to the Internet via the ARRNNet2 network.
The General Access Laboratory provides COFA students with word processing, email, Internet access and basic imaging needs including OCR and image scanning. The teaching labs provide access to multimedia, web authoring, DVD authoring, modelling, animation, CAD, desktop publishing and high end scanning. The Digital Studio and Moving Image Labs provide access to digital audio and video production. Decks patched into these workstations include DAT, VHS, Mini DV and DVCAM. The Research Imaging Laboratory includes a number of computers with a range of 2D and 3D digital imaging applications.
In addition to the College computing facilities, COFA also encourages students to consider the purchase of a personal computer as recommended by UNSW Division of Information Services (DIS) to support their studies. The COFA Computing Resource Handbook detailing further information on purchasing a computer, computing policy, facilities and services can be found at www.cofa.unsw.edu.au/units/csu
Advice is available from school offices on the requirements for computing equipment and software for each program offered. Students undertaking computing studies in any program are responsible for ensuring that they have appropriate backups of their work. Work should not be left on College computers as its security cannot be guaranteed by the College. All students enrolled in courses at the College are bound by the COFA Computing Code of Conduct for Students, which can be found at www.cofa.unsw.edu.au/units/csu/studentinfo/
Technical Resources

The Resource Centre provides audio-visual services to the Faculty in the form of equipment and expertise. The Centre has a wide range of equipment, including DAT recorders, mini DV cameras, digital still cameras, and portable data projectors. For more information, see www.cofa.unsw.edu.au/units/resource/

A range of video and audio editing equipment and studios is also available at the College. Other services at the College include Digital Print and Copy Service (DP&CS) which provides various output services to the students and staff of COFA, UNSW and external clients. Services include: large format printing on a range of media; digital to colour copier; photographic continuous tone; CD burning; digital to film and high quality film scanning.

Clement Semmler Library

The Clement Semmler Library supports teaching, learning and research in art and design at the College of Fine Arts. For information regarding resources and opening hours, please refer to the website at http://info.library.unsw.edu.au/cofa/about/cofa.html

Ivan Dougherty Gallery

UNSW Ivan Dougherty Gallery provides an educational and cultural resource for the University, the broader national and international art community and the general public. The Gallery presents around ten to twelve group or thematic exhibitions per year of Australian and international recent and contemporary art in all media and disciplines: painting, sculpture, prints, drawings, design and installation work. There is a faculty and postgraduate exhibition held each year. Public programs such as forums, symposia and floor talks accompany exhibitions. These are attended by UNSW students and the general public. In addition, a publication is produced for each exhibition, generally in the form of an illustrated catalogue containing curatorial essays, artist texts and background information. The Gallery keeps a research archive of all published material and photographic images of each exhibition.

Ivan Dougherty Gallery was established in 1977 by the Alexander Mackie College of Advanced Education at 200 Cumberland Street, The Rocks and was named after Major General Sir Ivan Dougherty, Chairman of the first College Council. It moved to its current premises in 1981. UNSW Ivan Dougherty Gallery hours: Monday to Saturday 10am – 5pm (closed public holidays).

Website: www.cofa.unsw.edu.au/idg

UNSW College of Fine Arts also houses the COFA Exhibition and Performance Space (COFA Gallery), primarily for the benefit of student work. It oversees a dynamic program of week-long exhibitions featuring the work of COFA students, students from international art institutions, recurrent events such as ARTEXPRESS and various student award exhibitions.

COFA Gallery hours: Monday to Friday 10am – 5pm (closed public holidays).

Support for Students

The Counselling Service, Compass Programs, provides personal development resources, enhancement programs and confidential counselling to enrolled students of UNSW. Students are encouraged to access the Counselling Service in relation to any issue that might adversely affect their personal and academic progress. The service employs psychologists who are able to assist students with concerns such as: transition and adjustment to university life and academic expectations; support with sorting out academic or administrative issues; motivation and other difficulties which affect study; interpersonal problems or relationship conflicts; and personal concerns such as stress, anxiety, depression or loneliness.

Appointments at the College of Fine Arts can be made by telephoning (02) 9385 0733 or visiting the COFA service at ground floor, G Block, Room 05. Appointments on the Kensington campus are available between 9am and 5pm and can be made by dropping in or telephoning (02) 9385 5418 for the Counselling Service which is located on the 2nd Floor, East Wing, Quadrangle Building. Telephone counselling appointments and before/after hours appointments can be negotiated.

The Counselling Service website contains an introduction to the service and useful resources for students and staff: www.counselling.unsw.edu.au

Indebtedness to the University

A student becomes indebted to the University by non-payment of any fee or charge and by non-return of any College property. A student who is indebted to the University and who fails to make a satisfactory settlement of the indebtedness upon receipt of due notice will be penalised.

Students who fail to pay charges and late charges levied by the University will not be permitted to attend classes, undertake assessments or be granted any course grades.

Students who fail to return material borrowed from the Clement Semmler Library by the due date may be refused further borrowing privileges at the discretion of the College Librarian or delegate.

Students who fail to return on time materials borrowed from College Resource units may be refused further borrowing privileges, at the discretion of the Dean or delegate.

Students unable to return Library or other Resource items borrowed from the College are required to pay the cost of their replacement. The minimum charge per item will be determined by the College.

Students who fail to return any materials borrowed from the College, or who fail to satisfy any financial obligation to the University may incur one or more of the following penalties:

1. refusal of further borrowing privileges;
2. withdrawal of authority to attend classes;
3. refusal of permission to enrol;
4. withholding of the testamur for an award.

Such penalty will remain in force until materials are returned, compensation made, or other such obligations satisfied.

Building Rules

Students are required to abide by the building closing times determined for the campus. Opening and closing times will be determined by an authorised College officer from time to time and will be shown on official notice boards. Building and other campus premises or grounds are to be vacated at any time when required by an authorised officer of the College.

In the interests of safety and student welfare, persons under the age of 16 years are not permitted on campus unless expressly authorised by the Dean.

In the interests of general comfort and safety, students, staff and visitors are required to obey the campus rules regarding smoking, eating and drinking.

Students seeking to serve alcoholic drinks at social functions are required to have the prior permission of the Dean or delegate.

Animals are not permitted on any part of the campus, except with the permission of an authorised College officer.

Students who fail to comply with these rules may be required to show cause why they should not lose their entitlement to membership and privileges of the College and, subsequently, may be subject to such penalty as may be determined by the Dean.

Traffic and Parking Rules

The College grounds are private property and the University reserves the right to regulate the entry of individuals and vehicles and their behaviour and operation within the grounds. Students may not bring vehicles onto College grounds unless they have the express permission of the Facilities Zone Manager and accept the College Traffic and Parking Rules and the penalties for the infringement of those rules.

Any vehicle brought onto the grounds is required to be driven, parked and managed in compliance with the College rules and in the observance of the directions of authorised University/College officers.

The College does not accept responsibility for any damage caused to vehicles while travelling, standing or parked in the grounds, nor for any damage to, or loss of, accessories and/or contents.

The bringing or driving of vehicles or cycles on paths, grassed areas, or elsewhere on the grounds, except for roadways and car parks, is prohibited except with the permission of an authorised University/College officer.

Where a breach of the Traffic and Parking Rules occurs, the following penalties will apply:

• for the first infringement or offence, an authorised officer will record the vehicle registration number and issue a written “first parking warning notice”;
• for the second and subsequent infringements or offences, an authorised officer will record the vehicle registration number and issue a “second parking warning notice”. The driver shall be required to pay a minimum fine of $50.
Program Rules and Information

4800 Bachelor of Fine Arts

BFA

Typical Duration
3 years

Minimum UOC for Award
144 units of credit

Typical UOC per Session
24 units of credit

Program Description

The Bachelor of Fine Arts is a three year full-time degree. It is intended to provide an introduction for those who wish to involve themselves as practitioners in the visual arts or related fields.

Program Objectives and Learning Outcomes

The program aims:
1. To provide an opportunity for students to undertake rigorous and demanding studies at tertiary level from a wide range of approaches and disciplines within the visual arts;
2. To provide the opportunity for students to explore aspects of the visual arts through critical examination of the possibilities they offer and by use of available technological resources;
3. To encourage students to develop an increased self-motivation and commitment to their studies;
4. To provide an environment in which students may develop as far as possible the following characteristics and abilities both during and subsequent to their involvement in the program:
   - an understanding of concepts relevant to aesthetics and the visual arts;
   - an understanding of various media through practice and experimentation with such media;
   - a confidence and competence in decision making, together with an appreciative and informed awareness of viewpoints in the visual arts other than their own; and
   - an understanding of the historical and theoretical underpinning of contemporary fine art practice.
5. To encourage students to realise their own intellectual and creative potential;
6. To increase students’ awareness of, and sensitivity to, their environment.

Program Structure

Selection of Major Studies

Following the completion of Introductory Studies in Session 1, placement of students in a major sequence in Session 2 will be based on the results for Session 1 courses, student preferences and the availability of places. Students will be allocated to the highest preference that their aggregate of marks determines.

Students may undertake either a major sequence of 60 units of credit OR a major of 42 units of credit and a minor in another discipline of 18 units of credit.

Approved Disciplinary Streams

Painting/Drawing
Printmaking
Sculpture, Performance, Installation
Photomedia
Time Based Art
Ceramics
Jewellery
Textiles

Electives

Electives allow students to plan their studies to specific needs, interests and career aspirations. Some students may choose electives to focus and deepen their studies, others will choose electives from a broad range of art, art education, design, digital media, art history and theory courses. Electives may be taken as courses offered by other faculties of the university.

General Education Requirements

Students are required to complete 12 units of credit in General Education. General Education contributes to the broad educational objectives of university study, and is usually taken at the Kensington campus. No more than 3UOC may be taken from COFA General Education courses.

For further information on available courses, please refer to the General Education section in this Handbook.

Honours

BFA Honours is a program of higher level study available to BFA students who wish to undertake research in Fine Arts, extending into a Honours fourth year. BFA students, in consultation with lecturers, should apply for entry to the program by the end of Session 4 but no later than Session 6. For entry to Honours, students must have achieved a Distinction average in 48 units of credit in Fine Arts core courses from Years 2 and 3, and have completed, or be enrolled in a course in research practices.

In their Honours year, students undertake a research program in their area of Fine Arts specialisation. Each student is allocated a supervisor. Honours students are expected to perform at a satisfactory (SY) level throughout the program. The course is full-time. The body of work undertaken will be presented and assessed in exhibition form, accompanied by the presentation of a research paper relating to the student's studio practice.

Students are required to undertake formal activities in conjunction with SART4030 and SART4044:

1. To be eligible to graduate with Honours students must complete all requirements of the Pass degree (see below) and complete an additional 48 units of credit over the equivalent of 1 year full-time.
   a) Entry from completed 3rd year (without having graduated);
   b) To be eligible for entry to Honours a student must have achieved a distinction average in 48UOC in Fine Arts core courses in years two and three. Students will normally nominate at the end of year 2 but must nominate no later than the end of year 3, and must complete a course in research practices in art and design prior to entry to the Honours program.
   c) Entry where candidate has graduated with a Pass-level degree:
      • Applicants with a degree of Bachelor at pass level (i.e. without Honours) may be permitted to enrol in Honours with credit for all courses in the program prior to Honours. In this case applicants must satisfy the prerequisites for entry to the Honours or the equivalent of those prerequisites.
2. The Honours year consists of:
   a) an Honours Paper outlining studio research practice;
   b) Honours Studio Practice, which shall lead to the exhibition of work; and
   c) attendance at such seminars, lectures and classes shall be required.
Honours is awarded in the following classes: Honours Class 1, Honours Class 2 Division 1 and Honours Class 2 Division 2. The class of Honours awarded shall be determined on the following weightings: Honours Studio Practice 75%, Honours Paper 25%. Honours is not awarded where the weighted mark is less than 65.

Academic Rules

1. For the Pass degree, a student must complete and pass 144 units of credit.
2. Students must complete 18 units of credit in approved Fine Arts Introductory Studies courses or their equivalent.
3. A degree must contain a major sequence of study or a combination of a major and a minor.
4. Students must complete 30 units of credit in courses approved as Fine Arts Contextual Studies [see Fine Arts Table B].
5. Students must complete 12 units of credit of General Education.
6. Students must complete 24 units of credit in electives.
7. A major sequence is defined as 60 units of credit in a single discipline. A major sequence may also be taken as 42 units of credit in one discipline with an 18 units of credit minor in another discipline. Major sequences are defined in Fine Arts Table A.
8. A minor sequence is defined as 18 units of credit in a single discipline which is available within but not taken as part of a major defined in Fine Arts Table A, or a sequence as defined in other undergraduate College of Fine Arts programs.
9. Not more than 60 units of credit in Level 1 courses will be counted towards the degree, with a minimum of 24 units of credit in Level 1 courses being successfully completed prior to undertaking Upper Level courses.

### Fine Arts Table A - Major Courses

**Discipline**

**Painting/Drawing**
- Stage 1 - SART1311, SART1305
- Stage 2 - SART2320, SART2340, SART2330, SART2350
- Stage 3 - SART1330, SART1360, SART1350, SART1370

**Printmaking**
- Stage 1 - SART1313, SART1306
- Stage 2 - SART2322, SART2342, SART2332, SART2352
- Stage 3 - SART3342, SART3362, SART3352, SART3372

**Sculpture/Performance/Installation**
- Stage 1 - SART1314, SART1307
- Stage 2 - SART2323, SART2343, SART2333, SART2353
- Stage 3 - SART3343, SART3363, SART3353, SART3373

**Photomedia**
- Stage 1 - SUMA1312, SUMA1309
- Stage 2 - SOMA2321, SOMA2341, SOMA2331, SOMA2351
- Stage 3 - SOMA3341, SOMA3361, SOMA3351, SOMA3371

**Time Based Art**
- Stage 1 - SOMA1315, SOMA1308
- Stage 2 - SOMA2324, SOMA2344, SOMA2334, SOMA2354
- Stage 3 - SOMA3344, SOMA3364, SOMA3354, SOMA3374

**Ceramics**
- Stage 1 - SDES1316, SDES1319
- Stage 2 - SDES2325, SDES2328, SDES2335, SDES2338
- Stage 3 - SDES3345, SDES3348, SDES3355, SDES3358

**Jewellery**
- Stage 1 - SDES1317, SDES1320
- Stage 2 - SDES2326, SDES2329, SDES2336, SDES2339
- Stage 3 - SDES3346, SDES3349, SDES3356, SDES3359

**Textiles**
- Stage 1 - SDES1318, SDES1321
- Stage 2 - SART2327, SDES2343, SDES2337, SDES2339
- Stage 3 - SDES3347, SDES3363, SDES3357, SDES3375

### Fine Arts Table B - Contextual Studies Courses

<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>SAH12211</td>
<td>Eurocentred Visions: Grand Narratives in Western Art</td>
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<tr>
<td>SAH12212</td>
<td>Art and Cultural Difference</td>
<td>6</td>
</tr>
<tr>
<td>SAH2213</td>
<td>Memory and Self</td>
<td>6</td>
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<tr>
<td>SAH2606</td>
<td>The Painting of Modern Life: French and English Painting in Focus</td>
<td>6</td>
</tr>
<tr>
<td>SAH2612</td>
<td>Art and its Others: Interdisciplinarity in Contemporary Art</td>
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<tr>
<td>SAH2633</td>
<td>Peripheral Visions: Perspectives of Colonial and Post-Colonial Art</td>
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</tr>
<tr>
<td>SAH2642</td>
<td>Art, Gender, Sexuality and the Body</td>
<td>6</td>
</tr>
<tr>
<td>SAH2661</td>
<td>Experimental Film and Video since the 1960s</td>
<td>6</td>
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<tr>
<td>SAH2663</td>
<td>Avant-Garde Cinema: 1900-1950</td>
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<tr>
<td>SAH2667</td>
<td>After Modern Sculpture: Installation, Structures and Space</td>
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<td>SAH2674</td>
<td>A History of Drawing</td>
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<td>SAH13211</td>
<td>Art After Postmodernism</td>
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<td>SAH3212</td>
<td>Art and Everyday Life</td>
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<td>SAH3613</td>
<td>Digital Theory and Aesthetics</td>
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<td>SAH3614</td>
<td>Screen Culture</td>
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<td>SAH3634</td>
<td>Peripheral Visions 2: Perspectives of Colonial and ‘Peripheral’ Art Practiced in Asia, India, SE Asia</td>
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<tr>
<td>SAH3669</td>
<td>Critical Theories of Photography</td>
<td>6</td>
</tr>
</tbody>
</table>

### Typical UOC per Session

- 24 units of credit

### Program Description

The BFA BA degree program is the equivalent of four years full-time study. It enables students to combine the broad range of offerings available in the BA with the focused study of the visual arts and visual culture provided by the BFA. The major study in the BFA develops students’ career-related skills and experiences for the art and cultural industries or as arts practitioners, as well as a depth of knowledge in historical and social studies. Graduates will be prepared for employment in the arts and cultural industries. Students undertaking this combined degree program complete the core requirements of both the Bachelor of Fine Arts and the Bachelor of Arts.

### Program Objectives and Learning Outcomes

Students will acquire a sound knowledge base in both the Fine Arts and in their chosen specialisation/s in the Bachelor of Arts component of their degree.

### Program Structure

Please refer to the ‘Academic Rules’ below for program requirements and structure.

For information on courses available within the Fine Arts and Arts components of this combined degree program, students may also wish to refer to the following program entries:

- Bachelor of Fine Arts: 8000 Bachelor of Fine Arts
- Bachelor of Arts: 3400 Bachelor of Arts

### Academic Rules

1. Students must complete a program of study of 192 units of credit, of which:
   - a) at least 90 units of credit must be obtained in courses offered by the College of Fine Arts;
   - b) at least 84 units of credit must be obtained in courses approved for the Bachelor of Arts degree (excluding those offered by the College of Fine Arts); and
   - c) 18 units of credit in open electives.

2. The BFA component of the combined degree must include:
   - a) a major sequence (at least 42 units of credit) in an approved Fine Arts discipline [see Fine Arts Table A];
   - b) 12 units of credit in Fine Arts Introductory Studies;
   - c) SAHT1101 and SAHT1102; and
   - d) 24 units of credit from COFA electives.

3. Of the units of credit obtained in courses approved for the BA degree (excluding those offered by the College of Fine Arts):
   - a) between 24 and 36 units must be obtained in Level 1 courses, including no more than 12 Level 1 units of credit in any one sequence of study;
   - b) no more than 54 units of credit in total may be from any one school, department, unit or interdisciplinary program;
   - c) at least 18 units must be obtained in Upper Level courses other than those taught by the school, department, unit or interdisciplinary program in which a major is being taken; and
   - d) at least 42 units of credit must be obtained in one of the following major sequences within the Faculty of Arts and Social Sciences:
     - AUSTR Australian Studies
     - CHIN Chinese Studies
     - COMD Development Studies
     - EDST Education
     - ENGL English
     - ENV Environmental Studies
     - EURO European Studies
     - FREN French
     - GERS German Studies
     - GREEK Greek
     - HIST History
     - HPSC History and Philosophy of Science
     - INDO Indonesian Studies
     - JAPN Japanese Studies
     - KORE Korean Studies
     - LING Linguistics
     - MEFT Media, Culture and Technology/Film/Theatre and Performance Studies
     - MUSC Music

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**4812 Bachelor of Fine Arts Bachelor of Arts**

**BFA BA**

**Typical Duration**

- 4 years

**Minimum UOC for Award**

- 192 units of credit
## PROGRAM STRUCTURE: 4800 BACHELOR OF FINE ARTS

<table>
<thead>
<tr>
<th>Stage 1</th>
<th>Stage 2</th>
<th>Stage 3</th>
<th>Honours</th>
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<tbody>
<tr>
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<td>Session 1</td>
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<td>CORE</td>
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<td>SAHT1102 Mapping the Postmodern</td>
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<td>TOTAL</td>
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*Minor taken as part of 18uoc sequence, with Major reduced to 42uoc.
Fine Arts Table A - Major Courses

Discipline

Painting/Drawing
Stage 1 - SART1311, SART1305
Stage 2 - SART1322, SART1323
Stage 3 - SART3340, SART3350, SART3370

Printmaking
Stage 1 - SART1313, SART1306
Stage 2 - SART2322, SART2332
Stage 3 - SART1342, SART1352, SART1372

Sculpture/Performance/Installation
Stage 1 - SART1314, SART1307
Stage 2 - SART2323, SART2333
Stage 3 - SART3343, SART3353, SART3373

Photomedia
Stage 1 - SOMA1312, SOMA1309
Stage 2 - SOMA2321, SOMA2331
Stage 3 - SOMA3341, SOMA3351, SOMA3371

Time Based Art
Stage 1 - SOMA1315, SOMA1308
Stage 2 - SOMA2324, SOMA2334
Stage 3 - SOMA3344, SOMA3354, SOMA3374

Ceramics
Stage 1 - SDES1316, SDES1319
Stage 2 - SDES2325, SDES2335
Stage 3 - SDES3345, SDES3355, SDES3358

Jewellery
Stage 1 - SDES1317, SDES1320
Stage 2 - SDES2326, SDES2336
Stage 3 - SDES3346, SDES3356, SDES3359

Textiles
Stage 1 - SJHS1318, SJHS1321
Stage 2 - SDES2327, SDES2337
Stage 3 - SJHS3347, SJHS3357, SJHS3375

Program Structure

The Foundation Year
All students complete foundation courses in art education (including school field experiences), fine arts and art history and theory. These courses provide a core, foundational experience. In subsequent years students develop plans emphasising their interests in the practices of art education and fine arts and design, contextualised through courses in their art education major including professional experience.

Art Education
Courses in art education provide students with investigations and applications of the theoretical and practical knowledge of the art educator. These compulsory courses include fieldwork and professional experience in a range of educational, cultural, community and industry contexts and the Professional Experience Internship.

Fine Arts
Courses in fine arts include: ceramics, drawing, jewellery, painting, photomedia, printmaking, sculpture, performance and installation, textiles and time based art. Students may plan sequences of courses in the fine arts as a major (at least 24 units of credit). In completing a Fine Arts major, students may choose courses offered as electives and the core in the Bachelor of Fine Arts.

Art History and Theory
Students complete SAHT1101 Mapping the Modern and SAHT1102 Mapping the Postmodern in their foundation year, and may take other courses as part of their electives.

Electives
Electives allow students to plan their studies to develop specific needs, interests and career aspirations. Students are encouraged to take at least one art education elective. Some students may choose electives to focus on art education and design, digital media, art theory and practice.

4801 Bachelor of Art Education

BArtEd

Typical Duration
4 years

Minimum UOC for Award
192 units of credit

Typical UOC per Session
24 units of credit

Program Description
The Bachelor of Art Education comprises an art education major, professional experience in art education, courses in fine arts, including art history and theory, electives and General Education courses.

Program Objectives and Learning Outcomes
Secondary art teachers are required to fulfil many and varied responsibilities. This program prepares students to function as a visual arts and design teacher in secondary schools, primary schools, community organisations, museums and galleries, as a curriculum development officer, designer, artist, art and design historian/theorist/critic. The opportunity exists within the course for students to focus on any of these roles.
<table>
<thead>
<tr>
<th></th>
<th>Stage 1</th>
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<td>Electives</td>
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**Total Units of Credit:**

- Stage 1: 48
- Stage 2: 48
- Stage 3: 48
- Stage 4: 48

The Fine Arts Studio is made up of 12 UOC Introductory Courses and 42 UOC from Major Disciplines.

42 UOC in BA Major

18 UOC Open Electives

Collected.

College of Fine Arts
General Education Requirements

Students are required to complete 12 units of credit in General Education. General Education contributes to the broad educational objectives of university study, and is usually taken at the Kensington campus. No more than 3UOC may be taken from COFA General Education courses. For further information, please refer to the General Education section in this Handbook.

Honours

The Bachelor of Art Education may be completed with Honours. Please refer to the Academic Rules for more information.

Academic Rules

To complete the requirements for the award of the degree of Bachelor of Art Education:

1. For the Pass degree, a student must complete and pass 192 units of credit which shall include:
   a) 69 units of credit in Core Studies in Art Education;
   b) 33 units of credit Professional Experience in Art Education;
   c) a Fine Arts Major, consisting of 12 units of credit in Fine Arts Introductory courses, SAHT1101 and SAHT1102, and at least 24 units of credit from Fine Arts courses;
   d) 12 units of credit of approved General Education courses;
   e) 24 units of credit in open electives; and
   f) 6 units of credit in Art Education electives.

2. No more than 60 units of credit in Level 1 courses will be counted towards the degree, with a minimum of 24 units of credit in Level 1 courses being successfully completed prior to undertaking Upper Level courses.

3. Honours will be awarded to students with a Distinction average in at least 42 units of credit in Upper Level Core Studies in Art Education, who have successfully completed SAED4051 Practices of Research in Art, Design and Education and SAED4055 Honours Research Project in Art and Design Education Studies. Honours is awarded in the following classes: Honours Class 1, Honours Class 2 Division 1 and Honours Class 2 Division 2. The class of Honours awarded shall be determined on the basis of results in SAED4051 and SAED4055 and in accordance with School and Faculty policies.

4808 Bachelor of Design Bachelor of Art Education

BDes BArtEd

Typical Duration

3 years

Minimum UOC for Award

240 units of credit

Typical UOC per Session

24 units of credit

Program Description

The Bachelor of Design Bachelor of Art Education aims to prepare students as visual arts and design educators and design professionals working in graphic and media design, film and television production and post-production, festivals theatre exhibition and display, furnishings and interiors, ceramic textile and jewellery product design.

Program Objectives and Learning Outcomes

Students will acquire the skills needed to teach Technology and Applied Studies, particularly design and technology, in secondary schools, primary schools, community organisations, museums, and galleries and to work as curriculum development officers.

Program Structure

The Bachelor of Design Bachelor of Art Education comprises an art and design education double major, courses in design, including history, theory and aesthetics, electives and General Education courses.

The Foundation Year

All students complete foundation courses in art education (including school field experiences), design and design history theory and aesthetics. These courses provide a core, foundational experience. In subsequent years students develop plans emphasising their interests in the practices of art education and design, contextualised through courses in their art education major including professional experience.

Art and Design Education

Courses in art and design education provide students with investigations and applications of the theoretical and practical knowledge of the art and design educator. These compulsory courses include fieldwork and professional experience in a range of educational, cultural, community and industry contexts and the Professional Experience Internship.

Design

Studio disciplines in design include: applied, ceramics, environments, graphics, jewellery and textiles. Students may plan sequences of courses in design studio disciplines as a major (at least 24 units of credit) or a minor (at least 12 units of credit). The Design Studio component culminates in the Design Internship and Design Studio Project. Students also undertake a sequence of Design and Computer courses.

Design History, Theory and Aesthetics

Students complete 18 units of credit in design history, theory and aesthetics. Additional courses may be chosen as a design history, theory and aesthetics minor, comprising at least 18 units of credit.

Electives

Electives allow students to plan their studies to specific needs, interests and career aspirations. Some students may choose electives to focus and deepen their studies, others will choose electives across a broad range of art, art education, design, digital media, art history and theory courses. Electives may be taken as courses offered by other faculties of the university.

General Education Requirements

Students are required to complete 6 units of credit in General Education. General Education contributes to the broad educational objectives of university study, and is usually taken at the Kensington campus. No more than 3UOC may be taken from COFA General Education courses. For further information, please refer to the General Education section in this Handbook.

Honours

The Bachelor of Design Bachelor of Art Education may be completed with Honours. Students must apply for entry into the Honours pathway by the beginning of Session 9.

Honours in Design will be awarded to students with a Distinction average in at least 42 units of credit in Core Studies in Design taken at Upper Level who have successfully completed SDES4104. Honours is awarded in the following classes: Honours Class 1, Honours Class 2 Division 1 and Honours Class 2 Division 2. The class of Honours awarded shall be determined on the basis of results in SDES4104 and in accordance with School and Faculty policies.

Honours in Art Education will be awarded to students with a Distinction average in at least 42 units of credit in Core Studies in Design taken at Upper Level and who have successfully completed SAED4051 Practices of Research in Art, Design and Education and SAED4055 Honours Research Project in Art and Design Education Studies. Honours is awarded in the following classes: Honours Class 1, Honours Class 2 Division 1 and Honours Class 2 Division 2. The class of Honours awarded shall be determined on the basis of results in SAED4051 and SAED4055 and in accordance with School and Faculty policies.

Honours Class 1

Honours Class 2 Division 1

Honours Class 2 Division 2

Academic Rules

1. A student must complete 240 units of credit, made up of:
   a) 75 units of credit in Core Studies in Art Education;
   b) 33 units of credit Professional Experience in Art Education;
   c) 90 units of credit in Core Studies in Design, which shall include a major in a Design Studio discipline of at least 24 units of credit;
   d) 18 units of credit in History Theory;
   e) 18 units of credit in Elective Studies; and
   f) 6 units of credit in General Education.

2. Students may complete no more than 60 units of credit at Level 1 with a minimum of 24 units of credit of Level 1 courses being successfully completed prior to undertaking Upper Level courses.

3. Honours in Design or Art Education will be awarded to students with a Distinction average in at least 42 units of credit in Core Studies in Design or Art Education taken at Upper Level who have successfully completed certain prescribed courses. Honours is awarded in the following classes: Honours Class 1, Honours Class 2 Division 1 and Honours Class 2 Division 2. The class of Honours awarded shall be determined on the basis of results in those prescribed courses and in accordance with School and Faculty policies.
4802 Bachelor of Design

**BDes**

**Typical Duration**
4 years

**Minimum UOC for Award**
192 units of credit

**Typical UOC per Session**
24 units of credit

**Program Description**

The Bachelor of Design is the equivalent of four years full-time study with the opportunity to undertake Honours study in the fourth year.

This program provides an education to students who wish to enter a range of different areas of the design profession, including graphic design, media design, film, television production and post-production, illustration, publications, interiors, theatre, exhibitions, display, festivals and furnishings, ceramics, textiles, jewellery and product design.

In Year 1, students will be involved in a comprehensive and intensive range of 2D, 3D and 4D (time based) experiences as well as the acquisition of historical, theoretical and technological skills and understandings. These include studying human individuals, society, the environment, and the application of computer skills to design.

In Years 2 and 3, students will extend their work on projects with the opportunity to integrate the following: graphics/media design, applied/object design, environments/spatial design, ceramics design, textiles design and jewellery design. Historical, theoretical and technological contexts will also be studied.

In Year 4, Design Studio Project leads into a graduation project/exhibition and is designed to parallel professional practice while integrating theoretical design studies. Year 4 students also undertake a period of work experience via an approved professional placement.

This program recognises the College of Fine Arts’ particular strengths, resources and requirements to provide an undergraduate program which places emphasis on an integrated approach rather than on narrow vocational specialisations. These strengths are its technology and its relationship with industry, its courses in visual arts, art education and art theory, and the ability to offer design from a creative and cross disciplinary base.

**Program Objectives and Learning Outcomes**

This program aims to provide students with a sound knowledge base for entry into a wide range of design-related professions. Students will acquire an understanding of the history and theory of design, in addition to design practice.

**Program Structure**

**Year 1**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>SDES1101</td>
<td>Design Studio 1 - Elements and Principles of Design</td>
<td>(6 UOC)</td>
</tr>
<tr>
<td>SDES1102</td>
<td>Design Studio 3 - Analysing Design Principles</td>
<td>(6 UOC)</td>
</tr>
<tr>
<td>SDES1104</td>
<td>Interactive Systems</td>
<td>(6 UOC)</td>
</tr>
<tr>
<td>SDES1106</td>
<td>Design and Computers 1 - Introduction to Graphics Computing</td>
<td>(6 UOC)</td>
</tr>
<tr>
<td>SDES1107</td>
<td>Design Studio 2 - Materials, Equipment and Process in the Design Studio</td>
<td>(6 UOC)</td>
</tr>
<tr>
<td>SDES1108</td>
<td>Design Studio 4 - Thinking and Theory in the Design Studio</td>
<td>(6 UOC)</td>
</tr>
<tr>
<td>SDES1110</td>
<td>Design and Computers 2 - Introduction to CAD</td>
<td>(6 UOC)</td>
</tr>
<tr>
<td>SAH11301</td>
<td>Design History, Theory and Aesthetics 1</td>
<td>(6 UOC)</td>
</tr>
</tbody>
</table>

**Design Studio Majors**

Students must complete 48 units of credit in Design Studio courses composed of 2 approved disciplinary streams; i.e. if they start the design studio Applied/Object stream and design studio Ceramics stream in Session 3, they should complete both sequences subsequently in Session 4, 5 and 6. Students must also complete 12 units of credit in an additional stream in Year 2. The Design Studio Majors are:

- Applied/Object
- Environments
- Graphics/Media
- Ceramics
- Jewellery
- Textiles

**Year 2**

Students must complete the Design Studio majors (36 units of credit) and the following core courses:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>SDES2117</td>
<td>Design and Computers 3 - CAD &amp; Graphics Computing</td>
<td>(6 UOC)</td>
</tr>
<tr>
<td>SAH11301</td>
<td>Design History, Theory and Aesthetics 2</td>
<td>(6 UOC)</td>
</tr>
</tbody>
</table>

**Year 3**

Students must complete the Design Studio majors (24 units of credit), the following core courses and an elective (6 units of credit):

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>SDES2116</td>
<td>Design Practice</td>
<td>(6 UOC)</td>
</tr>
<tr>
<td>SDES3117</td>
<td>Design and Computers 4 - Introduction to Multimedia</td>
<td>(6 UOC)</td>
</tr>
<tr>
<td>SAH11301</td>
<td>Design History, Theory and Aesthetics 3</td>
<td>(6 UOC)</td>
</tr>
</tbody>
</table>

**Year 4**

Students must complete the following core courses, electives (12 units of credit) and General Education (12 units of credit):

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>SDES4101</td>
<td>Design Studio Project</td>
<td>(12 UOC)</td>
</tr>
<tr>
<td>SDES4102</td>
<td>Professional Experience Program</td>
<td>(12 UOC)</td>
</tr>
</tbody>
</table>

**General Education Requirements**

Students are required as part of their studies, to complete 12 units of credit in General Education courses or their equivalent. General Education courses, normally taken at Kensington campus, contribute to the broad educational objectives of the degree. No more than 3UOC may be taken from COFA General Education courses.

For further information, please refer to the General Education section in this Handbook.

**Honours**

The degree of Bachelor of Design is awarded as a degree with Honours where eligible students have achieved superior grades in their design studies and completed SDES4104 Honours Project and SAED4051 Practices of Research in Art and Design Education.

**Academic Rules**

The degree of Bachelor of Design is awarded as a Pass degree at the completion of four years full-time study or a degree with Honours where eligible students have completed the Honours pathway in the program.

1. A student must complete 192 units of credit, which shall include:
   a) 24 units of credit in Introductory Design Studio courses;
   b) 48 units of credit in Design Studio courses composed of 2 approved disciplinary streams;
   c) 12 units of credit in Design Studio courses in an additional disciplinary stream;
   d) 24 units of credit in approved Design computing courses;
   e) 30 units of credit in courses approved for Design Contextual Studies;
   f) 12 units of credit in General Education; and
   g) 18 units of credit in electives.

2. No more than 60 units of credit of Level 1 courses may be undertaken, with a minimum of 24 units of credit of Level 1 courses being successfully completed prior to undertaking Upper Level courses.

3. Honours will be awarded to students with a Distinction average in at least 42 units of credit in Upper Level Core Studies in Design, who have successfully completed SAED4051 Practices of Research in Art, Design and Education and SDES4104 Honours Project. Honours is awarded in the following classes: Honours Class 1, Honours Class 2 Division 1 and Honours Class 2 Division 2. The class of Honours awarded shall be determined on the basis of results in SAED4051 and SDES4104 and in accordance with School and Faculty policies.

**4803 Bachelor of Art Theory**

**BArtTh**

**Typical Duration**
3 years

**Minimum UOC for Award**
144 units of credit

**Typical UOC per Session**
24 units of credit
<table>
<thead>
<tr>
<th>Year</th>
<th>1st Semester</th>
<th>2nd Semester</th>
<th>3rd Semester</th>
<th>4th Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>12 Studio R2</td>
<td>6 Studio R1</td>
<td>6 Studio R2</td>
<td>6 Studio R2</td>
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<tr>
<td></td>
<td>6 Studio R5</td>
<td>6 Studio R5</td>
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<tr>
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<td>6 Creative 2</td>
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<td>6 Creative 1</td>
<td>6 Creative 1</td>
<td>6 Creative 1</td>
<td>6 Creative 1</td>
</tr>
<tr>
<td></td>
<td>2 Course: CSC1020 Programming</td>
<td>2 Course: CSC1020 Programming</td>
<td>2 Course: CSC1020 Programming</td>
<td>2 Course: CSC1020 Programming</td>
</tr>
<tr>
<td>2</td>
<td>12 Studio R3</td>
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<td>6 Studio R5</td>
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</tr>
<tr>
<td></td>
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<td>2 Course: CSC1020 Programming</td>
<td>2 Course: CSC1020 Programming</td>
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</table>

**Program Structure:** Bachelor of Design
## Program Structure: 4803 Bachelor of Art Theory

<table>
<thead>
<tr>
<th></th>
<th>Stage 1</th>
<th>Stage 2</th>
<th>Stage 3</th>
<th>Honours</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Core</strong></td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>Major</td>
<td>SAHT1101 Mapping the Modern 6</td>
<td>SAHT1102 Mapping the Postmodern 6</td>
<td>Art Theory Major 6</td>
<td>Art Theory Major 6</td>
</tr>
<tr>
<td></td>
<td>SAHT1211 Theories of the Image 6</td>
<td>SAHT1212 Theories of Art History &amp; Culture 6</td>
<td>Art Theory Major 6</td>
<td>Art Theory Major 6</td>
</tr>
<tr>
<td></td>
<td>78uoc Art &amp; Design Theory Major</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Contextual Studies</td>
<td>SAHT1221 Contexts for Art 6</td>
<td>Contextual Studies 6</td>
<td>Contextual Studies 6</td>
<td></td>
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<td></td>
<td>30uoc in Contextual Studies</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Non-Core</strong></td>
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<td></td>
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<tr>
<td>Electives</td>
<td>Elective 6</td>
<td>Elective 6</td>
<td>Elective 6</td>
<td>Honours Elective 6</td>
</tr>
<tr>
<td>General Education</td>
<td>General Education x 2 6</td>
<td>General Education x 2 6</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>144 Units of Credit 48</td>
<td>48</td>
<td>48</td>
<td>48</td>
</tr>
</tbody>
</table>

COLLEGE OF FINE ARTS 137
Program Description
The Bachelor of Art Theory offers intensive study of the visual arts and design. The degree program encourages students to take full advantage of its location within one of Australia's largest art and design schools and a leading university. The degree offers students in-depth study of art and/or design history and theory and prepares students for research careers or professional employment in the arts or design industries. Examples of likely careers include art administration, art and design criticism, art historical research, curating, museum education and arts project management.

Program Objectives and Learning Outcomes
Graduates from the Bachelor of Art Theory will have the ability to make informed critical judgements about various forms of visual culture, with a particular emphasis on understanding the visual arts and design and the historical-theoretical interpretation of images and objects. Graduates may benefit from the opportunity to combine theoretical and historical studies with studio-based subjects in art and design and to draw on a wide range of electives offered within the University.

Program Structure
The Bachelor of Art Theory comprises a theory major and a co-major, open electives and General Education courses. Students take a total of 48 units of credit per year; the program totals 144 units. The duration of the program is three years full-time equivalent.

Theory Major
Students take courses in the Art and Design Theory major to gain an understanding of the history of Art and Design. Some courses address key methods in art history. These courses provide a framework for other studies in the program.

Contextual Studies
In addition, students take a sequence of contextual studies courses, normally in Art and Design contexts. Students may take a different sequence, subject to the approval of the course authority.

Art Industry Contexts courses explore the institutional contexts in which art is exhibited, catalogued, collected, interpreted, evaluated and promoted. Although careers within the arts-related professions frequently require further study, these courses provide ‘hands-on’ experience in writing and publishing, and curating.

Art and Design Contexts includes courses which allow students to place the broader understandings of art and design history and theory explored in the major into the context of a close investigation of specific media histories.

Studio Contexts includes practical courses in the art and design studio that explore the workings of either the design industry or art practice.

Open Electives
These courses allow students to tailor their studies to their specific interests and career aspirations. Students are encouraged to take at least one elective from studio courses offered by the Schools of Art, Art Education, Media Arts or Design Studies. Courses may be chosen from any of those offered by Schools of the College of Fine Arts, or by other Faculties of UNSW, subject to prerequisite requirements.

Table A: Approved Courses for the Major in Art and Design Theory

<table>
<thead>
<tr>
<th>Level 1</th>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SAHT1101</td>
<td>Mapping the Modern</td>
<td>(6 UOC)</td>
</tr>
<tr>
<td></td>
<td>SAHT1102</td>
<td>Mapping the Postmodern</td>
<td>(6 UOC)</td>
</tr>
<tr>
<td></td>
<td>SAHT1211</td>
<td>Theories of the Image</td>
<td>(6 UOC)</td>
</tr>
<tr>
<td></td>
<td>SAHT1212</td>
<td>Theories of Art History and Culture</td>
<td>(6 UOC)</td>
</tr>
<tr>
<td></td>
<td>SAHT1301</td>
<td>Design History, Theory and Aesthetics 1</td>
<td>(6 UOC)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>and/or Level 1 courses for which there are no pre-requisites, subject to approval by the Program Authority.</td>
<td></td>
</tr>
</tbody>
</table>

Upper Level

<table>
<thead>
<tr>
<th>Critical Theory and Museum Studies</th>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAHT2641</td>
<td>Modern Aesthetics: From the Enlightenment to the 21st Century</td>
<td>(6 UOC)</td>
<td></td>
</tr>
<tr>
<td>SAHT3212</td>
<td>Art and Everyday Life</td>
<td>(6 UOC)</td>
<td></td>
</tr>
<tr>
<td>SAHT3213</td>
<td>Museum Studies: Exhibitions, Collections and Material Culture</td>
<td>(6 UOC)</td>
<td></td>
</tr>
<tr>
<td>European, Australian and Other Histories</td>
<td>Course Code</td>
<td>Course Title</td>
<td>Credit</td>
</tr>
<tr>
<td>SAHT2211</td>
<td>Eurocentred Visions: Grand Narratives in Western Art</td>
<td>(6 UOC)</td>
<td></td>
</tr>
<tr>
<td>SAHT2214</td>
<td>Approaches to Australian Art</td>
<td>(6 UOC)</td>
<td></td>
</tr>
</tbody>
</table>

Subjectivity and the Body

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAHT2213</td>
<td>Memory and Self</td>
<td>(6 UOC)</td>
</tr>
<tr>
<td>SAHT2642</td>
<td>Art, Gender, Sexuality and the Body</td>
<td>(6 UOC)</td>
</tr>
<tr>
<td>SAHT2644</td>
<td>Psychoanalysis and Art</td>
<td>(6 UOC)</td>
</tr>
</tbody>
</table>

Colonial/ Postcolonial Studies

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAHT2212</td>
<td>Art and Cultural Difference</td>
<td>(6 UOC)</td>
</tr>
<tr>
<td>SAHT2632</td>
<td>The Arts of the Pacific: Image, Myth and History</td>
<td>(6 UOC)</td>
</tr>
<tr>
<td>SAHT2633</td>
<td>Peripheral Visions: Perspectives of Colonial and Post-Colonial Art</td>
<td>(6 UOC)</td>
</tr>
<tr>
<td>SAHT3634</td>
<td>Peripheral Visions 2: Perspectives of Colonial and ‘Peripheral’ Art Practiced in Asia, India, SE Asia</td>
<td>(6 UOC)</td>
</tr>
</tbody>
</table>

Digital and Design Histories

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAHT1201</td>
<td>Design History, Theory and Aesthetics 2</td>
<td>(6 UOC)</td>
</tr>
<tr>
<td>SAHT3214</td>
<td>Research Project</td>
<td>(6 UOC)</td>
</tr>
<tr>
<td>SAHT3301</td>
<td>Design History, Theory and Aesthetics 3</td>
<td>(6 UOC)</td>
</tr>
<tr>
<td>SAHT3613</td>
<td>Digital Theory and Aesthetics</td>
<td>(6 UOC)</td>
</tr>
<tr>
<td>SAHT3614</td>
<td>Screen Culture</td>
<td>(6 UOC)</td>
</tr>
</tbody>
</table>

For enrolment into Research Project, approval by the Head of School is required.

Or Upper Level courses subject to approval by the Program Authority.

Table B: Approved Courses for Contextual Studies in Art and Design

<table>
<thead>
<tr>
<th>Art Industry Contexts</th>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAHT1221</td>
<td>Contexts for Art</td>
<td>(6 UOC)</td>
<td></td>
</tr>
<tr>
<td>SAHT1222</td>
<td>The Production of Art</td>
<td>(6 UOC)</td>
<td></td>
</tr>
<tr>
<td>SAHT1223</td>
<td>Writing for Art and Design</td>
<td>(6 UOC)</td>
<td></td>
</tr>
<tr>
<td>SAHT2222</td>
<td>Methods of Research and Writing on Art and Design</td>
<td>(6 UOC)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Art and Design Contexts</th>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAHT2612</td>
<td>Art and its Others: Interdisciplinarity in Contemporary Art</td>
<td>(6 UOC)</td>
<td></td>
</tr>
<tr>
<td>SAHT2661</td>
<td>Experimental Film and Video since the 1960s</td>
<td>(6 UOC)</td>
<td></td>
</tr>
<tr>
<td>SAHT2663</td>
<td>Avant-Garde Cinema: 1900-1950</td>
<td>(6 UOC)</td>
<td></td>
</tr>
<tr>
<td>SAHT2667</td>
<td>After Modern Sculpture: Installation, Structures and Space</td>
<td>(6 UOC)</td>
<td></td>
</tr>
<tr>
<td>SAHT2674</td>
<td>A History of Drawing</td>
<td>(6 UOC)</td>
<td></td>
</tr>
<tr>
<td>SAHT2676</td>
<td>Art, Technology and New Media</td>
<td>(6 UOC)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Studio Contexts</th>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAHT2213</td>
<td>Thesis A and SAHT2213 Thesis B;</td>
<td>(6 UOC)</td>
<td></td>
</tr>
</tbody>
</table>

General Education Requirements

Students are required as part of their studies, to complete 12 units of credit in General Education courses or their equivalent. General Education courses, normally taken at Kensington campus, contribute to the broad educational objectives of the degree. No more than 3UOC may be taken from COFA General Education courses.

For further information, please refer to the General Education section in this Handbook.

Honours

To be eligible to graduate with Honours students must complete all requirements of the Pass degree (see below) and complete an additional 48 UOC over the equivalent of 1 year full-time.

a) Entry from completed 3rd year (without having graduated):

- To be eligible for entry to Honours a student must have achieved a distinction average in 48UOC in Art Theory core courses in years two and three. Students will normally nominate at the end of year 2 but must nominate no later than the end of year 3, and must complete a course in research practices in art and design prior to entry to the Honours program.

b) Entry where candidate has graduated with a Pass-level degree:

- Applicants with a degree of Bachelor at pass level (i.e. without Honours) may be permitted to enrol in Honours with credit for all courses in the program prior to Honours. In this case applicants must satisfy the prerequisites for entry to the Honours or the equivalent of those prerequisites.

The additional Honours study consists of:

1. SAHT4211 Thesis A and SAHT4213 Thesis B;

2. SAHT4212 Honours Seminar [which may be substituted by an Upper Level or postgraduate course, subject to approval by the Program Authority]; and
3. 6 units of credit from an Upper Level or postgraduate course, subject to approval by the Program Authority.

Honours is awarded in the following classes: Honours Class 1, Honours Class 2 Division 1 and Honours Class 2 Division 2. The class of Honours awarded shall be determined on the following weightings: Thesis 70%, Honours Seminar 15%, Elective course 15%. Honours is not awarded where the weighted mark is less than 65.

Academic Rules

Students must complete and pass 144 units of credit. This comprises:

a) a major in Art and Design Theory, made up of 78 units of credit in approved courses [see Art Theory Table A], which must include the following Level 1 courses: SAHT1101, SAHT1102, SAHT1211 and SAHT1221;
b) 30 units of credit in courses approved as Art Theory Contextual Studies [see Art Theory Table B], which must include SAHT1221;
c) 12 units of credit in approved General Education courses;
d) 24 units of credit in electives; and
e) no more than 60 units of credit in Level 1 courses will be counted towards the degree, with a minimum of 24 units of credit in Level 1 courses being successfully completed prior to undertaking Upper Level courses.

4803 Bachelor of Art Theory/9302 Master of Art Administration Fast-Track Program

This ‘fast-track’ progression recognises that students who have completed the Bachelor of Art Theory (BArtTh) have undertaken undergraduate studies which prepare them specifically for the Master of Art Administration (MArtAdmn) and will allow those students to benefit from specialisation at undergraduate level. The ‘fast-track’ progression enables students to take four courses of the Master of Art Administration in the third year of the Bachelor of Art Theory. This effectively reduces the total number of courses and the time taken to complete both programs by a full session. The program can be completed in 4 years full-time equivalent study.

Academic Rules

1. Admission in the first instance is to the Bachelor of Art Theory (4803). At the end of Year 2, candidates will be permitted to transfer to the Fast-Track Program, subject to the approval of the Head of School of Art History and Theory. Approval will normally require an average of 65% in courses studied.

2. Within the fast-track program, 144 units of credit are credited to the undergraduate component of the degree and 72 units of credit are credited to the postgraduate component of the degree.

3. The undergraduate component of the degree must include:
   a) a major comprising 72 units of credit in Art and Design Theory, including 12 units of credit of MArtAdmn core courses other than SAHT9115 and SAHT9116;
   b) Contextual Studies (36 units of credit) in Art and Design Contexts, including 12 units of credit of MArtAdmn core options. The co-major shall not include SAHT3222 Industry Placement;
   c) 24 units of credit of electives; and
   d) 12 units of credit in General Education.

4. The postgraduate component of the degree must include:
   a) 24 units of credit of core courses from the Master of Art Administration, including SAHT9115 Internship and SAHT9116 Research Paper. Students who have completed SAHT2221 Genres of Art Writing are excluded from SAHT9112 Writing for Different Cultures and Audiences; and
   b) 48 units of credit of Master of Art Administration core options. Subject to approval, students may substitute for core options, other postgraduate courses offered by UNSW.

5. For entry to BArtTh Honours a student must complete the Theory major and have achieved an average of 75% across Theory major courses in Stages 2 and 3. Students would normally complete an Honours year at the completion of the Fast-Track Program.

6. Where a student does not go on to complete the fast track final year, he or she may graduate with a BArtTh provided normal program rules are met. Up to 24 units of credit of postgraduate courses completed may be credited towards the BArtTh.

7. Students taking the Fast-track Bachelor of Art Theory and Master of Art Administration are not permitted to take out the Graduate Certificate in Art Administration. ‘Fast-track’ students, however, are permitted to exit with the Bachelor of Art Theory and Graduate Diploma of Art Administration (3.5 years full-time equivalent study). In this case students must complete:
   - SAHT9111 Management and Organisation
   - SAHT9113 Cultural Property, Ethics and the Law
   - SAHT9114 Exhibition Management and Curatorial Studies
   - SAHT9126 Organisational Psychology
   Plus 4 postgraduate core option/elective courses from the Master of Art Administration.

4806 Bachelor of Art Theory Bachelor of Arts

BArtTh BA

Typical Duration
4 years

Minimum UOC for Award
192 units of credit

Typical UOC per Session
24 units of credit

Program Description

The BArtTh BA degree is the equivalent of four years full-time study. It enables students to combine the broad range of offerings available in the BA with the focused study of the visual arts and visual culture provided by the BArtTh. The co-major in Contextual Studies in the BArtTh develops students’ careers-related skills and experiences and the Art and Design Theory major provides depth of knowledge about art and design, both in historical and contemporary contexts. The BA component of the degree offers a wide range of complementary humanities and social science studies. Graduates will be prepared for employment in the arts and cultural industries.

Program Objectives and Learning Outcomes

On completion of this program, students will have attained a sound knowledge base in Art Theory and also their chosen Arts specialisation/s.

Program Structure

Please refer to the ‘Academic Rules’ below for program requirements and structure.

For information on courses available within the Art Theory and Arts components of this combined degree program, students may also wish to refer to the following program entries:

4803 Bachelor of Art Theory
3400 Bachelor of Arts

Academic Rules

1. Students must complete a program of study of 192 units of credit, of which:
   a) at least 90 units of credit must be obtained in courses offered by the College of Fine Arts;
   b) at least 84 units of credit must be obtained in courses approved for the Bachelor of Arts degree (excluding those offered by the College of Fine Arts); and
   c) 18 units of credit in electives.

2. The BArtTh component of the combined degree must include:
   a) a major in art and design theory, consisting of 60 units of credit in approved courses [see Art Theory Table A in the BArtTh section]. The major in Art and Design Theory must include the following Level 1 courses: SAHT1101 Mapping the Modern, SAHT1102 Mapping the Postmodern, SAHT1211 Theories of the Image and SAHT1212 Theories of Art History and Culture; and
   b) a student must complete 30 units of credit in courses approved as Art Theory Contextual Studies [see Art Theory Table B in the BArtTh section], which must include SAHT1221 Contexts for Art.

3. Of the units of credit obtained in courses approved for the BA degree (excluding those offered by the College of Fine Arts):
   a) between 24 and 36 units of credit must be obtained in Level 1 courses, including no more than 12 Level 1 units of credit in any one sequence of study;
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<th>Stage</th>
<th>Session 1</th>
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**Program Structure: Mathematics Fast Track**

- Stage 1: Core Mathematics courses
- Stage 2: Elective courses
- Stage 3: Elective courses
- Stage 4: Elective courses

**UNSW UNDERGRADUATE HANDBOOK**
### Program Structure: 4806 Bachelor of Art Theory Bachelor of Arts

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<tr>
<td>Open Electives</td>
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</tbody>
</table>

- **90 UOC in College of Fine Arts Courses**
- **84 UOC in Faculty of Arts & Social Sciences Courses**
- **18 UOC in Open Electives**

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<th>Session 1</th>
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<th>Session 2</th>
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</table>

- **Total Units of Credit:** 148
b) no more than 54 units of credit in total may be from any one school, department, unit or interdisciplinary program;

c) at least 18 units of credit must be obtained in Upper Level courses other than those taught by the school, department, unit or interdisciplinary program in which a major is being taken; and

d) 42 units of credit must be obtained in one of the following major sequences within the Faculty of Arts and Social Sciences:

- AUST Australian Studies
- CHIN Chinese Studies
- COMD Development Studies
- EDST Education
- ENGL English
- Environmental Studies
- EURO European Studies
- FREN French
- GERS German Studies
- GREK Greek
- HIST History
- HPSC History and Philosophy of Science
- INDO Indonesian Studies
- JAPN Japanese Studies
- KORE Korean Studies
- LING Linguistics
- MFT Media, Culture and Technology/Film/Theatre and Performance Studies
- MUSC Music
- PECON Political Economy
- PHIIL Philosophy
- POLS Politics and International Studies
- RUSS Russian Studies
- SLP Policy Studies
- SOCA Sociology and Anthropology
- SPAN Spanish and Latin American Studies
- WOMS Women’s and Gender Studies

4. No student may commence Upper Level subjects until 24 Level 1 units of credit have been successfully completed.

5. Students who satisfy the normal prerequisites for the BArtTh(Hons) or the BA(Hons) may qualify for Honours in either of these programs by completing an additional year of study (48 units of credit).

6. For eligibility for entry to the BArtTh(Hons) students must have achieved an average of 75% in 36 units of credit in the Art Theory major outside Stage I.

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### 4807 Bachelor of Art Theory Bachelor of Social Science

**BArtTh BSocSc**

**Typical Duration**
4 years

**Minimum UOC for Award**
192 units of credit

**Typical UOC per Session**
24 units of credit

**Program Description**
The BArtTh BSocSc degree is the equivalent of four years of full-time study and enables students to combine the social science and policy studies available in the BSocSc with the study of the visual arts and culture, and art administration provided in the BArtTh. Graduates will be prepared for careers or postgraduate research studies in policy and administrative areas within the rapidly developing arts and culture industries. The professional contexts courses of the BArtTh and BSocSc will enable students to develop career-related skills and experiences, while the theoretical/historical contexts subjects in the BArtTh and the social science courses in the BSocSc will provide depth of knowledge about the arts and society.

Students undertaking this combined degree program complete the core requirements of both the Bachelor of Art Theory and the Bachelor of Social Science degrees, together with an approved major sequence.

**Program Objectives and Learning Outcomes**
On completion of this program, students will have attained a sound knowledge base in both Art Theory and Social Science.

**Program Structure**
Please refer to the ‘Academic Rules’ below for program requirements and structure.

For information on courses available within the Art Theory and Social Science components of this combined degree program, students may also wish to refer to the following program entries:

- 4803 Bachelor of Art Theory
- 3420 Bachelor of Social Science

### Academic Rules

1. Students must complete a program of study carrying 192 units of credit of which:

   a) at least 90 units of credit must be obtained in courses offered by the College of Fine Arts;

   b) at least 90 units of credit must be obtained in courses offered by the Faculty of Arts and Social Sciences.

2. The BArtTh component of the combined degree must include:

   a) a major (60 units of credit) in Art & Design Theory, which must include the following Level 1 courses: SAHT1101 Mapping the Modern, SAHT1021 Mapping the Postmodern, SAHT1211 Theories of the Image and SAHT1212 Theories of Art History and Culture; and

   b) Contextual Studies (30 units of credit).

3. The BSocSc component of the combined degree must include:

   a) the following core courses of 48 units of credit in the BSocSc program:

      | Course Code | Course Title |
      |-------------|--------------|
      | SLP1000     | Social Science and Policy OR |
      | SLP1002     | Research Policy Analysis |
      | SLP1001     | Research Information Management |
      | SLM2000     | Political Economy and the State |
      | SLP2001     | Applied Social Research 1 |
      | SLP2002     | Policy Analysis Case Studies |
      | SLP3000     | Social Theory and Policy Analysis |
      | SLP3001     | Applied Social Research 2 |
      | SLP3002     | Social Science and Policy Project |

   b) a major sequence in one of the following areas -

      - AUST Australian Studies
      - COMD Development Studies
      - ECON Economics/ Economic History
      - Environmental Studies
      - EURO European Studies
      - GEOH/S Geography/ Geology
      - HIST History
      - HPSC History & Philosophy of Science
      - MFT Media/Theatre and Performance Studies
      - MGMT International Business/ Industrial Relations/ Human Resources Management
      - PECON Political Economy
      - PHIIL Philosophy
      - POLS Politics and International Studies
      - PSYC Psychology
      - SOCA Sociology and Anthropology
      - SPAN Spanish and Latin American Studies
      - WOMS Women’s and Gender Studies

4. Students who satisfy the normal prerequisites for the BArtTh(Hons) or the BSocSc(Hons) may qualify for Honours in either of these programs by completing an additional year of study (48 units of credit).

---

### 4703 Bachelor of Art Theory Bachelor of Laws

**BArtTh LLB**

The course is a five year full-time degree leading to the award of the two degrees of Bachelor of Art Theory and Bachelor of Laws (BArtTh LLB).

The Program Authority for this combined program is the Faculty of Law.

For full details of this program, please refer to the Faculty of Law section in this Handbook.

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### 4810 Bachelor of Digital Media

**BDM**

**Typical Duration**
3 years

**Minimum UOC for Award**
144 units of credit

**Typical UOC per Session**
24 units of credit
# Program Structure: 4807 Bachelor of Art Theory Bachelor of Social Science

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<thead>
<tr>
<th>ART THEORY</th>
<th>ARTS</th>
<th>SOCIAL SCIENCE</th>
<th>OPEN ELECTIVES</th>
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<td>SLSP1000 Social Science &amp; Policy*</td>
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<td>SAHT1102 Mapping the Postmodern</td>
<td>Arts Major (Level One)</td>
<td>SLSP1002 Introduction to Policy Analysis*</td>
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90uoc in College of Fine Arts Courses

90uoc in Faculty of Arts & Social Sciences Courses

90uoc in total to 192uoc

*Students take either SLSP1000 or SLSP1002 - if SLSP1002 is taken then two Arts Major (Level 1) courses should be taken in Session 1 and none in Session 2.
## Program Structure: 4810 Bachelor of Digital Media

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<th>Stage</th>
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<td>SOMA3603 Digital Video 2</td>
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<td>SOMA3610 Digital Studio</td>
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<td>SOMA3612 Professional Portfolio</td>
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<td>SART4044 Honours Studio Practice</td>
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<td>SOMA2602 Sound Media 3</td>
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Program Description
The Bachelor of Digital Media (BDM) is the equivalent of three years full-time study, designed to meet industry demand for creative practitioners and content developers who possess multiple skills and breadth of knowledge in interactive media, sound, web design, digital imaging, 3D modelling, animation, critical and creative thinking within the domain of digital media. The BDM offers students strong fundamentals combined with creative development and flexibility in the later stages of the program to shape the nature of their core studies.

Program Objectives and Learning Outcomes
The Bachelor of Digital Media aims to produce creative content developers with sound technical skills and the ability to work creatively and collaboratively across diverse media.

Graduates will be key players in the arts, digital media, entertainment and internet-based media with strengths in creative design and technical innovation.

Program Structure
The degree of Bachelor of Digital Media is awarded as a Pass degree at the completion of three years full-time study. An Honours degree is available through the completion of an additional year of study in the Honours program.

General Education Requirements
Students are required as part of their studies, to complete 12 units of credit in General Education courses or their equivalent. General Education courses, normally taken at Kensington campus, contribute to the broad educational objectives of the degree. No more than 3 UOC may be taken from COFA General Education courses.

For further information on available courses, please refer to the General Education section in this Handbook.

Honours
BDM Honours is a program of higher level study available to BDM students who wish to undertake research in Digital Media, extending into an Honours fourth year. BDM students, after consultation with lecturers, should apply for entry to the program by the end of Session 4 but no later than Session 5. For entry to Honours, a student must have achieved a Distinction average in 48 UOC of core courses from Years 2 and 3.

In the Honours year, students undertake a research program in Digital Media. Each student is allocated a supervisor. Honours students are expected to perform at a satisfactory level throughout the program. The course is full-time. The body of work undertaken will be presented and assessed in exhibition form, accompanied by the presentation of a research paper relating to the student’s studio practice.

Academic Rules
1. For the Pass degree, a student must complete and pass 144 units of credit.
2. A degree must contain a major in Digital Media defined as 78 units of credit in approved courses [see Digital Media Table A].
3. A student must complete 30 units of credit in courses approved as Digital Media Contextual Studies [see Digital Media Table B].
4. A student must complete 12 units of credit in General Education.
5. A student must complete 24 units of credit in electives.
6. No more than 60 units of credit in Level 1 courses will be counted toward the degree, with a minimum of 24 units of credit in Level 1 courses being successfully completed prior to undertaking Upper Level courses.
7. To be eligible to graduate with Honours, a student must complete all requirements of the Pass degree (see above) and complete an additional 48 units of credit over the equivalent of 1 year full-time.

a) Entry from completed 3rd year (without having graduated):
   - To be eligible for entry to Honours a student must have achieved a distinction average in 48 UOC in Digital Media core courses in years two and three. Students will normally nominate at the end of year 2 but must nominate no later than the end of year 3, and must complete a course in research practices in art and design prior to entry to the Honours program.
   - Applicants for a degree at pass level (i.e. without Honours) may be permitted to enrol in Honours with credit for all courses in the program prior to Honours. In this case applicants must satisfy the prerequisites for entry to the Honours or the equivalent of those prerequisites.

8. The Honours year consists of:
   a) an Honours Paper outlining studio research practice;
   b) Honours Studio Practice, which shall lead to an exhibition of work;
   and
   c) attendance at such seminars, lectures and classes as shall be required.

Honours is awarded in the following classes: Honours Class 1, Honours Class 2 Division 1 and Honours Class 2 Division 2. The class of Honours awarded shall be determined on the following weightings: Honours Studio Practice 75%, Honours Paper 25%. Honours is not awarded where the weighted mark is less than 65.

Digital Media Table A

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>UOC</th>
</tr>
</thead>
<tbody>
<tr>
<td>SART1606</td>
<td>Drawing for Media</td>
<td>6</td>
</tr>
<tr>
<td>SDES1601</td>
<td>Colour, Composition and Typography</td>
<td>6</td>
</tr>
<tr>
<td>SOMA1602</td>
<td>Web Authoring</td>
<td>6</td>
</tr>
<tr>
<td>SOMA1603</td>
<td>Digital Video 1</td>
<td>6</td>
</tr>
<tr>
<td>SOMA1604</td>
<td>Introduction to Digital Media</td>
<td>6</td>
</tr>
<tr>
<td>SOMA1608</td>
<td>Digital Composite</td>
<td>6</td>
</tr>
<tr>
<td>SOMA2602</td>
<td>Sound Media 1</td>
<td>6</td>
</tr>
<tr>
<td>SOMA2607</td>
<td>Multimedia Authoring 1</td>
<td>6</td>
</tr>
<tr>
<td>SOMA2608</td>
<td>Digital Composite 2</td>
<td>6</td>
</tr>
<tr>
<td>SOMA2609</td>
<td>3D Modelling and Animation 1</td>
<td>6</td>
</tr>
<tr>
<td>SOMA3603</td>
<td>Digital Video 2</td>
<td>6</td>
</tr>
<tr>
<td>SOMA3610</td>
<td>Digital Studio</td>
<td>6</td>
</tr>
<tr>
<td>SOMA3612</td>
<td>Professional Portfolio</td>
<td>6</td>
</tr>
</tbody>
</table>

Digital Media Table B

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAHT1102</td>
<td>Mapping the Postmodern</td>
</tr>
<tr>
<td>SAHT3613</td>
<td>Digital Theory and Aesthetics</td>
</tr>
<tr>
<td>SAHI1614</td>
<td>Screen Culture</td>
</tr>
<tr>
<td>SOMA3616</td>
<td>Professional Practice</td>
</tr>
<tr>
<td>SAH11101</td>
<td>OR SAH11211 OR SOMA1600</td>
</tr>
</tbody>
</table>

Online Courses offered by COFA Online

COFA Online offers to quality and engaging fully online courses in art and design to students from all faculties at UNSW. This is made possible through courses offered at both general education and elective level. It is also possible that students from external universities and education institutions, both in Australia and overseas, to enrol and take part in the courses. Students who enrol in online courses are contacted via their UNSW email accounts with all administrative details for the courses they have chosen.

New online courses are added each session, so please check the COFA Online website for updates on new course offerings: www.cofa.unsw.edu.au/online

COFA Online General Education

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEND0201</td>
<td>Graphics and Contemporary Society</td>
</tr>
<tr>
<td>GEND0202</td>
<td>Art &amp; Cultures: The Language of Interactivity</td>
</tr>
<tr>
<td>GEND0204</td>
<td>Seeing Light as a Design Tool</td>
</tr>
<tr>
<td>GEND0205</td>
<td>Curating Art and Exhibitions</td>
</tr>
<tr>
<td>GEND0206</td>
<td>The Art of Plants and Nature</td>
</tr>
<tr>
<td>GEND0207</td>
<td>Textiles - Technology and Tradition</td>
</tr>
<tr>
<td>GEND0208</td>
<td>Fashion 1980 - Now</td>
</tr>
<tr>
<td>GEND0209</td>
<td>Cross Cultural Sculpture</td>
</tr>
<tr>
<td>GEND0210</td>
<td>Visual Identity in the Built Environment</td>
</tr>
<tr>
<td>GEND0211</td>
<td>Print Advertising for a World Market</td>
</tr>
<tr>
<td>GEND0212</td>
<td>Textiles for Interiors - Senses and Spaces</td>
</tr>
<tr>
<td>GEND0213</td>
<td>Contemporary Aesthetics in Digital Architecture</td>
</tr>
<tr>
<td>GEND0214</td>
<td>Creative Thinking Processes</td>
</tr>
<tr>
<td>GEND0216</td>
<td>Celebrity and the Face in Australian Cinema</td>
</tr>
<tr>
<td>GEND0217</td>
<td>The Art of Scientific Visualisation</td>
</tr>
<tr>
<td>GEND0218</td>
<td>Experiencing and Contemplating Art</td>
</tr>
</tbody>
</table>

COFA Online Electives

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>COFA0201</td>
<td>Graphics, Global Communication and Society</td>
</tr>
<tr>
<td>COFA0202</td>
<td>Collaboration &amp; Play in Interactive Design</td>
</tr>
<tr>
<td>COFA0203</td>
<td>Collaboration &amp; Visual Communication in Graphic Design</td>
</tr>
<tr>
<td>COFA0207</td>
<td>Textile Design: Tradition &amp; Contemporary Technology</td>
</tr>
<tr>
<td>COFA0208</td>
<td>Fashion in Contemporary Culture</td>
</tr>
<tr>
<td>COFA0209</td>
<td>Cross Cultural Installation Art</td>
</tr>
<tr>
<td>COFA0210</td>
<td>Spatial Branding</td>
</tr>
</tbody>
</table>

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Elective Courses for Undergraduate Programs

Students may choose electives from the courses listed below that are offered by the College of Fine Arts. It is also possible to choose electives from other faculties of the University. All other courses (i.e. core courses of degrees) offered at the College of Fine Arts may be available to be undertaken as electives as well. Advice should be sought from the relevant Program Authority if you wish to take courses that are not listed in this section of the Handbook as electives.

Timetable constraints and availability of staff do not allow all courses to be offered every year, although endeavours are made to offer the full range over a 3 year period.

Please note that same courses have prerequisites and/or need to be completed in sequential order (i.e. SOMA3615 Sound Media 2 must be completed before SOMA3551 Sound Media 3).

Art Education Electives

Contexts and Diversity
SAED2474 Art Education and the Primary School
SAED2475 Multicultural Contexts
SAED2477 Art Education and the Environment
SAED2478 Art Education and Aboriginal Studies
SAED2479 Dialogues and Communities
SAED2480 The Art Museum and Art Education

Media and Communications
SAED2481 Media and Communication Contexts for Art and Design
SAED4471 Visual Arts Workshop 2

Politics, Practices and Education
SAED2471 Histories of Australian Education
SAED2472 Creativity in Art and Design Education
SAED2473 Seminar in Art Education
SAED4472 Independent Study in Art, Design and Education
SAED4473 Politics and Identity in Art and Design Education
SAED4474 Dilemmas of Praxis: The State, the School and the Educator

Art History and Theory Electives

The Western Tradition
SAHT2111 Theories of the Image
SAHT2211 Eurocentred Visions: Grand Narratives in Western Art
SAHT2224 Art and Biogenetics: Breeding the Body Beautiful
SAHT2601 The Art of Ancient Cultures
SAHT2606 The Painting of Modern Life: French and English Painting in Focus
SAHT2612 Art and Its Others: Interdisciplinarity in Contemporary Art
SAHT3211 Art After Postmodernism

Australian Art History
SAHT2214 Approaches to Australian Art

Cross Cultural Studies
SAHT2212 Art and Cultural Difference
SAHT2633 Peripheral Visions: Perspectives of Colonial and Post Colonial Art

Critical and Cultural Theory
SAHT2222 Memory and Self
SAHT2227 Fashion History and Theory
SAHT2641 Modern Aesthetics: From the Enlightenment to the 21st Century
SAHT2642 Art, Gender, Sexuality and the Body
SAHT2643 Pornography, Art and Politics
SAHT3212 Art and Everyday Life
SAHT3213 Museum Studies: Exhibitions, Collections and Material Culture

Media Studies
SAHT2649 Creative Writing for Artists
SAHT2661 Experimental Film and Video since the 1960s
SAHT2663 Avant-Garde Cinema: 1900-1950
SAHT2665 After Modern Sculpture: Installation, Structures and Spaces
SAHT2674 A History of Drawing
SAHT3613 Digital Theory and Aesthetics
SAHT3614 Screen Culture
SAHT3669 Critical Theories of Photography

Special themes and projects
For further information, see Head of School, Art History and Theory
SAHT3690 Special Project

Design Studies Electives

Ceramics
SAES2135 Introduction to the Ceramics Studio
SAES2140 Clay, Glaze and Firing Technology
SAES2141 Moulding and Casting in Clay
SAES2142 Drawing, Photographic and Print Techniques on Clay
SAES2143 Self-sufficient Studio Processes and Firing
SAES2187 The Contemporary Vessel, I
SAES2188 Wheel Throwing in Contemporary Ceramic Practice
SAES3162 Non-Functional Ceramics

Textiles
SAES3144 Textile Processes
SAES2167 Textiles for Fashion
SAES2185 Textiles: Fabric Manipulation
SAES2123 Digital Textiles
SAES2124 Art and Fashion
SAES3169 Textiles: New Technology
SAES3170 Textiles: Nylon to Now
SAES3186 Textiles: Surface Design

Jewellery
SAES1154 Introduction to the Jewellery Studio
SAES2147 Jewellery Materials and Technologies
SAES2149 Metal Casting for Jewellery and Small Scale Objects
SAES2150 Jewellery Processes for Multiple Production
SAES2151 Surface Investigations in Jewellery Design
SAES2152 Jewellery Workshop in Colour
SAES2153 Jewellery Experiments with Emerging Technology
SAES2163 Contemporary Wearables
SAES2164 Jewellery and Small Scale Object Design
SAES3165 The Replicated Object - Jewellery Multiples
SAES3166 Jewellery Design for Fashion

Graphics
SAES2198 Advanced Typography and Publication Design
SAES2199 Propaganda and Advertising

Professional Practice
SAES2171 Design Management Elective – Brand and Identity

Digital Design
SAES3171 Introduction to Motion Graphics Design
SAES3172 Digital Design - Interactive Design
SAES3174 Digital Design - Web Design and Screen Interface
SAES3176 Digital and Pre-press Design
SAES3177 3D CAD Object and Space
SAES3179 Digital Design - Introduction to Flash Design

Performance/Theatre
SAES2174 Fashion and Costume Design 1
SAES2177 Design in Performance
SAES2179 Design in the Theatre
SAES3175 Fashion and Costume Design 2

Independent Study
SAES2170 Rendering and Illustration for Designers
SAES2178 Independent Study
SAES3178 Independent Study 2

Fine Arts Electives

Drawing
SARK1501 Painting
SART1502 Drawing
SART2501 Life Painting
SART2502 Advanced Drawing
SART2829 Anatomy for Artists
SART2832 Life Drawing
SART2833 Figurative Composition in Painting
SARK1284 Experimentation in Mixed Media
SART2835 Composition and Design
SARK1286 Colour
SART2845 Drawing/Painting Field Studies
SART2848 Advanced Drawing/Painting Field Studies
SART2859 Abstraction for Drawing and Painting
SART3501 Advanced Life Painting
SART3860 Approaches to Digital Outputting for Artists

Printmaking
SART1361 Etching
SART1581 Screen Printing
SART1591 Printmaking
SART2361 Advanced Etching
SART2581 Advanced Screen Printing
SART2591 Advanced Printmaking
SART2818 Custom Printing
SART2819 Advanced Custom Printing
SAK12828 Artists’ Books
SART2849 Alternative Printmaking
SART2851 Print as Object
SART2856 Digital Printmaking

Sculpture, Performance and Installation
SAR11601 Sculpture
SART1621 Installation
SAR12601 Advanced Sculpture
SART2621 Advanced Installation
SART2827 Sculpture Field Studies
SART2841 Electronic Technologies
SART2842 Metal Casting
SART2846 Figurative Sculpture
SART3801 Special Projects - Studio
SAK13862 Ceramic Shell Casting
SART3863 Installation and Electronic Art
SAK13864 Advanced Electronics

Media Arts Electives
Digital Media
SOMA1810 Introduction to Computing
SOMA2551 Introduction to Audio
SOMA2668 Advanced Multimedia Authoring
SOMA2610 Writing for Digital Media
SOMA2814 Cinematography

SOMA2858 Narrative and Gameplay
SOMA2859 Video Production Studio
SOMA3551 Sound Media 3
SOMA3608 Digital Composite 3
SOMA3609 3D Modelling and Animation 2
SOMA3613 Sound Media 2
SOMA4609 3D Modelling and Animation 3

Photomedia
SOMA1521 Introduction to Analogue Photography
SOMA2521 Introduction to Studio Lighting
SOMA2814 Cinematography
SOMA2815 Introduction to Digital Imaging
SOMA2854 Vector Graphics in Visual Arts
SOMA3521 Advanced Analogue Photography
SOMA3858 Advanced Studio Lighting
SOMA3860 Advanced Digital and Web Media

Time Based Art
SOMA1641 Video Art
SOMA1651 Introductory Analogue and Digital Animation and Timing Skills
SOMA1661 Performance
SOMA1681 Introductory Multimedia Computing
SOMA2201 Landscape Animation
SOMA2651 Advanced Analogue and Digital Animation
SOMA2681 Advanced Multimedia Computing
SOMA2814 Cinematography

COFA Online Electives
COFA0201 Graphics, Global Communication and Society
COFA0202 Collaboration & Play in Interactive Design
COFA0203 Collaboration & Visual Communication in Graphic Design
COFA0207 Textile Design: Tradition & Contemporary Technology
COFA0208 Fashion in Contemporary Culture
COFA0209 Cross Cultural Installation Art
COFA0210 Spatial Branding
A Message from the Dean
Welcome to the Faculty of Commerce and Economics at the University of New South Wales – one of Australia’s leading universities. After fifty years of dynamic growth, UNSW has a reputation for excellence, sustained innovation, scholarship, research and practical application; and the Faculty of Commerce and Economics plays an important role in maintaining this reputation.

The Faculty attracts high-achieving students from across the region, with strength, depth and quality across eight teaching and research units. Through excellence in scholarship we aim to enhance the capability of our students and staff to add value to the organisations, professions and communities in which they aspire to leadership roles.

The Faculty values its close relationships with industry and the professions, ensuring a high demand for our graduates, many of whom are now leaders in industry, government, politics and academia.

The Faculty is committed to supporting its students throughout their learning experience. We have a wide range of support services, including an Educational Development Unit, a Faculty Student Centre to assist with administrative matters, and Undergraduate and Postgraduate Advisors in each school. Together we aim to offer you a rewarding and stimulating environment in which to pursue your studies. I wish you every success.

Greg Whittred
Dean
Faculty of Commerce and Economics
Faculty Information and Assistance

Who Can Help?
If you require advice about enrolment, degree requirements, progression within programs or any other general matters, contact the Faculty of Commerce and Economics Student Centre, Ground Floor, John Goodsell Building; telephone (02) 9385 3187, fax (02) 9313 7767, email ugfce@unsw.edu.au.

Office Hours:
During Orientation week, Week 1 and Week 2 of session:
Monday – Thursday 9.00am – 6.30pm
Friday 9.00am – 5.00 pm
Other weeks:
Monday – Friday 9.00am – 5.00pm
For specific information and advice about academic course content, contact the appropriate schools/teaching units.

The Faculty of Commerce and Economics Website
Please refer to the Faculty website for further information: www.fce.unsw.edu.au

Course Descriptions
Descriptions of courses offered in 2006 can be found in alphabetical order by the course code at the back of this Handbook or in the Online Handbook at www.handbook.unsw.edu.au

Computer Information
The Faculty has a number of laboratories located in the Quadrangle and John Goodsell Buildings, all of which are equipped with Pentium machines. More detailed information is available in the Faculty ‘Student IT Resource Handbook’ or on the Faculty website.

Education Development Unit
In pursuit of the FCE’s vision to be the leading business faculty in the Asian region, the Education Development Unit (EDU) provides support, development and leadership for both staff and students in the area of education quality and innovation.

The EDU supports all FCE students in the development and enhancement of their academic skills, by providing a range of strategies including:

- Transition program - Prior to commencement of studies, a one-day program is offered to all FCE undergraduate students to prepare them for the first important weeks at university by developing knowledge of individual learning styles and deeper learning approaches to academic subjects.
- Orientation programs – Offered for both undergraduate and postgraduate programs, orientation introduces students to teaching and learning approaches, learning expectations, strategies for successful study in the Faculty and provides opportunities to meet Faculty staff and students.
- Discipline-specific resources and activities – The EDU works with academic staff from different disciplines to develop workshops and resources relevant to specific disciplines.
- Academic skills workshops – Provided throughout each session, these workshops are free and specifically for FCE students. Topics include referencing, reading critically, essay and report writing, case analysis, presentation skills, working in groups, and exam preparation.
- Resources and handouts – Available both in print and online, resources include handouts on academic skills and a range of other topics for FCE students.
- Consultations – Confidential individual or small group consultations regarding any learning issues are offered to all FCE students.

FCE students visiting the EDU may wish to talk to staff about their learning, their language needs and improving their academic performance. Students can collect or borrow appropriate support materials, find out about workshops or make appointments for a one-hour consultation.

For further information, visit the EDU website at http://education.fce.unsw.edu.au, or drop in at the EDU Learning Assistance Centre, Room 2039, level 2, South Wing, Quadrangle Building or phone: (02) 9385 5384.

Assumed Knowledge
The Bachelor of Commerce, Bachelor of Commerce in Marketing, Tourism and Hospitality Management, Bachelor of Economics, Bachelor of Science in Information Systems, Bachelor of Science in Business Information Technology and all combined programs offered by the Faculty assume students to have achieved a prescribed standard in Mathematics at the Higher School Certificate or equivalent. More details are available from the Admissions Office.

Course Timetables
Undergraduate course timetables are available to re-enrolling students via the Faculty website before the end of the current year of study. New undergraduate students are allocated individual course timetables for their first session enrolment at the time of enrolling.

Enrolment Procedures
Interested applicants to the Faculty of Commerce and Economics should contact the Faculty of Commerce and Economics Student Centre or the Admissions Office.

New students are informed of enrolment procedures after they have received an offer.

All re-enrolling UNSW students are emailed information with regards to enrolment appointments to enable them to enrol online using myUNSW.

Examinations
Additional information on examinations and assessment, rules and restrictions, is included in the front of this Handbook.

For courses under the control of the various schools in FCE, the published grade will be determined on the basis of a composite mark which will include, on a weighted basis, the results of the final examination, other prescribed examinations, essays and assignments. The exact method of weighting the components of the composite mark may differ from course to course, but students are advised of the weighting at the commencement of each session.

Supplementary Examinations
Students may be required to sit for an oral and/or written supplementary examination, which will normally be held in the two weeks preceding the commencement of Session 2 or in December/January. In general, this opportunity will only be offered to a student who has been prevented from taking an end of session examination or who has been placed at a serious disadvantage during the examination and whose circumstances have improved considerably in the period since the examination was held.

Students are advised not to undertake programs with which they cannot cope adequately and re-enrolling students are encouraged to seek the advice of enrolling officers in the faculty on this matter.

Use of Calculators
The Faculty of Commerce and Economics has resolved to advise all students to equip themselves with a portable electronic calculator, preferably one which possesses, in addition to the four basic arithmetic functions, those involving discounting and present value calculations. These calculators should be a valuable study aid in expediting the routine aspects of assigned practical exercises throughout the year in many courses. Such calculators may also be permitted, subject to the discretion of individual examiners, in examinations for courses taught in the Faculty.

Schools and Disciplines
The Faculty of Commerce and Economics includes the Schools of Accounting, Actuarial Studies, Banking and Finance, Business Law and Taxation, Economics, Organisation and Management, Information Systems, Technology and Management, and Marketing.

School of Accounting
Head of School: Professor Wai Fong Chua
Administrative Officer: Colin Withers

Accounting is concerned with the provision of information for the management of economic resources and activities by means of measurement, communication and interpretation of financial data; with the development of information systems; and with the financial accountability and management of business and public enterprises. By economic resources, we mean both tangible and intangible resources.
Accounting information is increasingly used to manage intangible resources such as an organisation’s knowledge base, its supplier/customer relationships, its brands etc.

Accounting lies at the head of economic exchange, whether conducted in physical or electronic markets. It enables students to comprehend many of the fundamental principles, processes and outcomes of business, thereby equipping students for a wide range of careers in businesses (from chartered accounting, management consulting, provision of financial services to general management). Graduates are employed not only as accountants, but also as entrepreneurs, entertainment promoters, treasurers, chief financial officers, etc.

The School of Accounting offers undergraduate programs leading to a Bachelor of Commerce with either a single major in Accounting (8 accounting courses) or a double major (7 accounting courses). The most popular double majors are with Finance, Information Systems, Business Law and Taxation.

The School of Accounting at UNSW is internationally renowned for its innovative and high-quality teaching at both undergraduate and graduate levels. Our teachers have won national teaching awards as well as Vice-Chancellor Teaching Awards. Classes involve students in an interactive and thought-provoking learning environment. We also increasingly use the web as a learning tool and our courses are constantly revised to meet new challenges in a globalised and digitised world. We expose our students to e-business, encourage them to understand the links between business strategy and processes, offer advanced courses in assurance and business risk, and help them appreciate global influences on financial reporting and management.

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**Actuarial Studies**

**Head:** Professor Michael Sherris  
**Administrative Assistant:** Bindya Subba

Actuarial Studies involves the application of quantitative, economic and financial models and analysis to long term financial management particularly in life insurance, general insurance, health insurance and superannuation, as well as in other financial services. The actuarial courses cover the models used to quantify and manage risks such as survival, birth, marriage, sickness, retirement, accident, fire, flood, asset default and asset value fluctuations and to study their financial effect on the obligations of insurance companies, benefit plans and other financial security systems. The courses provide the foundations for actuarial practice in the pricing, reserving, investment, and financial management of life insurance, general insurance superannuation and pension funds. The actuarial program of study also aims to develop the use of judgement and to provide the necessary combination of mathematical, statistical, accounting, economic, financial, demographic, analytical and modelling skills for a rewarding career in the financial services industry.

The Bachelor of Commerce allows students to combine a major in Actuarial Studies with a major or minor in a broad range of other disciplines including business economics, business statistics, business strategy and economic management, economic history, financial economics, human resource management, management, taxation, modern languages, accounting, finance, international business, business law, information systems, marketing, and industrial relations. The Actuarial Studies program also provides students who meet the required standards with the opportunity to apply for exemptions from some or all of the Part I examinations of the Institute of Actuaries of Australia and entry into the actuarial profession. The Actuarial Studies Co-op Scholarship Program provides industry experience integrated with the academic requirements for the Bachelor of Commerce.

The courses are quantitative and intellectually demanding. They require a very strong ability and interest in mathematics and statistics and their applications to business. Success as a professional actuary also requires problem solving skills, reasoning, well-rounded business skills and an ability to communicate complex ideas in simple terms.

Actuaries are employed by insurance companies, superannuation funds, banks, and governments and also practise as consulting actuaries. The financial rewards from an actuarial career compare very well with other professions and employment prospects are very good. To qualify as an actuary, students must complete the examinations of one or more of the professional bodies which regulate all commercial activity. The study of commerce has always included an examination of the laws which govern its operation and it is the role of the School of Business Law and Taxation to provide a range of courses addressing areas of law relevant to students in the Faculty of Commerce and Economics.

The School of Banking and Finance offers four-year scholarship programs in Finance Honours. The Finance Honours program includes a total of fifteen months industrial training. Entry is gained through the Co-op selection process. For further details on Co-op scholarships, see your high school careers advisor or contact the UNSW Co-op Program Office, telephone (02) 9385 5116, website: www.co-op.unsw.edu.au

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**School of Business Law and Taxation**

**Head of School:** Professor Andrew Terry  
**Administrative Assistant:** Bibi Moore

Law and commerce are inextricably intertwined. The entire fabric of commerce is woven from a complex legal regime, judicial and statutory, which regulates all commercial activity. The study of commerce has always included an examination of the laws which govern its operation and it is the role of the School of Business Law and Taxation to provide a range of courses addressing areas of law relevant to students in the Faculty of Commerce and Economics.

The courses offered by the School fall into three broad categories: ‘foundation’ courses which expose students from all disciplines in the faculty to a broad general education in the legal environment and regulation of commerce; ‘professional’ courses which are recognised by the CPA Australia and the Institute of Chartered Accountants in Australia.
for admission to those bodies; and ‘specialist’ business law and taxation courses relevant to disciplinary streams within the Faculty.

The School’s mission is different to that of a law school – it is driven by an audience which is trained for commercial rather than legal practice. The School’s focus is on teaching and research which is contemporary, relevant and innovative, and which adds value to the disparate disciplines which comprise ‘commerce’.

At the undergraduate level, the School offers co-majors in Business Law and in Taxation.

School of Economics

Head of School: Professor William Schworm

Administrative Officers: Clea Bye, Nadine Caasley, Jenny Reeks and Catriona Reid

The School of Economics offers full-time and part-time courses leading to the degrees of Bachelor of Commerce and Bachelor of Economics with specialisations in economics, econometrics, economic history, financial economics, business strategy & economic management, business statistics and business economics.

The School undertakes the majority of teaching in the Bachelor of Economics program and an important part of the Bachelor of Commerce core. The study of economics, as part of the BCom degree, has built up a reputation of combining an excellent academic standard with practicality and flexibility. Our offerings in the BCom give students the utmost amount of choice so they can select options that complement their career paths. Students can proceed with a minor or single major in business strategy & economic management, financial economics, business economics, business statistics or economic history, or they may combine two of these as a double major or any one with other disciplines of the faculty as a double major.

The Bachelor of Economics program gives a solid grounding in economic analysis and quantitative techniques. It allows students to do a single major in economics, econometrics, economic history or financial economics or any of these may be combined with each other or other disciplines of the faculty as a double major.

The core requirements of the Bachelor of Economics program comprise three years of training in modern economic analysis, instruction in quantitative methods and techniques, an in-depth analysis of economics or econometrics and, in most cases, some exposure to economic history. The specialisation in economics provides a basic training in economics which is suitable for a wide range of careers in the private and public sectors of the economy.

In both the Bachelor of Economics and the economics specialisations in the Bachelor of Commerce, students who have a good academic record are encouraged to apply for enrolment in the Honours program. This requires an additional year of study. Students who wish to become professional economists, econometricians or economic historians are strongly advised to take the Honours course. Potential Honours students should discuss this option with the Honours Coordinator at the School of Economics.

School of Information Systems, Technology and Management

Head of School: Professor Graham Low

Administrative Officers: Tricia Hartley

Information Systems (IS) involves the planning, analysis, design and maintenance of computerised systems used to process information in commerce, industry, government and research organisations. Information Technology (IT) is the underlying mechanism that controls these systems. Information Systems and Information Technology are indispensable to the operations of most modern organisations. In an information systems course, you will study how information systems are planned, analysed, designed, operated and managed. Throughout the program you will develop conceptual and practical skills relating to the way in which computer systems are used within organisations.

Graduates often follow careers as programmers, analysts, business analysts, information technology specialists, data administrators, EDP auditors, e-commerce specialists and web managers.

Degrees offered by the School of Information Systems, Technology and Management:

1. Bachelor of Commerce majoring in Information Systems (program 3502, plan code INFSA13502): This degree is tailored for those more interested in IS and management aspects of the discipline. With this degree you can combine IS and another Commerce discipline such as accounting, marketing, actuarial studies or finance. Note that transfers are possible at the School’s discretion to or from the Co-op scholarship program (ISM) as defined below.

2. Bachelor of Science in Information Systems (program 3979): This program is designed for those more interested in the use and application of IS and IT in a commercial environment. The program is structured and includes courses from many disciplines including Information Systems, Information Technology and Management, Computer Science, Mathematics, as well as Commerce and Economics courses. Note that transfers are possible at the School’s discretion to or from the Co-op scholarship program (BIT) as defined below.

Co-op Scholarships

The UNSW Co-op Program offers four-year scholarship programs in Information Systems and Information Technology. These programs include three six-month industrial training periods. Entry is gained through the scholarship selection process.

3. Bachelor of Commerce majoring in Information Systems and Management (program 3502, plan code INFSF13502). ISM is a generalist business degree that concentrates on the application of IS to business management and decision-making. In addition to completing a major study in the discipline of Information Systems, a minor may be chosen from a number of offerings in the Faculty of Commerce and Economics.

4. Bachelor of Science majoring in Business Information Technology (program 3971). BIT focuses on technical knowledge and theory for the application of IT and IS in a commercial environment. The program is structured and includes courses from many disciplines including Information Systems, Information Technology and Management, Computer Science, Mathematics, as well as Commerce and Economics courses.

For further details on Co-op scholarships see your high school careers advisor or contact the UNSW Co-op Program Office, telephone (02) 9385 5116, website: www.co-op.web.unsw.edu.au/

School of Marketing

Head of School: Professor Paul Patterson

Administrative Officer: Nadia Withers

Marketing is a dynamic management discipline concerned with exchange processes in competitive markets. It is of critical importance in all sectors of the economy, including local and international businesses and profit-making and non-profit making organisations. The business function of marketing seeks to identify the needs and wants of customers, determine potential target markets, design appropriate products and services, develop pricing strategies, communicate this offering to customers and distribute it to the marketplace. A wider goal of marketing is to create an organisation-wide ethos that is responsive to customer needs, aware of competitive forces and builds on core strengths of the organisation.

Graduates find careers in product and brand management, service quality management, new product planning, international marketing, logistics and distribution, sales and purchasing, advertising, direct marketing and public relations, marketing research, management consultancy and e-business. General management training programs and popular training programs are also popular with graduates. Graduates find their skills are in heavy demand across both public and private sectors, nationally and internationally. Professional accreditation has been given to graduates of our programs by the Australian Market and Social Research Society. There are also affiliations with professional organisations such as the Advertising Federation of Australia, the Australian Marketing Institute, the Australian Direct Marketing Association and the Australian Customer Service Association.

Undergraduate Marketing: The School of Marketing offers undergraduate programs leading to the award of the degree of Bachelor of Commerce and Bachelor of Economics. An intellectually rigorous approach is combined with a desire for practical relevance. This entails drawing not only on the general field of marketing but also the related disciplines of economics, finance, psychology, sociology, business law, and statistics. Relevance is achieved through case studies, applied exercises and the business experience of teaching staff. The Honours year deals with more advanced themes in marketing and students are required to submit a well-researched thesis.

Undergraduate Services Marketing – Tourism and Hospitality: A specialist four-year undergraduate degree program in Services Marketing - Tourism and Hospitality is available within the School. This program adds tourism and hospitality management courses to the full range of marketing courses but with a broader service industry focus. These additional courses include tourism policy and planning, human resource management, tourism and hospitality law, entrepreneurship in services, services marketing and facilities management for hotels, resorts and restaurants. Students receive practical training at an approved training college and are required
to complete at least 250 hours of industry work experience as part of the program, adding to the richness of the degree. Graduates will find careers in a range of service industries including major hotels, resorts, airlines and tourism, both in general management as well as in marketing.

The Centre for Applied Marketing (CAM): The Centre for Applied Marketing is a joint research centre between the School of Marketing, Faculty of Commerce and Economics and the Marketing cluster at the Australian Graduate School of Management. The Centre was established to act as a bridge with Australian industry. The Centre promotes and undertakes both pure and applied research in a range of marketing spheres. The Centre also provides customised in-house marketing training programs to leading Australian companies.

The Sustainable Tourism Cooperative Research Centre (STCRC): This is a national research body which brings together federal and state governments, the travel and tourism industry, and sixteen (16) Australian universities. STCRC provides funding for research on impacts, management and future directions for tourism. The research ranges across economic, environmental, social, marketing and policy aspects of tourism. One of the three major STCRC research themes, the "Sustainable Destinations" Program, is coordinated from UNSW.

School of Organisation and Management

Head of School: Associate Professor Lucy Taks
Administrative Officer: Terry O’Callaghan

The School of Organisation and Management was formed on 1 July 2004 by the merger of the School of Industrial Relations and Organisational Behaviour and the School of International Business. Consequently course codes which previously started with IROB and IBUS are now under the MGMT prefix.

The school offers three distinct disciplinary streams to Honours level: Human Resource Management, International Business and Industrial Relations. It also offers a disciplinary stream in Management.

The specialisation in Human Resource Management provides a strong applied and theoretical grounding in all aspects of the management of people in paid employment. The School’s programs are designed to provide both the breadth required for successful career mobility in the “HR” field and the opportunity to acquire advanced, applied knowledge in specialised human resource functions, including staff planning, recruitment, selection and development, training, gender equity, employee motivation and performance management, remuneration management, superannuation, employment law, workplace negotiation, international and cross-cultural human resource management, and occupational health and safety. These areas are increasingly being influenced by wider corporate strategy and business plans and are often seen as the key to enhancing organisational performance. Accordingly, the School’s programs place a strong emphasis on the strategic aspects and importance of human resource planning, policy and practice. The program in Human Resource Management provides a solid career basis for those involved in, or contemplating becoming involved in, managing people in paid employment.

The Industrial Relations program focuses on the processes, relationships, institutions and public policies associated with paid employment in contemporary society. As well as equipping students with a solid working knowledge of all key institutional players, namely trade unions, management, employer organisations and industrial tribunals and government, “IR” courses are designed to furnish a detailed and practical understanding of current employment relations issues, developments and practices. The specialisation in Industrial Relations provides knowledge and skills suitable for a wide range of careers in employment relations areas, such as industrial advocacy or research with trade unions and employer organisations, as well as careers as industrial relations or labour policy specialists with government bodies and international labour organisations. Recent changes to industrial relations policies, including a growing focus on the ‘micro’ or workplace issues, have increased the demand for industrial relations expertise at all levels of corporate management.

International Business is a rapidly growing field of study dealing with the development, strategy, and management of multinational enterprises in the global context of complex and dynamic business environments. Besides the study of multinational enterprises, the field necessarily includes business context studies and culture and communications, including language studies. Doing business and making decisions internationally involves greater complexity and is much more challenging compared to decision making restricted to the domestic context. Special knowledge and skills are required to be successful at international business. Strategic decisions have to be made about which countries to operate in and whether or not to export or license, whether to set up a new facility, establish a joint venture or acquire an existing business and how to sustain competitiveness internationally. Critical issues requiring analysis and judgement at the international level include global strategy, country risk, business negotiations, cultural difference, and performance measurement and evaluation.

The Management specialisation examines the processes, conceptual expertise and work functions involved in managing people and organisations effectively. Broadly, management is concerned with building and developing relationships between people and organisations, formulating goals, designing organisational structures, fostering innovation, controlling resources and facilitating productive activities. Rather than focusing purely on the tasks, roles or functions of managers, this specialisation examines the complex relations between power, people and resources that are the key challenges to effective management. Theories and predictions concerning new organisational forms, future business trends, international strategy, and more effective management practices are studied in addition to established knowledge in the discipline. The overall objective is to equip future managers to apply knowledge and skill effectively to the complex problems facing organisations in today’s dynamic global environment.

Professional Recognition of Programs

The degree programs offered by the Faculty of Commerce and Economics are recognised by professional organisations in accordance with the details set out below. If you are unable to fit these courses in as part of your degree requirements, you may have to enrol in additional classes on a non-award basis.

Australian Computer Society (ACS)

The School of Information Systems, Technology and Management programs are accredited by the Australian Computer Society (www.acs.org.au).

Programs accredited to the level of Professional by the Australian Computer Society:

Bachelor of Commerce (Information Systems) including Honours and combined degrees
Bachelor of Commerce (Information Systems and Management) including Honours and combined degrees
Bachelor of Science (Information Systems) including Honours and combined degrees
Bachelor of Science (Business Information Technology) including Honours and combined degrees

Bachelor of Commerce (Information Systems)

The basis of accreditation is:

Satisfactory completion of the following core courses:
INFS1602 Computer Information Systems
INFS1603 Business Data Management
INFS2603 Systems Analysis and Design
INFS2607 Business Data Networks
and:
Satisfactory completion of at least another 24 units of credit in level 2 or 3 courses in Information Systems with a minimum of 12 units of credit at level 3.
Satisfying the full requirements for completion of the program.

Bachelor of Commerce (Information Systems and Management)

The basis of accreditation is:

Satisfactory completion of the following core courses:
INFS1602 Computer Information Systems
INFS1603 Business Data Management
INFS2603 Systems Analysis and Design
INFS2607 Business Data Networks
INFS2791 Industrial Training A
INFS3792 Industrial Training B
INFS4793 Industrial Training C
INFS5604 Information Technology Management

and:
Satisfactory completion of at least another 12 units of credit in Information Systems courses at Honours level.
Satisfactory completion of at least another 18 units of credit in level 3 or 4 courses in Information Systems.
Satisfying the full requirements for completion of the program.
Bachelor of Science (Information Systems)
The basis of accreditation is:
Satisfactory completion of the following core courses:
INFS1602 Computer Information Systems
INFS1603 Business Data Management
INFS2603 Systems Analysis and Design
INFS2604 Business Data Networks
INFS2609 Software Implementation
INFS3605 Implementation Workshop
INFS3606 Telecommunications for Electronic Commerce
INFS3608 Advanced Database Systems
and:
Satisfactory completion of at least another 12 units of credit courses in Information Systems with a minimum of 6 units of credit at level 3.
Satisfactory completion of all other requirements of the program.

Bachelor of Science (Business Information Technology)
The basis of accreditation is:
Satisfactory completion of the following core courses:
INFS1602 Computer Information Systems
INFS1603 Business Data Management
INFS2603 Systems Analysis and Design
INFS2604 Business Data Networks
INFS2609 Software Implementation
INFS2691 Industrial Training 1
INFS3605 Implementation Workshop
INFS3606 Industrial Training 2
INFS3606 Telecommunications for Electronic Commerce
INFS3608 Advanced Database Systems
INFS4693 Industrial Training 3
and:
Satisfactory completion of at least another 12 units of credit in level 3 or 4 courses in Information Systems.
Satisfactory completion of at least another 42 units of credit of INFS courses with a minimum of 6 units of credit at Honours level.
Satisfactory completion of all other requirements of the program.

Conditions of accreditation
Each course is accredited as a whole course and the accreditation may not be extended to students who are granted advanced standing, credit(s) or exemption(s) by the institution. A course undertaken by a student granted advanced standing, credit(s) or exemption(s) will only be regarded as the accredited course where, in the opinion of the Society, credit(s) or exemption(s) are given for equivalent subjects (particularly in terms of Information Technology content) taken at an equivalent educational level and at an institution of equivalent academic standing.

Australian Human Resource Institute (AHRI)
The following HR qualifications offered by the Faculty of Commerce and Economics have been accredited the National Accreditation Committee (NAC) of the Australian Human Resources Institute.
Bachelor of Commerce major Human Resource Management
Bachelor of Economics major Human Resource Management
Bachelor of Arts major Human Resource Management
Bachelor of Social Science major Human Resource Management
Combined Bachelor of Arts/Bachelor of Commerce major Human Resource Management
Master of Commerce with specialisation in Human Resource Management
Accreditation is granted for a period of three years from December 2004 to December 2007. For more information, please refer to the website: www.amr.com.au

The Australian Institute of Banking and Finance (AIBF)
The educational requirements for Associateship will be satisfied on completion of a University degree program specialising in Banking and Finance which includes a management, a marketing and four banking and finance courses.
The educational requirements for Senior Associateship will be satisfied on completion of a University degree program specialising in Banking and Finance which includes a management, a marketing and four banking and finance courses and employment in the Australia/New Zealand banking and finance industry for at least two years.
Graduates who have met the academic, but not the work experience, requirements for Senior Associate, qualify for Associate membership.

Students are advised to contact the AIBF for current requirements: www.aibf.com.au

Australian Market and Social Research Society (AMRSRS)
Undergraduate marketing students at UNSW are able to obtain the Certificate of Market Research if they have successfully completed a number of approved courses. The Certificate of the AMRSRS is widely recognised by government and industry as a measure of competence in market research.
To qualify for the Certificate, undergraduate students must complete and pass the following courses:
MARK1012 Marketing Fundamentals
MARK2051 Consumer Behaviour
MARK2052 Marketing Research
MARK2054 Market Analysis
Students who have successfully completed the required courses at UNSW must complete the application form which is available from the School of Marketing Office or contact The Australian Market and Social Research Society (AMRSRS), telephone (02) 9566 3102, fax (02) 9571 5944, website www.amsrs.com.au. Further information is also available from the Professional Associations section in the Marketing Careers website: www.marketing.unsw.edu.au

Australian Securities and Investment Commission (ASIC)
The Bachelor of Commerce (Finance) from the School of Banking and Finance at UNSW provides PS146 Tier qualifications in the following areas:
Financial Planning
Securities
Superannuation
Superannuation
General Insurance
Life Insurance
Generic Knowledge Skills
FINS1612 Capital Markets & Institutions, FINS2624 Portfolio Management, FINS2643 Wealth Management, FINS3637 Wealth Management Advice, ECON3114 Superannuation & Retirement Benefits.

Chartered Secretaries Australia (CSA)
CSA is the professional association for 10,000 company secretaries and corporate managers in Australia. It also operates as the Australian Division of the International Institute of Chartered Secretaries and Administrators to which most CSA members also belong.
CSA accredits courses which, if completed, count towards the academic requirements of both professional associations. For details of accredited courses and student membership, please contact Dr John Nelson, National Education Manager, CSA, 70 Castlereagh Street, Sydney, telephone (02) 9223 5744, email info@CSAust.com, website www.csaust.com.au

CMA Australia
CMA Australia has accepted UNSW as an approved tertiary institution for the purpose of its membership qualifications.
Associate membership of CPA Australia requires an accredited undergraduate degree with a major in accounting and in the case of UNSW, the completion of the courses listed below.
If you are unable to fit these courses in as part of your degree requirements, you may have to enrol in additional classes as non-award.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALC12322</td>
<td>Management Accounting: Process Improvement and Innovation</td>
</tr>
<tr>
<td>ALC12342</td>
<td>Corporate Financial Reporting and Analysis</td>
</tr>
<tr>
<td>ACCT3563</td>
<td>Issues in Financial Reporting and Analysis</td>
</tr>
<tr>
<td>ACCT3573</td>
<td>Issues in Financial Reporting and Analysis (Honours)</td>
</tr>
<tr>
<td>ACCT3583</td>
<td>Stakeholder Value Management</td>
</tr>
<tr>
<td>ACCT3593</td>
<td>Stakeholder Value Management (Honours)</td>
</tr>
<tr>
<td>ALC13708</td>
<td>Auditing and Assurance Services*</td>
</tr>
<tr>
<td>FINS1613</td>
<td>Business Finance</td>
</tr>
</tbody>
</table>

www.marketing.unsw.edu.au
Students seeking professional recognition are advised to confirm membership requirements with CPA Australia. Please refer to their website at: www.cpaaustralia.com.au

The Institute of Actuaries of Australia

The UNSW actuarial program is fully accredited by the Institute of Actuaries of Australia and recognised for exemptions by the Institute of Actuaries (London) for the Core Technical subjects. The following courses at UNSW correspond to the Part I and Part II subjects of the IAAust professional examinations:

<table>
<thead>
<tr>
<th>UNSW Course</th>
<th>Professional Subject</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACTL2001 or MATH2801 &amp; MATH2831 or MAI1H2901 &amp; MAI1H2931</td>
<td>C13</td>
</tr>
<tr>
<td>ACTL2003</td>
<td>C11</td>
</tr>
<tr>
<td>ACTL3001</td>
<td>CT4 and CT6</td>
</tr>
<tr>
<td>ACTL3002</td>
<td>CT4</td>
</tr>
<tr>
<td>ACTL3003</td>
<td>CT5 and CT6</td>
</tr>
<tr>
<td>ECON1101 &amp; ECON2102 or ECON1102 &amp; ECON2101</td>
<td>CT7</td>
</tr>
<tr>
<td>ACCT2542 &amp; FINS1613</td>
<td>CT2</td>
</tr>
<tr>
<td>ACTL3004</td>
<td>CT8</td>
</tr>
</tbody>
</table>

Students wishing to apply for exemption from the Part I professional examinations must achieve above average performance in the relevant courses. It is recommended that students who intend to complete all of the Part I professional actuarial subjects enrol in MATH1151 Mathematics for Actuarial Studies and Finance 1A and MATH1251 Mathematics for Actuarial Studies and Finance 1B in Year 1. ECON1101 Microeconomics 1 and ECON2102 Macroeconomics 2 may satisfy exemption requirements for Subject 107.

For students completing a combined BSc BCom, MATH2801 Theory of Statistics and MATH2831 Linear Models may also satisfy exemption requirements for Subject 101.

Qualification as an Associate of the Institute of Actuaries of Australia (IAAA) is attained on completion of the Part I examinations in Years 1 to II. Qualification as a Fellow of the Institute of Actuaries of Australia (IIA) requires the completion of subjects in Parts I, II and III of the professional actuarial examinations.

The syllabus of the Part I courses is covered in the undergraduate Bachelor of Commerce program as listed above.

A sample program, including options designed to cover all of the professional Part I Courses of the Institute of Actuaries of Australia, is as follows:

**Year 1**

**Session One**

- ACCT1501 Accounting and Financial Management 1A
- ECON1101 Microeconomics 1
- MATH1151 Mathematics for Actuarial Studies & Finance 1A
- Option*

*This option should normally be a course towards the co-major or minor or a computing course.

**Session Two**

- ACCT1511 Accounting and Financial Management 1B
- ECON1102 Microeconomics 1
- MAI1H251 Mathematics for Actuarial Studies & Finance 1B
- ACTL1001 Actuarial Studies and Commerce

**Year 2**

**Session One**

- ACTL2001 Financial Mathematics
- ACTL2002 Probability and Statistics for Actuaries

**Session Two**

- ACCT2503 Stochastic Models for Actuarial Applications
- FINS1613 Business Finance
- ACTL2542 Corporate Financial Reporting and Analysis

**Year 3**

**Session One**

- ACTL3001 Actuarial Statistics
- ACTL3002 Life Insurance and Superannuation Models
- Option

**Session Two**

- AC.1L3003 Life Insurance Models
- ACTL3004 Financial Economics for Insurance and Superannuation
- Option

Part II of the professional examinations is studied after graduating or in an Honours year and consists of the Institute Actuarial Control Cycle subjects. No exemptions are available from the Part III examinations. Two subjects are completed by distance education through the Institute of Actuaries of Australia, usually on a part-time basis after completing the Part I and Part II subjects. Part III consists of four half-year subjects completed by distance education through the Institute of Actuaries of Australia usually on a part time basis after completing the Part I and II subjects. Two of these subjects (Module 1: Investments; and Module 4: Commercial Actuarial Practice) are compulsory. In Modules 2 and 3 students select subjects in one specialty area of practice: Life Insurance; General Insurance; Superannuation & Planned Savings; and Investment Management & Finance.

The Faculty of Actuaries and the Institute of Actuaries in the UK offer exemptions from the equivalent subjects in their syllabus if students have obtained exemption through the Institute of Actuaries of Australia. This covers only Part I subjects. However, Fellows of the Institute of Actuaries of Australia can obtain Fellowship of the Institute of Actuaries (London) if they wish to practice in the UK or Europe.

Students who have completed an actuarial studies major and obtained exemptions from the Part I subjects of the Institute of Actuaries of Australia can apply for waivers of some of the examinations of the Society of Actuaries (North America). Fellows of the Institute of Actuaries of Australia can apply for admission as an Associate of the Society of Actuaries if they wish to practise in North America.

Fellowship of the Institute of Actuaries of Australia (FIAA) is recognised by local actuarial societies in Hong Kong, Singapore, Malaysia, New Zealand and Japan. The actuarial societies in Hong Kong, Singapore and Malaysia do not conduct their own examinations. For more information, please go to Institute’s website at www.actuaries.asn.au

The Institute of Chartered Accountants in Australia (ICAA)

Graduates who have completed an accredited undergraduate degree with a major in accounting are eligible under the Institute’s admission requirements to enter the ‘CA Program’ leading to membership, provided they have in the case of UNSW included in their program the following courses. If you are unable to fit these courses in as part of your degree requirements, you may have to enrol in additional classes as non-award.

- ACCT2522 Management Accounting: Process Improvement and Innovation
- ACCT2542 Corporate Financial Reporting and Analysis
- ACCT3563 Issues in Financial Reporting and Analysis or ACCT3573 Issues in Financial Reporting and Analysis (Honours)
- ACCT3583 Stakeholder Value Management or ACCT3593 Stakeholder Value Management (Honours)
- AC.1L3708 Auditing and Assurance Services or ACCT3718 Auditing and Assurance Services (Honours)
- FINS1613 Business Finance
- LEGT1711 Legal Environment of Commerce
Program Rules and Information

3502 Bachelor of Commerce

BCom

Typical Duration
3 years

Minimum UOC for Award
144 units of credit

Typical UOC per Session
24 units of credit

Program Description

The Bachelor of Commerce program allows students to develop an understanding of institutional structures and processes supporting global commerce and disciplinary skills and perspectives relevant to commerce. Students will also develop professional competences and ethical perspectives relevant to practice in global contexts.

Program Objectives and Learning Outcomes

The objectives of the Bachelor of Commerce (BCom) are:

- To develop understanding of institutional structures and processes supporting global commerce;
- To develop disciplinary skills and perspectives relevant to global commerce;
- To develop professional competences and ethical perspectives relevant to practice in global contexts;
- To develop understandings of alternative ways in which knowledge can be created and effectively deployed;
- To develop capacities for life-long learning and the negotiation of change.

Program Structure

The program normally consists of 144 units of credit to be completed over a period of three academic years or six 14-week sessions, with the exception of programs with an Industrial Training component which consist of 192 units of credit over four academic years or eight 14-week sessions.

Except in exceptional circumstances, a student must enrol in a minimum of 6 units per session and will not be permitted to enrol in more than 24 units per session.

There are 36 units of common Level 1 core courses as follows:

- ECON1101 Microeconomics 1 (6 UOC)
- ECON1102 Macroeconomics 1 (6 UOC)
- ACCT1501 Accounting & Financial Management 1A (6 UOC)
- ECON1202 Quantitative Methods A (6 UOC)
- ACCT1511 Accounting & Financial Management 1B (6 UOC)
- ECON1203 Quantitative Methods B (6 UOC)

Note: Students in Actuarial Studies programs substitute approved Mathematics courses for professional recognition for ECON1202 and ECON1203.

General Education Requirements

Students in this program must complete 12 units of credit in General Education courses or their equivalent (unless otherwise entitled to exemption). For further information, please refer to the General Education section in this Handbook.

Please note that students enrolled in programs within the Faculty of Commerce and Economics cannot take General Education courses offered by the Faculty of Commerce and Economics.

Honours

Upon completion of first or second years of a full-time program or the corresponding stages of a part-time program, a candidate may make a written application to the Head of School concerned for permission to enrol for an Honours degree. When such permission is granted but a candidate’s later performance is unsatisfactory, permission to continue as an Honours student may be withdrawn and the student may proceed to an appropriate Pass degree.

A person who has graduated with a Pass degree of Bachelor of Commerce can not be admitted to candidature for the Honours degree of Bachelor of Commerce, except with special permission on the recommendation of the Head of the School.

Academic Rules

Rule 1 - Pass a Course

A candidate must pass all courses in order to be awarded a Pass degree.

Rule 2 - Disciplinary Minors

Students not completing the requirements of two majors in the Bachelor of Commerce degree must complete a ‘disciplinary minor’ in a discipline other than their major. A ‘disciplinary minor’ is defined as four approved session courses, or equivalent value for courses taught outside the Faculty, of which no more than 12 units of credit may be first year courses.

Rule 3 - Transfer Between Degrees

Candidates are admitted to the Bachelor of Commerce, the Bachelor of Commerce in Marketing, Tourism and Hospitality Management, the Bachelor of Commerce/Bachelor of Science or the Bachelor of Economics program. There is no automatic transfer between these programs. Candidates who wish to transfer between these programs must reapply through UAC if they are a local student or the UNSW Admissions Office if they are International students.

Rule 4 - Assessable Hours

Normal workload expectations for each degree are a minimum of 25 hours per session per unit of credit, including class contact hours, preparation and time spent on all assessable work.

Rule 5 - Passing in a Course

Where, in the following rules, reference is made to the requirement that a candidate shall pass a course, the requirement shall be construed as meaning that the candidate shall complete assignments, laboratory work, other set work and an examination or examinations by the prescribed dates to the satisfaction of the Head of the School concerned.

Rule 6 - Normal Program

The program leading to the award of the degree of Bachelor of Commerce normally consists of 144 units of credit to be completed over a period of three academic years or six 14-week sessions, with the exception of programs with an Industrial Training component which consist of 192 units of credit over four academic years or eight 14-week sessions. Except in exceptional circumstances, a student must enrol in a minimum of 6 units per session and will not be permitted to enrol in more than 24 units per session.

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- ECON1202 Quantitative Methods A (6 UOC)
- ACCT1511 Accounting & Financial Management 1B (6 UOC)
- ECON1203 Quantitative Methods B (6 UOC)

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- ECON1202 Quantitative Methods A (6 UOC)
- ACCT1511 Accounting & Financial Management 1B (6 UOC)
- ECON1203 Quantitative Methods B (6 UOC)

Note: Students in Actuarial Studies programs substitute approved Mathematics courses for professional recognition for ECON1202 and ECON1203.
Rule 8 - Nomination of Plan
A student must nominate on the enrolment form the specialisation intended when enrolling for the first year. A candidate may change from one plan to another but not more than once per year. The change requires the approval of the program authority and unless it is a transfer between a Pass and an Honours program, the change must be completed before enrolment is finalised for the particular year.

Rule 9 - Academic Program Requirements: BCom 3502
To complete the requirements for the award of the degree of Bachelor of Commerce:

1. For the Pass degree, a student must complete and pass 144 units of credit, which shall include:
   1.1 36 units of common Level 1 core courses as follows:
   ACCT1501 Accounting & Financial Management 1A
   ACCT1511 Accounting & Financial Management 1B
   ECON1101 Microeconomics 1
   ECON1102 Macroeconomics 1
   ECON1202 Quantitative Methods A* 
   ECON1203 Quantitative Methods B* 
   *Students in Actuarial Studies programs substitute approved Mathematics courses for professional recognition for ECON1202 and ECON1203.
   1.2 (a) satisfactory completion of a minimum of 12 units of credit in General Education courses or their equivalent (unless otherwise entitled to exemption). Combined undergraduate degrees offered with another faculty and leading to the award of two degrees satisfy this requirement (12 units of credit in General Education) within the program.
   (b) undertake an additional 56 hours of study which examines the purposes and consequences of their university education and which fosters socially, ethically and professionally responsible behaviour. The Bachelor of Commerce fulfills this requirement as part of the normal program curriculum.
   1.3 either a major of at least 48 units in an approved disciplinary stream and a minor of 24 units of approved session courses of which no more than 12 units may be Level 1 courses (excluding Industrial Training components when included in program requirements); or
   1.4 a double major of 64 units, consisting of 42 units from each of two approved disciplinary streams (excluding Industrial Training components when included in program requirements).

2. A student cannot:
   2.1 count more than 60 units of Level 1 core and electives courses towards their degree unless in exceptional circumstances:
   2.2 substitute more than 6 units of mainstream courses offered by other faculties towards General Education requirements.
   2.3 count a mainstream course offered by faculties other than Faculty of Commerce and Economics both as a substitute for a Commerce and Economics option and as a substitute for a General Education elective.
   2.4 count more than 60 units of Level 1 core and electives courses towards their degree unless in exceptional circumstances:
   2.5 exceed the prescribed number of credit points in the Pass degree component.

3. A student enrolled in a Co-op program must satisfactorily complete the industrial training components specified in the program requirements,

4. For the Honours degree, a student must complete a further 48 units in an approved disciplinary stream.

4.1 Honours may be taken in one disciplinary stream only

4.2 The additional units, comprising specified courses from the relevant disciplinary stream and a thesis, must be completed in two sessions following the completion of the Pass degree component.

4.3 Honours degree will not be awarded if academic performance is below the prescribed level.

4.4 Except when recommended to the contrary by the relevant Head of School, a student intending to enter the Honours year must:
   4.4.1 satisfy the Pass degree requirements and obtain a minimum average of 70% in Level 2 and Level 3 courses of the relevant disciplinary stream in the Pass degree component;
   4.4.2 pass all courses in the Pass degree component at first attempt.

4.5 Except with the special permission of the program authority on the recommendation of the relevant Heads of School, a person on whom the Pass degree of Bachelor of Commerce or equivalent has been conferred shall not be admitted to candidature for the Honours degree of Bachelor of Commerce.

5. Approved disciplinary streams are listed hereafter:

Approved Disciplinary Streams (Pass)
Accounting
Accounting Co-op Program

Actuarial Studies
Actuarial Studies Co-op Program
Business Economics
Business Strategy and Economics Management
Business Statistics
Business Law
Economic History
Finance
Finance Co-op Program
Financial Economics
Human Resource Management
Industrial Relations
Information Systems
Information Systems and Management Co-op Program
International Business
Management
Marketing
Marketing Co-op Program
Modern Languages*
Taxes
Tourism and Hospitality Management*
* Not available as a single major, but as a co-major only
# Available only as a co-major integrated program with Marketing (program code 3571)

Approved Disciplinary Streams (Honours)
To the end of fourth year:
Accounting
Actuarial Studies
Business Economics
Business Strategy and Economics Management
Finance
Financial Economics
Human Resource Management
Industrial Relations
Information Systems
International Business
Marketing
Taxation

Rule 10 - Honours Degree
Upon completion of first or second years of a full-time program or the corresponding stages of a part-time program, a candidate may make a written application to the Head of School concerned for permission to enrol for an Honours degree. When such permission is granted but a candidate's later performance is unsatisfactory, permission to continue as an Honours student may be withdrawn and the student may proceed to an appropriate Pass degree.

A person on whom the Pass degree of Bachelor of Commerce has been conferred shall not be admitted to candidature for the Honours degree of Bachelor of Commerce, except with special permission on the recommendation of the Head of the School.

Rule 11 - Credit for Courses Passed at Another University
Subject to the University rules governing admission with advanced standing, courses passed at another university may be counted towards fulfilling the requirements of the degree but, in general, not more than four courses studied for a year or equivalent which are already counted for another degree may be counted towards the requirements for the Bachelor of Commerce. Advanced standing will not normally be granted for courses completed more than 7 years before the date of admission of the applicant, except with the approval of the Head of the School.

Rule 12 - Options
Subject to the requirements of the individual programs, students may choose a maximum of 2 options from any approved course taught by any other UNSW faculties. Approval must be sought from the program authority to count courses as options. Apart from service courses for other faculties, all courses taught by the Faculty of Commerce and Economics will be automatically approved as options, but no course can be counted both as an option and as a prescribed course. Heads of the Schools may, in exceptional circumstances, vary courses in prescribed programs.

Rule 13 - Order of Progression of Courses
It is expected students shall undertake core courses in the equivalent of their first year. It is expected failed courses will be repeated in the first session in which they are next offered.
Rule 14 - Prerequisite and Corequisite Requirements

Except in exceptional circumstances, a candidate shall not enrol in any course without having satisfied the prescribed prerequisite or corequisite requirements.

Professional Recognition

Australian Computer Society (ACS)

Programs accredited to the level of Professional by the Australian Computer Society include:

- Bachelor of Commerce (Information Systems) including Honours and double degrees
- Bachelor of Commerce (Information Systems and Management) including Honours and double degrees

For more information, please refer to ‘Professional Recognition of Programs’ in the preceding section.

The Institute of Actuaries of Australia

The profession of Actuary is one of the oldest in the financial world. It is highly regarded and requires the completion of, or exemption from, professional examinations. Fellows of The Institute of Actuaries of Australia, the Institute of Actuaries or Faculty of Actuaries (UK), or the Society of Actuaries (North America) can practise as actuaries in Australia.

Students intending to enter the actuarial profession should normally have completed 4-unit mathematics or obtained a high mark in 3-unit mathematics and should be aiming to obtain an average of at least 70% mark in their University studies. Experience has shown that the higher your UAI or equivalent, the better your chances of success in meeting the standard for exemption from the professional actuarial examinations (95 and above is often recommended). To obtain maximum professional actuarial course exemptions, ACTL2001, ACTL2002, ACTL2003 ACTL3001, ACTL3002, ACTL3003 and ACTL3004 should be completed as well as ACCT2542, ECON2101/ECON2102 and FIN8161.

CPA Australia

CPA Australia has accepted this University as an approved tertiary institution for the purpose of its membership qualifications. Associate membership of this association requires an accredited undergraduate degree with a major in accounting.

The Institute of Chartered Accountants in Australia

Graduates who have completed the Bachelor of Commerce degree program are eligible under the Institute’s new admission requirements to enter the ‘CA Program’ leading to membership. The specific courses to be included have been reduced by the Institute to the following 6 core areas: Financial Accounting, Management Accounting, Finance, Auditing, Australian Commercial and Corporate Law, & Australian Taxation Law. To qualify for the Certificate, undergraduate students must complete and pass the following courses:

- MKK1012 Marketing Fundamentals
- MKK2051 Consumer Behaviour
- MKK2052 Marketing Research
- MKK2054 Market Analysis

For further information, please refer to ‘Professional Recognition of Programs’ in the preceding section.

Australian Securities and Investment Commission (ASIC)

The Bachelor of Commerce (Finance) from the School of Banking and Finance at UNSW provides PS146 Tier qualifications in the following areas:

- Financial Planning
- Securities
- Managed Investments
- Superannuation
- General Insurance
- Life Insurance
- Generic Knowledge Skills

providing the following courses are completed:

- FINS1612 Capital Markets & Institutions, FIN9264 Portfolio Management,
- FINS2643 Wealth Management, FINS3637 Wealth Management Advice,
- ECON3114 Superannuation & Retirement Benefits.


Australian Human Resource Institute (AHRI)

The Australian Human Resources Institute (AHRI) is the national association representing human resource and people management professionals. AHRI leads the direction and fosters the growth of the HR profession through actively setting standards and building the capability of the profession.

Through its international affiliations and its close association with industry and academia, AHRI ensures that its members are given access to a soundly-based professional recognition framework. For more information, please refer to the website: www.ahri.com.au

Co-op Scholarships

The Co-op Program at UNSW provides outstanding scholars with the opportunity of combining the requirements of the Bachelor of Commerce degree with industrial training experience. Entry to this program is at first year only and through the selection procedures administered by the Co-op Program Office. For further information, see: www.co-op.unsw.edu.au

3543 Bachelor of Economics

BeC

Typical Duration

3 years

Minimum UOC for Award

144 units of credit

Typical UOC per Session

24 units of credit

Program Description

The Bachelor of Economics program allows students to develop an understanding of institutional structures and processes supporting global commerce and disciplinary skills and perspectives relevant to commerce. Students will also develop professional competences and ethical perspectives relevant to practice in global contexts.

Program Objectives and Learning Outcomes

The objectives of the Bachelor of Economics are:

- To develop understanding of institutional structures and processes supporting global commerce;
• To develop disciplinary skills and perspectives relevant to global commerce;
• To develop professional competences and ethical perspectives relevant to practice in global contexts;
• To develop understandings of alternative ways in which knowledge can be created and effectively deployed;
• To develop capacities for life-long learning and the negotiation of change.

Program Structure
For the Bachelor of Economics Pass degree, a student must complete and pass 144 units of credit, which shall include:

36 units of common Level 1 core courses as follows:
- ECON1101 Microeconomics 1 (6 UOC)
- ECON1102 Macroeconomics 1 (6 UOC)
- ACC11301 Accounting & Financial Management 1A (6 UOC)
- ECON1202 Quantitative Methods A (6 UOC)
- ACC1T11 Microeconomic Management 1B (6 UOC)
- ECON1203 Quantitative Methods B (6 UOC)

General Education Requirements
Students in this program must also satisfy the General Education requirements. This is usually 12 UOC taken in second and third year studies.

Honours
Upon completion of third year of a full-time program or the corresponding stages of a part-time program, a candidate may make a written application to the Honours Coordinator concerned for permission to enrol for an Honours degree.

Academic Rules
Rule 1 - Pass and Honours Degrees
The degree of Bachelor of Economics may be conferred as a Pass degree or as an Honours degree. There shall be three classes of Honours, namely Class 1, Class 2 in two Divisions and Class 3. In cases of superior academic performance throughout the program, the Pass degree will be conferred with Distinction.

Rule 2 - Disciplinary Minors
All students satisfying the requirements of the Bachelor of Economics degree automatically satisfy ‘disciplinary minor’ requirements. A ‘disciplinary minor’ is defined as four approved session courses, or equivalent value for courses taught outside the Faculty, of which no more than 12 units of credit may be first year courses.

Rule 3 - Transfer Between Degrees
Candidates are admitted to the Bachelor of Commerce, the Bachelor of Commerce in Marketing, Tourism and Hospitality Management, the Bachelor of Commerce/Bachelor of Science or the Bachelor of Economics program. There is no automatic transfer between these programs. Candidates who wish to transfer between these programs must reapply through UAC if they are a local student or the UNSW Admissions Office if they are International students.

Rule 4 - Assessable Hours
Normal workload expectations for each degree are a minimum of 25 hours per session per unit of credit, including class contact hours, preparation and time spent on all assessable work.

Rule 5 - Passing in a Course
Where, in the following rules, reference is made to the requirement that a candidate shall pass a course, the requirement shall be construed as meaning that the candidate shall complete assignments, laboratory work, other set work and an examination or examinations by the prescribed dates to the satisfaction of the Head of the School concerned.

Rule 6 - Normal Program
The program leading to the award of the degree of Bachelor of Economics normally consists of 144 units of credit to be completed over a period of three academic years or six 14-week sessions. Except in exceptional circumstances, a student must enrol in a minimum of 12 units per session and will not be permitted to enrol in more than 24 units.

Rule 7 - Minimum Time for Completion
(a) The minimum time for completing the requirements for the degrees of Bachelor of Commerce or Bachelor of Economics at Pass level is normally six sessions full-time or 12 sessions part-time, unless the student is enrolled in a Co-op program in which case the minimum time for completion is eight sessions full-time.
(b) For the Bachelor of Commerce in Marketing, Tourism and Hospitality Management program at Pass level, the minimum time for completion is eight sessions full-time.

Rule 8 - Nomination of Plan
A student must nominate on the enrolment form the specialisation intended when enrolling for the first year. A candidate may change from one plan to another but not more than once per year. The change requires the approval of the program authority and unless it is a transfer between a Pass and an Honours program, the change must be completed before enrolment is finalised for the particular year.

Rule 9 - Academic Program Requirements: BEc 3543
To complete the requirements for the degree of Bachelor of Economics:
1. For the Pass degree, a student must complete and pass 144 units of credit, which shall include:
2. 36 units of common Level 1 core courses as follows:
- ACC1T11 Accounting & Financial Management 1A (6 UOC)
- ACC1T12 Accounting & Financial Management 1B (6 UOC)
- ECON1101 Microeconomics 1 (6 UOC)
- ECON1102 Macroeconomics 1 (6 UOC)
- ECON1103 Macroeconomics 1 (6 UOC)
- ECON1202 Quantitative Methods A (6 UOC)
- ECON1203 Quantitative Methods B (6 UOC)
- ECON1204 Quantitative Methods B (6 UOC)
- Econometrics (6 UOC)
3. (a) satisfactory completion of a minimum of 12 units of credit in General Education courses or their equivalent (unless otherwise entitled to exemption). Combined undergraduate degrees offered with another faculty and leading to the award of two degrees satisfy this requirement (12 units of credit in General Education) within the program.
(b) undertake an additional 56 hours of study which examines the purposes and consequences of their university education and which fosters socially, ethically and professionally responsible behaviour. The Bachelor of Economics fulfills this requirement as part of the normal program curriculum.
4. A student cannot count more than 60 units of Level 1 core and electives courses towards their degree unless in exceptional circumstances.
4.1 substitute more than 6 units of mainstream courses offered by other faculties towards General Education requirements.
4.2 count a mainstream course offered by faculties other than Faculty of Commerce and Economics both as a substitute for a Commerce and Economics option and as a substitute for a General Education elective.
5. Each student must include the following in their degree program:
5.1 either a major of at least 60 units in the Economics, Econometrics, Financial Economics or Economic History disciplinary streams (including units taken as core studies where applicable);
5.2 or a double major of 90 units, with at least 48 units in one of the Economics, Econometrics, Financial Economics or Economic History disciplinary streams, and at least 42 units in another approved disciplinary stream.
6. In addition to the Pass degree requirements the award of a degree with Honours requires:
6.1 the completion of at least 60 units (single major) or 48 units (double major) in the Economics, Econometrics, Financial Economics or Economic History disciplinary streams specified as necessary preparation for fourth year studies, and
6.2 the completion of four specified courses in fourth year and a thesis that is the equivalent of two courses. Honours studies may proceed in more than one disciplinary stream prior to fourth year. In the fourth year, Honours may be taken in the Economics, Econometrics or Economic History disciplinary streams only, or a combined Honours program in Economics and Econometrics may be taken.
7. Approved disciplinary streams are listed hereafter:
Approved Disciplinary Streams (Pass)
- Accounting
- Actuarial Studies
- Asian Studies
- Business Law
- Economics
- Econometrics
Program Description

The Bachelor of Commerce in Services Marketing - Tourism and Hospitality is a four-year full-time degree that prepares graduates for management positions in a wide variety of careers in the rapidly growing service industry.

Its strengths are its rigorous grounding in services marketing, tourism and hospitality management, accounting and business statistics; its hands-on industry training and employment experience; and its development of students’ leadership, management and communication skills. In addition, the degree includes a full major in marketing from one of Australia’s leading university marketing programs. This opens up not only an important niche specialisation in tourism and hospitality, but a further range of employment options in the field of marketing in a wide range of service industries.

Entry is by academic achievement and a short interview. Successful applicants are typically in the top decile of their state high school grading. The interview explores applicants’ leadership potential, communication skills and commitment to a career in the tourism industry, and may be conducted on campus or by video.

Program Objectives and Learning Outcomes

Students who have completed the program will have a rigorous grounding in tourism and hospitality management, accounting, economics and business statistics; hands-on industry training and employment experience; and have developed leadership, management and communication skills.

Program Structure

Year 1

<table>
<thead>
<tr>
<th>Session One</th>
<th>Session Two</th>
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<tbody>
<tr>
<td>ECON1101 Microeconomics 1</td>
<td>ECON1102 Macroeconomics 1</td>
</tr>
<tr>
<td>ACCT1501 Accounting &amp; Financial Management 1A</td>
<td>ECON1120 Quantitative Methods A</td>
</tr>
<tr>
<td>ECON1202 Quantitative Methods A</td>
<td>LEVT1002 Quantitative Methods B</td>
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<tr>
<td>SERV1100 Tourism and Hospitality Operational Studies</td>
<td>MARK1012 Marketing Fundamentals</td>
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Year 2

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</thead>
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<tr>
<td>SERV2001 Destination Marketing</td>
<td>SERV2002 Services Operations Management</td>
</tr>
<tr>
<td>ACCT1511 Accounting &amp; Financial Management 1B</td>
<td>MARK2053 Marketing, Communications, &amp; Promotions Management</td>
</tr>
<tr>
<td>MARK2051 Consumer Behaviour</td>
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<tr>
<td>MARK2055 Services Marketing and Management</td>
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</table>

Year 3

<table>
<thead>
<tr>
<th>Session One</th>
<th>Session Two</th>
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</thead>
<tbody>
<tr>
<td>MARK2052 Marketing Research</td>
<td>MARK2054 Market Analysis</td>
</tr>
<tr>
<td>LEGT3001 Legal Aspects of Tourism</td>
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<tr>
<td>ECON2117 Economics of Tourism</td>
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Year 4

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<tr>
<th>Session One</th>
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<tbody>
<tr>
<td>SERV4001 Strategic Management in Tourism and Hospitality</td>
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<tr>
<td>MARK4002 Entrepreneurship in Services</td>
</tr>
</tbody>
</table>

3571 Bachelor of Commerce in Services Marketing - Tourism & Hospitality

BCom

Typical Duration
4 years

Minimum UOC for Award
192 units of credit

Typical UOC per Session
24 units of credit
Options (6 UOC)
Options (6 UOC)

Session Two
SKV4001 Tourism Policy and Planning (6 UOC)
MARK3082 Strategic Marketing Management (6 UOC)
Option (6 UOC)
Option (6 UOC)

Electives
SERV2004 Event Management (6 UOC)*
SERV2005 Managing Customer Service Experience (6 UOC)*
*May not be offered in 2006. Please check school timetable.

General Education Requirements
Students in this program must also satisfy the General Education requirements. This is usually 12 UOC taken in second and third year studies.

Please note that students enrolled in programs within the Faculty of Commerce and Economics cannot take General Education courses offered by that Faculty.

Honours
For the Honours degree, a student must complete a further 48 units in a disciplinary stream that the student has chosen as a co-major in the Pass degree component.

For additional details, please refer to the Academic Rules section below.

Academic Rules
To complete the requirements for the award of the degree of Bachelor of Commerce in Services Marketing - Tourism and Hospitality:

Rule 1
1. For the Pass degree, a student must complete and pass 192 units of credit, which shall include:
   1.1 36 units of common Level 1 core courses as follows:
   ACCT1501 Accounting and Financial Management 1A
   ACCT1511 Accounting and Financial Management 1B
   ECON1101 Microeconomics 1
   ECON1102 Macroeconomics 1
   ECON1202 Quantitative Methods A
   ECON1203 Quantitative Methods B
   1.2 12 units of General Education courses in accordance with University rules and Faculty of Commerce and Economics policy.
   1.3 a double major of 96 units, consisting of 42 units from the Marketing disciplinary stream and 54 units from the Tourism and Hospitality Management disciplinary stream;
   1.3.1 6 units of approved industry training course, based on minimum of 250 hours of employment (SERV2003);
   1.3.2 6 units of ECON2117 Economics and Tourism or LEGT3001 Legal Aspects of Tourism;
   1.4 Either
   a. A third major of 42 units in an approved major offered in the Bachelor of Commerce program
   or
   b. 42 units of approved electives including a minimum of 24 units of Commerce and Economics, subject to Rule 2.1

Rule 2
2. A student cannot:
   2.1 count more than 48 units of Level 1 core and electives courses towards their degree except in exceptional circumstances;
   2.2 attempt General Education courses until 42 units of mainstream courses have been attempted;
   2.3 count mainstream courses offered by other faculties as substitutes for General Education courses towards more than 6 units of General Education requirements;
   2.4 count a mainstream course offered by faculties other than Faculty of Commerce and Economics both as a substitute for a Commerce and Economics option and as a substitute for a General Education elective.

Rule 3
3. For the Honours degree, a student must complete a further 48 units in a disciplinary stream that the student has chosen as a co-major in the Pass degree component.

3.1 Honours may be taken in one disciplinary stream only.
3.2 The additional units, comprising specified courses from the relevant disciplinary stream and a thesis, must be completed in two sessions following the completion of the Pass degree component.
3.3 The Honours degree will not be awarded if academic performance is below the prescribed level.
3.4.1 satisfy the Pass degree requirements and obtain a minimum average of 70% in Level 2 and Level 3 courses of the relevant disciplinary stream in the Pass degree component and
3.4.2 pass all courses in the Pass degree component at first attempt.
3.5 Except with the special permission of the course authority on the recommendation of the relevant Heads of School, a person on whom the Pass degree of Bachelor of Commerce or equivalent has been conferred shall not be admitted to candidacy for the Honours degree of Bachelor of Commerce.

Rule 4
4. Approved disciplinary streams are listed below:

Approved Disciplinary Streams (Pass)
- Services, Tourism and Hospitality
- Marketing
- Offered in the BCom program

Approved Disciplinary Streams (Honours)
- Disciplinary Honours offered in the Bachelor of Commerce, after completion of the requirements of the Pass degree co-major.

3979 Bachelor of Science in Information Systems

BSc

Typical Duration
3 years

Minimum UOC for Award
144 units of credit
Typical UOC per Session
24 units of credit

Program Description
The Bachelor of Science in Information Systems degree is a highly prized qualification which provides business skills along with a specialisation in information systems and technology. The program is intended to develop conceptual and practical skills. After an introductory first stage, students will learn about systems design, databases, communications and commercial programming in parallel with computer science, mathematics and management accounting courses.

Program Objectives and Learning Outcomes
The program is intended to develop conceptual and practical skills.

Program Structure

Year 1
INF51602 Computer Information Systems (6 UOC)
ACCT1501 Accounting & Financial Management 1A (6 UOC)
COMP1011 Computing 1A (6 UOC)
INF51603 Business Data Management (6 UOC)
ACCT1511 Accounting & Financial Management 1B (6 UOC)
COMP1021 Computing 1B (6 UOC)

And ONE of the following courses:
MATH1131 Mathematics 1A (6 UOC)
MATH1141 Higher Mathematics 1A (6 UOC)

And ONE of the following courses:
MATH1231 Mathematics 1B (6 UOC)
MATH1241 Higher Mathematics 1B (6 UOC)

COMMERCE AND ECONOMICS 161
General Education Requirements

Students in this program must also satisfy the General Education requirements. This is usually 12 UOC taken in second and third year studies.

Please note that students enrolled in programs within the Faculty of Commerce and Economics cannot take General Education courses offered by that Faculty.

Academic Rules

Pass degree requirements

Conditions for the Award of the Degree:

1. A student must complete 144 units of credit including 12 units of General Education.
2. The degree must contain a major sequence of study as set out in the program below.
3. A student must complete no more than 60 units in Level I courses from at least three schools.
4. No student may commence Level II courses until 24 Level I units have been successfully completed.
5. A student must complete a minimum of 84 units of credit from Science schools.*
6. For entry to Honours, a student must complete at least 24 units at Level III in the relevant Major sequence and have the permission of the Head of School.

Program Objectives and Learning Outcomes

This four stage course teaches Information Systems Theory and Practice and provides industrial training linked to that teaching. The three industrial training periods in the course are each of approximately six months duration, running from January of Stages 2 and 4, and July of Stage 3 of the program.

Program Structure

Year 1

INFS1602 Computer Information Systems (6 UOC)
ACCTT1501 Accounting & Financial Management 1A (6 UOC)
COMP1011 Computing 1A (6 UOC)
INFS1603 Business Data Management (6 UOC)
ACCTT1511 Accounting & Financial Management 1B (6 UOC)
COMP1021 Computing 1B (6 UOC)

And ONE of the following courses:

MATH1131 Mathematics 1A (6 UOC)
MATH1141 Higher Mathematics 1A (6 UOC)

And ONE of the following courses:

MATH1231 Mathematics 1B (6 UOC)
MATH1241 Higher Mathematics 1B (6 UOC)

Year 2

MATH2841 Statistics SS (6 UOC)
INFS2609 Software Implementation (6 UOC)
INFS2691 Industrial Training 1 (6 UOC)

*Defined as Schools in the Faculty of Science plus those in other faculties that currently provide programs under the authority of the Faculty of Science.

Professional Recognition

Australian Computer Society (ACS)
The Bachelor of Science in Information Systems is accredited to the level of Professional by the Australian Computer Society:

For more information, please refer to ‘Professional Recognition of Programs’ in the preceding section.

3971 Bachelor of Science in Business Information Technology

BSc

Typical Duration

4 years

Minimum UOC for Award

192 units of credit

Typical UOC per Session

24 units of credit

Program Description

This program is available only to students admitted through the scholarship selection procedures administered by the UNSW Co-op Program office.

The BSc (BIT) is a four-year degree program for which Honours may be awarded. It is a four year linked education program leading to the award of the qualification Bachelor of Science in Business Information Technology.

The program shares three core disciplinary areas: Information Systems, Accounting and Computer Science.

The BIT program has been designed in conjunction with Information Systems and Information Technology industry professionals to provide for the needs of Australian businesses. The program combines the requirements for the award of the degree with 18 months of coordinated industrial experience at three different organisations (24 weeks at each). Industrial Training extends outside university sessions. A scholarship is payable from funds donated by the sponsoring organisations.

Consideration for entry to the course may proceed only on the basis of an application directly to Co-op program Office at the University of New South Wales and application through UAC.

Students who are academically acceptable for the BIT Degree Program, but who are not offered a scholarship position, should consider registering for first stage entry into the BSc (BIT) 3979 program. If BIT Scholarships become available at the end of Stage 1, students undertaking the BSc (IS) 3979 program may be offered an interview and a transfer into the BSc (BIT) 3971 co-operative Scholarship Degree Program.

Table 1 Level 2 Electives:

INFS2611 Requirements Elicitation (3 UOC)

Table 2 Level 3 Electives:

INFS3611 Design Workshop (6 UOC)
INFS3603 Business Intelligence Systems (6 UOC)
INFS3604 Information Technology Management (6 UOC)
INFS3645 Electronic Commerce Management (6 UOC)

Table 3 Honours Options:

INFS4805 Information Systems Auditing (6 UOC)
INFS4853 Information Systems Management (6 UOC)
INFS4774 Information Systems Security (6 UOC)
INFS4891 Decision Support Systems (6 UOC)
INFS4893 Special Topic in Information Systems (6 UOC)
INFS4848 Information Systems Project Management (6 UOC)
INFS4810 Advanced Data Management (6 UOC)
INFS4811 Knowledge Management Systems and Technology (6 UOC)
**Program Description**

The Faculty of Commerce and Economics in conjunction with the Faculty of Arts and Social Sciences offers the combined Bachelor of Commerce Bachelor of Arts.

This is a five-year program combining the strengths and flexibility of each single degree program. It is expected that the combined degree program will appeal to students wanting, in particular, a strong, focused and highly regarded business program that is complemented by a humanities discipline - chosen out of personal interest or with a particular career objective in mind.

With approval, students with an excellent academic record may also enrol in an additional Honours year in the Bachelor of Commerce.

The combined Bachelor of Commerce Bachelor of Arts is a five-year (240 units of credit) degree program. The Bachelor of Commerce Bachelor of Arts program consists of 22 Commerce and Economics courses (132 units of credit) and 18 Arts and Social Science courses (108 units of credit). Students will typically enrol in 48 units of credit per year.

Students may be admitted direct to the program in Year 1 or can apply for admission in Years 2 or 3.

**Program Objectives and Learning Outcomes**

**Bachelor of Commerce**

The objectives of the Bachelor of Commerce are:

- To develop understanding of institutional structures and processes supporting global commerce;
- To develop disciplinary skills and perspectives relevant to global commerce;
- To develop professional competences and ethical perspectives relevant to practice in global contexts;
- To develop understandings of alternative ways in which knowledge can be created and effectively deployed;
- To develop capacities for life-long learning and the negotiation of change.

**Bachelor of Arts**

An Arts degree is a pathway through a wealth of knowledge in the humanities and social sciences. Its objective is to stimulate students intellectually; to immerse them in worlds of learning; and to graduate them as citizens with strong written and oral communications skills, the capacity to research, criticise and reflect, and the ability to work independently and collaboratively.

**Program Structure**

**Year 1** (48 units of credit)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON1101</td>
<td>Microeconomics 1</td>
<td>6 UOC</td>
</tr>
<tr>
<td>ECON1102</td>
<td>Macroeconomics 1</td>
<td>6 UOC</td>
</tr>
<tr>
<td>ACCT1501</td>
<td>Accounting &amp; Financial Management 1A</td>
<td>6 UOC</td>
</tr>
<tr>
<td>ECON1202</td>
<td>Quantitative Methods A</td>
<td>6 UOC</td>
</tr>
<tr>
<td>ACCT1131</td>
<td>Accounting &amp; Financial Management 1B</td>
<td>6 UOC</td>
</tr>
<tr>
<td>ECON1203</td>
<td>Quantitative Methods B</td>
<td>6 UOC</td>
</tr>
</tbody>
</table>

**Year 2-5**

In Years 2, 3, 4 and 5 students take a total of 4 Commerce and Economics courses (24 UOC), 4 Arts and Social Sciences courses (24 UOC) each year.

**Academic Rules**

Rules relating to the award of the degree of Bachelor of Commerce shall apply wherever relevant to students enrolled in the combined Bachelor of Commerce Bachelor of Arts.

This is a five-year (240 units of credit) degree program. The Bachelor of Commerce Bachelor of Arts program consists of 22 Commerce and Economics courses (132 units of credit) and 18 Arts and Social Sciences courses (108 units of credit). Students will typically enrol in 48 units of credit per year.

Students may be admitted direct to the program in Year 1 or can apply for admission in Years 2 or 3.

**Rules Relating to the Bachelor of Commerce Component**

1. Each student must include the following in their degree program:
   - 1.1 either a major of at least 48 units of credit in an approved disciplinary stream (see below) and a minor of at least 24 units of credit from a different discipline; or

**3525 Bachelor of Commerce Bachelor of Arts**

**BCom BA**

**Typical Duration**

5 years

**Minimum UOC for Award**

240 units of credit

**Typical UOC per Session**

24 units of credit

**General Education Requirements**

Students in this program must also satisfy the General Education requirements. This is usually 12 UOC taken in second and third year studies. For further information, please refer to the General Education section in this Handbook.

Please note that students enrolled in programs within the Faculty of Commerce and Economics cannot take General Education courses offered by that Faculty.

**Academic Rules**

Please refer to Program Structure for the Academic Requirements relating to this program.

**Professional Recognition**

**Australian Computer Society (ACS)**

The Bachelor of Science in Information Systems is accredited to the level of Professional by the Australian Computer Society:

For more information, please refer to ‘Professional Recognition of Programs’ in the preceding section.
1.2 A double major of 84 units of credit consisting of 42 units of credit from two approved disciplinary streams.

The remaining Commerce and Economics course or credit requirements not required for a major sequence and not Year 1 core courses, as prescribed, if any, may be chosen from any other courses offered by the Faculty of Commerce and Economics.

2. Approved Disciplinary Streams (Pass):

Accounting
Actuarial Studies
Business Economics
Business Statistics
Business Strategy & Economic Management
Business Law
Economic History
Financial Economics
Finance
Human Resource Management
Industrial Relations
Information Systems
International Business
Management
Marketing
Taxation

3. Candidates for Honours must complete one year of study additional to the minimum of five years required for the BCom BA at Pass level. Students wishing to take the Bachelor of Commerce at Honours level must consult the Head of School in which they wish to study for Honours. In addition to the Pass degree requirements the award with a degree of Honours requires:

3.1 the completion of at least 48 units of credit (single major) or 42 units of credit (double major) in a disciplinary stream specified as necessary preparation for Honours year studies, and

3.2 the completion of four specified courses (24 units of credit) in Year 4 in one of these disciplines, and a thesis (48 units of credit).

4. Approved Disciplinary Streams (Honours):

To the end of sixth year:
Accounting
Finance
Human Resource Management
Industrial Relations
Information Systems
Marketing
Taxation

Rules Relating to the Bachelor of Arts Component

1. Of the 108 units of credit in Arts and Social Sciences required for the combined degree:

(a) none may be from courses offered by the Faculty of Commerce and Economics;

(b) at least 24 and no more than 36 units of credit must be obtained in Level 1 courses, including no more than 12 Level 1 units of credit offered by any one school, department, unit or Interdisciplinary Program; and

(c) no more than 54 units of credit in total may be from any one school, department, unit or Interdisciplinary program within the Faculty of Arts and Social Sciences.

2. Each student must complete a major sequence (42 units of credit) in one of the following areas within the Faculty of Arts and Social Sciences:

Australian Studies
Chinese Studies
Development Studies
Education
English
Environment Studies
European Studies
Film and Theatre
French
German Studies
Greek (Modern)
History
History and Philosophy of Science
Indonesian Studies
Japanese Studies
Korean Studies
Linguistics

Music
Political Economy
Philosophy
Policy Studies
Politics and International Relations
Russian Studies
Sociology and Anthropology
Spanish and Latin American Studies
Women’s and Gender Studies

*For complete listing of specialisations please refer to online handbook.
Honours

Candidates for Honours must complete one year of study additional to the minimum of five years required for the BCom BSocSc at Pass level.

Honours in Commerce

Students wishing to take the Bachelor of Commerce at Honours level must consult the Head of School in which they wish to study for Honours. In addition to the Pass degree requirements the award with a degree of Honours requires:

1. The completion of at least 48 units of credit (single major) or 42 units of credit (double major) in a disciplinary stream specified as necessary preparation for Honours year studies, and
2. The completion of four specified courses in Honours year in one of these disciplines, and a thesis that is the equivalent of two courses.

Honours in Social Science

Students wishing to take the Bachelor of Social Science at Honours level must consult the Head of School of Social Science and Policy.

Academic Rules

Rules relating to the award of the degree of Bachelor of Commerce, shall apply wherever relevant to candidates for the course of Bachelor of Commerce/Bachelor of Social Science.

This is a five-year degree program (240 units of credit). Both the Bachelor of Commerce Bachelor of Social Science degree consists of 22 Commerce and Economics courses (132 units of credit), which include the core Year 1 Commerce and Economics courses, 18 Arts and Social Science courses (108 units of credit) including 8 which must be in Social Science and Policy. Students will typically enrol in 48 units of credit of courses per year.

Students may be admitted direct to the program in Year 1 or can apply for admission in Years 2 or 3.

Rules Relating to the Bachelor of Commerce Component

1. Each student must include the following in their degree program:
   1.1 either a major of at least 48 units of credit in an approved disciplinary stream (see below) and a minor of at least 24 units of credit from a different discipline; or
   1.2 a double major of 84 units of credit consisting of at least 42 units of credit in each of the (two) approved disciplinary streams.

The remaining Commerce and Economics course or units of credit requirements not required for a major sequence and not Year 1 core courses, as prescribed, if any, may be chosen from any other courses offered by the Faculty of Commerce and Economics.

2. Approved Disciplinary Streams (Pass):

- Accounting
- Actuarial Studies
- Business Economics
- Business Statistics
- Business Strategy & Economic Management
- Business Law
- Economic History
- Financial Economics
- Finance
- Human Resource Management
- Industrial Relations
- Information Systems
- International Business
- Management
- Marketing
- Taxation

3. Candidates for Honours must complete one year of study additional to the minimum of five years required for the BCom BSocSc at Pass level. Students wishing to take the Bachelor of Commerce at Honours level must consult the Head of School in which they wish to study for Honours. In addition to the Pass degree requirements the award with a degree of Honours requires:

3.1 the completion of at least 48 units of credit (single major) or 42 units of credit (double major) in a disciplinary stream specified as necessary preparation for Honours year studies, and
3.2 the completion of four specified courses in Honours year in one of these disciplines, and a thesis that is the equivalent of two courses.

4. Approved Disciplinary Streams (Honours):

To the end of sixth year:
• develop a working knowledge of scientific methods of investigation;
• encourage curiosity and creative imagination and an appreciation of the role of speculation in the selection and solution of problems, the construction of hypotheses, and the design of experiments;
• develop an appreciation of scientific criteria and a concern for objectivity and precision;
• develop confidence and skill in formulating problems and in treating both qualitative and quantitative data;
• develop the ability and disposition to think logically, to communicate clearly by written and oral means, and to read critically and with understanding;
• develop the habit of seeking and recognising relationships between phenomena, principles, theories, conceptual frameworks and problems;
• promote understanding of the significance of science, technology, economics and social factors in modern society, and of the contributions they can make in improving material conditions;
• provide opportunities for the development of students' motivations and social maturity, and an awareness of their capabilities in relation to a choice of career which will be fruitful to themselves and to society;
• provide opportunity to study science in combination with other disciplines.

Program Structure

Core Courses

All students must complete the following courses:

- ACCT1501 Accounting & Financial Management 1A (6 UOC)
- ACCT1511 Accounting & Financial Management 1B (6 UOC)
- ECON1101 Microeconomics 1 (6 UOC)
- ECON1102 Macroeconomics 1 (6 UOC)

6 units of credit of First Year mathematics courses as specified for the appropriate Science program and:

At least 6 units of credit of Statistics selected from:

- ACTL2002 Probability & Statistics for Actuaries (6 UOC)
- ECON1203 Quantitative Methods B (6 UOC)
- MA1H1041 Statistics for Life & Social Sciences (6 UOC)
- MATH2801 Theory of Statistics (6 UOC)
- MATH2841 Statistics 3B (6 UOC)
- MATH2901 Higher Theory of Statistics (6 UOC)
- PSYC2001 Research Methods 2 (6 UOC)

or alternatives Statistics courses approved by the program advisor.

All students in the combined degree program must complete at least 12 units of credit of courses from Commerce and at least 12 units of credit of courses from an approved Science program within the first 2 sessions of full-time enrolment (or within the first 48 units of credit of courses completed).

Within the first 4 sessions of full-time study (or the first 96 units of credit completed), all students must complete at least 36 units of credit of courses from an approved Science program and 36 units of credit of courses taught by the Faculty of Commerce and Economics, including compulsory courses listed above.

Honours

Candidates for Honours must complete one year of study additional to the minimum required for the BCom BSc at Pass Level.

Honours in Commerce

Students wishing to take the Bachelor of Commerce at Honours level must consult the Head of School in which they wish to study for Honours. For the rules relating to Honours in Commerce, please refer to the program entry for 3502 Bachelor of Commerce.

Honours in the Science

Candidates for Honours in the Science component of the combined degree program will need to undertake an additional year of study as prescribed by the relevant school, and to fulfill prerequisite conditions for undertaking Honours as listed for each approved major. Students who wish to undertake Honours in Science should consult the Head of the School in which they wish to undertake Honours prior to their third year of study.

Academic Rules

Entry to the course will be by quota with the admission requirements being not less than those for the degree with the highest requirements (currently the Bachelor of Commerce degree) and also with the HSC admission requirements for the Bachelor of Science (3970). There is no automatic transfer between Bachelor of Science or Bachelor of Commerce and Bachelor of Commerce Bachelor of Science programs. Students may apply to transfer between these programs through UAC if they are local students and through the UNSW Admissions Office if they are International students.

For the award of the degrees of BCom BSc, the following requirements must be satisfied:

- Completion of 192 units of credit including:
  - At least 84 units of credit from the courses offered by the Faculty of Commerce and Economics and 84 units of credit from courses for the BSc.
  - Completion of the required courses for a major in one of the approved areas of study in the Faculty of Commerce and Economics, as listed in this Handbook. Students are unable to take a modern language as a major stream.
  - Completion of the required courses for a major in one approved Science discipline. Available majors for the science component are listed in Table A in the Science section of the Handbook. A Computer Science major may only be undertaken with the permission of the School of Computer Science and Engineering.

At the discretion of the program authority, variations to course requirements within individual programs may be approved.

Rules Relating to the Bachelor of Commerce Component

1. Each student must complete the core courses listed above and the requirements listed for a single major in an approved Disciplinary Stream under Rule 9 for the BCom degree. The remaining units of credit required to satisfy the Commerce component may be chosen from any other undergraduate courses taught by the Faculty of Commerce and Economics.

2. Candidates for Honours must complete one year of study additional to the minimum required for the BCom BSc at Pass Level. Students wishing to take the Bachelor of Commerce at Honours level must consult the Head of School in which they wish to study for Honours. In addition to the Commerce degree requirements, the award with a degree of Honours requires:

- 2.1 the completion of a major of at least 48 units of credit in a disciplinary stream specified as necessary preparation for Honours year studies, and

- 2.2 the completion of a program prescribed for an approved disciplinary stream in the Honours year. Approved disciplinary streams (Honours) are listed under Rule 9 for BCom in the Faculty of Commerce and Economics section of this Handbook.

3. In the Commerce/Science degree Students can do no more than 6/7 Commerce Level 1 courses.

Rules Relating to the Bachelor of Science Component

4. Of the minimum 84 units of credit in courses related to an approved program of study in Science for the combined degree:

- 4.1 None may be from courses offered by the Faculty of Commerce and Economics.

- 4.2 Students must complete 24 units of credit of level 1 courses offered by Science schools. No more than 18 units of credits of level 1 can be from any one course area.

- 4.3 Students must complete the prescribed courses for an approved major as listed in Table A of the Science Handbook or with approval, Computer Science. Remaining courses to make up the minimum 84 units of credit in Science courses should be selected from the relevant optional courses as listed for each eligible Science program in Table A.

3526 Bachelor of Economics Bachelor of Arts

BEC BA

Typical Duration

5 years

Minimum UOC for Award

240 units of credit
Typical UOC per Session
24 units of credit

Program Description
The Faculty of Commerce and Economics in conjunction with the Faculty of Arts and Social Sciences offers the combined Bachelor of Economics Bachelor of Arts.

This is a five-year program combining the strengths and flexibility of each single degree program. It is expected that these combined degree program will appeal to students wanting, in particular, a strong, focused and highly regarded business program that is complemented by a humanities discipline - chosen out of personal interest or with a particular career objective in mind.

With approval, students with an excellent academic record may also enrol in an additional Honours year in the Bachelor of Economics degree. The combined Bachelor of Economics Bachelor of Arts is a five-year (240 units of credit) degree program. The Bachelor of Economics Bachelor of Arts program consists of 22 Commerce and Economics courses (132 units of credit) and 18 Arts and Social Science courses (108 units of credit). Students will typically enrol in 48 units of credit per year.

Students may be admitted direct to the program in Year 1 or can apply for admission in Years 2 or 3.

Program Objectives and Learning Outcomes
Bachelor of Economics
The objectives of the Bachelor of Economics are:

- To develop understanding of institutional structures and processes supporting global commerce;
- To develop disciplinary skills and perspectives relevant to global commerce;
- To develop professional competences and ethical perspectives relevant to practice in global contexts;
- To develop understandings of alternative ways in which knowledge can be created and effectively deployed;
- To develop capacities for life-long learning and the negotiation of change.

Bachelor of Arts
An Arts degree is a pathway through a wealth of knowledge in the humanities and social sciences. Its objective is to stimulate students intellectually; to immerse them in worlds of learning; and to graduate them as citizens with strong written and oral communications skills, the capacity to research, critique and reflect, and the ability to work independently and collaboratively.

Program Structure
Year 1 (48 units of credit)
ECON1101 Microeconomics 1 (6 UOC)
ECON1102 Macroeconomics 1 (6 UOC)
ACCT1501 Accounting & Financial Management 1A (6 UOC)
ECON1202 Quantitative Methods A (6 UOC)
ACCT1511 Accounting & Financial Management 1B (6 UOC)
ECON1203 Quantitative Methods B (6 UOC)
Level 1 Arts and Social Science courses (12 UOC)

Years 2-5
In Years 2, 3, 4 and 5 students take a total of 4 Commerce and Economics courses (24 units of credit), 4 Arts and Social Sciences courses (24 units of credit) each year.

Honours
Candidates for Honours must complete one year of study additional to the minimum of five years required for the BEd BA at Pass level. Students wishing to take the Bachelor of Economics at Honours level must consult the Head of School and/or Head of Department in which they wish to study for Honours. In addition to the Pass degree requirements the award with a degree of Honours requires:

1. The completion of at least 60 units of credit (single major) or 48 units of credit (double major) in Economics, Econometrics or Economic History disciplinary streams specified as necessary preparation for Honours year studies, and
2. The completion of four specified courses in the Honours year (24 units of credit), and a thesis that is the equivalent of 24 units of credit.

Honours studies may proceed in more than one disciplinary stream prior to the Honours year. In the Honours year, Honours may be taken in the Economics, Econometrics or Economic History disciplinary streams, or a combined Honours program in Economics and Econometrics may be taken.

Academic Rules

Rules relating to the award of the degree of Bachelor of Economics shall apply wherever relevant to students enrolled in the combined Bachelor of Economics Bachelor of Arts.

This is a five-year (240 units of credit) degree program. The Bachelor of Economics Bachelor of Arts program consists of 22 Commerce and Economics courses (132 units of credit) and 18 Arts and Social Sciences courses (108 units of credit). Students will typically enrol in 48 units of credit per year.

Students may be admitted direct to the program in Year 1 or can apply for admission in Years 2 or 3.

Rules Relating to the Bachelor of Economics Component
1. Each student must include the following in their degree program:
   1.1 either a major of at least ten courses (60 units of credit) in Economics, Econometrics or Economic History disciplinary stream (including courses taken as core studies); or
   1.2 a double major of fifteen courses (90 units of credit), with at least eight courses (48 units of credit) in one of the Economics, Econometrics or Economic History disciplinary streams and at least seven courses (42 units of credit) in another approved disciplinary stream.

   The remaining Commerce and Economics course or credit requirements not required for a major sequence and not Year 1 core courses, as prescribed, if any, may be chosen from any other courses offered by the Faculty of Commerce and Economics.

2. Approved Disciplinary Streams (Pass):
   - Accounting
   - Asian Studies
   - Business Law
   - Economics
   - Econometrics
   - Econometrics/Econometrics
   - Economic History
   - Finance
   - Financial Economics
   - Human Resource Management
   - Industrial Relations
   - Information Systems
   - International Business
   - Management
   - Marketing
   - Taxation
   
   #Available as a co-major integrated program with Economics only

3. Candidates for Honours must complete one year of study additional to the minimum of five years required for the BEd BA at Pass level. Students wishing to take the Bachelor of Economics at Honours level must consult the Head of School and/or Head of Department in which they wish to study for Honours. In addition to the Pass degree requirements the award with a degree of Honours requires:
   3.1 the completion of at least 60 units of credit (single major) or 48 units of credit (double major) in Economics, Econometrics or Economic History disciplinary streams specified as necessary preparation for Honours year studies, and
   3.2 the completion of four specified courses in the Honours year (24 units of credit), and a thesis that is the equivalent of 24 units of credit.

   Honours studies may proceed in more than one disciplinary stream prior to the Honours year. In the Honours year, Honours may be taken in the Economics, Econometrics or Economic History disciplinary streams, or a combined Honours program in Economics and Econometrics may be taken.

4. Approved Disciplinary Streams (Honours):
   - Economics
   - Econometrics
   - Econometrics/Econometrics
   - Economic History

Rules Relating to the Bachelor of Arts Component
1. Of the 108 units of credit in Arts and Social Sciences required for the combined degree:
   (a) none may be from courses offered by the Faculty of Commerce and Economics;
(b) at least 24 and no more than 36 units of credit must be obtained in Level 1 courses, including no more than 12 Level 1 units of credit offered by any one School, Department, Unit or Interdisciplinary Program; and (c) no more than 54 units of credit in total may be from any one School, Department, Unit or Interdisciplinary Program within the Faculty of Arts and Social Sciences.

2. Each student must complete a major sequence (42 units of credit) in one of the following areas within the Faculty of Arts and Social Sciences:

Australian Studies
Chinese Studies
Development Studies
Education
English
Environment Studies
European Studies
Film and Theatre
French
German Studies
Greek (Modern)
History
History and Philosophy of Science
Indonesian Studies
Japanese Studies
Korean Studies
Linguistics
Media, Culture and Technology
Music
Political Economy
Philosophy
Policy Studies
Politics and International Relations
Russian Studies
Sociology and Anthropology
Spanish and Latin American Studies
Women’s and Gender Studies

3528 Bachelor of Economics Bachelor of Social Science

BSc BSocSc

Typical Duration
5 years

Minimum UOC for Award
240 units of credit

Typical UOC per Session
24 units of credit

Program Description
The Faculty of Commerce and Economics in conjunction with the Faculty of Arts and Social Sciences offers the combined Bachelor of Economics/ Bachelor of Social Science.

This is a five-year program combining the strengths and flexibility of each single degree program. It is expected that this combined program will appeal to students wanting, in particular, a strong, focused and highly regarded business course that is complemented by a program of study in social research and policy analysis.

With approval, students with an excellent academic record may also enrol in an additional Honours year in the Bachelor of Economics or Bachelor of Social Science degree.

Bachelor of Arts
An Arts degree is a pathway through a wealth of knowledge in the humanities and social sciences. Its objective is to stimulate students intellectually; to immerse them in worlds of learning; and to graduate them as citizens with strong written and oral communications skills, the capacity to research, criticise and reflect, and the ability to work independently and collaboratively.

Program Structure

Year 1
- ECON1101 Microeconomics 1 (6 UOC)
- ECON1102 Macroeconomics 1 (6 UOC)
- ECON1202 Quantitative Methods A (6 UOC)
- ACCT1501 Accounting & Financial Management 1A (6 UOC)
- SLSP1000 Social Science & Policy (6 UOC)

Year 2-5

In Years 2, 3, 4 and 5 students take a total of 4 Commerce and Economics courses (24 units of credit), 4 Arts and Social Sciences courses (24 units of credit) each year, including (in total) at least 36 units of credit from Social Science and Policy in the approved sequence as outlined in rules 11 and 12 for the Bachelor of Social Science degree.

Honours
Candidates for Honours must complete one year of study additional to the minimum of five years required for the BSc BSocSc at Pass level.

Honours in Economics
In addition to the Pass degree requirements the award with a degree of Honours requires:

1. The completion of at least 60 units of credit (single major) or 48 units of credit (double major) in Economics, Econometrics, Economic History or Financial Economics disciplinary streams specified as necessary preparation for Honours year studies, and
2. The completion of four specified courses in the Honours year in one of these disciplines, and a thesis that is the equivalent of two courses.

Honours in Social Science
Students wishing to take the Bachelor of Social Science at Honours level must consult the Head of School of Social Science and Policy.

Academic Rules
Rules relating to the award of the degree of Bachelor of Economics, shall apply wherever relevant to candidates for the course of Bachelor of Economics Bachelor of Social Science.

This is a five-year degree program (240 units of credit). The Bachelor of Economics Bachelor of Social Science degree consists of 22 Commerce and Economics courses (132 units of credit), which include the core Year 1 Commerce and Economics courses, 18 Arts and Social Science courses (108 units of credit) including 8 which must be in Social Science and Policy. Students will typically enrol in 48 units of credit of courses per year.

Students may be admitted direct to the program in Year 1 or can apply for admission in Years 2 or 3.

Rules Relating to the Bachelor of Economics Component

1. Each student must include the following in their degree program: 1.1 either a major of at least 60 units of credit in Economics, Econometrics, Economic History, or Financial Economics (including courses taken as core studies); or 1.2 a double major of 90 units of credit consisting of at least 48 units of credit in one of Economics, Econometrics, Economic History or Financial Economics disciplinary streams, and at least 42 units of credit in another disciplinary stream.

The remaining Commerce and Economics course or credit point requirements not required for a major sequence and not Year 1 core courses, as prescribed, if any, may be chosen from any other courses offered by the Faculty of Commerce and Economics.

2. Approved Disciplinary Streams (Pass):

Accounting
Asian Studies*
Business Law
Economics
Econometrics
Economic History
Financial Economics
Finance
Human Resource Management
Industrial Relations
Information Systems
International Business
Management
Marketing
Taxation

*Required for Accounting major

Accounting Honours
This program is available to the end of Year 3 only for BSc students and to the end of fourth year for BCom students only.

Required to Year 4
ACCT3735 Issues in Financial Reporting and Analysis (Honours)
ACCT3593 Stakeholder Value Management (Honours)
ACCT3718 Auditing and Assurance Services (Honours)

Year 4
ACCT4794 Thesis (Accounting)
ACCT4809 Current Developments in Auditing Research
ACCT4851 Current Developments in Accounting Research –Financial
ACCT4852 Current Developments in Accounting Research –Managerial
ACCT4897 Seminar in Research Methodology

Accounting Co-op Program
This program is available as a single major or combined with Finance or Business Economics in the BCom degree only.

4. Approved Disciplinary Streams (Honours):
To the end of sixth year:
Economics
Econometrics
Econometrics and Econometrics
Economic History

Rules Relating to the Bachelor of Social Science Component
1. Of the 108 units of credit in Arts and Social Sciences required for the combined degree:
(a) none may be from courses offered by the Faculty of Commerce and Economics;
(b) at least 24 and no more than 36 units of credit must be obtained in Level 1 courses, including no more than 12 Level 1 credit points offered by any one school, department, unit or Interdisciplinary Program;
(c) level 1 courses must include SLSP1000 and SLSP1001 (12 units of credit) offered by the School of Social Science and Policy; and
(d) no more than 54 units of credit in total may be from any one school, department, unit or Interdisciplinary Program within the Faculty of Arts and Social Sciences;
(e) 48 units of credit must be taken as the approved stream as specified in List F for the Bachelor of Social Science degree, excluding those streams offered by the Faculty of Commerce and Economics.

2. Candidates for Honours in Social Science must complete one year of study additional to the minimum of five years required for the BSc/BSoSc at Pass level. Students wishing to take the Bachelor of Social Science at Honours level must consult the Head of School of Social Science and Policy.

Plan Rules and Information
Select sufficient courses to make up minor, co-major or single major requirements, or select single courses as options, as appropriate. Refer to the preceding section which lists the rules governing the award of degrees for details. Refer to the ‘Course Descriptions’ section of this Handbook for further details such as course prerequisites.

Accounting
Course ID  Course Name
ACCT1501  Accounting and Financial Management 1A*
ACCT1511  Accounting and Financial Management 1B*
ACCT2522  Management Accounting: Process Improvement and Innovation*
ACCT2542  Corporate Financial Reporting and Analysis*
ACCT3563  Issues in Financial Reporting and Analysis *
ACCT3573  Issues in Financial Reporting and Analysis (Honours)*
ACCT3583  Stakeholder Value Management
ACCT3585  E-Business: Strategy and Processes
ACCT3593  Stakeholder Value Management (Honours)
ACCT3601  Global Financial Reporting and Analysis
ACCT3610  Financial Statement Analysis
ACCT3708  Auditing and Assurance Services
ACCT3718  Auditing and Assurance Services (Honours)
ACCT4820  Management Accounting Issues and International Best Practice
FINS3626  International Corporate Governance

Actuarial Studies
Core required:
The actuarial major requires students to substitute approved Mathematics courses in place of ECON1202 and ECON1203 as 1st year core courses. Students will normally be required to complete:
MATH1131  Mathematics for Actuarial Studies and Finance 1A
MATH1251  Mathematics for Actuarial Studies and Finance 1B
unless approval from the Head of Actuarial Studies is obtained.

Required
ACTL1001  Actuarial Studies and Commerce
ACTL2001  Financial Mathematics
ACL2002  Probability and Statistics for Actuaries
ACTL2003  Stochastic Models for Actuarial Applications

To satisfy minimum requirements for an actuarial studies minor, all courses from the required list must be completed.
Options
ACTL3001 Actuarial Statistics
ACTL3002 Life Insurance and Superannuation Models
ACTL3003 Insurance Risk Models
ACTL3004 Financial Economics for Insurance and Superannuation
ACTL3005 Superannuation and Retirement Benefits

To obtain maximum actuarial professional examination exemptions, the first four options should be completed along with ACCT2542, ECON2101 and FINS1613.

Actuarial Studies Honours
BCom Honours Actuarial Studies

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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>ACTL4000</td>
<td>Actuarial Studies Thesis (full year)</td>
<td>24</td>
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<tr>
<td>ACTL4003</td>
<td>Research Topics in Actuarial Science (Session 1)</td>
<td>6</td>
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<tr>
<td>ACTL4001</td>
<td>Actuarial Theory and Practice A (Session 1)</td>
<td>6</td>
</tr>
<tr>
<td>ACTL4002</td>
<td>Actuarial Theory and Practice B (Session 2)</td>
<td>6</td>
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</tbody>
</table>

Option approved by the Head of Actuarial Studies (6 UOC)

Actuarial Studies Co-op Program
This program is available only to students admitted through the scholarship selection procedures administered by the Co-op Program office. Entry to the program is at first year only.

This is a four-year degree program combining the requirements of the BCom with coordinated industrial experience. Industrial experience extends outside university sessions.

Required
ACTL1001 Actuarial Studies and Commerce
ACTL2001 Financial Mathematics
ACTL2002 Probability and Statistics for Actuaries
ACTL2003 Stochastic Models for Actuarial Applications
ACTL2100 Industrial Training 1 (Year 2–12 wks)
ACTL3100 Industrial Training 2 (Year 3–26 wks)
ACTL4100 Industrial Training 3 (Year 4–26 wks)

Options
To satisfy minimum requirements of the Actuarial Studies Co-op Program, the following courses must be completed.

List A

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACTL3001</td>
<td>Actuarial Statistics</td>
</tr>
<tr>
<td>ACTL3002</td>
<td>Life Insurance and Superannuation Models</td>
</tr>
<tr>
<td>ACTL3003</td>
<td>Insurance Risk Models</td>
</tr>
<tr>
<td>ACTL3004</td>
<td>Financial Economics for Insurance and Superannuation</td>
</tr>
<tr>
<td>ACTL2542</td>
<td>Corporate Financial Reporting and Analysis</td>
</tr>
<tr>
<td>ECON2101</td>
<td>Microeconomics 2</td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>ECON2102</td>
<td>Macroeconomics 2</td>
</tr>
<tr>
<td>FINS1615</td>
<td>Business Finance</td>
</tr>
</tbody>
</table>

Rules Governing the Award of the Degree of Bachelor of Commerce (Actuarial Studies Co-op)

Rule 1 – Pass Degree
The degree of Bachelor of Commerce (Actuarial Studies Co-op) may be conferred as a Pass degree. In cases of superior academic performance throughout the course, the Pass degree will be conferred with Distinction.

Rule 2 – Disciplinary Minors
Students not completing the requirements of a double major in the program must choose options so that they complete a ‘disciplinary minor’ in a discipline other than Actuarial Studies. A ‘disciplinary minor’ is defined as four approved session courses to the value of 24 units of credit, or equivalent value for courses taught outside the faculty, of which no more than 12 units may be first year courses.

Rule 3 – Entry and Continuation Conditions

3.1 Entry to the program is conditional upon:
   a. meeting the entry requirements for the Bachelor of Commerce
   b. the selection process for Co-op Scholarships

3.2 Except in exceptional circumstances, continuation in the program is conditional upon meeting the performance standards required to maintain the Co-op Scholarship.

Students who lose their scholarship and are therefore excluded from continuing in the program will be transferred to a Bachelor of Commerce generalist degree program.

Rule 4 – Assessable Hours

4.1 On Campus Courses: Normal workload expectations for courses run in “on campus” mode are a minimum of 25 hours per session per unit of credit, including class contact hours, preparation and time spent on all assessable work.

4.2 Industrial Training: Normal workload expectations for industrial training courses are a minimum of the normal working hours per week for the site at which the student is based for the duration of the course.

Rule 5 – Passing in a Course

Where, in the following rules, reference is made to the requirement that a student shall pass a course, the requirement shall be construed as meaning that the student shall complete assignments, laboratory work, other set work and an examination or examinations by the prescribed dates to the satisfaction of the Head of School concerned.

Rule 6 – Normal Program

This program leading to the award of the degree of Bachelor of Commerce (Actuarial Studies Co-op) comprises 192 units of credit to be completed over a period of four academic years.

Except in exceptional circumstances, a student must enrol in a minimum of 12 units per session and will not be permitted to enrol for more than 24 units other than in the first session of Year 2 when Industrial Training 1 is completed along with 24 units of credit during the session.

Except in exceptional circumstances, students are required to undertake the Industrial Training Courses (having met all prerequisites) at the following times:

Industrial Training 1 at the commencement of the first half of their second year
Industrial Training 2 in the second half of their third year
Industrial Training 3 in the first half of their fourth year

Rule 7 – Minimum Time for Completion

The minimum time for completing the requirements for the degree is normally eight sessions full-time.

Rule 8 – Academic Program Requirements

To complete the requirements for the award of the degree a student must complete and pass 192 units of credit which shall include:

8.1 The compulsory courses set out in the program requirements.

8.2 12 units of approved General Education courses offered by faculties other than the Faculty of Commerce and Economics.

8.3 Either:

8.3.1 a major of at least 48 units in Actuarial Studies, in addition to Industrial Training units, and a minor in another approved disciplinary stream; or

8.3.2 a major of at least 42 units in Actuarial Studies, in addition to Industrial Training and a second major of 42 units in another approved disciplinary stream.

8.4 A student cannot:

8.4.1 count more than 60 units of Level 1 core and electives courses towards their degree unless in exceptional circumstances;

8.4.2 attempt General Education courses until they have attempted 48 units of mainstream courses;

8.4.3 count mainstream courses offered by other faculties as substitutes for General Education courses towards more than 6 units of General Education requirements;

8.4.4 count a mainstream course offered by faculties other than Faculty of Commerce and Economics both as a substitute for a Commerce and Economics option and as a substitute for a General Education elective.

Asian Studies (BEC students only)

This major is available only as a co-major integrated with the program in Economics.

Required

(i) Students must enrol in and pass enough language units to reach a standard equivalent to intermediate level. If a student has satisfactory HSC competence in the language this will require two courses, if not four. In the case of the Japanese language, students entering without HSC competence should enrol in four consecutive core units of Japanese beginning with JAPN1000 Japanese Communication 1A. Students entering the Japanese language program with HSC, or above, competence will be admitted to a suitable level, subject to a placement test.
(ii) Students must enrol in and pass at least six units relating to a particular country or group of countries as approved by the Head of School. These may include language courses and must include at least two economics courses, one of which may be ECON2305 Modern Asian Economic History.

**Business Economics (BCom students only)**

**Required**
- ECON1101 Microeconomics 1
- ECON1102 Macroeconomics 1

**Options** (may be selected from List A or List B)
To satisfy either single or double major requirements, at least two Options must be chosen from List B.

- **List A**
  - ECON2101 Microeconomics 2
  - ECON2102 Macroeconomics 2
  - ECON2103 Business and Government
  - ECON2104 Applied Macroeconomics
  - ECON2105 Economics of Corporations
  - ECON2107 The Economics of Information and Technology
  - ECON2109 Economics of Natural Resources
  - ECON2111 Globalisation
  - ECON2112 Game Theory and Business Strategy
  - ECON2113 Economics of e-Commerce
  - ECON2116 Economics of Japanese Business & Government
  - ECON2117 Economics of Tourism
  - ECON2127 Environmental Economics
  - ECON2206 Introductory Econometrics
  - ECON2305 Modern Asian Economic History
  - ECON2313 Australian Economic Development
  - ECON2322 European Integration

- **List B**
  - ECON2207 Econometric Methods
  - ECON3101 Markets and Public Choice
  - ECON3104 International Macroeconomics
  - ECON3106 Public Finance
  - ECON3107 Economics of Finance
  - ECON3109 Economic Growth, Technology and Structural Change
  - ECON3110 Development Economics
  - ECON3112 The Newly Industrialising Economies of East Asia
  - ECON3113 Economic Development in ASEAN Countries
  - ECON3114 Superannuation and Retirement Benefits
  - ECON3116 International Economics
  - ECON3119 Political Economy
  - ECON3120 Economic Reasoning
  - ECON3121 Managerial Economics
  - ECON3202 Mathematical Economics
  - ECON3203 Econometric Theory
  - ECON3204 Econometric Model Building
  - ECON3206 Financial Econometrics

**Business Economics Honours (BCom students only)**

**Year 4**

**Required**
- ECON4100 Advanced Economic Analysis
- ECON4127 Economics Thesis

Plus three further courses from:
- ECON4101 International Trade
- ECON4102 Industrial Organisation
- ECON4103 Business Cycles And Growth
- ECON4104 Economics of Labour Markets
- ECON4105 Seminar in Research Methods
- ECON4106 Policy Evaluation Methods
- ECON4201 Applied Econometrics

In certain circumstances and with the permission of the Head of School, one course from List B of the Economics disciplinary stream, or a 4th year course from any school in FCE may be substituted for one of the Fourth Year Honours options.

For each course the UOC is 6, except ECON4127 for which the UOC is 24.

**Business Law**

This stream is not available as a single major, but as a co-major only. This stream is not available with the co-major in Taxation.

**Required**
- LEGT1711 Legal Environment of Commerce
- LEGT2721 Business Transactions
- LEGT1741 Business Entities

**Options**
Four courses from the following list:
- LEGT2791 International Business Law
- LEGT2712 Business, Ethics and the Law
- LEGT1731 Marketing and Distribution Law
- LEGT2732 Franchising
- LEGT2751 Business Taxation
- LEGT2761 Law of Banking and Finance
- LEGT2771 Information Technology Law
- LEGT2781 Regulation of Government Agencies
- LEGT2756 International Business Taxation
- LEGT3757 Corporate Law, Tax and Strategy
- LEGT2744 Corporate Fraud and Crime
- LEGT4721 Special Topic in Business Law

**Note:** Other courses offered by the School of Business Law and Taxation may be substituted for the optional courses listed above with approval of the Head of School.

**Business Statistics (BCom students only)**

**Required**
- ECON1202 Quantitative Methods A
- ECON1203 Quantitative Methods B

**Options** (may be selected from List A or List B)
To satisfy either single or double major requirements, at least two Options must be chosen from List B.

- **List A**
  - ECON2206 Introductory Econometrics
  - ECON2208 Operations Research
  - ECON2209 Business Forecasting

- **List B**
  - ECON2307 Econometric Methods
  - ECON2315 Statistics for Econometrics
  - ECON3202 Mathematical Economics
  - ECON3203 Econometric Theory
  - ECON3206 Financial Econometrics

**Business Strategy & Economic Management (BCom students only)**

**Required**
- ECON1101 Microeconomics 1
- ECON1102 Macroeconomics 1
- ECON2101 Microeconomics 2
- ECON2105 Economics of Corporations
- ECON2112 Game Theory and Business Strategy
- ECON3121 Managerial Economics

**Options**
- ACCT2522 Management Accounting: Process Improvement and Innovation
- ECON2102 Macroeconomics 2
- ECON2103 Business and Government
- ECON2104 Applied Macroeconomics
- ECON2107 The Economics of Information and Technology
- ECON2113 Economics of e-Commerce
- ECON2116 Economics of Japanese Business & Government
- ECON2206 Introductory Econometrics
- ECON2207 Econometric Methods
- ECON2208 Operations Research
- ECON2209 Business Forecasting
- ECON3101 Markets and Public Choice
- ECON3106 Public Finance
- INF53603 Business Intelligence Systems
- INF53685 Electronic Commerce Management
- MARK3071 International and Global Marketing
- MARK3082 Strategic Marketing Management
- MGMT2101 International Business and Multinational Enterprises
- MGMT3101 International Business Strategy
- MGMT3724 Strategic Human Resource 1 Management
Business Strategy and Economic Management Honours (BCom students only)

Year 4

Required
ECON4127 Economics Thesis
ECON4102 Industrial Organisation

Plus three further courses from:
ECON4100 Advanced Economic Analysis
ECON4101 International Trade
ECON4103 Business Cycles and Growth
ECON4201 Applied Econometrics
ECON4104 Economics of Labour Markets
ECON4105 Seminar in Research Methods
ECON4106 Policy Evaluation Methods

In certain circumstances and with the permission of the Head of School, one third year option course from any school in the FCE, may be substituted for one of the Fourth Year Honours options.

For each course the UOC is 6, except ECON4127 for which the UOC is 24.

Economics (BSc students only)

Required
ECON1101 Microeconomics 1
ECON1102 Macroeconomics 1
ECON1201 Microeconomics 2
ECON1202 Macroeconomics 2
ECON2206 Introductory Econometrics
ECON2207 Econometric Methods

Options (may be selected from List A or List B)

To satisfy single major requirements, students must do three Options from List B.

To satisfy double major requirements, at least two Options must be chosen from List B.

List A
ECON2103 Business and Government
ECON2104 Applied Macroeconomics
ECON2105 Economics of Corporations
ECON2107 The Economics of Information and Technology
ECON2109 Economics of Natural Resources
ECON2111 Globalisation
ECON2112 Game Theory and Business Strategy
ECON2113 Economics of e-Commerce
ECON2116 Economics of Japanese Business & Government
ECON2117 Economics of Tourism
ECON2127 Environmental Economics
ECON2305 Modern Asian Economic History
ECON2313 Australian Economic Development
ECON2322 European Integration
ECON3106 Public Finance
ECON3112 The Newly Industrialising Economies of East Asia
ECON3113 Economic Development in ASEAN Countries
ECON3119 Political Economy

List B
ECON3101 Markets and Public Choice
ECON3104 International Macroeconomics
ECON3107 Economics of Finance
ECON3109 Economic Growth, Technology & Structural Change
ECON3110 Development Economics
ECON3114 Superannuation and Retirement Benefits
ECON3116 International Economics
ECON3120 Economic Reasoning
ECON3121 Managerial Economics
ECON3202 Mathematical Economics
ECON3204 Econometric Model Building
ECON3205 Econometric Theory
ECON3206 Financial Econometrics

Economics Honours (BSc students only)

Year 4

Required
ECON4100 Advanced Economic Analysis
ECON4127 Economics Thesis

Plus three further courses from:
ECON4101 International Trade
ECON4102 Industrial Organisation
ECON4103 Business Cycles and Growth
ECON4104 Economics of Labour Markets
ECON4106 Policy Evaluation Methods
ECON4201 Applied Econometrics

In certain circumstances and with the permission of the Head of School, one course from List B of the Economics disciplinary stream may be substituted for one of the Fourth Year Honours options.

Econometrics (BSc students only)

Required (for single major)
ECON1202 Quantitative Methods A
ECON1204 Advanced Econometric Theory
ECON4100 Advanced Economic Analysis
ECON4202 Advanced Econometric Theory
ECON4227 Thesis (Econometrics)

Required (for double major)
ECON1202 Quantitative Methods A
ECON1203 Quantitative Methods B
ECON2101 Microeconomics 2
ECON2102 Macroeconomics 2
ECON2206 Introductory Econometrics
ECON2207 Econometric Methods
ECON2215 Statistics for Econometrics
ECON3203 Econometric Theory

Options
ECON2208 Operations Research
ECON2209 Business Forecasting
ECON3202 Mathematical Economics
ECON3204 Econometric Model Building
ECON3206 Financial Econometrics

Econometrics Honours (BSc students only)

Year 4

Required
ECON4100 Advanced Economic Analysis
ECON4201 Applied Econometrics

Plus one option from the Economics Fourth Year Honours options list.

Economics/Econometrics (BSc students only)

Required
ECON1101 Microeconomics 1
ECON1102 Macroeconomics 1
ECON1201 Microeconomics 2
ECON1202 Macroeconomics 2
ECON2206 Introductory Econometrics
ECON2207 Econometric Methods
ECON2215 Statistics for Econometrics
ECON3203 Econometric Theory

Options
ECON2208 Operations Research
ECON2209 Business Forecasting
ECON3202 Mathematical Economics
ECON3204 Econometric Model Building
ECON3206 Financial Econometrics

Economics/Econometrics Honours (BSc students only)

Year 4

Required
ECON4100 Advanced Economic Analysis
ECON4201 Applied Econometrics

Plus at least one option in Econometrics (from the list below), and at least three options in Economics (List B).

Options
At least one of:
ECON2208 Operations Research
ECON2209 Business Forecasting
ECON3202 Mathematical Economics
ECON3204 Econometric Model Building
ECON3206 Financial Econometrics
ECON4202 Advanced Econometric Theory
ECON4227 Thesis (Econometrics)

Plus one option from the Economics Fourth Year Honours options list.

**Economic History (BCom students only)**

**Required**
- ECON1101 Microeconomics 1
- ECON1102 Macroeconomics 1

**Options**
- ECON1301 Australia in the Global Economy
- ECON1302 Australia and the Asia-Pacific Economies
- ECON2305 Modern Asian Economic History
- ECON2313 Australian Economic Development
- ECON2319 Economic & Social Policy in Australia Since Federation
- ECON2321 Growth and Development of International Business
- ECON2322 European Integration

**Economic History (BEc students only)**

**Required**
- ECON1101 Microeconomics 1
- ECON1102 Macroeconomics 1
- ECON2101 Microeconomics 2
- ECON2102 Macroeconomics 2
- ECON2206 Introductory Econometrics

**Options**
- ECON1301 Australia in the Global Economy
- ECON1302 Australia and the Asia-Pacific Economies
- ECON2305 Modern Asian Economic History
- ECON2313 Australian Economic Development
- ECON2319 Economic & Social Policy in Australia Since Federation
- ECON2321 Growth and Development of International Business
- ECON2322 European Integration

**Economic History Honours (BEc students only)**

**Year 4**

**Required**
- ECON4321 Economic History for Honours
- ECON4327 Thesis (Economic History)

**Financial Economics (BCom and BEc students)**

**Required**
- ECON2101 Microeconomics 2
- ECON2107 Economics of Finance
- ECON2206 Introductory Econometrics
- ECON2209 Business Forecasting
- ECON3206 Financial Econometrics
- FINS1612 Capital Markets & Institutions

**Options**
- ECON2102 Macroeconomics 2
- ECON2104 Applied Macroeconomics
- ECON2112 Game Theory and Business Strategy
- ECON2207 Econometric Methods
- ECON2208 Operations Research
- ECON2215 Statistics for Econometrics
- ECON3101 Markets and Public Choice
- ECON3104 International Macroeconomics
- ECON3114 Superannuation and Retirement Benefits
- ECON3202 Mathematical Economics
- ECON3203 Econometric Theory
- ECON3204 Econometric Model Building
- FINS1613 Business Finance
- FINS2622 Emerging Capital Markets

**Financial Economics Honours (BCom students only)**

**Year 4**

**Required**
- ECON4127 Economic Thesis

Plus four further courses from:
- ECON4100 Advanced Economic Analysis
- ECON4101 International Trade
- ECON4102 Industrial Organisation
- ECON4103 Business Cycles and Growth
- ECON4104 Economics of Labour Markets
- ECON4106 Policy Evaluation Methods

**Finance**

**Required**
- FINS1612 Capital Markets and Institutions
- FINS1613 Business Finance
- FINS2624 Portfolio Management
- FINS3616 International Business Finance

Students specialising in Finance only or Finance and another discipline should take the above four compulsory Finance courses in the first two years (first year and first semester of the second year) so that they can complete as many Finance courses as possible in the area of Banking, Corporate Finance, Investment Management, International Finance, Risk Management and Financial Analysis during their second and third years. To meet minor requirements, students must complete FINS1613 and 3 other required or optional courses.

**Year 1**
- FINS1612 Capital Markets and Institutions
- FINS1613 Business Finance

**Year 2**
- FINS2624 Portfolio Management
- FINS3616 International Business Finance

And optional Finance courses from the list below, in the areas of:
- Banking
- Corporate Finance
- Investment Management
- International Finance
- Risk Management
- Financial Analysis

**Year 3**

Optional Finance courses from the list below, in the areas of:
- Banking
- Corporate Finance
- Investment Management
- International Finance
- Risk Management
- Financial Analysis

To satisfy single major requirements, at least three options must be chosen from the following options. To satisfy double major requirements, at least two options must be chosen from the following list.

**Options**
- FINS2622 Emerging Capital Markets
- FINS2643 Wealth Management
- FINS3623 Venture Capital
- FINS3625 Applied Corporate Finance
- FINS3626 International Corporate Governance
- FINS3630 Bank Finance Management
- FINS3631 Risk and Insurance
- FINS3633 Real Estate Finance
- FINS3634 Credit Analysis and Lending
- FINS3635 Options, Futures and Risk Management
- FINS3636 Interest Rate Risk Management
- FINS3637 Wealth Management Advice
- FINS3640 Investment Management Modelling
- FINS3641 Security Analysis and Valuation
- FINS3642 Strategies for Investment Management
- FINS3650 International Banking
- FINS3651 International Financial Services
- FINS3775 Research Methods in Finance

**Finance Honours**

This program is available to the end of Year 3 only for BEc students and to the end of fourth year for BCom students only.

**Required**
- Prior to Year 4
- FINS1612 Capital Markets and Institutions
- FINS1613 Business Finance
- FINS2624 Portfolio Management
- FINS3616 International Business Finance
- FINS3775 Research Methods in Finance

**Year 4**

**Session One**

Three compulsory courses:
- FINS4774 Financial Decision Making Under Uncertainty
- FINS4776 Advanced Topics in Asset Pricing
- FINS4779 Research Methods in Finance 2
Finance (Honours) Co-op Program

This program is available only to students admitted through the scholarship selection procedures administered by the Co-op Program Office. Entry to the program is at first year only.

This is a four-year Honours degree program combining the requirements of the BCom with 15 months of coordinated industrial experience.* Industrial training extends outside university sessions.

Year 1

Session One
ACCT1501 Accounting and Financial Management 1A
ECON1101 Microeconomics 1
ECON1202 Quantitative Methods A
FINS1612 Capital Markets and Institutions

Session Two
ACCT1511 Accounting and Financial Management 1B
ECON1102 Microeconomics 1
ECON1203 Quantitative Methods B
FINS1613 Business Finance

Year 2

Summer Session
FINS2100 Industrial Training 1 (12 weeks)

Session One
FINS2624 Portfolio Management
FINS Option
Option

Session Two
FINS3616 International Business Finance
FINS Option
Option
General Education

Year 3

Session One
FINS3100 Industrial Training 2 (24 weeks)
FINS3775 Research Methods in Finance 1
Option

Session Two
FINS3200 Industrial Training 3 (24 weeks)
General Education
FINS Option

Year 4

Session One
FINS4774 Financial Decision Making Under Uncertainty
FINS4776 Advanced Topics in Asset Pricing
FINS4779 Research Methods in Finance 2
Finance Honours Elective Course

Session Two
FINS4795 Thesis

With the approval of the Head of School, students who fail to meet the performance requirements for Honours may substitute approved Banking and Finance and other courses for Level 4 courses and be awarded a Co-op Pass degree.

Rule 2 - Disciplinary Minors

It is not possible for students to complete the requirements of two majors in the Bachelor of Commerce (Hons) Finance Co-op degree and they must therefore choose options so that they complete equivalent to a ‘disciplinary minor’ in a discipline other than their finance major. A “disciplinary minor” is defined as four approved session courses, or equivalent value for courses taught outside the Faculty, of no more than 12 units of credit to be first year courses.

Rule 3 – Entry and Continuation Conditions

3.1 Entry to the program is conditional upon:

a. meeting the entry requirements for the Bachelor of Commerce degree
b. the selection process for Finance Co-op Scholarships

3.2 Except in exceptional circumstances, continuation in the program is conditional on meeting the performance standards required to maintain the Co-op Scholarship. Students who lose their scholarship and are therefore excluded from continuing in the program will be transferred to a Bachelor of Commerce degree program and the relevant requirements.

3.3 Students must achieve a minimum average mark of 70% in Banking and Finance courses to remain in the program.

Rule 4 - Assessable Hours

4.1 On Campus Courses: Normal workload expectations for courses run in “on campus” mode are a minimum of 25 hours per session per unit of credit, including class contact hours, preparation and time spent on all assessable work.

4.2 Industrial Training: Normal workload expectations for industrial training courses are a minimum of the normal working hours per week for the site at which the student is based during the duration of the course, and program requirements as determined for placement.

Rule 5 – Passing in a Course

Where, in the following rules, reference is made to the requirement that a student shall pass a course, the requirement shall be construed as meaning that the student shall complete assignments, laboratory work, other set work and an examination or examinations by the prescribed dates to the satisfaction of the Head of the School concerned.

Rule 6 - Normal Program

The program leading to the award of the degree of Bachelor of Commerce (Hons) Finance Co-op comprises 192 units of credit to be completed over a period of four academic years. Except in exceptional circumstances, a student must enrol in a minimum of 12 units per session and will not be permitted to enrol in more than 24 units.

Except in exceptional circumstances, students are required to undertake the Industrial Training Courses at the following times during the degree program:

- Industrial Training 1 in the summer between first and second year
- Industrial Training 2 in the first half of their third year
- Industrial Training 3 in the second half of their third year

Rule 7 - Minimum Time for Completion

The minimum time for completing the requirements for the degree of Bachelor of Commerce (Hons) Finance Co-op is eight sessions full-time and Industrial Training.

Rule 8 - Academic Program Requirements: BCom 3502

To complete the requirements for the award of the degree of Bachelor of Commerce (Hons) Finance Co-op a student must complete and pass 192 units of credit which shall include:

8.1 The compulsory courses set out in the program requirements.
8.2 12 units of approved General Education courses offered by faculties other that the Faculty of Commerce and Economics.
8.3 A major of at least 48 units in Finance (which must be passed at an average distinction level) in Level 1-3 courses, in addition to Industrial Training units, and a minor in another approved disciplinary stream.
8.4 A student cannot:

8.4.1 count more than 60 units of Level 1 core and elective courses towards their degree unless in exceptional circumstances;
8.4.2 attempt General Education courses until they have attempted 48 units of mainstream courses;
8.4.3 count mainstream courses offered by other faculties as substitutes for General Education courses towards more than 6 units of General Education requirements;
8.4.4 count a mainstream course offered by faculties other than the Faculty of Commerce and Economics both as a substitute for a Commerce and Economics option and as a substitute for a General Education elective.

**Rule 9 - Honours Degree**

9.1 Honours may be taken in Banking and Finance only.

9.1.1 Students who achieve the performance standard for the Co-op Finance Honours Degree program at the conclusion of Stage 3, must complete the Level 4 requirements in Stage 4, or transfer to the standard BCom pass degree.

9.2 Honours degrees will not be awarded if academic performance is below the prescribed level.

9.3 Except in exceptional circumstances and with the approval of the Head of School to continue in the Honours program students must:

9.3.1 achieve a minimum average mark of 75% in Banking and Finance courses taken in years 1, 2 and 3 of the program, and

9.3.2 pass all components of the program at the first attempt.

9.4 Students who fail to meet the performance requirements for Honours:

9.4.1 may substitute approved Banking and Finance or other courses within the Faculty of Commerce and Economics (students wishing to undertake a major in accounting must have the approval of the Head of School of Accounting) for Level 4 courses and be awarded a Co-op Pass degree, and

9.4.2 shall not be permitted to enrol in Financial Decision Making Under Uncertainty, Advanced Topics in Asset Pricing, Research Methods in Finance 2, Advanced Topics in Corporate Finance, Recent Developments in Banking Research, Special Topics in Finance and Thesis (Finance).

**Human Resource Management**

The minimum requirements for a major in Human Resource Management are the required courses, two courses from List A, and one course from List B and one course from either List A or List B.

To meet the requirements for a minor, students must complete the three required courses and one option.

**Required**

- MGMT1701 Industrial Relations
- MGMT1712 Management of Organisations
- MGMT2728 Human Resource Management

**Options**

**List A**

- MGMT3702 International Human Resource Management Practice
- MGMT3724 Strategic Human Resource Management
- MGMT3728 Managing Pay and Performance
- MGMT3729 Managing Workplace Training

**List B**

- MGMT1702 Labour Organisation
- MGMT1702 Industrial Law*
- MGMT2704 International Employment Relations*
- MGMT2704 Social Organisation of Work
- MGMT2715 Labour History*
- MGMT2724 Health and Safety at Work
- MGMT3705 Management and Employment Relations
- MGMT3706 Industrial Relations Policies and Processes*
- MGMT3721 Negotiation, Bargaining and Advocacy
- MGMT3729 Managing Workplace Training
- MGMT3730 Human Resource Management

* Please consult School timetable for availability.

**Human Resource Management Honours (BCom students only)**

The minimum requirements for a major at Honours level in Human Resource Management are the required courses listed below, one course from List A above, one course from List B above, plus the Year 4 required courses listed below.

**Required**

- MGMT1701 Industrial Relations
- MGMT1712 Management of Organisations
- MGMT2718 Human Resource Management
- MGMT3708 Philosophy and Research Methods in Employment and Management*

* Please consult School timetable for availability.

- MGMT3708 is a prerequisite for Year 4 Honours and should normally be taken in the session preceding the Honours year.

**Industrial Relations Honours**

This program is available to the end of Year 3 only for BEc students and to the end of Year 4 for BCom students only.

The minimum requirements for a major at Honours level in Industrial Relations are the required courses listed below, one course from List A above, one course from List B above, plus the year 4 required courses listed below.

**Required**

- MGMT1701 Industrial Relations
- MGMT1702 Labour Organisation*
- MGMT2702 Industrial Law
- MGMT3708 Philosophy and Research Methods in Employment and Management*

*MGMT3708 is a prerequisite for Year 4 Honours and should normally be taken in the session preceding the Honours year.

**Information Systems**

**Required**

- INF51602 Computer Information Systems
- INF51603 Business Data Management
- INF52603 Systems Analysis and Design
- INF52607 Business Data Networks

**Options**

- INF52609 Software Implementation
- INF52611 Requirements Elicitation
- INF53603 Business Intelligence Systems
- INF53604 Information Technology Management
- INF53605 Implementation Workshop
- INF53606 Telecommunications for Electronic Commerce
- INF53608 Advanced Database Systems
INF3611 Design Workshop
INF3622 Distributed Application Design and Implementation*
INF3623 Multimedia Systems Design*
INF3685 Electronic Commerce Management

Year 4
**Required**
- INF4795 Thesis Part A (Information Systems)
- INF4796 Thesis Part B (Information Systems)
- INF4886 Research Topics in 1 Information Systems
- INF4887 Research Topics in 2 Information Systems

**Options**
- Two options must be chosen from:
  - INF4774 Information Systems Security
  - INF4805 Information Systems Auditing
  - INF4810 Advanced Data Management
  - INF4811 Knowledge Management Systems and Technology
  - INF4848 Information Systems Project Management
  - INF4853 Information Systems Management
  - INF4891 Decision Support Systems
  - INF4893 Special Topic in Information Systems and Management

**Information Systems and Management Co-op Program**

This program is available only to students admitted through the scholarship selection procedures administered by the Co-op Program Office. Entry to the program is at first year only.

This is a four-year Honours degree program combining the requirements of the BCom with 18 months of coordinated industrial experience.* Industrial training extends outside university sessions.

**Required**
- INF1602 Computer Information Systems
- INF1603 Business Data Management
- INF2603 Systems Analysis and Design
- INF2607 Business Data Networks
- INF3604 Information Technology Management
- INF4886 Research Topics in Information Systems 1
- INF4887 Research Topics in Information Systems 2
- INF4795 Thesis A
- INF4796 Thesis B
- INF3792 Industrial Training A
- INF3793 Industrial Training B
- INF3794 Industrial Training C

**Options**
- INF2609 Software Implementation
- INF2611 Requirements Elicitation
- INF3603 Business Intelligence Systems
- INF3605 Implementation Workshop
- INF3606 Telecommunications for Electronic Commerce
- INF3608 Advanced Database Systems
- INF3611 Design Workshop
- INF3685 Electronic Commerce Management

**Honours Options**
- Two options must be chosen from:
  - INF4774 Information Systems Security
  - INF4805 Information Systems Auditing
  - INF4810 Advanced Data Management
  - INF4811 Knowledge Management Systems and Technology
  - INF4848 Information Systems Project Management
  - INF4853 Information Systems Management
  - INF4891 Decision Support Systems
  - INF4893 Special Topic in Information Systems and Management

* With the approval of the Head of School, students who fail to meet the performance requirements for Honours may substitute an approved selection of Information Systems courses for level 4 courses and will be awarded a Pass degree.

**Rule 2 – Disciplinary Minors**

As this is a single major, students must choose options so that they complete a ‘disciplinary minor’ in a discipline other than Information Systems. A ‘disciplinary minor’ is defined as four approved session courses to the value of 24 units of credit, or equivalent value for courses taught outside the faculty, of which no more than 12 units may be first year courses.

**Rule 3 – Entry and Continuation Conditions**

3.1 Entry to the program is conditional upon:
- a. meeting the entry requirements for the Bachelor of Commerce
- b. the selection process for Co-op Scholarships

3.2 Except in exceptional circumstances, continuation in the program is conditional upon meeting the performance standards required to maintain the Co-op Scholarship.

Students who lose their scholarship and are therefore excluded from continuing in the program will be transferred to a Bachelor of Commerce generalist degree program.

**Rule 4 – Assessable Hours**

4.1 On Campus Courses: Normal workload expectations for courses run in “on campus” mode are a minimum of 25 hours per session per unit of credit, including class contact hours, preparation and time spent on all assessable work.

4.2 Industrial Training: Normal workload expectations for industrial training courses are a minimum of the normal working hours per week for the site at which the student is based for the duration of the course.

**Rule 5 – Passing in a Course**

Where, in the following rules, reference is made to the requirement that a student shall pass a course, the requirement shall be construed as meaning that the student shall complete assignments, laboratory work, other set work and an examination or examinations by the prescribed dates to the satisfaction of the Head of School concerned.

**Program Structure: Information Systems and Management Co-op Program**

**Rule 6 – Normal Program**

This program leading to the award of the degree of Bachelor of Commerce in Information Systems and Management comprises 192 units of credit to be completed over a period of four academic years.

Except in exceptional circumstances, a student must enrol in a minimum of 12 units per session, and will not be permitted to enrol for more than 24 units.

Except in exceptional circumstances, students are required to undertake the Industrial Training Courses (having met all prerequisites) at the following times:
- Industrial Training A in the first half of their second year
- Industrial Training B in the second half of their third year
- Industrial Training C in the first half of their fourth year

**Rule 7 – Minimum Time for Completion**

The minimum time for completing the requirements for the degree is normally eight sessions full-time.

**Rule 8 – Academic Program Requirements**

To complete the requirements for the award of the degree a student must complete and pass 192 units of credit which shall include:

8.1 The compulsory courses set out in the program requirements.

8.2 12 units of approved General Education courses offered by faculties other than the Faculty of Commerce and Economics.

8.3 A major of at least 48 units in Information Systems in Level 1–3 courses, in addition to Industrial Training units, and a minor in another approved disciplinary stream

8.4 A student cannot:

8.4.1 count more than 60 units of Level 1 core and electives courses towards their degree unless in exceptional circumstances;

8.4.2 attempt General Education courses until they have attempted 48 units of mainstream courses;

8.4.3 count mainstream courses offered by other faculties as substitutes for General Education courses towards more than 6 units of General Education requirements;

8.4.4 count a mainstream course offered by another faculty as a substitute for a Commerce and Economics option and as a substitute for a General Education elective.
Rule 9 – Honours

9.1 Honours may be taken in Information Systems and Management only.
9.2 Honours degree will not be awarded if academic performance is below the prescribed level.
9.3 Except in exceptional circumstances and with the approval of the Head of School to continue in the Honours program students must;
9.3.1 achieve a minimum average of 70% in Information Systems courses taken in years 2 and 3 of the program, and
9.3.2 pass all components in the program at the first attempt.
9.4 Students who fail to meet the performance requirements for Honours;
9.4.1 may substitute approved Information Systems courses for level 4 courses and be awarded a Pass degree and,
9.4.2 shall not be permitted to enrol in Thesis A, Thesis B, Research Topics in Information Systems 2 and further Honours options.

International Business

This program is available as a single major and co-major in the BCom (Pass) and as a co-major in the BSc (Pass) degrees. To satisfy minimum requirements for an International Business minor, students must take MGMT1101 & MGMT1102 plus 2 MGMT Options (excluding language options).

Required

- MGMT1101 Global Business Environment
- MGMT1102 Managing Across Cultures
- MGMT2101 International Business and Multinational Operations
- MGMT3101 International Business Strategy
- MGMT3102 Asia-Pacific Business

Options

At least one option must be chosen from List A

**List A**

- MGMT2106 Comparative Management Systems in East Asia
- MGMT2110 Alliance Management and International Co-operation*
- MGMT3103 Global Stakeholder Management*

* Please consult the School of Organisation and Management course timetable for availability.

**List B**

- MGMT1001 Communicating in Business
- MGMT2105 Chinese Business Enterprise
- ECON2105 Economics of Corporations
- ECON2111 Globalisation
- ECON2322 European Integration
- FINS1612 Capital Markets and Institutions
- HNS2622 Emerging Capital Markets
- LEGT1732 Franchising
- MGMT2703 International Employment Relations
- JAPN1000 Japanese Communication 1A#

Note:

1. Other modern languages may be taken as List B options: please see Modern Languages stream.
2. Students may count relevant courses offered in the Faculty of Arts and Sciences as List B options with the approval of the Head of School.

# For students with no Japanese. Students with HSC or equivalent competence will be enrolled at a suitable level course, subject to the results of a placement test.

International Business Honours

**Session One**

- MGMT4101 Applied Research Methods in International Business
- MGMT4102 Advances in International Business Theory
- MGMT4103 Research Seminar in International Business
- MGMT4501 Research Thesis Part A

**Session Two**

- MGMT4502 Research Thesis Part B (18 UOC)
- MGMT4104 Contemporary Res. Topic in International Business

Management

To meet minor requirements students must complete MGMT1001, MGMT1002, one course from List A and one from List B

Required

- MGMT1001 Fundamentals of Management
- MGMT1002 Managing Organisational Behaviour
- MGMT2001 Managing Innovation and Organisational Change
- MGMT2002 Managing Business Communication
- MGMT3001 Managing Business Strategy*

* Please consult the School of Organisation and Management course timetable for availability.

Options

At least one option must be chosen from List A.

**List A**

- ACG12522 Management Accounting: Process Improvement & Innovation
- ACCT3583 Stakeholder Value Management
- ECON2112 Game Theory & Business Strategy
- MGMT1102 Managing Across Cultures
- MGMT2703 International Employment Relations
- MGMT2718 Human Resource Management
- MARK1012 Marketing Fundamentals

**List B**

- ACCT3585 E-Business: Strategy and Processes
- ECON2105 Economics of Corporations
- ECON3121 Managerial Economics
- FINS1612 Capital Markets and Institutions
- FINS1613 Business Finance
- INF5602 Computer Information Systems
- LEGT1711 Legal Environment of Commerce
- LEGT2712 Business, Ethics & the Law

Management Honours

MGMT3708 is a prerequisite for all Year 4 Honours students and should be completed in Session 2, preceding the commencement of an Honours year.

The minimum requirements for Year 4 Management Honours are completion of a major or co-major in Management, required coursework and a 20,000 word thesis.

Marketing

**Required**

- MARK1012 Marketing Fundamentals
- MARK2051 Consumer Behaviour
- MARK2052 Marketing Research
- MARK2053 Marketing Communications & Promotions Management
- MARK2054 Market Analysis
- MARK3081 Distribution Strategy and Retail Channels
- MARK3082 Strategic Marketing Management

**Options**

- MARK1014 Customer Relationship Management
- MARK2055 Services Marketing Management
- MARK3071 International & Global Marketing
- MARK3072 Advanced Consumer Behaviour
- MARK3091 New Product & New Service Development
- MARK3092 Brand Management

Marketing Honours

This program is available to the end of Year 4 for BCom students only.

**Year 4**

**Required**

- MARK7204 Thesis (Marketing) Part A
- MARK7210 Business Research Methods in Marketing
- MARK7211 Research Seminar in Marketing
- MARK7212 Advanced Quantitative Methods in Marketing
- MARK7213 Contemporary Research Methods in Marketing
- MARK7205 Thesis (Marketing) Part B

Marketing Co-op Program

Entry to the program is at first year only and through the scholarship selection procedures administered by the Co-op Program Office. This is a four-year degree program.
Year 1

Session One
ACCT1501 Accounting and Financial Management 1A (core)
ECON1101 Microeconomics (core)
ECON1202 Quantitative Methods A (core)
MARK1012 Marketing Fundamentals (core)

Session Two
ACCT1111 Accounting and Financial Management 1B (core)
ECON1102 Macroeconomics (core)
ECON123 Quantitative Methods B (core)
Elective 1

Year 2

Session One
MARK2999 Industrial Training 1 (core)
MARK2031 Consumer Behaviour (core)
MARK2052 Market Research (core)

Session Two
MARK2053 Marketing Communications & Promotions Management (core)
MARK2054 Market Analysis (core)
Elective 2
6 UOC of General Education

Year 3

Session One
MARK3081 Distribution Strategy & Retail Channels (core)
Elective 3
Elective 4
Elective 5

Session Two
MARK3999 Industrial Training 2 (core)
Elective 6

Year 4

Session One
MARK4999 Industrial Training 3 (core)
6 UOC of General Education

Session Two
MARK3082 Strategic Marketing Management (core)
Elective 7
Elective 8
Elective 9

Rules Governing the Award of the Degree of Bachelor of Commerce (Marketing Co-op)

Rule 1 – Pass Degree
The degree of Bachelor of Commerce (Marketing Co-op) may be conferred as a Pass degree. In cases of superior academic performance throughout the course, the Pass degree will be conferred with Distinction.

Rule 2 – Disciplinary Minors
Students not completing the requirements of a double major in the program must choose options so that they complete a ‘disciplinary minor’ in a discipline other than Marketing. A ‘disciplinary minor’ is defined as four approved session courses to the value of 24 units of credit, or equivalent for courses taught outside the faculty, of which no more than 10 units may be first year courses.

Rule 3 – Entry and Continuation Conditions
3.1 Entry to the program is conditional upon:
   a. meeting the entry requirements for the Bachelor of Commerce
   b. the selection process for Co-op Scholarships

3.2 Except in exceptional circumstances, continuation in the program is conditional upon meeting the performance standards required to maintain the Co-op Scholarship. Students who lose their scholarship and are therefore excluded from continuing in the program will be transferred to a Bachelor of Commerce generalist degree program.

Rule 4 – Assessable Hours
4.1 On Campus Courses: Normal workload expectations for courses run in “on campus” mode are a minimum of 25 hours per-session per unit of credit, including class contact hours, preparation and time spent on all assessable work.

4.2 Industrial training: Normal workload expectations for industrial training courses are a minimum of the normal working hours per week for the site at which the student is based for the duration of the course.

Rule 5 – Passing in a Course
Where, in the following rules, reference is made to the requirement that a student shall pass a course, the requirement shall be construed as meaning that the student shall complete assignments, laboratory work, other set work and an examination or examinations by the prescribed dates to the satisfaction of the Head of School concerned.

Program Structure: Marketing Co-op Program

Rule 6 – Normal Program
This program leading to the award of the degree of Bachelor of Commerce (Marketing Co-op) comprises 192 units of credit to be completed over a period of four academic years.

Except in exceptional circumstances, a student must enrol in a minimum of 12 units per session, and will not be permitted to enrol in more than 24 units per session.

Except in exceptional circumstances, students are required to undertake the Industrial Training Courses (having met all prerequisites) at the following times:
- Industrial Training 1 at the commencement of the first half of their second year
- Industrial Training 2 in the second half of their third year
- Industrial Training 3 in the first half of their fourth year

Rule 7 – Minimum Time for Completion
The minimum time for completing the requirements for the degree is normally eight sessions full-time.

Rule 8 – Academic Program Requirements
To complete the requirements for the award of the degree a student must complete and pass 192 units of credit which shall include:

8.1 The compulsory courses set out in the program requirements.
8.2 12 units of approved General Education courses offered by faculties other than the Faculty of Commerce and Economics
8.3 Either:
8.3.1 a major of at least 48 units in Marketing, in addition to Industrial Training units, and a minor in another approved disciplinary stream; or
8.3.2 a major of at least 42 units in Marketing, in addition to Industrial training units and a second major of 42 units in another approved disciplinary stream.
8.4 A student cannot:
8.4.1 count more than 60 units of Level 1 core and electives courses towards their degree unless in exceptional circumstances;
8.4.2 attempt General Education courses until they have attempted 48 units of mainstream courses;
8.4.3 count mainstream courses offered by other faculties as substitutes for General Education courses towards more than 6 units of General Education requirements;
8.4.4 count a mainstream course offered by faculties other than Faculty of Commerce and Economics both as a substitute for a Commerce and Economics option and as a substitute for a General Education elective.

Rule 9 – Honours
9.1 For the Honours degree, a student must complete a further 48 units in Marketing.
9.2 Honours may be taken in Marketing only.
9.3 The additional units, comprising specified courses from the Marketing Honours program and a thesis, must be completed in two sessions following the completion of the Pass degree component.
9.4 The Honours degree will not be awarded if academic performance is below the prescribed level.
9.5 Except in exceptional circumstances, and with the approval of the Head of School to continue in the Honours program, students must:
   a. satisfy the Pass degree requirements and achieve a minimum average of 70% in Marketing courses taken in level 2 and level 3 courses of the program, and
   b. pass all components in the program at the first attempt.
9.6 Except with the special permission of the program authority on the recommendation of the Head of School, a person on whom the Pass degree of Bachelor of Commerce or equivalent has been conferred shall not be admitted to candidature for the Honours degree.

**Modern Languages**
Language programs available: Chinese, French, German, Greek (Modern), Indonesian, Italian, Japanese, Korean, Russian, Spanish.

Programs in Modern Languages are not available as a single major, but as a co-major only. However, language programs are not available as a co-major with Asian Studies, Business Law & Taxation, Japanese Studies, Korean Studies, another language or language studies.

To obtain a major, students must complete 42 units of credit in one language program offered by the Faculty of Arts and Social Sciences. Modern Languages is not available as a minor.

**Services Marketing - Tourism and Hospitality (BCom students only)**
This program is available only as a co-major integrated program with Marketing and only to those students admitted to the Bachelor of Commerce in Services Marketing – Tourism and Hospitality degree (program code 3571).

**Program Structure**

### Year 1

**Session One**
- ECON1101 Microeconomics 1 (6 UOC)
- ACCT1501 Accounting & Financial Management IA (6 UOC)
- ECON1202 Quantitative Methods A (6 UOC)
- SERV1100 Tourism and Hospitality Operational Studies (6 UOC)

**Session Two**
- SERV1001 Fundamentals of Tourism (6 UOC)
- ECON1102 Macroeconomics 1 (6 UOC)
- ECON1203 Quantitative Methods B (6 UOC)
- MARK1012 Marketing Fundamentals (6 UOC)

### Year 2

**Session One**
- SERV2001 Destination Marketing (6 UOC)
- ACCT1511 Accounting & Financial Management IB (6 UOC)
- MARK2035 Services Marketing and Management (6 UOC)

**Session Two**
- SERV2002 Services Operations Management (6 UOC)
- MARK2053 Marketing, Communications, & Promotions Management (6 UOC)
- SERV2003 Service Industry Project (6 UOC)
- Option (6 UOC)

### Year 3

**Session One**
- MARK2052 Marketing Research (6 UOC)
- LEGT3001 Legal Aspects of Tourism (6 UOC)
- ECON2117 Economics of Tourism (6 UOC)
- Option (6 UOC)

**Session Two**
- MARK2054 Market Analysis (6 UOC)
- MKMV3001 Managing People for Service advantage (6 UOC)
- Option (6 UOC)

### Year 4

**Session One**
- SERV4001 Strategic Management in Tourism and Hospitality (6 UOC)
- Option (6 UOC)

**Session Two**
- SERV4003 Tourism Policy and Planning (6 UOC)
- MARK3082 Strategic Marketing Management (6 UOC)
- Option (6 UOC)

**Electives**
- SERV2004 Event Management (6 UOC)*
- SERV2005 Managing Customer Service Experience (6 UOC)*

*Please consult School timetable for availability.

**Taxation**
This program is not available as a single major, or as a double major. This program is not available with the major or a minor in Business Law.

**Required Courses**
- LEGT1711 Legal Environment of Commerce
- LEGT2721 Business Transactions
- LEGT2751 Business Taxation
- LEGT3752 Capital Gains Tax
- LEGT3755 Taxation of Business Entities

Two options to be chosen from List A

**List A**
Two courses from the following list:
- LEGT2756 International Business Taxation
- LEGT3753 GST & FBT
- LEGT3757 Corporate Tax Strategy
- LEGT3758 Taxation of Financial Products

One further option to be chosen from either List A or List B

**List B**
- LEGT2741 Business Entities
- ACCT2542 Corporate Financial Reporting and Analysis
- AL.IL1005 Superannuation and Retirement Benefits
- ECON3106 Public Finance

**Note:** Other courses offered by the School of Business Law and Taxation may be substituted for the optional courses listed above with approval of the Head of School.

**Taxation Honours**
Honours level work may be undertaken as part of the four-year Honours program. The Honours program provides additional training in the discipline and in research methods relevant to the discipline. Students intending to undertake fourth year Honours are advised to enrol in one of the Honours options shown below in the third year.

Fourth year Honours is open to all high achieving internal and external students. Students are required to enrol in LEGT4726 Research Methods in Taxation in session one and LEGT4900 Taxation Honours Thesis in both Session One and Session Two.

### Year 4

**Required**
- LEGT4722 Special Topic in Taxation
- LEGT4725 Contemporary Issues in Taxation
- LEGT4726 Research Methods in Taxation
- LEGT4900 Taxation Honours Thesis

**Options**
One option to be chosen from the following courses
- LEGT3753 GST & FBT
- LEGT2756 International Business Taxation
- LEGT3757 Corporate Tax Strategy
- LEGT3758 Taxation of Financial Products
A Message from the Dean
This Handbook describes the many undergraduate programs available in the Faculty of Engineering at UNSW. There is a very wide choice of programs, plans and electives and we therefore suggest you spend some time reading the Handbook carefully.

Whatever program you consider, it will be managed by one of our ten schools. Each school will have an advisor who can help you plan your program.

In addition to the individual programs you can broaden your University experience by taking one of the wide range of combined programs which combine the BE with BSc, BA, LLB and BCom degrees. A Master of Biomedical Engineering may be studied concurrently with several of the BE programs.

The Faculty of Engineering is dedicated to scholarship and research and to the facilitation of student learning. The academic staff are engaged in research and engineering practice, most of which is in collaboration with industry. This engagement with the frontiers of engineering and the related sciences ensures that students are familiar with the latest developments. In later years many students are able to participate in the work of the research teams in the Faculty.

The Faculty is a major part of the international dimension of UNSW, we welcome many international students and also encourage local students to take part of their program at an overseas university. We have strong links with major research universities throughout the world.

Students are encouraged to play an active role in all the University has to offer. There are many student led projects and other activities which can enhance your experience as a student at UNSW.

Brendon Parker
Dean
Faculty of Engineering
School of Computer Science and Engineering

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3715 Bioinformatics/Bachelor of Commerce 219
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School of Electrical Engineering and Telecommunications

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3634 Photonic Engineering/Bachelor of Science 237
3715 Photonic Engineering/Bachelor of Commerce 238

Fast-Track Programs with Master of Engineering Science

3640 Electrical Engineering/Master of Engineering Science 238
3643 Telecommunications Engineering/Master of Engineering Science 238

School of Mechanical and Manufacturing Engineering (incorporating Aerospace Engineering, Mechatronic Engineering and Naval Architecture)

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Mechanical Engineering 239
Mechatronic Engineering 239
Naval Architecture 239

3711 Bachelor of Engineering/Bachelor of Science

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Manufacturing Engineering and Management/Bachelor of Science 243
Mechanical Engineering/Bachelor of Science 243
Mechatronic Engineering/Bachelor of Science 243
Naval Architecture/Bachelor of Science 243

3712 Bachelor of Engineering/Bachelor of Arts

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Manufacturing Engineering and Management/Bachelor of Arts 243
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School of Mining Engineering

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Fast-Track Programs with Master of Engineering Science

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School of Petroleum Engineering

3045 Petroleum Engineering 250

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School of Photovoltaic and Renewable Energy Engineering

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School of Surveying and Spatial Information Systems

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3688 Bachelor of Engineering (Mechatronic Engineering)/Master of Biomedical Engineering 261
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Faculty Information and Assistance
The entry for the Faculty of Engineering is divided into separate sections for each school/unit. Before reading ‘Rules for Progression and the Award of Degrees’, you must read the general information at the front of this Faculty entry and then read the opening sections for each of the schools within the Faculty. These sections cover all degrees and diplomas offered by the Faculty. Detailed information on each course then appears under Course Descriptions at the end of this Handbook, which includes pre-requisite details, class hours, units of credit, etc.

You will find that almost any program of study you wish to undertake has courses from other schools, and even other faculties. This means that, in your engineering program, courses are listed from other schools in the Faculty of Engineering, each with its own identifying code, as well as from the school in which you are planning to study. If, for example, this is Mechanical and Manufacturing Engineering (MECH), all the courses for Mechanical and Manufacturing Engineering are described in the section for that school. As Mechanical and Manufacturing Engineering also includes Aerospace Engineering (AERO), Manufacturing Engineering and Management (MANF), Mechatronic Engineering (MTRN) and Naval Architecture (NAV), these courses are also included with the school.

For a full list of courses offered by the University refer to the Online Handbook at www.handbook.unsw.edu.au or visit the Faculty website and refer to the relevant school.

Please note: Most undergraduate programs in the Faculty of Engineering are currently under revision, subject to approval by the University Council. Students commencing in 2006 should refer to the Online Handbook (www.handbook.unsw.edu.au) for up-to-date information about program structures.

Who Can Help?
This section of the Handbook is designed as a detailed source of information in all matters related to the Faculty of Engineering.

If you require advice about enrolment, degree requirements, progression within programs, course content and requirements, contact the appropriate school representative listed below:

Faculty of Engineering, Dean's Office
Ms Donna Bailey, Room 603, Building K17
Tel: (02) 9385 6437

School of Chemical Engineering and Industrial Chemistry
Ms Vanessa Werfel, Room 314, Applied Science Building
Tel: (02) 9385 4777

School of Civil and Environmental Engineering
Ms Karene Irvine, Room 406, Civil Engineering Building
Tel: (02) 9385 5061

School of Computer Science and Engineering
Student Office, Ground Floor, K17 Building
Tel: (02) 9385 4329 or (02) 9385 4926

School of Electrical Engineering and Telecommunications
Ms Gladys Fong, School Office, Electrical Engineering Building
Tel: (02) 9385 4000

School of Mechanical and Manufacturing Engineering
Associate Professor Philip Mathew, Room 107, Mechanical and Manufacturing Engineering Building
Tel: (02) 9385 4154

School of Mining Engineering
Dr Paul Hagan, Room 158, Old Main Building
Tel: (02) 9385 4514

School of Petroleum Engineering
Ms Jennifer Lippiatt, Room LG11, Petroleum Engineering Building
Tel: (02) 9385 4144

School of Photovoltaic & Renewable Energy Engineering
Ms Trichelle Burns, Room LG11, Electrical Engineering Building
Tel: (02) 9385 6155

School of Surveying and Spatial Information Systems
Mr Leon Daras, School Office, Room 426, Electrical Engineering Building
Tel: (02) 9385 4182

Graduate School of Biomedical Engineering
School Office, 5th Floor, Samuels Building
Tel: (02) 9385 3917

Important: As changes may be made to information provided in this Handbook, students should frequently consult the official noticeboards of the schools, the University and the Online Handbook at www.handbook.unsw.edu.au

The Faculty of Engineering Website
www.eng.unsw.edu.au

This Faculty of Engineering website provides information about programs, courses, research interests, news and current events. The website also contains links to all the schools, units, centres and affiliated research institutes of the Faculty, as well as staff and student information resources.

Entrance Requirements
Students with a UAI (or equivalent) greater than 85 will be considered for admission based on performance in their Australian Year 12 studies and/or tertiary or post-secondary qualifications and/or overseas qualifications equivalent to Australian studies. Students eligible to apply to UNSW via UAC and with ranks in the range 75-84.99 apply for entry through Multiple Criteria Entry (MCE). Other international applicants apply directly to UNSW.

For further details about Multiple Criteria Entry, please refer to the website www.eng.unsw.edu.au/multiplecriteria/2005

General Education Requirements
Students must satisfy the General Education requirements. This is usually 12 UOC taken in the second and third years of their studies. If a student is in a combined degree program with a reduced General Education requirement and then reverts to the single degree program, the usual General Education requirements for that program apply.

Each Faculty has responsibility for deciding what courses can be counted towards the General Education requirement for their students. The Faculty of Engineering is committed to providing the widest range of choice of General Education electives for its students. It strongly encourages students to make the best use of this flexibility. Please contact your School Office for further information on General Education electives available to you.

For a more detailed explanation of the requirements and objectives of General Education and a guide to the choice of specific courses, students should refer to the General Education section in this Handbook or the Online Handbook at www.handbook.unsw.edu.au.

Re-enrolment Procedures
All current students are able to re-enrol via the web using myUNSW. This means that, in most cases, students will be able to enrol and drop classes without the need to fill in forms or attend their program office.

Further information, including details on how and when to enrol for 2006 using myUNSW, is available via myUNSW (http://my.unsw.edu.au). It is the responsibility of students to enrol in a program consistent with the rules governing re-enrolment and admission to the degree.

Faculty Centres
ARC Centre of Excellence in Advanced Silicon Photovoltaics and Photonics
**Silicon wafer-based ('first generation') photovoltaic approaches,** applying the group's leadership in both laboratory and commercial technologies to the key issues facing photovoltaics over the coming decade.

- Silicon thin-film ('second generation') approaches.
- ‘Third generation’ photovoltaic approaches, capable of performance higher than single junctions, continuing the highly assessed program being conducted within the SRC for Third Generation Photovoltaics.
- Silicon photonics, including the development of high-efficiency silicon-based light emitters and high speed modulators for microelectronics.

The first three strands address issues relevant to the PV industry over the next 20 years, while the fourth applies insights and technology developed in our PV work to the broader microelectronics area.

**Professional Institutions**

1. **Institution of Engineers Australia**

The professional body for engineering in Australia is Institution of Engineers Australia, which has as its first objective the promotion of the science and practice of engineering in all its branches. Institution of Engineers Australia has its national headquarters in Canberra and functions through a series of divisions, the local one being the Sydney Division. Within each division are branches representing the main interests within the profession, e.g. civil, mechanical, electrical, engineering management and environmental engineering.

Students of an approved school of engineering may join the Institution as a student member. Student members receive the monthly publications *Engineers Australia* and *Student News* and have access to other publications at preferential rates.

Student members are invited to participate in the Excellence Award for Work Experience, the National Young Engineer of the Year Award and to avail themselves of other Engineers Australia services including the Mentor Scheme and industrial experience guidance.

For more information and membership application forms, contact Institution of Engineers Australia, Sydney Division, 1st Floor, 118 Alfred Street, Milsons Point 2061, telephone (02) 8923 7100, website www.ieaust.org.au

2. **The Institution of Surveyors, Australia and the Spatial Sciences Institute, Australia**

During their undergraduate years, students in the Surveying and Spatial Information Systems program are encouraged to take the first steps in joining in the activities of the professional bodies which represent them: the Institution of Surveyors and the Spatial Sciences Institute. The aims of the bodies are to promote scientific, technical and educational aspects of Surveying and Spatial Information Systems and to maintain high professional standards of practice and conduct. Student members receive the journals of the Institutes and *Azimuth*, which is published by the NSW Division of the Institution. Membership also entitles the student to attend all meetings of the Institution and to attend the annual SSI Congress at a special concessional rate. Membership application forms are available at the Office of Surveying and Spatial Information Systems and from the Institution Office, Third Floor, Guild House, 363 Pitt Street, Sydney 2000. Websites: www.ieaust.org.au and www.spatialsciences.org.au

3. **The Association of Professional Engineers, Scientists and Managers, Australia**

APESMA is a professional organisation that represents the industrial interests of its members with a major focus on providing advice and assistance on employment related matters, including individual representation and improving salaries and conditions for professional engineers, scientists and managers.

Students are invited to become affiliate members (free of charge) of the Association while they are studying. This membership gives students access to information and advice on industrial experience, salary rates for graduates and contracts of employment. Student members receive *The Student Update*, a publication designed specifically for students, three times a year. This gives students some practical insight into aspects of the workplace to which they may not have given much thought, in particular the employment issues that affect them as professional engineers. More information and student membership application forms can be obtained from APESMA, Level 1, 491 Kent Street, Sydney 2000, telephone: 9263 6500, website www.apesma.asn.au

**Summary of Programs**

Please note: Most undergraduate programs in the Faculty of Engineering are currently under revision, subject to approval by the University Council. Students commencing in 2006 should refer to the Online Handbook (www.handbook.unsw.edu.au) for up-to-date information about program structures.

**Full-time Programs**

The Faculty of Engineering offers the following full-time undergraduate programs:

**Bachelor of Engineering BE**

in:
- Aerospace Engineering 3710
- Bioinformatics 3647
- Chemical Engineering 3040
- Civil Engineering 3620
- Computer Engineering 3645
- Electrical Engineering 3640
- Environmental Engineering 3625
- Industrial Chemistry 3100
- Manufacturing Engineering and Management 3710
- Mechanical Engineering 3710
- Mechatronic Engineering 3710
- Mining Engineering 3140
- Naval Architecture 3710
- Petroleum Engineering 3045
- Photonics Engineering 3644
- Photovoltaics & Solar Energy 3642
- Renewable Energy Engineering 3657
- Software Engineering 3648
- Surveying and Spatial Information Systems 3741
- Telecommunications 3643

**Bachelor of Science BSc**

- Computer Science 3978
- Food Science and Technology 3040
- Food Science and Technology (Honours) 3065

**Bachelor of Science (Technology) BSc(Tech)**

- Chemical Engineering 3050
- Food Science and Technology 3070
- Industrial Chemistry 3110

**Combined Degree Programs**

Full-time programs are available for the award of the following degrees:

**Bachelor of Engineering Bachelor of Science BE BSc**

(5 years duration) in:
- Aerospace engineering 3711
- Bioinformatics 3755
- Chemical Engineering 3042
- Civil Engineering 3730
- Computer Engineering 3726
- Electrical Engineering 3725
- Environmental Engineering 3735
- Industrial Chemistry 3102
- Manufacturing Engineering and Management 3711
- Mechanical Engineering 3711
- Mechatronic Engineering 3711
- Mining Engineering 3142
- Naval Architecture 3711
- Petroleum Engineering 3047
- Photonic Engineering 3644
- Photovoltaics and Solar Energy 3655
Renewable Energy Engineering 3658
Software Engineering 3651
Surveying and Spatial Information Systems 3746
Telecommunications 3641
Bachelor of Engineering Bachelor of Arts BE BA (5 years duration) in:
Aerospace Engineering 3712
Bioinformatics 3756
Chemical Engineering 3043
Civil Engineering 3621
Computer Engineering 3722
Electrical Engineering 3720
Environmental Engineering 3626
Industrial Chemistry 3103
Manufacturing Engineering and Management 3712
Mechanical Engineering 3712
Mechatronic Engineering 3712
Mining Engineering 3144
Naval Architecture 3712
Photovoltaics and Solar Energy 3656
Software Engineering 3652
Surveying and Spatial Information Systems 3747
Telecommunications 3646
Bachelor of Engineering Bachelor of Commerce BE BCom (5 years duration) in:
Software Engineering 3653
(5.5 years duration) in:
Bioinformatics Engineering 3715
Chemical Engineering 3715
Civil Engineering 3715
Computer Engineering 3715
Electrical Engineering 3715
Environmental Engineering 3715
Industrial Chemistry 3715
Manufacturing Engineering and Management 3715
Mechanical Engineering 3715
Mechatronic Engineering 3715
Mining Engineering 3715
Petroleum Engineering 3715
Photonics Engineering 3715
Photovoltaics & Solar Energy 3715
Renewable Energy Engineering 3715
Surveying and Spatial Information Systems 3715
Telecommunications 3715
Bachelor of Engineering Bachelor of Laws BE LLB (6 years duration) in:
Civil Engineering 4775
Environmental Engineering 4777
Bachelor of Engineering Bachelor of Engineering BE BE (5 years duration) in:
Civil Engineering and Mining Engineering 3146
Civil Engineering and Environmental Engineering 3631
Bachelor of Science Bachelor of Science BSc BSc (4 years duration) in:
Computer Science 3983
Bachelor of Science Bachelor of Arts BSc BA (4 years duration) in:
Computer Science 3968
Bachelor of Science Bachelor of Digital Media BSc BDM (4 years duration) in:
Computer Science and Digital Media 3982
Bachelor of Engineering Master of Engineering (BE ME) or Master of Science (BE MSc) Admission Guidelines: An applicant for the BE ME or BE MSc program should, at the time of application, be enrolled in the 4.5-year fast-track Faculty of Engineering BE MEngSc program and have just completed the requirements for the BE component at a minimum of Honours Class 2 or equivalent. Applications to transfer to the ME or MSc degree should be made to the Registrar.

Period of Candidature for ME MSc Degree: The normal period is three academic sessions (full-time). In special cases, this can be reduced by up to two academic sessions. The maximum period of registration is six academic sessions (full-time). It is expected that such candidates complete the entire BE ME or BE MSc program in 5 years (which includes a Summer Session in their 5th year), and that they would be enrolled on a full-time basis.

Coursework: Candidates who have completed the BE component of the BE MEngSc program (and who have hence successfully completed 12 units of credit of postgraduate coursework in their 4th year of study) are considered to have fully satisfied the Faculty of Engineering requirement for ME or MSc coursework.

Award of ME MSc Degree: As for the standard research ME or MSc program. That is, the award of the ME or MSc degree is on the basis of a thesis which embodies the result of an investigation, or design, or engineering development.

Fast-Track Programs Bachelor of Engineering Master of Engineering Science BE MEngSc Students may undertake a 4.5-year (10 semesters) full-time fast-track program leading to the awards of a Bachelor of Engineering and a Master of Engineering Science in an approved discipline (see below) of the Faculty of Engineering.

In the School of Computer Science and Engineering this program is the Bachelor of Engineering and Master of Information Technology. The purpose of the program is to offer an accelerated completion of a postgraduate coursework program in engineering to high achieving students. The program will be fully accredited and will provide students with in-depth specialist training to facilitate employment in discipline specific consulting practices and other specialist areas of the profession. The fast-track program structure will thus encourage completion of a first postgraduate coursework program, and lay the groundwork for lifelong learning.

(4 1/2 years duration) in:
Bioinformatics 3647
Chemical Engineering 3040
Civil Engineering 3620
Computer Engineering 3645
Electrical Engineering 3640
Environmental Engineering 3625
Industrial Chemistry 3100
Manufacturing Engineering & Management 3710
Mechanical Engineering 3710
Mechatronic Engineering 3710
Mining Engineering 3140
Software Engineering 3648
Surveying and Spatial Information Systems 3741
Telecommunications 3643

Fast-Track Programs Bachelor of Engineering Master of Commerce These programs are no longer offered to commencing students. Students who enrolled prior to 2004 only are eligible to do these programs. Please contact your School Office if you require further information.

Concurrent Degree Programs Full-time programs are available for the award of the following degrees:
Bachelor of Engineering Master of Biomedical Engineering BE MBiomedE Students may undertake a five-year full-time program leading to the awards of a Bachelor of Engineering (in an approved discipline) and a Master of Biomedical Engineering. The purpose of a program is to offer accelerated completion of a postgraduate coursework program to high-achieving students. Students are required to maintain a Credit average in the first three years in order to continue enrolment in the postgraduate component of the program.

(5 years duration) in:
Bioinformatics 3757
Chemical Engineering 3048
Computer Engineering 3728
Electrical Engineering 3727
Materials Science 3138
Mechanical Engineering 3683
Mechatronic Engineering 3688
Software Engineering 3749
Telecommunications 3723
UNSW Co-op Program

The UNSW Co-op Program is a scholarship program set up by industry and the University of New South Wales, which provides money and industry training for selected undergraduate students in disciplines in Commerce, Science and Engineering.


Applicants should have achieved a particular academic standard (UAI 95.7 or equivalent), however, if you are expecting a UAI of at least 93.8, it would still be worth applying. Students are selected as Co-op Scholars largely on the basis of their personal skills, leadership potential and motivation, as well as their non-academic achievements.

Applications close the end of September each year with interviews held at UNSW at the beginning of December. For more details see your School Careers Adviser or contact the UNSW Co-op Program office on (02) 9385 5116 or visit www.co-op.unsw.edu.au

Transfer Programs

Students transferring to UNSW after successful completion of part of an engineering degree program at an Australian university would normally be admitted with advanced standing into the degree programs offered by the Faculty of Engineering.

Students who have completed part of an undergraduate program in one school may apply through UAC for a transfer to a program in another school of the Faculty with credit for relevant courses completed. However, as there are significant differences in the various programs, students are not necessarily granted exemption from the same number of courses as they have completed in the program to which the transfer is made. Enrolment quotas apply to undergraduate programs and the number of places available for transfer is limited and offers will be made on a competitive basis.

Formal advanced standing procedures apply for entry into the following Bachelor of Engineering (BE) programs at the UNSW with full credit.

BE in Aerospace Engineering

The Faculty has approved an arrangement whereby students who satisfy the requirements of the first two years of a Mechanical Engineering four-year degree program at any Australian tertiary institution may be admitted to Years 3 and 4 of the program leading to the Bachelor of Engineering degree in Aerospace Engineering. The proviso is that Head of the School is satisfied that the courses studied at the other institution are equivalent, and he gives his recommendation.

BE in Naval Architecture

The Faculty has approved an arrangement whereby students who satisfy the requirements of the first two years of a Mechanical Engineering four-year degree program at any Australian tertiary institution may be admitted to Years 3 and 4 of the program leading to the Bachelor of Engineering degree in Naval Architecture. The proviso is that Head of the School is satisfied that the courses studied at the other institution are equivalent, and he gives his recommendation.

Rules for Progression and the Award of Degrees

Access to Exam Information

Students in the Faculty of Engineering may request access to their own final examination scripts and may request consultation with the examiner on their performance provided that a written application is made to the program authority no later than fifteen working days after the date of official release of results.

Bachelor of Engineering Program Rules

1. The Bachelor of Engineering is awarded following the completion of a minimum of 192 units of credit.
2. The specific requirements for the Bachelor of Engineering in the various disciplines are set out in the relevant sections in this Handbook.
3. The degree may be awarded with Honours, based upon the overall performance in the program and in accordance with Faculty and School policies. Honours are awarded in the following classes – Class 1, Class 2 Division 1, Class 2 Division 2.
4. The standard duration of the program is four years, or eight sessions, of full-time study each comprising 24 units of credit. Students may undertake the program over a longer period on the basis of part-time study.
5. Each student is required to complete a minimum of 60 days of approved experience in industry prior to graduation.
6. General Education electives may only be attempted after the student has attempted at least 24 units of credit.

Bachelor of Engineering Bachelor of Science Program Rules

To qualify for the Bachelor of Engineering and the Bachelor of Science a student must complete successfully courses that total at least 240 units of credit and include:

(a) in the Faculty of Engineering:
   - courses making up a full 4-year engineering program described in the degree requirements for the BE specialisation for which the student is enrolled; and
(b) in the Faculty of Science:
   - at least 102 units of credit comprising a major in an approved disciplinary stream described in Table A of the Science Handbook, or a major in Computer Science; and
(c) at least 60 days of approved Industrial Training (required for the award of the BE degree).

Exclusions

The following combined degree combinations are specifically excluded:

BE in Computer Engineering BSc in Computer Science
BE in Software Engineering BSc in Computer Science

Requirements for the BE and BSc degrees with Honours

(a) BE with Honours

On completion of the requirements for the combined degrees a student may qualify for the award of the BE degree with Honours in accordance with the rules for the BE program of specialisation and the Faculty of Engineering rules for calculation of the grade of Honours (1st Class Honours: a weighted average of 70% or greater; 2nd Class Honours Division i: a weighted average of 65% or greater; a student being awarded the highest grade of Honours for which they qualify).

(b) BSc with Honours

On completion of the requirements for the combined degrees a student may be qualified to enrol in an Honours program in the Bachelor of Science and to qualify for the award of the BSc with Honours after successfully completing an additional year of study (48 UOC) as specified in the rules of the Faculty of Science.

Programs of study

The programs of study which may be taken for the degrees of Bachelor of Engineering and Bachelor of Science are governed by the normal rules for award of the BE and BSc in the Faculty of Engineering and the Faculty of Science respectively, which specify:

(i) units of credit;
(ii) corequisites, prerequisites, assumed knowledge;
(iii) the structure of the degree program; and
(iv) any special conditions.

Award of the degrees

(i) A candidate for the award of the degrees of Bachelor of Engineering or Bachelor of Science as part of a combined degree program shall not be eligible to be awarded either degree until he or she has completed both degree requirements.
(ii) A student who completes the requirements for both the BE and BSc degrees shall receive at graduation a separate testamur for each of the degrees.
(iii) A student may apply to discontinue the combined BE BSc programs and elect to complete either the BE or BSc degree in accordance with the rules governing award of that degree. Following discontinuation of one of the programs (BE or BSc), courses which count toward that program may not in general count toward the remaining single degree unless they meet the single degree requirements in their own right.

Administration of the programs

(i) A student’s general program will be administered by the Faculty of Engineering and delegated to administration by the school governing the Engineering specialisation.
(ii) Students’ programs will be administered by the Faculty of Science for the BSc component of the program and by the Faculty of Engineering for the BE part of the program.

(iii) The Faculty of Science and the Faculty of Engineering shall jointly exercise authority in any matter concerning the combined programs not otherwise covered by these rules.

Enrolment

(i) An application to enrol as a candidate for the combined program shall be made through the UAC, or on the prescribed form for international students which shall be lodged with the Registrar at least two calendar months before the commencement of the session in which enrolment is to begin.

(ii) The candidate shall be enrolled as either a full-time or part-time student.

General Education

Students are enrolled in combined undergraduate programs, leading to the award of two degrees, each in a different faculty, and therefore meet their General Education requirements.

Program structure

Contained in the University Handbook are typical program structures for each of the schools within the Faculty of Engineering, and for the Faculty of Science. The programs may be varied by students according to the rules governing electives, prerequisites and corequisites and progression within each program. Subject to pre and corequisites and progression rules, students may take courses at any time during the program; it is the responsibility of each student to ensure that the rules governing award of the degrees have been met and that the program of study in each session of enrolment is feasible with regards to progression and timetabling.

Admission Requirements

(i) Local HSC students: Local students apply through the UAC. Students admitted to the combined program will have to meet the requirement for entry to the combined program, which ensures that the requirements for entry to both the BSc and the relevant BE program are met (i.e. the higher of the two requirements has to be met).

(ii) International students: International students will be assigned an equivalent rank to enable their performance to be compared to that of local HSC students, using criteria determined by the Admissions Office.

Students have to apply to the Admissions Office using the application forms (paper or electronic) provided for the purpose. International students completing Year 12 in Australia apply directly to the UAC. An admission requirement similar to that for local students will have to be met.

(iii) Admission to later stages of the program: Students may be admitted to the combined degree program having satisfied part of the requirements for either the BSc or the BE component of the degree (or part of the requirements for both), either at UNSW or at another institution. Students will be admitted on the basis of an equivalent rank, determined by the Admissions Office, equivalent to that required for local HSC students in the year of entry. Students will be offered advanced standing in accordance with normal practice for the BE and BSc degrees. Students will apply using the procedures appropriate for either local HSC students or international students (above).

Bachelor of Engineering Master of Engineering Science Program Rules

1. The minimum duration of the program is 4.5 years (including a summer semester at the end of the 4th year) leading to the award of the two degrees Bachelor of Engineering (BE) and Master of Engineering Science (MEngSc). In the School of Computer Science and Engineering, the award is Bachelor of Engineering (BE) and Master of Information Technology (MIT).

2. Students must study all courses in the sequence approved by the Faculty of Engineering and are not permitted to enrol in any graduate course until the first six semesters of the program are successfully completed.

3. A minimum average of 65% in the first 3 years of the BE program is required for consideration for entry to the fast track degree program.

4. Honours grading for the BE degree will be based on performance in the first 4 years of study, with course weightings in accordance with School guidelines. The 12 units of credit of graduate coursework undertaken in Year 4 are thus counted for both degrees.

5. Normal Student Contributions/Fees apply to the first 8 semesters of the program (including the 12 units of credit of MEngSc courses completed in Year 4) consistent with other undergraduate programs within the Faculty. Fees for the remaining 36 units of credit of the MEngSc program will be 75% of the current fee for the standard 48 units of credit MEngSc.

Faculty Rules for Progression

Progression in all undergraduate programs in the Faculty of Engineering is permitted by course. However:

1. Programs will continue to be stated and timetabled by year or stage and it cannot be guaranteed that non-standard programs can be completed in the minimum number of years. Students are not permitted to enrol in courses with clashing timetables.

2. Students must satisfy the relevant prerequisite and corequisite requirements. This will usually necessitate students completing or attempting all courses of a particular year or stage before proceeding to a course in the next part of a program. Further details are available from schools.

A prerequisite course is one which must be completed prior to enrolment in the course for which it is prescribed.

A corequisite course is one which must either be completed successfully before or be studied concurrently with the course for which it is prescribed.

3. Only in exceptional circumstances will students be allowed to enrol in a program containing courses from more than two consecutive years of the program or totalling more than 27 units of credit. Students repeating courses will be expected to choose a program that includes previously failed courses and limits their units of credit. Details of these limits are available from School offices and may only be exceeded with the express permission of the Head of School. A failed elective may be replaced by another elective.

4. Notwithstanding the above, before students can enrol in any non-standard programs, such program must meet with the approval of the Head of School. A non-standard program is one which involves enrolment in courses from more than one year or stage, or comprises courses which are not normally included in the program for a particular year.

For Academic Standing rules please refer to the General University Rules and Student Information section in this Handbook.

Honours

In the Bachelor of Engineering degree programs the same formal program is offered to both Pass students and to those aiming at Honours. Honours will be awarded for meritorious performance over the program: special attention is paid to a candidate’s performance in the final year courses and thesis project.

In the cases of combined degrees, such as the BE BA or the BE BSc, the award of the BA or BSc degree at Honours level requires two additional sessions of study.

Students wishing to gain a degree at Honours level in Arts or in Science as part of their combined degree program must meet all the relevant requirements of the Faculty of Arts and Social Sciences or the Faculty of Science and of the appropriate school concerned. Students may enrol for the Honours year only on the recommendation of the Head of their School in the Faculty of Engineering and with the approval of the Head of the appropriate Arts or Science School. For Honours in Science, approval must also be sought from the Science Cross Faculty Standing Committee or its delegated authorities. AUSTU/ DY support is available for the combined degree program including the Honours level.

Industrial Experience Requirements

All students must complete at least 60 working days of approved industrial experience (or professional practice in the case of Surveying and Spatial Information Systems students) prior to enrolment in the final year of their program. The award of the degree is dependent on the completion of the requisite periods of industrial employment at a standard approved by the University.

Program Revision

Following any program revision, students whose progression is normal are entitled to complete under the version of the program that applied when they first enrolled. Alternatively, they may transfer to the revised program with credit for all courses completed at the time the revised program is introduced.

Program Rules and Information

Faculty of Engineering – All Schools

Please note: Most undergraduate programs in the Faculty of Engineering are currently under revision, subject to approval by the University Council. Students commencing in 2006 should refer to the Online Handbook (www.handbook.unsw.edu.au) for up-to-date information about program structures.
3715 Bachelor of Engineering Bachelor of Commerce

BE BCom

Typical Duration
3.5 years

Minimum UOC for Award
264 units of credit

Typical UOC per Session
24 units of credit

Program Description

The Faculty of Engineering and the Faculty of Commerce and Economics offer a combined degree program which qualifies students for two degrees after five and a half years of successful study: the Bachelor of Engineering (potentially with Honours) and the Bachelor of Commerce (for which an Honours program requires an additional 48 UOC). This combined degree is offered in the following Engineering disciplines:

Bioinformatics Engineering
Chemical Engineering
Civil Engineering
Computer Engineering
Electrical Engineering
Environmental Engineering
Industrial Chemistry
Manufacturing Engineering and Management
Mechanical Engineering
Mechatronic Engineering
Mining Engineering
Petroleum Engineering
Photonics Engineering
Photovoltaics & Solar Energy
Renewable Energy Engineering
Software Engineering (program code 3653)
Surveying and Spatial Information Systems
Telecommunications

Requirements for the Bachelor of Engineering and the Bachelor of Commerce degrees

To qualify for the Bachelor of Engineering and the Bachelor of Commerce a student must complete successfully courses that total at least 264 units of credit and include:

(a) in the Faculty of Engineering:
   • courses making up at least 168 units of credit described in the degree requirements for the BE specialisation for which the student is enrolled; and
(b) in the Faculty of Commerce:
   • at least 96 units of credit comprising a major of at least 48 units of credit in an approved disciplinary stream and a minor of 24 units of credit of approved session courses of which no more than 12 units may be level 1 courses; prescribed level 1 introductory courses; or suitable electives to make up the full 96 UOC; and
(c) at least 60 days of approved Industrial Training (required for the award of the BE degree).

Administration of the Programs

(i) A student's general program will be administered by the Faculty of Engineering and delegated to administration by the school governing the engineering specialisation.
(ii) Students' programs will be administered by the Faculty of Commerce and Economics for the BCom component of the program and by the Faculty of Engineering for the BE part of the program.
(iii) The Faculty of Commerce and Economics and the Faculty of Engineering shall jointly exercise authority in any matter concerning the combined programs not otherwise covered by these rules.

Enrolment

(i) An application to enrol as a candidate for the combined program shall be made through UAC to the following programs:
   BE in Software Engineering BCom 425028(HECS), 445028 (FEE)
   BE in all other programs BCom 425029(HECS), 445029(FEE),
   or on the prescribed form for international students which shall be lodged with the Registrar at least two calendar months before the commencement of the session in which enrolment is to begin.

(ii) The candidate shall be enrolled as either a full-time or part-time student.

Program Objectives and Learning Outcomes

The program is intended for potential engineers who wish to become more aware of economic and social aspects of the engineering profession, and skilled in technical management. It is expected that those taking this program would progress to entrepreneurial and managerial roles. A full range of commerce and engineering careers will still be open to those who qualify with both components of the combined degree program.

Most engineers progress to technical management roles, and these programs will strengthen the commerce background in addition to providing the engineering skills. Increasingly, engineers also find employment in the commercial sector, and the combined programs will provide a good background for those entering banking, consultancy etc. Students wishing to enter the purely commercial sector will benefit from technical and numerate strengths obtained as part of the engineering program.

Program Structure

Stage 1

Session One
Science & Engineering courses (24 UOC)

Session Two
Science & Engineering courses (24 UOC)

Stage 2

Session One
Science & Engineering courses (24 UOC)

Session Two
Commerce courses (24 UOC)

Stage 3

Session One
Commerce courses (24 UOC)

Session Two
Science & Engineering courses (24 UOC)

Stage 4

Session One
Science & Engineering courses (12 UOC)

Commerce courses (12 UOC)

Session Two
Science & Engineering courses (12 UOC)

Commerce courses (12 UOC)

Stage 5

Session One
Science & Engineering courses (24 UOC)

Session Two
Science & Engineering courses (24 UOC)

Stage 6

Commerce courses 24 units of credit

Honours

(a) BE with Honours

On completion of the requirements for the combined degrees a student may qualify for the award of the BE degree with Honours in accordance with the rules for the BE program of specialisation and the Faculty of Engineering rules for calculation of the grade of Honours (1st Class Honours: a weighted average of 75% or greater; 2nd Class Honours Division i: a weighted average of 70% or greater; 2nd Class Honours Division ii: a weighted average of 65% or greater, a student being awarded the highest grade of Honours for which they qualify).

(b) BCom with Honours

On completion of the requirements for the combined degrees a student may be qualified to enrol in an Honours program in the Bachelor of Commerce and to qualify for the award of the BCom with Honours after successfully completing an additional year of study (48 UOC) as specified in the rules of the Faculty of Commerce.

Academic Rules

The programs of study which may be taken for the degrees of Bachelor of Engineering and Bachelor of Commerce are governed by the normal
rules for award of the BE and BCom in the Faculty of Engineering and the Faculty of Commerce respectively, which specify:

(i) units of credit;
(ii) corequisites, prerequisites, assumed knowledge;
(iii) the structure of the degree program; and
(iv) any special conditions.

Award of the Degrees

(i) A student who completes the requirements for both the BE and BCom degrees shall receive at graduation a separate testamur for each of the degrees.
(ii) A student may apply to discontinue the combined BE BCom programs and elect to complete either the BE or BCom degree in accordance with the rules governing award of that degree. Following discontinuation of one of the programs (BE or BCom), courses which count toward that program will not in general count toward the remaining single degree unless they meet the single degree requirements in their own right.

School of Chemical Engineering and Industrial Chemistry

Head of School: Associate Professor Michael Brungs

Administrative Officer: Vivienne Brennan

Director, Teaching and Learning: Associate Professor Vicki Chen

The School offers a Bachelor of Engineering in both Chemical Engineering and Industrial Chemistry, together with a Bachelor of Science in Food Science and Technology. The duration of these degree programs is four years full-time. Six year part-time programs in Chemical Engineering and Industrial Chemistry are also available, leading to a Bachelor of Science (Technology). The School also offers a Bachelor of Science (Honours) in Food Science and Technology and a 3 year Bachelor of Science (Food Science and Nutrition major) program.

The Bachelor of Engineering degrees are accredited by the Institution of Engineers Australia and the Royal Chemical Institute. The Bachelor of Engineering in Chemical Engineering is also accredited by the Institution of Chemical Engineers (UK). Graduates of both Food Science and Technology programs qualify for membership of the Australian Institute of Food Science and Technology, the US Institute of Food Technologists and may qualify for membership of the Royal Australian Chemical Institute.

Combined degree programs are also available for suitably qualified students. These are the Bachelor of Engineering Bachelor of Science and the Bachelor of Engineering Bachelor of Arts. Also available are Bachelor of Engineering Bachelor of Commerce. A concurrent Bachelor of Engineering Master of Biomedical Engineering is also available in Chemical Engineering. The School offers a fast-track program over 4.5 years full-time, the Bachelor of Engineering and Master of Engineering Science (BE EngSc) which allows flexibility of choice between formal coursework and project work and also a 5 year BE ME or MSc (Chem Eng).

Chemical Engineering is the application of the principles of the physical sciences, together with the principles of economics and human relations, to fields in which matter undergoes a change in state, energy content or composition. The chemical engineer is generally responsible for the design, construction and operation of plant and equipment used in the chemical processing industries. Chemical Engineers are employed in a very wide range of industries including the chemical, minerals, pharmaceutical, food and energy industries. Many chemical engineers work in environmental management, research and development business, management and computer applications.

Industrial chemists have a strong foundation in the basic sciences, particularly chemistry, in addition to their engineering skills. Their roles range from solving problems in forefront research areas, to the successful operation of Australia’s manufacturing industry. Industrial chemists characterise and select raw materials, develop environmentally responsible routes for the production of commodity materials and chemicals, control chemical plan and processes and verify the quality of the product. Industrial chemists are capable of fulfilling a multiplicity of roles as research scientists, development chemists, technical representatives and as plant/company managers.

Food Science and Technology involves an understanding of the basic sciences and the application of this knowledge to food manufacture from the point of production, through handling, processing, preservation, distribution and marketing, up to consumption and utilisation by consumers. It is concerned with food processes, commodities, composition and quality (including sensory properties, safety and nutritional value). The study of Food Science and Technology integrates many scientific disciplines. Its bases are in chemistry, physics, biochemistry, microbiology, and molecular biology. The challenges are to increase the availability, variety, quality and quantity of foods economically and in line with the needs of the world population. The Australian industry has a major role to play in supplying high quality foods to overseas markets and there is a national and international demand for professionally trained people prepared to accept responsibility for the production, quality and safety of this food. The programs provide basic preparation for food science and technology careers in the food industry, the public sector, education, research, the food service industry, public health, management and marketing. Graduates may also find careers in health and environmental sciences, management of food resources, and communication and in areas such as dietetics after further training.

For the award of Honours, students need to have distinguished themselves in the formal work, in other assignments as directed by the Head of the School, and in the final year project, for which a thesis is required. It is compulsory that, before completion of the program, students in both the Chemical Engineering and Industrial Chemistry full-time programs must obtain a minimum of twelve weeks professionally oriented or industrial experience. Students in the part-time programs in Chemical Engineering and Industrial Chemistry must complete an approved program of industrial experience of not less than twelve months prior to the award of the degree.

Please note: Most undergraduate programs in the Faculty of Engineering are currently under revision, subject to approval by the University Council. Students commencing in 2006 should refer to the Online Handbook (www.handbook.unsw.edu.au) for up-to-date information about program structures.

3040 Chemical Engineering (Full-time)

Bachelor of Engineering BE

Typical Duration
4 years

Minimum UOC for Award
192 units of credit

Typical UOC per Session
24 units of credit

Program Description

This program extends over four years and students study full-time during the day for twenty-eight weeks of each year (excluding examination and recess periods).

The Director of Teaching and Learning may approve various program patterns involving full-time or part-time study.

This program is also available as a combined degree program with BE (Chem Eng) BSc (program 3042), BE (Chem Eng) BA, (program 3043), BE(Chem Eng) BCom, program 3715, the concurrent degree BE (Chem Eng) MBiomedE, (program 3048), and the fast track program BE(Chem Eng) MEngSc, (program 3040), plan CEIC13040). For more information, please contact Director, Teaching and Learning.

Program Structure

Year 1

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>CLES1010</td>
<td>Introduction to the Chemical Industry</td>
<td>3</td>
</tr>
<tr>
<td>CEIC1020</td>
<td>Introduction to Chemical Engineering</td>
<td>6</td>
</tr>
<tr>
<td>CLES1030</td>
<td>Communication &amp; Business Skills</td>
<td>6</td>
</tr>
<tr>
<td>CHEM1011</td>
<td>Fundamentals of Chemistry 1A</td>
<td>6</td>
</tr>
<tr>
<td>CHEM1021</td>
<td>Fundamentals of Chemistry 1B</td>
<td>6</td>
</tr>
<tr>
<td>MATH1131</td>
<td>Mathematics 1A</td>
<td>6</td>
</tr>
<tr>
<td>MATH1231</td>
<td>Mathematics 1B</td>
<td>6</td>
</tr>
<tr>
<td>MECH1013</td>
<td>Engineering Drawing and Solid Modelling</td>
<td>3</td>
</tr>
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</table>

And ONE of the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>UOC</th>
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</thead>
<tbody>
<tr>
<td>PHYS1111</td>
<td>Fundamentals of Physics*</td>
<td>6</td>
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<tr>
<td>PHYS1169</td>
<td>Physics 1 (Chem,Mech,Min Eng)</td>
<td>6</td>
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</table>

* If PHYS1111 is taken, then PHYS1229 MUST be taken in S2

Year 2

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>UOC</th>
</tr>
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<tbody>
<tr>
<td>CEIC2011</td>
<td>Instrumental Analysis - Theory</td>
<td>3</td>
</tr>
<tr>
<td>CEIC2012</td>
<td>Instrumental Analysis - Practical</td>
<td>3</td>
</tr>
<tr>
<td>CEIC2020</td>
<td>Introduction to Numerical Methods</td>
<td>3</td>
</tr>
<tr>
<td>CLES2110</td>
<td>Material &amp; Energy Balances</td>
<td>3</td>
</tr>
</tbody>
</table>

*If PHYS1111 is taken, then PHYS1229 MUST be taken in S2*
CEIC2120 Fluid Flow (3 UOC)
CEIC2130 Heat Transfer (3 UOC)
CHEN2020 Chemical Engineering Laboratory 1 (3 UOC)
CHEN2061 Introduction to Process Chemistry 1 (6 UOC)
CHEN2062 Introduction to Process Chemistry 2 (3 UOC)
CHEN2140 Mass Transfer (3 UOC)
ELEC0809 Electrical Engineering 1C (3 UOC)
MA1H2020 Mathematics 2A (3 UOC)
MA2H2030 Mathematics 2B (3 UOC)
MA2H2899 Applied Statistics for Chemical Engineers (3 UOC)
General Education (3 UOC)

Year 3
BIOT3100 Fundamentals of Biotechnology (3 UOC)
CEIC3010 Reaction Engineering (4 UOC)
CEIC3070 Process Control (4 UOC)
CEIC3110 Thermodynamics (3 UOC)
CHEN3021 Systems Modelling & Analysis (3 UOC)
CHEN3022 Process Modelling & Optimisation (3 UOC)
CHEN3031 Advanced Transport Phenomena (3 UOC)
CHEN3062 Particles, Separation, Heat Exchangers and Pressure Vessels (6 UOC)
CHEN3065 Plant and Equipment Design (4 UOC)
CHEN3067 Process Design & Economics (3 UOC)
CHEN3068 Process Design & Safety (3 UOC)
CHEN3080 Chemical Engineering Practice 2 (3 UOC)
General Education (6 UOC)

Year 4
CLHL4070 Laboratory Automation Science (4 UOC)
CEIC4101 Professional Electives Advanced (3 UOC)
CLHL4102 Professional Electives Extended (3 UOC)
CEIC4106 Professional Electives (3 UOC)
CEIC4120 Management & Plant Operation (6 UOC)
CHEN4031 Environmental Management 1 (3 UOC)
CHEN4081 Design Project (6 UOC)
CHEN4091 Research Project Theory (3 UOC)
CHEN4092 Research Project Practice (12 UOC)
General Education (3 UOC)

General Education
Please refer to General Education Requirements under ‘Faculty Information and Assistance’ in this Handbook.

Honours
For the award of Honours in the Chemical Engineering and Industrial Chemistry programs, students need to have distinguished themselves in the formal work, in other assignments as directed by the Head of the School, and in the final year project, for which a thesis is required.

Academic Rules
For program rules relating to the Bachelor of Engineering, please refer to the ‘Rules for Progression and Award of Degrees’ under ‘Faculty Information and Assistance’ in this Handbook.

Industrial Experience Requirements
It is compulsory that, before completion of the program, students in both the Chemical Engineering and Industrial Chemistry full-time programs must obtain a minimum of twelve weeks professionally oriented or industrial experience. Students in the part-time programs in Chemical Engineering and Industrial Chemistry must complete an approved program of industrial experience of not less than twelve months prior to the award of the degree.

Further Requirements
Students are expected to possess a calculator having exponential capabilities, however, more advanced calculators and personal computers, will be found useful. In examinations, students may be required to use calculators supplied by the University, so that no student will have an unfair advantage over another. Further information may be obtained from the Head of School.

Students of both Chemical Engineering and Industrial Chemistry are advised to have a copy of Perry J H Ed. Chemical Engineers Handbook 6th Ed. McGraw-Hill. This book is used extensively for most courses and units. Certain courses and units do not have specified textbooks and in these cases reference books are used or printed notes supplied.

If you are required to complete a varied program of physics or maths in your first year (i.e. General Maths or Fundamentals of Physics), then students are not permitted to undertake studies in higher options of other courses.

Professional Recognition
Successful completion of the BE degree program is accepted by the Institution of Chemical Engineers, the Institution of Engineers, Australia, and Royal Australian Chemical Institute as sufficient academic qualification for corporate membership.

### 3050 Chemical Engineering (Part-time)

**Bachelor of Science (Technology) BSc(Tech)**

**Typical Duration**
6 years

**Minimum UOC for Award**
144 units of credit

**Typical UOC per Session**
24 units of credit

**Program Description**
Six year part-time program leading to the award of the degree of Bachelor of Science (Technology) in Chemical Engineering is intended for students who are employed in relevant industries and who wish to prepare for a degree mainly by part-time attendance. They consist of the first 3 years of the respective full-time program, but undertaken over a six year period.

As part of the requirements for the award of the BSc(Tech) degree, students are required to complete an approved program of industrial training of not less than one year prior to the award of the degree. Industrial training should normally be completed concurrently with attendance in the program, but with the approval of the Head of School, may be completed after completion of the prescribed program of study.

Students who qualify for the award of the BSc(Tech) degree and who wish to proceed to the award of a BSc or BE degree will normally be required to complete further work which will involve at least one year of full-time attendance.

Further details of part time programs can be obtained from the Director of Teaching and Learning.

**Program Structure**
The structure of this part-time program is similar to the full-time program (BE Chemical Engineering 3040) only over a longer period. Please refer to the 3040 Chemical Engineering program entry for more information.

**Academic Rules**
For academic rules relating to this program, please refer to the entry for the full-time program (BE Chemical Engineering 3040) and contact the Faculty of Engineering for more information.

Note that as part of the requirements for the award of the BSc(Tech) degree, students are required to complete an approved program of industrial training of not less than one year prior to the award of the degree or with the approval of the Head of School, may be completed after completion of the prescribed program of study.

### 3060 Food Science and Technology (Full-time)

**Bachelor of Science BSc**

**Typical Duration**
4 years

**Minimum UOC for Award**
192 units of credit

**Typical UOC per Session**
24 units of credit

**Program Description**
This program is designed to provide depth and breadth in the relevant physical and biological sciences on which food science and technology is based. It is strongly recommended that students obtain, before the completion of the program and during recess periods, as much
professionally oriented or industrial experience as possible. The BSc program in Food Science and Technology (3060) is Pass or Honours, determined by academic performance in Stages 2-4.

Program Structure

Year 1
BIO1201 Molecules, Cells and Genes (6 UOC)
FOOD1120 Introduction to Food Science (6 UOC)
FOOD1130 The Food Industry (6 UOC)
MAT1101 Mathematics for Life Sciences (6 UOC)
MAHT1041 Statistics for Life and Social Sciences (6 UOC)
PHYS1111 Fundamentals of Physics (6 UOC)

And ONE of the following courses:

CHEM1011 Fundamentals of Chemistry 1A (6 UOC)
CHEM1031 Higher Chemistry 1C (6 UOC)

And ONE of the following courses:

CHEM1021 Fundamentals of Chemistry 1B (6 UOC)
CHEM1041 Higher Chemistry 1D (6 UOC)

Year 2
CHEM2921 Food Chemistry 1 (6 UOC)
FOOD1230 Food Choice (6 UOC)
FOOD2220 Nutrition (6 UOC)
MICR2201 Fundamentals of Microbiology and Immunology (6 UOC)
BIOL2181 Fundamentals of Biochemistry (6 UOC)
BIOL2291 Fundamentals of Molecular Biology (6 UOC)

General Education courses (12 UOC)

Year 3
CHEM3811 Food Chemistry 2 (6 UOC)
FOOD1360 Food Processing Principles (6 UOC)
FOOD1370 Food Preservation: Principles and Applications (6 UOC)
FOOD1380 Unit Operations in Food Processing (6 UOC)
FOOD1390 Product Design and Development (6 UOC)
FOOD2320 Food Microbiology (6 UOC)
FOOD2330 Quality Assurance and Control (6 UOC)
FOOD2340 Food Safety (6 UOC)

Year 4
Stream A
FOOD3400 Industry Liaison* (6 UOC)

And ONE of the following courses:

FOOD1400 Project (6 UOC)
FOOD1480 Minor Project (6 UOC)

Plus a combination of electives to total 30 or 36 units of credit from the following list.

BIO1J01 Biotechnology A (6 UOC)
BIO1J21 Biotechnology B (6 UOC)
BIO1J31 Commercial Biotechnology (6 UOC)
ECON1101 Microeconomics 1 (6 UOC)
ECON1102 Macroeconomics 1 (6 UOC)
FOOD1470 Postharvest Technology of Food (6 UOC)
FOOD1490 Advanced Food Chemistry (6 UOC)
FOOD3230 Forensic Food Science (6 UOC)
FOOD2480 Advanced Food Microbiology (6 UOC)
FOOD2490 Analytical Microbiology (6 UOC)
FOOD3440 Advanced Nutrition (6 UOC)
FOOD3450 Advanced Food Processing (6 UOC)
INF1603 Business Data Management (6 UOC)
MAKK1012 Marketing Fundamentals (6 UOC)
PHHP2101 Physiology 1A (6 UOC)
PHHP2201 Physiology 1B (6 UOC)

Or such other electives as approved by the School. FOOD courses taken within the School must total at least 36 units of credit.

Please note FOOD1470 and FOOD2490 will not be offered in 2006.

Stream B: Industry Module Program

FOOD3400 Industry Liaison* (6 UOC)
FOOD5410 Industry Practicum (24 UOC)
Plus Electives (18 UOC)

*During Stage 4 of the program, excursions are made to various food industries. Detailed reports of some of these visits may be required.

General Education Requirements

Students in this program must also satisfy the General Education requirements. This is usually 12 UOC taken in second and third year studies.

For further information, please refer to the General Education section in this Handbook.

Academic Rules

For academic requirements relating to this program, please refer to Program Structure and contact the School of Chemical Engineering and Industrial Chemistry for more information.

Further Information

During the program, excursions are made to various food industries. Detailed reports of some of these visits may be required.

Professional Recognition

Graduates of this program qualify for membership of the Australian Institute of Food Science and Technology, the US Institute of Food Technologists, and may qualify for membership of the Royal Australian Chemical Institute.

The program provides basic preparation for food science and technology careers in the food industry, the public sector, education, research, the food service industry, public health, management and marketing. Graduates may also find careers in health and environmental sciences, management of food resources and food wastes, and communication, and in areas such as dietetics after further training.

3065 Honours in Food Science

Bachelor of Science (Honours) BSc(Hons)

Typical Duration
1 year

Minimum UOC for Award
48 units of credit

Typical UOC per Session
24 units of credit

Program Description

This is a one-year full-time Honours program in Food Science. It is designed to provide extensive research training in some aspects of Food Science and Technology at undergraduate level. The research orientation of the program, compared to the Graduate Diploma, facilitates entry into a research higher degree (MSc/PhD) upon completion of Honours at a satisfactory level.

Entry to the program requires satisfactory completion of a Bachelor degree, or equivalent, in an area considered relevant to Food Science and Technology. Students who have completed a four year Bachelor program, in which Honours has already been awarded, are specifically excluded.

The major component of the program is an extensive research project, conducted throughout one year of full-time study. Candidates also take 6 units of credit of courses within the School, or such other courses as approved by the program coordinator. Honours is awarded on the basis of performance in the research project and satisfactory completion of coursework.

Program Structure

Compulsory Courses

FOOD9410 Honours Research Project (21 UOC) HOUXXXXX*

*Courses offered in Food Science and Technology or as approved by the program coordinator and dependent upon the background of the candidate. Units of credit for coursework courses may be concentrated in one session.

Academic Rules

For academic requirements relating to this program, please refer to Program Structure and contact the School of Chemical Engineering and Industrial Chemistry for more information.

3070 Food Science and Technology (Part-time)

Bachelor of Science (Technology) BSc(Tech)

Typical Duration
6 years

Minimum UOC for Award
144 units of credit
Typical UOC per Session
24 units of credit

Program Description
This program is designed for students who are employed in the food processing industries. It extends over six part-time years of study, and leads to the award of the degree of Bachelor of Science (Technology). Students are required to complete an approved program of industrial training of not less than twelve months prior to the award of the degree. Industrial training should normally be undertaken concurrently with attendance in the program, but with the approval of the Head of Department may be completed after completion of the prescribed program of study.

The program covers the same subject matter as the first three years of the full-time program: 3060. For the first two years students follow a common program in which general biology is taken, and thereafter specialise in the biological sciences, which are fundamental to the study of food science and technology. The courses of Stages 3, 4, 5 and 6 may be available only in daytime classes, and substantial daytime release from industry may be required. Students who have completed the requirements of this program and have qualified for the award of the degree of Bachelor of Science (Technology) may proceed to the award of the degree of Bachelor of Science by attending for one full-time year and completing the courses listed in Year 4 of the full-time program. Students desiring to proceed to the award of a BSc degree must apply to the Head of the Department not later than 31 December of the year in which the sixth stage is completed.

Program Structure
Years 1 and 2
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>UOC</th>
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<tbody>
<tr>
<td>BIOS1201</td>
<td>Molecules, Cells and Genes</td>
<td>(6 UOC)</td>
</tr>
<tr>
<td>FOOD11120</td>
<td>Introduction to Food Science</td>
<td>(6 UOC)</td>
</tr>
<tr>
<td>FOOD1130</td>
<td>The Food Industry</td>
<td>(6 UOC)</td>
</tr>
<tr>
<td>MATH1021</td>
<td>Mathematics for Life Sciences</td>
<td>(6 UOC)</td>
</tr>
<tr>
<td>MATH2021</td>
<td>Statistics for Life and Social Sciences</td>
<td>(6 UOC)</td>
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<tr>
<td>PHYS1111</td>
<td>Fundamentals of Physics</td>
<td>(6 UOC)</td>
</tr>
<tr>
<td>And One of the following courses:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CHEM1011</td>
<td>Fundamentals of Chemistry 1A</td>
<td>(6 UOC)</td>
</tr>
<tr>
<td>CHEM1021</td>
<td>Higher Chemistry 1C</td>
<td>(6 UOC)</td>
</tr>
<tr>
<td>And One of the following courses:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CHEM1021</td>
<td>Fundamentals of Chemistry 1B</td>
<td>(6 UOC)</td>
</tr>
<tr>
<td>CHEM1041</td>
<td>Higher Chemistry 1D</td>
<td>(6 UOC)</td>
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Note: Physics, Mathematics and Statistics are usually taken as Stage 1, the other courses as Stage 2

Year 3
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>UOC</th>
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<tbody>
<tr>
<td>CHEM2921</td>
<td>Food Chemistry 1</td>
<td>(6 UOC)</td>
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<td>FOOD2120</td>
<td>Food Choice</td>
<td>(6 UOC)</td>
</tr>
<tr>
<td>BIOT2181</td>
<td>Fundamentals of Biochemistry</td>
<td>(6 UOC)</td>
</tr>
<tr>
<td>BIOT2291</td>
<td>Fundamentals of Molecular Biology</td>
<td>(6 UOC)</td>
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<td>And One of the following courses:</td>
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<tr>
<td>MATH1111</td>
<td>Fundamentals of Chemistry 2A</td>
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<td>MATH1021</td>
<td>Higher Chemistry 2C</td>
<td>(6 UOC)</td>
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<tr>
<td>And One of the following courses:</td>
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<tr>
<td>BIOT2181</td>
<td>Fundamentals of Microbiology</td>
<td>(6 UOC)</td>
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<tr>
<td>FOOD2220</td>
<td>Nutrition</td>
<td>(6 UOC)</td>
</tr>
<tr>
<td>General Education</td>
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<td>(12 UOC)</td>
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Year 4
<table>
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<th>Course Code</th>
<th>Course Title</th>
<th>UOC</th>
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<tbody>
<tr>
<td>CHEM3811</td>
<td>Food Chemistry 2</td>
<td>(6 UOC)</td>
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<tr>
<td>FOOD2320</td>
<td>Food Microbiology</td>
<td>(6 UOC)</td>
</tr>
<tr>
<td>FOOD2330</td>
<td>Quality Assurance and Control</td>
<td>(6 UOC)</td>
</tr>
<tr>
<td>FOOD2340</td>
<td>Food Safety</td>
<td>(6 UOC)</td>
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<td>And One of the following courses:</td>
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<tr>
<td>MATH1111</td>
<td>Fundamentals of Chemistry 3A</td>
<td>(6 UOC)</td>
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<tr>
<td>MATH1021</td>
<td>Higher Chemistry 3C</td>
<td>(6 UOC)</td>
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<tr>
<td>And One of the following courses:</td>
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<tr>
<td>MICR2201</td>
<td>Fundamentals of Microbiology and Immunology</td>
<td>(6 UOC)</td>
</tr>
<tr>
<td>FOOD3220</td>
<td>Nutrition</td>
<td>(6 UOC)</td>
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Year 5
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<tbody>
<tr>
<td>CHEM3811</td>
<td>Food Chemistry 2</td>
<td>(6 UOC)</td>
</tr>
<tr>
<td>FOOD2320</td>
<td>Food Microbiology</td>
<td>(6 UOC)</td>
</tr>
<tr>
<td>FOOD2330</td>
<td>Quality Assurance and Control</td>
<td>(6 UOC)</td>
</tr>
<tr>
<td>FOOD2340</td>
<td>Food Safety</td>
<td>(6 UOC)</td>
</tr>
<tr>
<td>And One of the following courses:</td>
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<tr>
<td>MATH1111</td>
<td>Fundamentals of Chemistry 3A</td>
<td>(6 UOC)</td>
</tr>
<tr>
<td>MATH1021</td>
<td>Higher Chemistry 3C</td>
<td>(6 UOC)</td>
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<tr>
<td>And One of the following courses:</td>
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</tr>
<tr>
<td>MICR2201</td>
<td>Fundamentals of Microbiology and Immunology</td>
<td>(6 UOC)</td>
</tr>
<tr>
<td>FOOD3220</td>
<td>Nutrition</td>
<td>(6 UOC)</td>
</tr>
</tbody>
</table>

General Education Requirements
Students in this program must also satisfy the General Education requirements. This is usually 12 UOC taken in second and third year studies.

For further information, please refer to the General Education section in this Handbook.

Academic Rules
For academic requirements relating to this program, please refer to Program Structure and contact the School of Chemical Engineering and Industrial Chemistry for more information.

Professional Recognition
Graduates of this program qualify for membership of the Australian Institute of Food Science and Technology, the US Institute of Food Technologists, and may qualify for membership of the Royal Australian Chemical Institute.

The program provides basic preparation for food science and technology careers in the food industry, the public sector, education, research, the food service industry, public health, management and marketing. Graduates may also find careers in health and environmental sciences, management of food resources and food wastes, and communication, and in areas such as dietetics after further training.

3100 Industrial Chemistry (Full-time)

Bachelor of Engineering BE

Typical Duration
4 years

Minimum UOC for Award
192 units of credit

Typical UOC per Session
24 units of credit

Program Description
Industrial Chemistry is a four-year professional program that is concerned with the application of science and technology to the chemical industry.

Successful completion of the program is accepted by the Royal Australian Chemical Institute and the Institution of Engineers, Australia as sufficient academic qualification for full corporate membership.

The Director of Teaching and Learning may approve various program patterns involving full-time and part-time study.

This program can form part of combined degrees with BE (Ind Chem) BSc (program 3102), BE (Ind Chem)/BA (program 3103), BE (Ind Chem)/BCom (Program 3175) and also the fast-track program BE (Ind Chem)/MEngSc (plan CEIC13100). For more details contact the Director of Teaching and Learning, School of Chemical Engineering & Industrial Chemistry.

Program Structure
Year 1
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>UOC</th>
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<tbody>
<tr>
<td>CHEC1010</td>
<td>Introduction to the Chemical Industry</td>
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</tr>
<tr>
<td>CEBE1201</td>
<td>Introduction to Chemical Engineering</td>
<td>(6 UOC)</td>
</tr>
<tr>
<td>CHEM1011</td>
<td>Fundamentals of Chemistry 1A</td>
<td>(6 UOC)</td>
</tr>
<tr>
<td>CHEM1021</td>
<td>Fundamentals of Chemistry 1B</td>
<td>(6 UOC)</td>
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<td>Mathematics 1A</td>
<td>(6 UOC)</td>
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<td>MATH1231</td>
<td>Mathematics 1B</td>
<td>(6 UOC)</td>
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<tr>
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<td>Engineering Drawing and Solid Modelling</td>
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<tr>
<td>PHYS1111</td>
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<tr>
<td>CEIC1030</td>
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<tr>
<td>PHYS1211</td>
<td>Energy and Environmental Physics</td>
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* If PHYS1111 is taken then PHYS1229 must be taken in S2

Year 2
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<td>CEBE2112</td>
<td>Instrumental Analysis - Practical</td>
<td>(3 UOC)</td>
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<td>CEBE2201</td>
<td>Introduction to Numerical Methods</td>
<td>(3 UOC)</td>
</tr>
<tr>
<td>CEBE2110</td>
<td>Material &amp; Energy Balances</td>
<td>(3 UOC)</td>
</tr>
<tr>
<td>CEBE2120</td>
<td>Fluid Flow</td>
<td>(3 UOC)</td>
</tr>
<tr>
<td>CEBE2113</td>
<td>Heat Transfer</td>
<td>(3 UOC)</td>
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<tr>
<td>CHEM1021</td>
<td>Organic Chemistry</td>
<td>(6 UOC)</td>
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<tr>
<td>CHEM2839</td>
<td>Inorganic Chemistry</td>
<td>(6 UOC)</td>
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<td>INDCE2040</td>
<td>Physical Process Chemistry</td>
<td>(6 UOC)</td>
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<td>MATH2020</td>
<td>Mathematics 2A</td>
<td>(3 UOC)</td>
</tr>
<tr>
<td>MATH2030</td>
<td>Mathematics 2B</td>
<td>(3 UOC)</td>
</tr>
<tr>
<td>MATH2899</td>
<td>Applied Statistics for Chemical Engineers</td>
<td>(3 UOC)</td>
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<td>General Education</td>
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Year 3
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<tr>
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<th>Course Title</th>
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<tr>
<td>BIOT3100</td>
<td>Fundamentals of Biotechnology</td>
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<tr>
<td>CEIC3010</td>
<td>Reaction Engineering</td>
<td>(4 UOC)</td>
</tr>
<tr>
<td>CEIC3070</td>
<td>Process Control</td>
<td>(4 UOC)</td>
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</table>
Industrial Experience
Students are required to complete an approved program of industrial training of not less than one year prior to the award of the degree. Industrial training should normally be completed concurrently with attendance in the program, but with the approval of the Head of School, may be completed after completion of the prescribed program of study.

3042 Chemical Engineering/Bachelor of Science

Bachelor of Engineering Bachelor of Science BE BSc

Typical Duration
5 years

Minimum UOC for Award
240 units of credit

Typical UOC per Session
24 units of credit

Program Description
The combined program of five years full-time study enables a student in the school to qualify for the award of the two degrees of Bachelor of Engineering and Bachelor of Science (BE BSc). Graduates from this course will have a broader range of complementary computing and engineering skills that will greatly enhance both their employment and career prospects. The School of Chemical Engineering and Industrial Chemistry administers the program.

Program Structure

Year 1
CEIC1020 Introduction to Chemical Engineering (6 UOC)
CHEM1011 Fundamentals of Chemistry 1A (6 UOC)
CHEM1021 Fundamentals of Chemistry 1B (6 UOC)
COMP1011 Computing 1A (6 UOC)
COMP1021 Computing 1B (6 UOC)
MATH1131 Mathematics 1A (6 UOC)
MATH1231 Mathematics 1B (6 UOC)

And ONE of the following courses:
PHYS1111 Fundamentals of Physics (6 UOC)
PHYS1169 Physics 1 (Chem, Mech, Min Eng) (6 UOC)

Year 2
CEIC2011 Instrumental Analysis - Theory (3 UOC)
CEIC2110 Material & Energy Balances (3 UOC)
CHEM2120 Fluid Flow (3 UOC)
CEIC2130 Heat Transfer (3 UOC)
CHEN2030 Chemical Engineering Laboratory 1 (3 UOC)
CHEN2061 Introduction to Process Chemistry 1 (6 UOC)
CHEN2062 Introduction to Process Chemistry 2 (3 UOC)
CHEN2140 Mass Transfer (3 UOC)
COMP2011 Data Organisation (6 UOC)
MATH1081 Discrete Mathematics (6 UOC)
MATH2020 Mathematics 2A (3 UOC)
MATH2030 Mathematics 2B (3 UOC)
MATH2899 Applied Statistics for Chemical Engineers (6 UOC)

Year 3
CEIC3010 Reaction Engineering (4 UOC)
CEIC3070 Process Control (4 UOC)
CEIC3110 Thermodynamics (3 UOC)
CEIC4103 Professional Electives (3 UOC)
CHEN3021 Systems Modelling & Analysis (3 UOC)
CHEN3022 Process Modelling & Optimisation (3 UOC)
CHEN3031 Advanced Transport Phenomena (3 UOC)
CHEN3062 Particles, Separation, Heat Exchangers and Pressure Vessels (6 UOC)
CHEN3065 Plant and Equipment Design (4 UOC)
CHEN3080 Chemical Engineering Practice 2 (3 UOC)
COMP2021 Digital System Structures (6 UOC)
COMP2041 Software Construction: Techniques and Tools (6 UOC)

Year 4
CEIC2012 Instrumental Analysis - Practical (3 UOC)
CEIC4104 Professional Electives (3 UOC)
CHEN3067 Process Design & Economics (3 UOC)
CHEN3068 Process Design & Safety (3 UOC)
Honours
For the award of Honours in the Chemical Engineering and Industrial Chemistry programs, students need to have distinguished themselves in the formal work, in other assignments as directed by the Head of the School, and in the final year project, for which a thesis is required.

Academic Rules
For academic rules relating to the combined degree Bachelor of Engineering Bachelor of Science, please refer to the ‘Rules for Progression and Award of Degrees’ under ‘Faculty Information and Assistance’ in this Handbook.

Industrial Experience Requirements
It is compulsory that, before completion of the program, students in both the Chemical Engineering and Industrial Chemistry full-time programs must obtain a minimum of twelve weeks professionally oriented or industrial experience. Students in the part-time programs in Chemical Engineering and Industrial Chemistry must complete an approved program of industrial experience of not less than twelve months prior to the award of the degree.

Further Requirements
Students are expected to possess a calculator having exponential capabilities, however, more advanced calculators and personal computers, will be found useful. In examinations, students may be required to use calculators supplied by the University, so that no student will have an unfair advantage over another. Further information may be obtained from the Head of School.

Students of both Chemical Engineering and Industrial Chemistry are advised to have a copy of Perry J H Ed. Chemical Engineers Handbook 6th Ed. McGraw-Hill. This book is used extensively for most courses and units. Certain courses and units do not have specified textbooks and in these cases reference books are used or printed notes supplied. If you are required to complete a varied program of physics or maths in your first year (i.e. General Maths or Fundamentals of Physics), then students are not permitted to undertake studies in higher options of other courses.

Professional Recognition
Successful completion of the BE degree program is accepted by the Institution of Chemical Engineers, the Institution of Engineers, Australia, and Royal Australian Chemical Institute as sufficient academic qualification for corporate membership.

3043 Chemical Engineering/Bachelor of Arts
Bachelor of Engineering Bachelor of Arts BE BA

Typical Duration
3 years

Minimum UOC for Award
240 units of credit

Typical UOC per Session
24 units of credit

Program Description
The combined program of five years full-time study enables a student in the school to qualify for the award of the degrees of Bachelor of Engineering and Bachelor of Arts. Since Engineering and Arts programs can have a common content, such as mathematics and physics, approximately two additional sessions of study are required to gain the additional qualifications of Bachelor of Arts. In general this additional study is taken concurrently with the BE program and both can be completed within 10 sessions.

The program is open to all students who satisfy both the Chemical Engineering and Arts entry conditions. Students may enter directly in Year 1 or may apply to transfer from the normal engineering program after completion of at least one year if they have a credit or higher average or permission from the Head of School.

The BE BA programs are administered by the School of Chemical Engineering. The School requires the student to obtain the approval of the Faculty of Arts and Social Sciences for the BA components of their program. The School of Chemical Engineering must approve the final program timetable.

Program Structure
For the Program Structure, please refer to the Academic Rules below and contact the Faculty of Engineering for more information.

Honours
For the award of Honours in the Chemical Engineering and Industrial Chemistry programs, students need to have distinguished themselves in the formal work, in other assignments as directed by the Head of the School, and in the final year project, for which a thesis is required.

Academic Rules
1. Students must complete 60 units of credit in the BA program with no more than 24 units of credit obtained at Level 1 (i.e. courses designed for students in their first year of study). Of these 24 Level 1 units of credit, no more than 12 units of credit may be from any one sequence of study.

2. Students must complete a major sequence (42 units of credit) in one of the following areas:
   - Australian Studies
   - Chinese Studies
   - Development Studies
   - Education
   - English
   - European Studies
   - Environmental Studies
   - Film
   - French
   - German Studies
   - Greek
   - History
   - History and Philosophy of Science
   - Indonesian Studies
   - Japanese Studies
   - Korean Studies
   - Linguistics
   - Media, Culture & Technology
   - Music
   - Philosophy
   - Policy Studies
   - Political Economy
   - Politics and International Relations
   - Russian Studies
   - Sociology & Anthropology
   - Spanish & Latin American Studies
   - Theatre & Performance Studies
   - Women’s and Gender Studies

*Students completing an Environmental Studies major sequence must complete, in addition to the 30 Upper Level units of credit specified, 6 level 1 units of credit in an approved course. Students must also complete a minor sequence of 24 units of credit on one of the other areas listed above.

3. Except for courses completed as part of the Environmental Studies major sequence, no more than 12 units of credit may be obtained from courses in the BA program which are offered by schools outside the Faculty of Arts and Social Sciences.

4. No course included for credit in the BE programs can be included in the 60 units of credit required at Rule 1 for the BA program.

5. Students must complete the full requirements of the program 3040 BE in Chemical Engineering or 3100 BE in Industrial Chemistry except that they are exempt from the General Education requirement of the BE BSc program. However, students will not be eligible for graduation for the BE
### Program Structure

**Year 1**

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<tr>
<th>Course Code</th>
<th>Course Name</th>
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<tbody>
<tr>
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<td>BIOM2010</td>
<td>Biomedical Engineering Practice</td>
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<td>CHEM1010</td>
<td>Introduction to Chemical Engineering</td>
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<td>CHEM1011</td>
<td>Fundamentals of Chemistry 1A</td>
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<td>CHEM1012</td>
<td>Fundamentals of Chemistry 1B</td>
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<tr>
<td>MECH0130</td>
<td>Engineering Drawing and Solid Modelling</td>
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<td>Physics 1 (Chem, Mech, Min Eng)</td>
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**Year 2**

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<td>CEIC2012</td>
<td>Instrumental Analysis - Practical</td>
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<tr>
<td>CEIC2020</td>
<td>Introduction to Numerical Methods</td>
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<td>CEIC2110</td>
<td>Material &amp; Energy Balances</td>
<td>3</td>
</tr>
<tr>
<td>CEIC2120</td>
<td>Fluid Flow</td>
<td>3</td>
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<td>CEIC2140</td>
<td>Heat Transfer</td>
<td>3</td>
</tr>
<tr>
<td>CHEN2050</td>
<td>Chemical Engineering Laboratory 1</td>
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</tr>
<tr>
<td>CHEN2061</td>
<td>Introduction to Process Chemistry 1</td>
<td>3</td>
</tr>
<tr>
<td>CHEN2062</td>
<td>Introduction to Process Chemistry 2</td>
<td>3</td>
</tr>
<tr>
<td>CHEN2140</td>
<td>Mass Transfer</td>
<td>3</td>
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<tr>
<td>ELEC0809</td>
<td>Electrical Engineering 1C</td>
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<tr>
<td>MATH2020</td>
<td>Mathematics 2A</td>
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**Year 3**

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<td>BIOM9420</td>
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<td>BIOT3100</td>
<td>Fundamentals of Biotechnology</td>
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<td>CHEM3010</td>
<td>Reaction Engineering</td>
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<tr>
<td>CEIC3070</td>
<td>Process Control</td>
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<tr>
<td>CEIC3110</td>
<td>Thermodynamics</td>
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<td>CHEN3021</td>
<td>Systems Modelling &amp; Analysis</td>
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<td>Process Modelling &amp; Optimisation</td>
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<td>CHEN3031</td>
<td>Advanced Transport Phenomena</td>
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<td>CHEN3062</td>
<td>Particles, Separation, Heat Exchangers and Pressure Vessels</td>
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<td>CHEN3065</td>
<td>Plant and Equipment Design</td>
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<td>CHEN3080</td>
<td>Chemical Engineering Practice 2</td>
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<td>Applied Statistics for Chemical Engineers</td>
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<td>CEIC4130</td>
<td>Plant Operation</td>
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<tr>
<td>CHEN3067</td>
<td>Process Design &amp; Economics</td>
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<td>Biomedical Engineering ENG Electives</td>
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**Year 5**

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<td>BIOM5002</td>
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<tr>
<td>BIOM9410</td>
<td>Regulatory Req of Biomed Tech</td>
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<td>CHEM4070</td>
<td>Laboratory Automation Science</td>
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<td>CHEN4031</td>
<td>Environmental Management 1</td>
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<td>CHEN4081</td>
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### Biomedical Electives

**Preferred electives**

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<tbody>
<tr>
<td>BIOM9311</td>
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<td>BIOM9321</td>
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<td>BIOM9332</td>
<td>Biocompatibility</td>
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<td>BIOM9440</td>
<td>Biomedical Practical Measures</td>
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<td>BIOM9613</td>
<td>Medical Instrumentation</td>
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</tr>
</tbody>
</table>
**General Education**

Please refer to General Education Requirements under ‘Faculty Information and Assistance’ in this Handbook.

**Honours**

For the award of Honours in the Chemical Engineering and Industrial Chemistry programs, students need to have distinguished themselves in the formal work, in other assignments as directed by the Head of the School, and in the final year project, for which a thesis is required.

**Academic Rules**

For program rules relating to the Bachelor of Engineering, please refer to the ‘Rules for Progression and Award of Degrees’ under ‘Faculty Information and Assistance’ in this Handbook.

**Industrial Experience Requirements**

All students must complete at least 60 working days of approved industrial experience (or professional practice in the case of Surveying and Spatial Information Systems students) prior to enrolment in the final year of their program. The award of the degree is dependent on the completion of the requisite periods of industrial employment at a standard approved by the University.

**Further Requirements**

Students are expected to possess a calculator having exponential capabilities, however, more advanced calculators and personal computers, will be found useful. In examinations, students may be required to use calculators supplied by the University, so that no student will have an unfair advantage over another. Further information may be obtained from the Head of the School.

Students of both Chemical Engineering and Industrial Chemistry are advised to have a copy of Perry J H Ed. Chemical Engineers Handbook 6th Ed. McGraw-Hill. This book is used extensively for most courses and units. Certain courses and units do not have specified textbooks and in these cases reference books are used or printed notes supplied.

If you are required to complete a varied program of physics or maths in your first year (i.e. General Maths or Fundamentals of Physics), then students are not permitted to undertake studies in higher options of other courses.

**Professional Recognition**

Successful completion of the BE degree program is accepted by the Institution of Chemical Engineers, the Institution of Engineers, Australia, and Royal Australian Chemical Institute as sufficient academic qualification for corporate membership.

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### 3102 Industrial Chemistry/Bachelor of Science

**Bachelor of Engineering Bachelor of Science BE BSc**

**Typical Duration**

3 years

**Minimum UOC for Award**

240 units of credit

**Typical UOC per Session**

24 units of credit

**Program Description**

This combined program of five years full-time study enables a student in the school to qualify for the award of both BE in Industrial Chemistry and Bachelor of Science. Graduates from this program will have a broader range of complementary computing, chemistry and engineering skills that will greatly enhance both their employment and career prospects.

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**Program Structure**

**Year 1**

<table>
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<td>Physics 1 (Chem, Mech, Min Eng)</td>
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**Year 2**

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<th>Course Code</th>
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<tr>
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<td>Material &amp; Energy Balances</td>
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<td>LCH2120</td>
<td>Fluid Flow</td>
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<td>LCH2130</td>
<td>Heat Transfer</td>
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<td>COMP2011</td>
<td>Data Organisation</td>
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<td>Physical Process Chemistry</td>
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<td>MATH1081</td>
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<td>Mathematics 2B</td>
</tr>
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<td>MATH2899</td>
<td>Applied Statistics for Chemical Engineers</td>
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**Year 3**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
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<tbody>
<tr>
<td>CEC3010</td>
<td>Reaction Engineering</td>
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<td>Process Control</td>
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<td>LCH3110</td>
<td>Thermodynamics</td>
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<td>Professional Electives</td>
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<tr>
<td>CHEM4231</td>
<td>Inorganic Chemistry and Structure</td>
</tr>
<tr>
<td>COMP4021</td>
<td>Digital Systems Structure</td>
</tr>
<tr>
<td>COMP2041</td>
<td>Software Construction: Techniques and Tools</td>
</tr>
<tr>
<td>INDC3051</td>
<td>Process Chemistry &amp; Operation</td>
</tr>
<tr>
<td>INDC3110</td>
<td>Industrial &amp; Environmental Chemistry</td>
</tr>
<tr>
<td>INDC3120</td>
<td>Industrial Chemistry Practice</td>
</tr>
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</table>

**Year 4**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
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<tbody>
<tr>
<td>POLY3011</td>
<td>Polymer Science</td>
</tr>
<tr>
<td>POLY3012</td>
<td>Polymer Science</td>
</tr>
<tr>
<td>CEC4101</td>
<td>Professional Electives Advanced</td>
</tr>
<tr>
<td>LCH4102</td>
<td>Professional Electives Extended</td>
</tr>
<tr>
<td>2 x Computing Electives</td>
<td>(12 UOC)</td>
</tr>
<tr>
<td>2 x Computing Electives</td>
<td>(12 UOC)</td>
</tr>
<tr>
<td>Plus additional Elective Course 6 UOC (Either Computer Science or Chemical Engineering/Industrial Chemistry)</td>
<td></td>
</tr>
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</table>

**Year 5**

<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>LCH4070</td>
<td>Laboratory Automation Science</td>
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<tr>
<td>CEC4105</td>
<td>Professional Electives</td>
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<tr>
<td>INDC4061</td>
<td>Process Design A</td>
</tr>
<tr>
<td>INER4062</td>
<td>Process Design B</td>
</tr>
<tr>
<td>INDC4091</td>
<td>Research Project Theory</td>
</tr>
<tr>
<td>INDC4092</td>
<td>Research Project</td>
</tr>
<tr>
<td>Elective course*</td>
<td>(3 UOC)</td>
</tr>
</tbody>
</table>

*Either Computer Science or Chemical Engineering/Industrial Chemistry*

**Academic Rules**

For academic rules relating to the combined degree Bachelor of Engineering Bachelor of Science, please refer to the ‘Rules for Progression and Award of Degrees’ under ‘Faculty Information and Assistance’ in this Handbook.

**Industrial Experience Requirements**

All students must complete at least 60 working days of approved industrial experience (or professional practice in the case of Surveying and Spatial Information Systems students) prior to enrolment in the final year of their program. The award of the degree is dependent on the completion of the requisite periods of industrial employment at a standard approved by the University.
3103 Industrial Chemistry/Bachelor of Arts

Bachelor of Engineering Bachelor of Arts BE BA

Typical Duration
5 years

Minimum UOC for Award
240 units of credit

Typical UOC per Session
24 units of credit

Program Description

The combined program of five years full-time study enables a student in the school to qualify for the award of the degrees of Bachelor of Engineering and Bachelor of Arts. Since Engineering and Arts programs can have common content, such as mathematics and physics, ordinarily only two additional sessions of study are required to gain the additional qualifications of Bachelor of Arts. In general this additional study is taken concurrently with the BE program and both can be completed within 10 sessions.

This program is open to all students who satisfy both the Industrial Chemistry and Arts entry conditions. Students may enter directly in Year 1 or may apply to transfer from the normal engineering program after completion of at least one year if they have a credit or higher average or from permission by the Head of School.

The BE BA programs are administered by the School of Industrial Chemistry. The School requires the student to obtain the approval of the Faculty of Arts and Social Sciences for the BA components of their program. The School of Industrial Chemistry must approve the final program timetable.

Program Structure

Please refer to the Academic Rules below and contact the School of Industrial Chemistry and the Faculty of Arts and Social Sciences for information on the Program Structure.

Academic Rules

1. Students must complete 60 units of credit in the BA program with no more than 24 units of credit obtained at Level 1 (i.e. courses designed for students in their first year of study). Of these 24 Level 1 units of credit, no more than 12 units of credit may be from any one sequence of study.

2. Students must complete a major sequence (42 units of credit in one of the following areas:
   - Australian Studies
   - Chinese Studies
   - Development Studies
   - Education
   - English
   - European Studies
   - Environmental Studies*
   - Film
   - German Studies
   - Greek
   - History
   - History and Philosophy of Science
   - Indonesian Studies
   - Japanese Studies
   - Korean Studies
   - Linguistics
   - Media, Culture & Technology
   - Music
   - Philosophy
   - Policy Studies
   - Political Economy
   - Politics and International Relations
   - Russian Studies
   - Sociology & Anthropology
   - Spanish & Latin American Studies
   - Theatre & Performance Studies
   - Women's and Gender Studies

* Students completing an Environmental Studies major sequence must complete, in addition to the 30 Upper Level units of credit specified, 6 Level 1 units of credit in an approved course. Students must also complete a minor sequence of 24 units of credit on one of the other areas listed above.

3. Except for courses completed as part of the Environmental Studies major sequences, no more than 12 units of credit may be obtained from subjects in the BA program which are offered by Schools outside the Faculty of Arts and Social Sciences.

4. No course included for credit in the BE programs can be included in the 60 units of credit required at Rule 1 for the BA program.

5. Students must complete the full requirements of the program 3100 BE in Industrial Chemistry except that they are exempt from the General Studies requirement of the BA program. However, students will not be eligible for graduation for the BE until a minimum of 12 units of credit of the BA have been successfully completed.

6. Students who complete the requirements for the BA program and the first two years of the BSc program may proceed to graduation with the degree of Bachelor of Arts.

7. Students may be awarded Honours in the BA by successful completion of an Honours year. It should be noted that entry into a particular BA Honours program will require completion of courses additional to those specified under rules 1–4.

8. The total units of credit in the combined program is 5 x 48 = 240.

For academic rules relating to the combined degree Bachelor of Engineering Bachelor of Science, please refer to the ‘Rules for Progression and Award of Degrees’ under ‘Faculty Information and Assistance’ in this Handbook.

Industrial Experience Requirements

All students must complete at least 60 working days of approved industrial experience (or professional practice in the case of Surveying and Spatial Information Systems students) prior to enrolment in the final year of their program. The award of the degree is dependent on the completion of the requisite periods of industrial employment at a standard approved by the University.

3715 Industrial Chemistry/Bachelor of Commerce

BE BCom

Please refer to the program entry for 3715 Bachelor of Engineering Bachelor of Commerce under ‘Program Rules and Information’ in this Handbook. Information about the program structure can be found in the Online Handbook program entry for 3715 BE BCom under the area of specialisation Industrial Chemistry.

Fast Track Programs with Master of Engineering Science

3040 Chemical Engineering/Master of Engineering Science

Plan CEICL13040

Bachelor of Engineering Master of Engineering Science BE MEngSc

Students may undertake a 4.5 years (10 semesters) full-time fast-track program leading to the awards of a Bachelor of Engineering and a Master of Engineering in Chemical Engineering.

Students undertake the first three years (6 semesters) of the BE program in Chemical Engineering. Subject to satisfying a minimum performance over these three years (see ‘Rules for Progression and the Award of Degrees’), they:

(a) substitute 12 units of credit of the standard 4th year BE degree program with a School approved 12 units of credit of graduate coursework in their 4th year;

(b) undertake 12 units of credit of project/thesis work over the Summer (9th) semester; and

(c) undertake 24 units of credit of graduate coursework in the 10th semester (first half of their 5th year).

Students need to apply, at the end of Year 3, to the Director of Teaching and Learning for entry into the program. The School of Chemical Engineering and Industrial Chemistry administers the program.

Stage 1 to Stage 3

Same as program 3040
Six year full-time programs 4775 and 4777 leading to the award of Graduate Thesis (4 UOC), (3 UOC), Environmental Management 1 (3 UOC), and Design Project (6 UOC).

Five year full-time programs 3621 and 3626 leading to the award of Special Research Project Practice (6 UOC), (9 UOC), (9 UOC), Design Project (7 UOC), and Process Design B (3 UOC).

Five and one half year full-time programs 3715 leading to the award of Special Research Project Practice (6 UOC), Management and Plant Operation (9 UOC), and Special Research Project Practice (9 UOC).

Four and one half year full-time programs 3620 and 3625 leading to the award of Research Project Theory (6 UOC), (4 UOC), (3 UOC), and Process Design B (3 UOC).

The Centre for Water and Waste Technology is located within the School of Environmental Engineering. The School comprises specialist staff with a broad spectrum of expertise across the disciplines of Civil and Environmental Engineering.

Bachelor of Engineering Master of Engineering Science BE MEngSc

Students may undertake a 4.5 years (10 semesters) full-time fast-track program leading to the award of a Bachelor of Engineering and a Master of Engineering in Industrial Chemistry. Students undertake the first three years (6 semesters) in the School of Civil and Environmental Engineering. Subject to satisfying a minimum performance over these three years (see ‘Rules for Progression and the Award of Degrees’), they may undertake 12 units of credit of the standard 4th year BE degree program with a School approved 12 units of credit of graduate coursework in their 4th year; (b) undertake 12 units of credit of project/thesis work over the summer (9th) semester; and (c) undertake 24 units of credit of graduate coursework in the 10th semester (first half of their 5th year).

Students need to apply, at the end of Year 3, to the Director of Teaching and Learning for entry into the program. The School of Chemical Engineering and Industrial Chemistry administers the program.

Stage 1 to Stage 3

Same as program 3100

Total Units of Credit: 24 each Stage

Stage 4

CEIC4070 Automation Science (4 UOC), (6 UOC), (6 UOC), CHEN4031 Environmental Management 1 (3 UOC), and Design Project (8 UOC).

Stage 5 (Summer Semester)

CEIC8320 Graduate Thesis (12 UOC).

Stage 5 (Session 1)

4 postgraduate elective courses, totalling 24 UOC.

3100 Industrial Chemistry/Master of Engineering Science

Plan CEICL13100

Bachelor of Engineering Master of Engineering Science BE MEngSc

Students may undertake a 4.5 years (10 semesters) full-time fast-track program leading to the award of a Bachelor of Engineering and a Master of Engineering in Industrial Chemistry. Students undertake the first three years (6 semesters) of the BE program in Industrial Chemistry. Subject to satisfying a minimum performance over these three years (see ‘Rules for Progression and the Award of Degrees’), they may undertake 12 units of credit of the standard 4th year BE degree program with a School approved 12 units of credit of graduate coursework in their 4th year; (b) undertake 12 units of credit of project/thesis work over the summer (9th) semester; and (c) undertake 24 units of credit of graduate coursework in the 10th semester (first half of their 5th year).

Students need to apply, at the end of Year 3, to the Director of Teaching and Learning for entry into the program. The School of Chemical Engineering and Industrial Chemistry administers the program.

Stage 1 to Stage 3

Same as program 3100

Total Units of Credit: 24 each Stage

Stage 4

CEIC4070 Automation Science (4 UOC), (6 UOC), (6 UOC), CHEN4031 Environmental Management 1 (3 UOC), and Design Project (8 UOC).

Stage 5 (Summer Semester)

CEIC8320 Graduate Thesis (12 UOC).

Stage 5 (Session 1)

4 CEIC8XXX postgraduate courses totalling 24 UOC.

School of Civil and Environmental Engineering

Head of School: Professor NJ Ashbolt
Senior Administrative Officer: Ms KM Irvine
Executive Assistant: Vacant

The School undertakes teaching and research in the specialist disciplines of engineering construction and management, geotechnical engineering, structural engineering, transport engineering, water engineering and environmental engineering. The School comprises specialist staff with a broad spectrum of expertise across the disciplines of Civil and Environmental Engineering.

The Centre for Water and Waste Technology is located within the School. In addition to extensive laboratory facilities on the Kensington campus, the School operates the Heavy Structures Laboratory at Govett Street, Randwick, and the Water Research Laboratory at King Street, Manly Vale. The latter complex houses the School’s Water Reference Library.

The School offers programs 3620 and 3625 leading to the award of degrees of Bachelor of Engineering in Civil Engineering (BE) and Bachelor of Engineering in Environmental Engineering (BE), at Pass or Honours level. In the Civil Engineering program, students may elect to major in structural engineering, geotechnical engineering, transport engineering, water engineering or engineering construction and management. These programs can be taken on a four year full-time basis, on a part-time basis or on a combined full-time/part-time basis subject to the approval of the Head of School. Intending part-time students are advised that all courses are offered only in the day-time. Part-time students will normally take two years for each equivalent full-time year. Alternatively, the programs may be taken in a sandwich form in which a student, after completing the first year of the program on a full-time basis, gains industrial experience during one or more periods of employment by taking leave of absence for an entire academic year.

The School also offers a range of combined degree programs which combine the Bachelor of Engineering degrees in Civil or Environmental Engineering with a range of other undergraduate degree programs and postgraduate degrees in engineering and other disciplines. These combined degree programs provide students with the opportunity to broaden their education and to complete two degrees with a significant saving in time. The combined degree programs include:

Five year full-time programs 3146 leading to the award of the degrees of Bachelor of Engineering in Civil Engineering and Bachelor of Engineering in Mining Engineering (BE BE), and 3631 leading to the degrees of Bachelor of Engineering in Civil Engineering and Bachelor of Engineering in Environmental Engineering (BE BE).

Five year full-time programs 3730 and 3735 leading to the award of the degrees of Bachelor of Engineering in Civil and Environmental Engineering, respectively, and Bachelor of Science (BE BSc).

Five year full-time programs 3621 and 3626 leading to the award of the degrees of Bachelor of Engineering in Civil and Environmental Engineering, respectively, and Bachelor of Arts (BE BA).

Five and one half year full-time programs 3715 leading to the award of the degrees of Bachelor of Engineering in Civil and Environmental Engineering and Bachelor of Commerce (BE BCom).

Four and one half year full-time programs 3620 and 3625 leading to the award of the degrees of Bachelor of Engineering in Civil and Environmental Engineering, respectively, with 8612 Master of Engineering Science.

Six year full-time programs 4775 and 4777 leading to the award of the degrees of Bachelor of Engineering in Civil and Environmental Engineering, respectively, and Bachelor of Laws (BE LLB).

The broad objective of the School's undergraduate programs is to develop well-educated graduates with the basic skills, attributes and knowledge required to practise as professional engineers. The desired skills are those that enable graduates to be problem solvers; critical thinkers; life long learners; good communicators; team players; independent investigators; effective managers; self-motivated; and economically, environmentally and socially aware.

It is intended that these attributes are developed in students at the same time that they gain knowledge in a broad range of disciplines. In addition, an objective of the programs is to provide the skills and knowledge in a social context. Integrating courses in each year of each program (the Engineering Practice courses) have been introduced to achieve this objective.

Honours

Honours is awarded to students who have achieved above average results and who undertake an Honours thesis in their final year. A weighted average is calculated for each student. A different weighting factor for each year of the program is applied to the marks in each course by units of credit as follows:

Year 1 x 1
Year 2 x 2
Year 3 x 4
Year 4 x 5

Although Industrial training is now part of course CVEN4126 it is assigned a further nominal value of 3 units of credit in Year 4 in the Honours calculation. For combined degree programs, only the marks obtained in the standard Civil or Environmental Engineering courses are used in the calculation. A weighted average mark in the range of 65–69 will result in a recommendation for Honours 2/2. A weighted average mark in the range of 70–74 will result in a recommendation for Honours 2/1.

The School of Chemical Engineering and Industrial Chemistry administers the program. Students need to apply, at the end of Year 3, to the Director of Teaching and Learning for entry into the program. The School of Chemical Engineering and Industrial Chemistry administers the program.

Stage 1 to Stage 3

Same as program 3100

Total Units of Credit: 24 each Stage

Stage 4

CEIC4070 Automation Science (4 UOC), (6 UOC), (6 UOC), CHEN4031 Environmental Management 1 (3 UOC), and Design Project (8 UOC).

Stage 5 (Summer Semester)

CEIC8320 Graduate Thesis (12 UOC).

Stage 5 (Session 1)

4 CEIC8XXX postgraduate courses totalling 24 UOC.
A weighted average mark of 75 and above will result in a recommendation for Honours 1.

Professional Recognition
Both the BE in Civil Engineering and the BE in Environmental Engineering are fully accredited by the Institution of Engineers, Australia, meeting the examination requirements for admission to graduate and corporate membership of the Institution. Substantial or complete recognition is accorded to the BE programs by overseas engineering institutions.

Industrial Experience
Industrial experience is an integral part of the programs. This can be taken within Australia or overseas. Students must complete at least 60 days of approved industrial experience. Students are strongly recommended to gain as much industrial experience as possible during the session breaks throughout their period of study.

Computing Requirements
Information regarding recommended computing equipment for the programs offered by the School is available on the website www.civeng.unsw.edu.au/currentstudents/general/computing/

Program Objectives and Learning Outcomes
The broad objective of the School's undergraduate programs is to develop well-educated graduates with the basic skills, attributes and knowledge required to practise as professional engineers. The desired skills are those that enable graduates to be problem solvers; critical thinkers; life long learners; good communicators; team players; independent investigators; effective managers; self-motivated; and economically, environmentally and socially aware.

It is intended that these attributes are developed in students at the same time that they gain knowledge in a broad range of disciplines. In addition, an objective of the programs is to provide the skills and knowledge in a social context. Integrating courses in each year of each program (the Engineering Practice courses) have been introduced to achieve this objective.

Program Structure
Plan CVEN13620
Year 1
CVEN1021 Civil Engineering Practice 1A (4 UOC)
CVEN1022 Civil Engineering Practice 1B (6 UOC)
CVEN1023 Statics (4 UOC)
CVEN1024 Dynamics (4 UOC)
CVEN1025 Computing (4 UOC)
CVEN1026 Engineering Materials 1 (4 UOC)
PHYS1279 Physics 1 (Civil Engineering) (4 UOC)
And ONE of the following courses:
CHEM1011 Fundamentals of Chemistry 1A (b UOC)
CHEM1031 Higher Chemistry 1C (6 UOC)
And ONE of the following courses:
MATH1131 Mathematics 1A (6 UOC)
MAHIH141 Higher Mathematics 1A (6 UOC)
And ONE of the following courses:
MATH1231 Mathematics 1B (6 UOC)
MAHIH1241 Higher Mathematics 1B (6 UOC)
Year 2
CVEN2022 Civil Engineering Practice 2 (3 UOC)
CVEN2023 Mechanics of Solids (3 UOC)
CVEN2025 Engineering Computations 1 (3 UOC)
CVEN2026 Engineering Materials 2 (3 UOC)
CVEN2125 Systems Engineering (3 UOC)
CVEN2126 Engineering Construction 1 (3 UOC)
CVEN2222 Geotechnical Engineering 1 (3 UOC)
CVEN2322 Structural Engineering 1 (6 UOC)
CVEN2525 Intro to Water Engineering (3 UOC)
GMAT0442 Surveying for Civil Engineers (3 UOC)
GMAT0491 Survey Camp (3 UOC)
MATH2019 Engineering Mathematics 2CE (6 UOC)
General Education (6 UOC)
Year 3
CVEN3023 Civil Engineering Practice 3A (3 UOC)
CVEN3024 Civil Engineering Practice 3B (3 UOC)
CVEN3025 Engineering Computations 2 (3 UOC)
CVEN3125 Engineering Construction 2 (3 UOC)
CVEN3126 Engineering Management 1 (3 UOC)
CVEN3222 Geotechnical Engineering 2 (3 UOC)
CVEN3223 Geotechnical Engineering 3 (3 UOC)
CVEN3322 Structural Engineering 2 (6 UOC)
CVEN3324 Structural Engineering 3 (3 UOC)
CVEN3438 Transport Planning and Environment (3 UOC)
CVEN3448 Transport Engineering (3 UOC)
CVEN3526 Water Resources Engineering (3 UOC)
CVEN3527 Water Engineering (3 UOC)
General Education (6 UOC)
Year 4
Session One
Students achieving a School weighted average mark exceeding 62 (calculated from all courses in Years 1 to 3 of the BE program) are eligible to undertake an Honours thesis in Year 4 (CVEN4000 in S1 and CVEN4001 in S2).
CVEN4126 Engineering Management 2 (3 UOC)
CVEN4225 Geotechnical Engineering 4 (3 UOC)
CVEN4323 Structural Engineering 4 (3 UOC)
CVEN4526 Water and Wastewater Treatment (3 UOC)
Plus TWO of the following four electives:
CVEN4000 Honours Thesis Part A (6 UOC)
CVEN4027 Civil Engineering Practice 4A (6 UOC)
CVEN4028 Civil Engineering Practice 4B (6 UOC)
CVEN4029 Civil Engineering Practice 4C (6 UOC)
Session Two
All students not undertaking the Honours thesis are required to select two majors. Students undertaking the Honours thesis are required to undertake one major plus at least 8 units of credit of electives taken from one other discipline area. To complete a major, all three 4 units of credit elective subjects (listed for each discipline below) must be undertaken.
CVEN4001 Honours Thesis Part B (4 UOC)
Construction and Management Major
CVEN4139 Advanced Construction and Project Management (4 UOC)
CVEN4149 Professional Level Project Management Tools and Skills (4 UOC)
CVEN4159 Advanced Construction Technology and Engineering (4 UOC)

Geotechnical Engineering Major
CVEN4279 Rock and Slope Engineering (4 UOC)
CVEN4289 Site Investigations and Dam Engineering (4 UOC)
CVEN4299 Advanced Topics in Geotechnical Engineering (4 UOC)

Structural Engineering Major
CVEN4339 Design of Bridges (4 UOC)
CVEN4349 Special Topics in Concrete, Steel and Composite Structures (4 UOC)
CVEN4359 Structural Analysis and Finite Elements (4 UOC)

Transport Engineering Major
CVEN4439 Transport Operations and Systems Design (4 UOC)
CVEN4449 Traffic Management and Control (4 UOC)
CVEN4459 Transport and Environment (4 UOC)

Water Engineering Major
CVEN4539 Advanced Water Quality and Treatment (4 UOC)
CVEN4549 Advanced Catchment and Coastal Processes (4 UOC)
CVEN4559 Advanced Water Engineering (4 UOC)

The School offers a range of specialist plans in the civil engineering program, which are available to high achieving students. Basically students complete most of the requirements of the standard plan CVEN13620 with specialist replacements for some courses in Years 2, 3 and especially Year 4 of the program. Students achieving a School weighted average mark of less than 65 (calculated from all courses in Years 1 to 3 of the BE program) are ineligible to continue in the plan and must transfer into and complete the standard Year 4 of the academic plan CVEN1A3620.

CVENJS3620 Civil and Structural Engineering Plan
Year 2
Replace CVEN2022 with CVEN2032 Civil/ Structural Engineering Practice 2

Year 3
Replace CVEN3023 with CVEN3032 Civil /Structural Engineering Practice 3A
Replace CVEN3024 with CVEN3033 Civil/ Structural Engineering Practice 3B

Year 4
Replace CVEN4526 with CVEN4324 Structural Engineering Case Study
CVEN4339, CVEN4349 and CVEN4359 are compulsory

CVENKS3620 Civil and Geotechnical Engineering Plan
Year 2
Replace CVEN2022 with CVEN2062 Civil/Geotechnical Engineering Practice 2

Year 3
Replace CVEN3023 with CVEN3062 Civil/Geotechnical Engineering Practice 3A
Replace CVEN3024 with CVEN3063 Civil/Geotechnical Engineering Practice 3B

Year 4
Replace CVEN4526 with CVEN4226 Engineering Geology and Geotechnical Models
CVEN4279, CVEN4289 and CVEN4289 are compulsory

CVENLS3620 Civil Engineering and Project Management Plan
Year 2
Same as CVEN1A3620

Year 3
Replace CVEN3023 with CVEN3012 Civil Engineering and Project Management Practice 3A
Replace CVEN3024 with CVEN3013 Civil Engineering and Project Management Practice 3B
Replace CVEN3438 with CVEN3127 Management of Projects

Year 4
Replace CVEN4526 with CVEN4127 Planning and Control of Projects
CVEN4139, CVEN4149 and CVEN4159 are compulsory

CVENMS3620 Civil and Transport Engineering Plan
Year 2
Same as CVEN1A3620

Year 3
Replace CVEN3023 with CVEN3042 Civil/Transport Engineering Practice 3A
Replace CVEN3024 with CVEN3043 Civil/Transport Engineering Practice 3B

Year 4
Replace CVEN4526 with CVEN4421 Transport Engineering 2
CVEN4439, CVEN4449 and CVEN4459 are compulsory

CVENNS3620 Civil, Water and Coastal Engineering Plan
Year 2
Replace CVEN2022 with CVEN2052 Civil/Water Engineering Practice 2

Year 3
Replace CVEN3023 with CVEN3052 Civil/Water Engineering Practice 3A
Replace CVEN3024 with CVEN3053 Civil/Water Engineering Practice 3B
Replace CVEN3125 with CVEN3528 Sustainable Catchment and Coastal Systems

Year 4
Replace CVEN4126 with CVEN4533 Transport and Fate of Pollutants
CVEN4539, CVEN4549 and CVEN4559 are compulsory

General Education
Please refer to General Education Requirements under ‘Faculty Information and Assistance’ in this Handbook.

Honours
Honours is awarded to students who have achieved above average results and who undertake an Honours Thesis in their Final Year. A School weighted average mark is calculated for each student. A different weighting factor for each year of the program is applied to the marks in each course by units of credit as follows:
Year 1 x 1
General Education x 2
Year 2 x 2
Year 3 x 4
Year 4 x 5

Industrial training is assigned a nominal value of 3 units of credit in Year 4 in the Honours calculation. For combined degree programs only the marks obtained in the standard Civil or Environmental Engineering courses are used in the calculation.

A School weighted average mark in the range of 65.0-69.9 will result in a recommendation for Honours 2/2. A School weighted average mark in the range of 70.0-74.9 will result in a recommendation for Honours 2/1. A School weighted average mark of 75.00 and above will result in a recommendation for Honours 1.

Academic Rules
For program rules relating to the Bachelor of Engineering and General Rules for Progression, please refer to the ‘Rules for Progression and Award of Degrees’ under ‘Faculty Information and Assistance’ in this Handbook.

Industrial Experience
Industrial experience is an integral part of the programs. This can be taken within Australia or overseas. Students must complete at least sixty days of approved industrial experience. Students are strongly recommended to gain as much industrial experience as possible during the session breaks throughout their period of study. Students who have had suitable experience in industry prior to commencement may qualify for exemption from completing further industrail training.

Computing Requirements
For information about computing requirements, please refer to the School website: www.civeng.unsw.edu.au/currentstudents/general/computing

Professional Recognition
The BE in Civil Engineering is fully accredited by the Institution of Engineers, Australia, meeting the examination requirements for admission
to graduate and corporate membership of the Institution. Substantial or complete recognition is accorded to the BE programs by overseas engineering institutions.

### 3625 Environmental Engineering

**Bachelor of Engineering BE**

**Typical Duration**
4 years

**Minimum UOC for Award**
192 units of credit

**Typical UOC per Session**
24 units of credit

**Program Description**

Environmental engineers are concerned with the environmental impact of engineering activities. They apply their broad knowledge of engineering and environmental processes in identifying environmental problems and in devising effective solutions to them. They also coordinate the activities of specialist groups such as biologists, ecologists and geologists within major projects. The discipline of environmental engineering embraces parts of civil engineering, with emphasis on management, systems design, water, geotechnical and transport engineering, together with aspects of chemical engineering, applied and biological sciences and environmental studies.

The School also offers the combined degrees BE (Civil Eng)/BE (Env Eng) (program 3631), BE (Env Eng)/BA (program 3626), BE (Env Eng)/BSc (program 3735), BE (Env Eng)/BCom (program 3715) BE (Env Eng/LLB (Law) (program 4777) and also the fast track program BE/MEngSc (plan CVENH13625).

**Program Objectives and Learning Outcomes**

The broad objective of the School's undergraduate programs is to develop well-educated graduates with the basic skills, attributes and knowledge required to practise as professional engineers. The desired skills are those that enable graduates to be problem solvers; critical thinkers; life long learners; good communicators; team players; independent investigators; effective managers; self-motivated; and economically, environmentally and socially aware.

It is intended that these attributes are developed in students at the same time that they gain knowledge in a broad range of disciplines. In addition, an objective of the programs is to provide the skills and knowledge in a social context. Integrating courses in each year of each program (the Engineering Practice courses) have been introduced to achieve this objective.

**Program Structure**

#### Year 1
- **CVEN1023** Statics (4 UOC)
- **CVEN1024** Dynamics (4 UOC)
- **CVEN1025** Computing (4 UOC)
- **CVEN1026** Engineering Materials 1 (4 UOC)
- **CVEN1531** Introduction to Water and Atmospheric Chemistry (4 UOC)
- **CVEN1721** Environmental Engineering Practice 1A (4 UOC)
- **CVEN1722** Environmental Engineering Practice 1B (6 UOC)

And ONE of the following courses:
- **MATH1131** Mathematics 1A (6 UOC)
- **MAH1141** Higher Mathematics 1A (6 UOC)

And ONE of the following courses:
- **MATH1231** Mathematics 1B (6 UOC)
- **MATH1241** Higher Mathematics 1B (6 UOC)

And ONE of the following courses:
- **CHEM1011** Fundamentals of Chemistry 1A (6 UOC)
- **CHEM1031** Higher Chemistry 1C (6 UOC)

#### Year 2
- **BIOS1101** Evolutionary and Functional Biology (6 UOC)
- **CEIC0001** Mass Transfer and Material Balances (3 UOC)
- **CVEN2023** Mechanics of Solids (3 UOC)
- **CVEN2025** Engineering Computations 1 (3 UOC)
- **CVEN2125** Systems Engineering (3 UOC)
- **CVEN2222** Geotechnical Engineering 1 (3 UOC)
- **CVEN2525** Introduction to Water Engineering (3 UOC)
- **CVEN2722** Environmental Engineering Practice 2 (3 UOC)
- **GEOG1711** Planet Earth (3 UOC)
- **GMA0753** Introduction to Spatial Information Systems (3 UOC)
- **INDC4120** Chemistry of the Industrial Environment (3 UOC)
- **MATH2019** Engineering Mathematics 2CE (6 UOC)
- **General Education** (6 UOC)

**Year 3**

- **BIOS3301** Population and Community Ecology for Environmental Engineers (3 UOC)
- **CEIC0050** Atmospheric Process Chemistry (3 UOC)
- **CVEN3025** Engineering Computations 2 (3 UOC)
- **CVEN3126** Engineering Management 1 (3 UOC)
- **CVEN3222** Geotechnical Engineering 2 (3 UOC)
- **CVEN3223** Geotechnical Engineering 3 (3 UOC)
- **CVEN3438** Transport Planning and Environment (3 UOC)
- **CVEN3526** Water Resources Engineering (3 UOC)
- **CVEN3527** Water Engineering (3 UOC)
- **CVEN3531** Aquatic Chemistry (3 UOC)
- **CVEN3724** Environmental Engineering Practice 3A (3 UOC)
- **CVEN3725** Environmental Engineering Practice 3B (3 UOC)
- **CVEN3726** Environmental Policy (3 UOC)
- **CVEN3727** Waste Management (3 UOC)
- **General Education** (6 UOC)

**Year 4**

**Session One**

Students achieving a School weighted average mark exceeding 62 (calculated from all subjects in years 1 to 3 of the BE Program) are eligible to undertake an Honours thesis in Year 4 (CVEN4000 in S1 and CVEN4001 in S2).

- **CVEN4126** Engineering Management 2 (3 UOC)
- **CVEN4225** Geotechnical Engineering 4 (3 UOC)
- **CVEN4526** Water and Wastewater Treatment (3 UOC)
- **CVEN4533** Transport & Fate of Pollutants (3 UOC)

Plus TWO of the following four electives:
- **CVEN4000** Honours Thesis Part A (6 UOC)
- **CVEN4727** Environmental Engineering Practice 4A (6 UOC)
- **CVEN4728** Environmental Engineering Practice 4B (6 UOC)
- **CVEN4729** Environmental Engineering Practice 4C (6 UOC)

**Session Two**

All students not undertaking the Honours thesis are required to select two majors. Students undertaking the Honours thesis are required to undertake one major plus at least 8 units of credit of electives taken from one other discipline area. To complete a major, all three 4 units of credit elective courses (listed for each discipline below) must be undertaken.

- **CVEN4001** Honours Thesis Part B (4 UOC)

**Geotechnical Engineering Major**

- **CVEN4269** Environmental Geotechnics (4 UOC)
- **CVEN4289** Site Investigations and Dam Engineering (4 UOC)

Plus ONE of the following two electives:
- **CVEN4279** Rock and Slope Engineering (4 UOC)
- **CVEN4299** Advanced Topics in Geotechnical Engineering (4 UOC)

**Transport Engineering Major**

- **CVEN4439** Transport Operations and Systems Design (4 UOC)
- **CVEN4449** Traffic Management and Control (4 UOC)
- **CVEN4459** Transport and Environment (4 UOC)

**Water Engineering Major**

- **CVEN4539** Advanced Water Quality and Treatment (4 UOC)
- **CVEN4549** Advanced Catchment and Coastal Processes (4 UOC)
- **CVEN4569** Advanced Environmental Systems (4 UOC)

**Chemical Engineering Major**

- **CEIC3010** Reaction Engineering (4 UOC)
- **CHEN2062** Introduction to Process Chemistry 2 (3 UOC)
- **CEIC3070** Process Control (4 UOC)

**Geography Major**

Any TWO of the following three courses:
- **Geography Major**
  - **GEOH3711** Coastal Resource Management (6 UOC)
  - **GEOG3731** Geomorphology (6 UOC)
  - **GEOG3761** Environmental Change (6 UOC)

The School offers a range of specialist plans in the Environmental Engineering program which are available to high achieving students. Basically students complete most of the requirements of the standard...
plan CVENBS3625 with specialist replacements for some courses in Years 2, 3 and especially Year 4 of the program. Students achieving a School weighted average mark of less than 65 (calculated from all courses in Years 1 to 3 of the BE program) are ineligible to continue in the plan and must transfer into and complete the standard Year 4 of the academic plan CVENB13625.

**CVENPS3625 Environmental and Geotechnical Engineering Plan**

**Year 2**
Replace CVEN2722 with CVEN2732 Environmental/Geotechnical Engineering Practice 2

**Year 3**
Replace CVEN3438 with CVEN3225 Geotechnical Mapping and Logging
Replace CVEN3723 with CVEN3733 Environmental/Geotechnical Engineering Practice 3A
Replace CVEN3724 with CVEN3734 Environmental/Geotechnical Engineering Practice 3B

**Year 4**
Replace CVEN4126 with CVEN4226 Engineering Geology and Geotechnical Models
CVEN4269, CVEN4279 and CVEN4289 are compulsory.

**CVENQS3625 Environmental and Transport Engineering Plan**

**Year 2**
Same as CVENB13625

**Year 3**
Replace CVEN3531 with CVEN3448 Transport Engineering
Replace CVEN3723 with CVEN3743 Environmental/Transport Engineering Practice 3A
Replace CVEN3724 with CVEN3744 Environmental/Transport Engineering Practice 3B

**Year 4**
replace CVEN4126 with CVEN4421 Transport Engineering 2
CVEN4439, CVEN4449 and CVEN4459 are compulsory

**CVENRS3625 Environmental, Water and Waste Engineering Plan**

**Year 2**
Replace CVEN2722 with CVEN2752 Environmental/Water Engineering Practice 2

**Year 3**
Replace CEIC0050 with CVEN3526 Sustainable Catchment and Coastal Systems
Replace CVEN3723 with CVEN3753 Environmental/Water Engineering Practice 3A
Replace CVEN3724 with CVEN3754 Environmental/Water Engineering Practice 3B

**Year 4**
Replace CVEN4126 with CVEN4528 Surf, Water and Groundwater Environments
CVEN4539, CVEN4549 and CVEN4569 are compulsory

**CVENQS3625 Environmental and Transport Engineering Plan**

**Year 2**
Same as CVENB13625

**Year 3**
Replace CVEN3531 with CVEN3448 Transport Engineering
Replace CVEN3723 with CVEN3743 Environmental/Transport Engineering Practice 3A
Replace CVEN3724 with CVEN3744 Environmental/Transport Engineering Practice 3B

**Year 4**
replace CVEN4126 with CVEN4421 Transport Engineering 2
CVEN4439, CVEN4449 and CVEN4459 are compulsory

**CVENQG3625 Environmental and Geotechnical Engineering Plan**

**Year 2**
Same as CVENB13625

**Year 3**
Replace CVEN3531 with CVEN3448 Transport Engineering
Replace CVEN3723 with CVEN3743 Environmental/Transport Engineering Practice 3A
Replace CVEN3724 with CVEN3744 Environmental/Transport Engineering Practice 3B

**Year 4**
Replace CVEN4126 with CVEN4421 Transport Engineering 2
CVEN4439, CVEN4449 and CVEN4459 are compulsory

**CVENB13625 Environmental Plan**

**Year 2**
Replace CVEN2722 with CVEN2752 Environmental/Water Engineering Practice 2

**Year 3**
Replace CEIC0050 with CVEN3526 Sustainable Catchment and Coastal Systems
Replace CVEN3723 with CVEN3753 Environmental/Water Engineering Practice 3A
Replace CVEN3724 with CVEN3754 Environmental/Water Engineering Practice 3B

**Year 4**
Replace CVEN4126 with CVEN4528 Surf, Water and Groundwater Environments
CVEN4539, CVEN4549 and CVEN4569 are compulsory

**General Education**

Please refer to General Education Requirements under ‘Faculty Information and Assistance’ in this Handbook.

**Honours**

Honours is awarded to students who have achieved above average results and who undertake an Honours Thesis in their Final Year. A School weighted average mark is calculated for each student. A different weighting factor for each year of the program is applied to the marks in each course by units of credit as follows:

- Year 1: 1.0
- General Education: 2.0
- Year 2: 2.0
- Year 3: 4.0
- Year 4: 5.0

Industrial training is assigned a nominal value of 3 units of credit in Year 4 in the Honours calculation. For combined degree programs only the marks obtained in the standard Civil or Environmental Engineering courses are used in the calculation.

A School weighted average mark in the range of 65.0-69.9 will result in a recommendation for Honours 2/2.

A School weighted average mark in the range of 70.0-74.9 will result in a recommendation for Honours 2/1.

A School weighted average mark above 75.00 will result in a recommendation for Honours 1.

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### Academic Rules

For program rules relating to the Bachelor of Engineering and General Rules for Progression, please refer to the ‘Rules for Progression and Award of Degrees under Faculty Information and Assistance’ in this Handbook.

### Industrial Experience

Industrial experience is an integral part of the programs. This can be taken within Australia or overseas. Students must complete at least sixty days of approved industrial experience. Students are strongly recommended to gain as much industrial experience as possible during the session breaks throughout their period of study. Students who have had suitable experience in industry prior to commencement may qualify for exemption from completing further industrial training.

### Professional Recognition

The BE in Environmental Engineering is fully accredited by the Institution of Engineers, Australia, meeting the examination requirements for admission to graduate and corporate membership of the Institution. Substantial or complete recognition is accorded to the BE programs by overseas engineering institutions.

### Computing Requirements

For information about computing requirements, please refer to the School website: [www.civeng.unsw.edu.au/currentstudents/general/computing](http://www.civeng.unsw.edu.au/currentstudents/general/computing)

### 3730 Civil Engineering/Bachelor of Science

**Bachelor of Engineering Bachelor of Science BE BSc**

**Typical Duration**

5 years

**Minimum UOC for Award**

240 units of credit

**Typical UOC per Session**

24 units of credit

**Program Description**

Students may seek to undertake a five-year full-time combined program leading to the award of the degrees of Bachelor of Engineering in Civil Engineering and Bachelor of Science (BE BSc). The School of Civil and Environmental Engineering administers the program. Students should seek advice from the School Office.

With the combined degree program, students can add their choice of a Science, Mathematics or Computer Science program to the standard, professionally accredited Civil Engineering program offered by the School of Civil and Environmental Engineering.

The School of Civil and Environmental Engineering is the academic unit responsible for the program. The School will consult with the Faculty of Science in approving the BSc component of the program.

Students must satisfy admission requirements for both the BE in Civil Engineering and BSc programs or may transfer from the BE in Civil Engineering program after completion of at least one year, if they have a Credit or higher average.

Course credits can accrue simultaneously for both component degrees where there is an overlap of courses from the Civil Engineering program and Science program.

### Program Structure

**CVENA13730 + Science Plan**

**Year 1**

All the Year 1 courses in the Civil Engineering program.

**Year 2**

The Year 2 courses in the Civil Engineering program except that 12 units of credit of Science courses are substituted for CVEN2222, CVEN2022 and General Education.

**Year 3**

Science courses to total at least 36 units of credit and CVEN2222, CVEN2022, CVEN3025, CVEN3125

**Year 4**

Science courses to total at least 18 units of credit and CVEN3126, CVEN3222, CVEN3223, CVEN3322, CVEN3324, CVEN3438, CVEN3448, CVEN3526, CVEN3527.
Year 5
Science courses to total at least 6 units of credit in S1 in lieu of one civil engineering major (12 units of credit). Otherwise standard Year 4 program in Civil Engineering.

The degrees of Bachelor of Engineering and Bachelor of Science may be conferred as a Pass degree or as an Honours degree. There are two classes of Honours, Class 1 and Class 2 in two divisions. The award and grade of Honours in the BE are made in recognition of superior performance throughout the program with a greater weighting on courses in the later years. The BSc can be awarded Honours on the successful completion of an Honours year. It should be noted that entry into a particular Honours program might require completion of additional courses.

**Academic Rules**

1. The program is a five year full-time combined program leading to the award of the two degrees of Bachelor of Engineering and Bachelor of Science (BE BSc).

2. The five years of the program include at least 108 units of credit in the Science program and a minimum of 240 units of credit in total.

3. The 108 Science program units of credit must include a minimum of 36 and a maximum of 48 level 1 units of credit and all courses prescribed in a specific program as outlined in the Science section in this Handbook must be completed. A major sequence (42 units of credit of Level 2 and 3 courses with at least 18 units of credit of Level 3 courses) in a Science discipline is also a requirement of the Science program.

4. Students must satisfy the normal prerequisites for entry to Bachelor of Science Program and to individual courses therein. Also, students must satisfy the normal prerequisites for entry to Civil Engineering and to individual courses therein.

5. Students desiring to enrol in the BSc degree program at Honours level are not able to complete the program in five years and must obtain approval from the School of Civil and Environmental Engineering and the Faculty of Science for their programs. With the approval of the relevant school and of the Head of the School of Civil and Environmental Engineering, a student may follow a standard Honours program in the Science program which can be completed by an additional year of study.

6. The degrees of Bachelors of Engineering and Bachelor of Science are not awarded until the completion of the full five-year program.

7. Students contemplating enrolling in this program should consult fully with the Faculty of Science and with the School of Civil and Environmental Engineering before enrolment.

8. There will be a testamur for each degree in the combined program.

9. Students must complete the full requirements of the BE in Civil Engineering (code 3620) except that:
   a) CVEN3023 and CVEN3024 are exempted;   
   b) the General Education requirement is exempted; and   
   c) a final year engineering major (12 units of credit) is exempted.

10. Group A and Group B courses listed in Rule 12 below will count towards satisfying requirements of both rules 2 and 9 above. The courses in Group B may not satisfy requirements for progression within science programs.

11. Students may apply for exemption from the requirements of Rule 9 for the courses listed in Rule 12 below in Group B on the basis of courses/requirements in parentheses.

12. Exemptions will be granted for the courses in Group C below with respect to Rule 9 on the basis of the requirements within parentheses.

**Group A**

MATH1131 or MATH1141, MATH1231 or MATH1241, CHEM1011 or CHEM101J, PHYS1279

**Group B**

PHYS1279 (PHYS121), CHEM1011 (CHEM1021), MATH2019 (at least 12 units of credit of non-statistics level II mathematics), CVEN2025 (at least 3 units of credit of level II Statistics).

**Group C**

CVEN3025 (at least 3 units of credit of level III Applied Mathematics).

13. Students wishing to major in Physics must consult with the School of Physics and the School of Civil & Environmental Engineering in regards to choice of courses.

14. A typical structure of a combined Engineering/Science program is set out above in the Program Structure section. Subject to timetable restrictions, the full range of Science programs is available to Civil Engineering students.

15. The total units of credit in the program is 240.

**Industrial Experience**

Industrial experience is an integral part of the programs. This can be taken within Australia or overseas. Students must complete at least sixty days of approved industrial experience. Students are strongly recommended to gain as much industrial experience as possible during the session breaks throughout their period of study. Students who have had suitable experience in industry prior to commencement may qualify for exemption from completing further industrial training.

**Computing Requirements**

For information about computing requirements, please refer to the School website: [www.civeng.unsw.edu.au/currentstudents/general/computing](http://www.civeng.unsw.edu.au/currentstudents/general/computing)

**Professional Recognition**

The BE in Civil Engineering is fully accredited by the Institution of Engineers, Australia, meeting the examination requirements for admission to graduate and corporate membership of the Institution. Substantial or complete recognition is accorded to the BE programs by overseas engineering institutions.

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**3621 Civil Engineering/Bachelor of Arts**

**Bachelor of Engineering Bachelor of Arts BE BA**

**Typical Duration**

5 years

**Minimum UOC for Award**

240 units of credit

**Typical UOC per Session**

24 units of credit

**Program Description**

With this combined degree program, students can add their choice of an Arts program to the standard, professionally accredited Civil Engineering (3620) program offered by the School of Civil and Environmental Engineering. It provides flexibility in the choice of courses within the full Arts program and enables students to gain a broad education in Arts and Social Sciences, as well as specialised studies in Civil Engineering. Because Engineering and Arts programs can have a common content, such as mathematics and physics, two additional sessions of study is required to gain the additional qualification of Bachelor of Arts. In general, this additional study is taken concurrently with the BE program and both can be completed in ten sessions.

**Eligibility**

The program is open to all students who satisfy both the Civil Engineering (3620) and Arts entry conditions. Students may enter directly in Year 1 or may apply to transfer from the normal engineering program after completion of at least one year if they have a credit or higher average. Transfer after the second year may result in students taking more than minimum time to complete the combined program.

**Organisation**

The BE BA program is administered by the School of Civil and Environmental Engineering. The School will consult with the Faculty of Arts and Social Sciences in approving the BA component of the program. The School of Civil and Environmental Engineering must approve the final program and timetable.

Students should start discussing their program with representatives of the School and the Faculty of Arts and Social Sciences as early as possible. Students should themselves determine the Arts program that they wish to undertake. The Arts and Social Sciences section in this Handbook describes the options. There are no special rules on what courses should be included in each year. Students should schedule the Arts and Engineering components to suit their preferences, while meeting the constraints of timetables and prerequisites.

**Program Objectives and Learning Outcomes**

The broad objective of the School’s undergraduate programs is to develop well-educated graduates with the basic skills, attributes and knowledge required to practice as professional engineers. The desired skills are those that enable graduates to be problem solvers; critical thinkers; life long learners; good communicators; team players; independent investigators; effective managers; self-motivated; and economically, environmentally and socially aware.
It is intended that these attributes are developed in students at the same time that they gain knowledge in a broad range of disciplines. In addition, an objective of the programs is to provide the skills and knowledge in a social context. Integrating courses in each year of each program (the Engineering Practice courses) have been introduced to achieve this objective.

Program Structure
CVENA13621 and Arts Plan
Please refer to the Academic Rules below and contact the School of Civil and Environmental Engineering for information on the Program Structure of this degree.

Computing Requirements
For information about computing requirements, please refer to the School website: www.civeng.unsw.edu.au/currentstudents/general/computing

Honours
Honours is awarded to students who have achieved above average results and who undertake an Honours Thesis in their Final Year. A School weighted average mark is calculated for each student. A different weighting factor for each year of the program is applied to the marks in each course by units of credit as follows:

- Year 1 x 1
- Year 2 x 2
- Year 3 x 4
- Year 4 x 5

Industrial training is assigned a nominal value of 3 units of credit in Year 4 in the Honours calculation. For combined degree programs only the marks obtained in the standard Civil or Environmental Engineering courses are used in the calculation. A School weighted average mark in the range of 65.0-69.9 will result in a recommendation for Honours 2/2. A weighted average mark in the range of 70.0-74.9 will result in a recommendation for Honours 2/1. A weighted average mark of 75.0 and above will result in a recommendation for Honours 1.

Academic Rules
1. Students must complete 60 units of credit in the BA program, with no more than 24 units of credit obtained at Level 1 (i.e. in courses designed for students in their first year of study). Of these 24 Level 1 units of credit, no more than 12 units of credit may be from any one sequence of study.
2. Students must complete a major sequence (42 units of credit) in one of the following areas:
   - Australian Studies
   - Chinese Studies
   - Development Studies
   - Education
   - English
   - European Studies
   - Film
   - French
   - German Studies
   - Greek
   - History
   - History & Philosophy of Science
   - Indonesian Studies
   - Japanese Studies
   - Korean Studies
   - Linguistics
   - Media, Culture & Technology
   - Music
   - Philosophy
   - Policy Studies
   - Political Economy
   - Politics and International Relations
   - Russian Studies
   - Sociology and Anthropology
   - Spanish & Latin American Studies
   - Theatre & Performance Studies
   - Women’s and Gender Studies
3. Except for courses completed as part of the major sequence, no more than 12 units of credit may be obtained from courses in the BA program which are offered by schools outside the Faculty of Arts and Social Sciences.
4. No course included for credit in the BE program can be included in the 60 units of credit required at Rule 1 for the BA program.
5. Students must complete the full requirements of Program 3620 BE in Civil Engineering except that they are exempt from the General Education requirements of the BE program. However, students will not be eligible for graduation for the BE until a minimum of 12 units of credit of the BA program have been successfully completed.
6. Students who complete the requirements for the BA program and the first two years of the BE program may proceed to graduation with the degree of Bachelor of Arts.
7. Students may be awarded Honours in the BA by successful completion of Honours year. It should be noted that entry into a particular BA Honours program might require completion of courses additional to those specified under Rules 1-4.
8. The total units of credit in the program is 240
For academic rules relating to the Bachelor of Engineering component of this combined program, please refer to the ‘Rules for Progression and Award of Degrees’ under Faculty Information and Assistance in this Handbook.

Industrial Experience
Industrial experience is an integral part of the program. This can be taken within Australia or overseas. Students must complete at least sixty days of approved industrial experience. Students are strongly recommended to gain as much industrial experience as possible during the session breaks throughout their period of study. Students who have had suitable experience in industry prior to commencement may qualify for exemption from completing further industrial training.

Professional Recognition
The BE in Civil Engineering is fully accredited by the Institution of Engineers, Australia, meeting the examination requirements for admission to graduate and corporate membership of the Institution. Substantial or complete recognition is accorded to the BE programs by overseas engineering institutions.

3715 Civil Engineering/Bachelor of Commerce
BE BCom
Please refer to the program entry for 3715 Bachelor of Engineering Bachelor of Commerce under ‘Program Rules and Information’ in this Handbook.

4775 Civil Engineering/Bachelor of Laws
Bachelor of Engineering Bachelor of Laws BE LLB
CVENA14775 and Laws Plan
This program provides students with professional qualifications in areas of very great importance to the community. The program is attractive to students who have in mind a career involving construction or general engineering and the law. Most large developments raise a formidable range of legal issues and there is a need for highly qualified personnel who are able to understand both the engineering and the legal dimensions of development, both in Australia and overseas.

The Faculty of Law administers this program. For full details, see the entry under the Faculty of Law in this Handbook.

3146 Civil Engineering/Mining Engineering
Bachelor of Engineering Bachelor of Engineering BE BE
Typical Duration
5 years
Minimum UOC for Award
240 units of credit
Typical UOC per Session
24 units of credit

Program Description
Students may enrol directly into Program 3146 or apply to transfer from Program 3620 (Civil Engineering) any time before the commencement of Year 4. The first three years of the combined degree program are identical to program 3620. The first three years is administered by the School of Civil & Environmental Engineering, with the final two years administered by the School of Mining Engineering. Students aim to complete the mining requirements in four additional sessions.

Students considering this option should discuss the above arrangements with the relevant program authorities.
Program Structure

Plans CVENAD3146 and MINEFD3146 (Full-time program)

Year 1
CVEN1021 Civil Engineering Practice 1A (4 UOC)
CVEN1022 Civil Engineering Practice 1B (6 UOC)
CVEN1023 Statics (4 UOC)
CVEN1024 Dynamics (4 UOC)
CVEN1025 Computing (4 UOC)
CVEN1026 Engineering Materials 1 (4 UOC)
PHYS1279 Physics 1 (Civil Engineering) (4 UOC)
And one of the following courses:
CHEM1011 Fundamentals of Chemistry 1A (6 UOC)
CHEM1013 Higher Chemistry 1C (6 UOC)
And one of the following courses:
MATH1131 Mathematics 1A (6 UOC)
MATH1141 Higher Mathematics 1A (6 UOC)
And one of the following courses:
MA1H1231 Mathematics 1B (6 UOC)
MA1H1241 Higher Mathematics 1B (6 UOC)
Total hours per week - Session 1: 20
Total hours per week - Session 2: 20
Total units of credit: 48

Year 2
CVEN2022 Civil Engineering Practice 2 (3 UOC)
CVEN2023 Mechanics of Solids (3 UOC)
CVEN2025 Engineering Computations 1 (3 UOC)
CVEN2026 Engineering Materials 2 (3 UOC)
CVEN2125 Systems Engineering (3 UOC)
CVEN2126 Engineering Construction 1 (3 UOC)
CVEN2222 Geotechnical Engineering 1 (3 UOC)
CVEN2322 Structural Engineering 1 (6 UOC)
CVEN2525 Introduction to Water Engineering (3 UOC)
GMAT0442 Surveying for Civil Engineers (3 UOC)
MA1O0491 Survey Camp (3 UOC)
MATH2019 Engineering Mathematics 2CE (6 UOC)
General Education (6 UOC)
Total Hours per week - Session 1: 20
Total hours per week - Session 2: 20
Total units of credit: 48

Year 3
CVEN3023 Civil Engineering Practice 3A (3 UOC)
CVEN3024 Civil Engineering Practice 3B (3 UOC)
CVEN3025 Engineering Computations 2 (3 UOC)
CVEN3125 Engineering Construction 2 (3 UOC)
CVEN3126 Geotechnical Engineering Management 1 (3 UOC)
CVEN3222 Geotechnical Engineering 2 (3 UOC)
CVEN3223 Geotechnical Engineering 3 (3 UOC)
CVEN3322 Structural Engineering 2 (6 UOC)
CVEN3324 Structural Engineering 3 (3 UOC)
CVEN3438 Transport Planning and Environment (3 UOC)
CVEN3448 Transport Engineering (3 UOC)
CVEN3526 Water Resources Engineering (3 UOC)
CVEN3527 Water Engineering (3 UOC)
General Education (6 UOC)
Total hours per week - Session 1: 22
Total hours per week - Session 2: 22
Total units of credit: 48

Year 4
Session One
CVEN4225 Geotechnical Engineering 4 (3 UOC)
MINE4310 Coal Mining Systems (6 UOC)
MINE4320 Metal Mining Systems (6 UOC)
Choose one of the following courses:
CVEN4126 Engineering Management 2 (3 UOC)
CVEN4323 Structural Engineering 4 (3 UOC)
CVEN4526 Water and Wastewater Treatment (3 UOC)
Choose one of the following courses:
CVEN4027 Civil Engineering Practice 4A (6 UOC)
CVEN4028 Civil Engineering Practice 4B (6 UOC)
CVEN4029 Civil Engineering Practice 4C (6 UOC)
Total hours per week Session 1: 18
Total units of credit: 24

Session Two
Choose one major comprising 12 units of credit

Construction and Management Major
CVEN4139 Advanced Construction Project Management (4 UOC)
CVEN4149 Professional Level Project Management Tools and Skills (4 UOC)
CVEN4159 Advanced Construction Technology and Engineering (4 UOC)

Structural Engineering Major
CVEN4339 Design of Bridges (4 UOC)
CVEN4349 Special Topics in Concrete, Steel and Composite Structures (4 UOC)
CVEN4359 Structural Analysis and Finite Elements (4 UOC)

Transport Engineering
CVEN4439 Transport Operations and Systems Design (4 UOC)
CVEN4449 Traffic Management and Control (4 UOC)
CVEN4459 Transport and Environment (4 UOC)

Water Engineering Major
CVEN4539 Advanced Water Quality and Treatment (4 UOC)
CVEN4549 Advanced Catchment and Coastal Processes (4 UOC)
CVEN4559 Advanced Water Engineering (4 UOC)

MINE3500 Mine Workplace Environment (6 UOC)
MINE3710 Mine Economics and Business Systems (6 UOC)
Total hours per week Session 2: 21
Total units of credit: 24

Year 5
MINE4210 Mine Planning (6 UOC)
MINE4300 Geotechnical Engineering (6 UOC)
MINE4410 Industry Applications (6 UOC)
MINE4420 Thesis A (6 UOC)
MINE4500 Sustainable Mining Practices (3 UOC)
MINE4700 Mining Law (6 UOC)
And one of the following courses:
MINE4220 Coal Mine Design and Evaluation Project (9 UOC)
MINE4230 Metal Mine Design and Evaluation Project (9 UOC)
MINE4240 Mine Design and Evaluation (9 UOC)
And choose two from the following three electives:
MINE4800 Mine Simulation and Modelling (3 UOC)
MINE4805 Mineral Process Technology (3 UOC)
MINE4810 Comp Methods in Geomechanics (3 UOC)

Academic Rules
For program rules relating to the Bachelor of Engineering and General Rules for Progression, please refer to the ‘Rules for Progression and Award of Degrees’ under ‘Faculty Information and Assistance’ in this Handbook.

3631 Civil Engineering/Environmental Engineering

Bachelor of Engineering Bachelor of Engineering BE BE
Typical Duration
5 years
Minimum UOC for Award
240 units of credit
Typical UOC per Session
24 units of credit

Program Description
The program provides students with professional qualifications in areas of great importance to the community. The program is attractive to students who have in mind a career involving environmental issues and infrastructure development. The School of Civil and Environmental Engineering administers the program.

Program Structure
Plans CVENAD3631 and CVENBD3631

Year 1
CVEN1021 Civil Engineering Practice 1A (4 UOC)
CVEN1022 Civil Engineering Practice 1B (6 UOC)
CVEN1023 Statics (4 UOC)
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CVEN1024</td>
<td>Dynamics</td>
<td>4 UOC</td>
</tr>
<tr>
<td>CVEN1025</td>
<td>Computing</td>
<td>4 UOC</td>
</tr>
<tr>
<td>CVEN1026</td>
<td>Engineering Materials 1</td>
<td>4 UOC</td>
</tr>
<tr>
<td>PHYS1279</td>
<td>Physics 1 (Civil Engineering)</td>
<td>4 UOC</td>
</tr>
<tr>
<td>And ONE of the following courses:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CHEM1011</td>
<td>Fundamentals of Chemistry 1A</td>
<td>6 UOC</td>
</tr>
<tr>
<td>CHEM1031</td>
<td>Higher Chemistry 1C</td>
<td>6 UOC</td>
</tr>
<tr>
<td>And ONE of the following courses:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MATH1131</td>
<td>Mathematics 1A</td>
<td>6 UOC</td>
</tr>
<tr>
<td>MATH1141</td>
<td>Higher Mathematics 1A</td>
<td>6 UOC</td>
</tr>
<tr>
<td>MATH1231</td>
<td>Mathematics 1B</td>
<td>6 UOC</td>
</tr>
<tr>
<td>MATH1241</td>
<td>Higher Mathematics 1B</td>
<td>6 UOC</td>
</tr>
<tr>
<td><strong>Year 2</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CHEM1021</td>
<td>Fundamentals of Chemistry 1B</td>
<td>6 UOC</td>
</tr>
<tr>
<td>CVEN2023</td>
<td>Mechanics of Solids</td>
<td>3 UOC</td>
</tr>
<tr>
<td>CVEN2025</td>
<td>Engineering Computations 1</td>
<td>3 UOC</td>
</tr>
<tr>
<td>CVEN2026</td>
<td>Engineering Materials 2</td>
<td>3 UOC</td>
</tr>
<tr>
<td>CVEN2126</td>
<td>Engineering Construction 1</td>
<td>3 UOC</td>
</tr>
<tr>
<td>CVEN2322</td>
<td>Structural Engineering 1</td>
<td>6 UOC</td>
</tr>
<tr>
<td>CVEN2525</td>
<td>Introduction to Water Engineering</td>
<td>3 UOC</td>
</tr>
<tr>
<td>GEOS1711</td>
<td>Planet Earth</td>
<td>3 UOC</td>
</tr>
<tr>
<td>GMAT0442</td>
<td>Surveying for Civil Engineers</td>
<td>3 UOC</td>
</tr>
<tr>
<td>GMAT0491</td>
<td>Survey Camp</td>
<td>3 UOC</td>
</tr>
<tr>
<td>MATH2019</td>
<td>Engineering Mathematics 2CE</td>
<td>6 UOC</td>
</tr>
<tr>
<td><strong>General Education</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BIOS1101</td>
<td>Evolutionary and Functional Biology</td>
<td>6 UOC</td>
</tr>
<tr>
<td>CEC10310</td>
<td>Mass Transfer and Material Balances</td>
<td>3 UOC</td>
</tr>
<tr>
<td>CVEN2125</td>
<td>Systems Engineering</td>
<td>3 UOC</td>
</tr>
<tr>
<td>CVEN2222</td>
<td>Geotechnical Engineering 1</td>
<td>3 UOC</td>
</tr>
<tr>
<td>CVEN3126</td>
<td>Engineering Management 1</td>
<td>3 UOC</td>
</tr>
<tr>
<td>CVEN3322</td>
<td>Structural Engineering 2</td>
<td>6 UOC</td>
</tr>
<tr>
<td>CVEN3324</td>
<td>Structural Engineering 3</td>
<td>3 UOC</td>
</tr>
<tr>
<td>CVEN3438</td>
<td>Transport Planning and Environment</td>
<td>3 UOC</td>
</tr>
<tr>
<td>CVEN3448</td>
<td>Transport Engineering</td>
<td>3 UOC</td>
</tr>
<tr>
<td>CVEN3526</td>
<td>Water Resources Engineering</td>
<td>3 UOC</td>
</tr>
<tr>
<td>CVEN3527</td>
<td>Water Engineering</td>
<td>3 UOC</td>
</tr>
<tr>
<td>GMA1073</td>
<td>Introduction to Spatial Information Systems</td>
<td>3 UOC</td>
</tr>
<tr>
<td>INDG4120</td>
<td>Chemistry of the Industrial Environment</td>
<td>3 UOC</td>
</tr>
<tr>
<td>And ONE of the following courses:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CVEN2022</td>
<td>Civil Engineering Practice 2</td>
<td>3 UOC</td>
</tr>
<tr>
<td>CVEN2722</td>
<td>Environmental Engineering Practice 2</td>
<td>3 UOC</td>
</tr>
<tr>
<td><strong>Year 3</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BIOS3301</td>
<td>Population and Community Ecology for Environmental Engineers</td>
<td>3 UOC</td>
</tr>
<tr>
<td>CEC1050</td>
<td>Atmospheric Process Chemistry</td>
<td>3 UOC</td>
</tr>
<tr>
<td>CVEN3025</td>
<td>Engineering Computations 2</td>
<td>3 UOC</td>
</tr>
<tr>
<td>CVEN3125</td>
<td>Engineering Construction 2</td>
<td>3 UOC</td>
</tr>
<tr>
<td>CVEN3222</td>
<td>Geotechnical Engineering 2</td>
<td>3 UOC</td>
</tr>
<tr>
<td>CVEN3223</td>
<td>Geotechnical Engineering 3</td>
<td>3 UOC</td>
</tr>
<tr>
<td>CVEN3531</td>
<td>Aquatic Chemistry</td>
<td>3 UOC</td>
</tr>
<tr>
<td>CVEN3725</td>
<td>Waste Management</td>
<td>3 UOC</td>
</tr>
<tr>
<td>CVEN3726</td>
<td>Environmental Policy</td>
<td>3 UOC</td>
</tr>
<tr>
<td>CVEN4323</td>
<td>Structural Engineering 4</td>
<td>3 UOC</td>
</tr>
<tr>
<td>And ONE of the following courses:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CVEN3023</td>
<td>Civil Engineering Practice 3A</td>
<td>3 UOC</td>
</tr>
<tr>
<td>CVEN3723</td>
<td>Environmental Engineering Practice 3A</td>
<td>3 UOC</td>
</tr>
<tr>
<td><strong>Year 4</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BIOS3301</td>
<td>Population and Community Ecology for Environmental Engineers</td>
<td>3 UOC</td>
</tr>
<tr>
<td>CEC1050</td>
<td>Atmospheric Process Chemistry</td>
<td>3 UOC</td>
</tr>
<tr>
<td>CVEN3025</td>
<td>Engineering Computations 2</td>
<td>3 UOC</td>
</tr>
<tr>
<td>CVEN3125</td>
<td>Engineering Construction 2</td>
<td>3 UOC</td>
</tr>
<tr>
<td>CVEN3222</td>
<td>Geotechnical Engineering 2</td>
<td>3 UOC</td>
</tr>
<tr>
<td>CVEN3223</td>
<td>Geotechnical Engineering 3</td>
<td>3 UOC</td>
</tr>
<tr>
<td>CVEN3531</td>
<td>Aquatic Chemistry</td>
<td>3 UOC</td>
</tr>
<tr>
<td>CVEN3725</td>
<td>Waste Management</td>
<td>3 UOC</td>
</tr>
<tr>
<td>CVEN3726</td>
<td>Environmental Policy</td>
<td>3 UOC</td>
</tr>
<tr>
<td>CVEN4323</td>
<td>Structural Engineering 4</td>
<td>3 UOC</td>
</tr>
<tr>
<td>And ONE of the following courses:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CVEN4001</td>
<td>Honours Thesis B</td>
<td>4 UOC</td>
</tr>
<tr>
<td>CVEN4049</td>
<td>Advanced Construction Technology and Engineering</td>
<td>4 UOC</td>
</tr>
<tr>
<td>CVEN4139</td>
<td>Advanced Geotechnical Major</td>
<td>4 UOC</td>
</tr>
<tr>
<td>CVEN4269</td>
<td>Environmental Geotechnics</td>
<td>4 UOC</td>
</tr>
<tr>
<td>CVEN4279</td>
<td>Rock and Slope Engineering</td>
<td>4 UOC</td>
</tr>
<tr>
<td>CVEN4289</td>
<td>Site Investigations and Dam Engineering</td>
<td>4 UOC</td>
</tr>
<tr>
<td>CVEN4299</td>
<td>Advanced Topics in Geotechnical Engineering</td>
<td>4 UOC</td>
</tr>
<tr>
<td><strong>General Education</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Year 5</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Session One Students achieving a School weighted average mark exceeding 62 (calculated from all courses in Years 1 to 4 of the BE program) are eligible to undertake an Honours thesis in Year 4 (CVEN4000 in S1 and CVEN4001 in S2).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CVEN4126</td>
<td>Engineering Management 2</td>
<td>3 UOC</td>
</tr>
<tr>
<td>CVEN4225</td>
<td>Geotechnical Engineering 4</td>
<td>3 UOC</td>
</tr>
<tr>
<td>CVEN4526</td>
<td>Water and Wastewater Treatment</td>
<td>3 UOC</td>
</tr>
<tr>
<td>CVEN4533</td>
<td>Transport &amp; Fate of Pollutants</td>
<td>3 UOC</td>
</tr>
<tr>
<td>Plus TWO of the following electives:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CVEN4000</td>
<td>Honours Thesis Part A</td>
<td>6 UOC</td>
</tr>
<tr>
<td>CVEN4027</td>
<td>Civil Engineering Practice 4A</td>
<td>6 UOC</td>
</tr>
<tr>
<td>CVEN4028</td>
<td>Civil Engineering Practice 4B</td>
<td>6 UOC</td>
</tr>
<tr>
<td>CVEN4029</td>
<td>Civil Engineering Practice 4C</td>
<td>6 UOC</td>
</tr>
<tr>
<td>CVEN4727</td>
<td>Environmental Engineering Practice 4A</td>
<td>6 UOC</td>
</tr>
<tr>
<td>CVEN4728</td>
<td>Environmental Engineering Practice 4B</td>
<td>6 UOC</td>
</tr>
<tr>
<td>CVEN4729</td>
<td>Environmental Engineering Practice 4C</td>
<td>6 UOC</td>
</tr>
<tr>
<td><strong>Session Two</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All students not undertaking the Honours thesis are required to select two majors. Students undertaking the Honours thesis are required to undertake one major plus at least 8 units of credit of electives taken from one other discipline area. To complete a major, all three 4 units of credit elective subjects (listed for each discipline below) must be undertaken.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CVEN4001</td>
<td>Honours Thesis B</td>
<td>4 UOC</td>
</tr>
<tr>
<td><strong>Construction and Management Major</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CVEN4139</td>
<td>Advanced Construction and Project Management</td>
<td>4 UOC</td>
</tr>
<tr>
<td>CVEN4149</td>
<td>Professional Level Project Management Tools and Skills</td>
<td>4 UOC</td>
</tr>
<tr>
<td>CVEN4159</td>
<td>Advanced Construction Technology and Engineering</td>
<td>4 UOC</td>
</tr>
<tr>
<td><strong>Geotechnical Major</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Any 3 of the following 4 courses:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CVEN4349</td>
<td>Special Topics in Concrete, Steel and Composite Geotechnical Major</td>
<td>4 UOC</td>
</tr>
<tr>
<td>CVEN4359</td>
<td>Structural Analysis and Finite Elements</td>
<td>4 UOC</td>
</tr>
<tr>
<td>CVEN4369</td>
<td>Design of Bridges</td>
<td>4 UOC</td>
</tr>
<tr>
<td><strong>Structures Major</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CVEN4159</td>
<td>Advanced Topics in Geotechnical Engineering</td>
<td>4 UOC</td>
</tr>
<tr>
<td><strong>Transport Major</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CVEN4439</td>
<td>Transport Operations and Systems Design</td>
<td>4 UOC</td>
</tr>
<tr>
<td>CVEN4449</td>
<td>Traffic Management and Control</td>
<td>4 UOC</td>
</tr>
<tr>
<td>CVEN4459</td>
<td>Transport and Environment</td>
<td>4 UOC</td>
</tr>
<tr>
<td><strong>Water Major</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Any 3 of the following 4 courses:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CVEN4549</td>
<td>Advanced Water Quality and Treatment</td>
<td>4 UOC</td>
</tr>
<tr>
<td>CVEN4549</td>
<td>Advanced Catchment and Coastal Processes</td>
<td>4 UOC</td>
</tr>
<tr>
<td>CVEN4569</td>
<td>Advanced Environmental Systems</td>
<td>4 UOC</td>
</tr>
<tr>
<td>Note each major strand is divided into at least three courses each of 4 units of credit. A major consists of undertaking 12 units of credit in a given strand. Students may also take elective components of 4 units of credit each offered from different strands.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>General Education</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Please refer to General Education Requirements under 'Faculty Information and Assistance' in this Handbook.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Honours</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Honours is awarded to students who have achieved above average results and who undertake an Honours Thesis in their Final Year. A School weighted average mark is calculated for each student. A different weighting factor for each year of the program is applied to the marks in each course by units of credit as follows:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Year 1 x 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>General Education x 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Year 2 x 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Year 3 x 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Year 4 x 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Industrial training is assigned a nominal value of 3 units of credit in Year 4 in the Honours calculation. For combined degree programs only the marks obtained in the standard Civil and Environmental Engineering courses are used in the calculation. A weighted average mark in the range of 65.0-69.9 will result in a recommendation for Honours 2/2. A weighted average mark in the range of 70.0-74.9 will result in a recommendation for Honours 2/1. A weighted average mark of 75.0 and above will result in a recommendation for Honours 1.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Academic Rules
1. Students must satisfy the normal program and course prerequisites for Environmental Engineering and Civil Engineering.
2. The degrees of Bachelor of Engineering may be conferred as Pass or Honours degrees. There are two classes of Honours, Class 1, and Class 2, in two divisions. The award and grade of Honours are made in recognition of superior performance throughout the program with greater weighting on courses in the later years. The course can lead to the award of the University Medal in either Civil or Environmental Engineering.
3. There will be a testamur for each degree in the combined program.
4. Students must satisfy admission requirements for both the BE in Civil and Environmental Engineering for direct admission or may transfer from either the Civil or the Environmental BE program after completion of the first year with a weighted average mark of 65 or greater.
5. The total units of credit in the program is 240

Industrial Experience
Industrial experience is an integral part of the programs. This can be taken within Australia or overseas. Students must complete at least sixty days of approved industrial experience. Students are strongly recommended to gain as much industrial experience as possible during the session breaks throughout their period of study. Students who have had suitable experience in industry prior to commencement may qualify for exemption from completing further industrial training.

Computing Requirements
For information about computing requirements, please refer to the School website: www.civeng.unsw.edu.au/currentstudents/general/computing

Professional Recognition
Both the BE in Civil Engineering and the BE in Environmental Engineering are fully accredited by the Institution of Engineers, Australia, meeting the examination requirements for admission to graduate and corporate membership of the Institution. Substantial or complete recognition is accorded to the BE programs by overseas engineering institutions.

3735 Environmental Engineering/Bachelor of Science
Bachelor of Engineering Bachelor of Science BE BSc
Typical Duration
5 years
Minimum UOC for Award
240 units of credit
Typical UOC per Session
24 units of credit

Program Description
Students may seek to undertake a five-year full-time combined program leading to the award of the degree of Bachelor of Engineering in Environmental Engineering and Bachelor of Science (BE BSc). The School of Civil and Environmental Engineering administers the program.
With the combined degree program, students can add their choice of a Science, Mathematics or Computer Science program to the standard, professionally accredited Environmental Engineering program offered by the School of Civil and Environmental Engineering.
The School of Civil and Environmental Engineering is the academic unit responsible for the program. The School will consult with the Faculty of Science in approving the BSc component of the program.
Students must satisfy admission requirements for both the BE in Environmental Engineering and BSc programs or may transfer from the BE in Environmental Engineering program after completion of at least one year if they have a credit or higher average.
Course credits can accrue simultaneously for both component degrees where there is an overlap of courses from the Environmental Engineering program and the Science Program.

Program Objectives and Learning Outcomes
The broad objective of the School’s undergraduate programs is to develop well-educated graduates with the basic skills, attributes and knowledge required to practise as professional engineers. The desired skills are those that enable graduates to be problem solvers; critical thinkers; life long learners; good communicators; team players; independent investigators; effective managers; self-motivated; and economically, environmentally and socially aware.
Students will be able to combine this with the skills learnt from the Science portion of the combined degree.

Program Structure
CVENB13735 and Science Plan

Year 1
All the year 1 courses in the Environmental Engineering course

Year 2
The year 2 courses in the Environmental Engineering program, except that 12 units of credit of Science courses are substituted for CVEN2222, CVEN2722 and General Education.

Year 3
Science courses to total at least 36 units of credit and CVEN2222, CVEN2722, CVEN3025, CVEN3126

Year 4
Science courses to total at least 24 units of credit and BIOS3301, CECE0050, CVEN3222, CVEN3223, CVEN3526, CVEN3527, CVEN3531 and CVEN 3726

Year 5
Science courses to total at least 12 units of credit in S2 in lieu of one environmental engineering major (12 units of credit) and CVEN3438 and CVEN3725 in lieu of one of CVEN4727, CVEN4728 or CVEN4729 in S1. Otherwise the Standard Year 4 program in Environmental Engineering.
The degrees of Bachelor of Engineering and Bachelor of Science may be conferred as a Pass degree or as an Honours degree. There are two classes of Honours, Class 1 and Class 2 in two divisions. The award and grade of Honours in the BE are made in recognition of superior performance throughout the program with a greater weighting on courses in the later years. The BSc can be awarded Honours on the successful completion of an Honours year. It should be noted that entry into a particular Honours program might require completion of additional courses.

Academic Rules
1. The program is a five year full-time combined program leading to the award of the two degrees of Bachelor of Engineering and Bachelor of Science (BE BSc).
2. The five years of the program include at least 108 units of credit in the Science program and a minimum of 240 units of credit in total.
3. The 108 Science program units of credit must include a minimum of 36 and a maximum of 48 level 1 units of credit and all courses prescribed in a specific program as outlined in the Science section in this Handbook must be completed.
4. Students must satisfy the normal prerequisites for entry to Bachelor of Science Program and to individual courses therein. Also, students must satisfy the normal prerequisites for entry to Environmental Engineering and to individual courses therein.
5. Students desiring to enrol in the BSc degree program at Honours level are not able to complete the program in five years and must obtain approval from the School of Civil and Environmental Engineering and the Faculty of Science for their programs. With the approval of the relevant school and of the Head of the School of Civil and Environmental Engineering, a student may follow a standard Honours program in the Science program which can be completed by an additional year of study.
6. The degrees of Bachelors of Engineering and Bachelor of Science are not awarded until the completion of the full five-year program.
7. Students contemplating enrolling in this program should consult fully with the Faculty of Science and with the School of Civil and Environmental Engineering before enrolment.
8. There will be a testamur for each degree in the combined program.
9. Students must complete the full requirements of the BE in Environmental Engineering (code 3625) except that:
   a) CVEN3723 and CVEN3724 are exempted;
   b) the General Education requirement is exempted;
   c) a final year engineering major (12 units of credit) is exempted; and
   d) final year engineering electives are to be selected from the Geotechnical, Transport, Water and Chemical Engineering majors.
10. Group A and Group B courses below will count towards satisfying requirements of both rules 2 and 9 above. The courses in Group B may not satisfy requirements for progression within science programs.
11. Students may apply for exemption from the requirements of Rule 9 for the courses listed in Rule 12 below Group B on the basis of courses/requirements in parentheses.

12. Exemptions will be granted for the courses in Group C below with respect to Rule 9 on the basis of the requirements within parentheses.

**Group A**
CHEM1011, CHEM1031, MATH1131 or MATH1141, MATH1231 or MATH1241, BIOS1101

**Group B**
CVEN1531 (CHEM1021), MATH2019 (at least 12 units of credit of non-statistics level II mathematics), CVEN2025 (at least 3 units of credit of level II Statistics), GEOS1711 (GEOS1721), BIOS3301 (BIOS3111).

**Group C**
CVEN3025 (at least 3 units of credit of level III applied mathematics).

13. Students wishing to major in Physics must consult with the School of Physics and the School of Civil & Environmental Engineering in regards to choice of courses.

14. A typical structure of a combined Engineering/Science program is set out above in the Program Structure section. Subject to timetable restrictions, the full range of Science programs is available to Environmental Engineering students.

15. The total units of credit in the program is 240.

**Industrial Experience**
Industrial experience is an integral part of the program. This can be taken within Australia or overseas. Students must complete at least sixty days of approved industrial experience. Students are strongly recommended to gain as much industrial experience as possible during the session breaks throughout their period of study. Students who have had suitable experience in industry prior to commencement may qualify for exemption from completing further industrial training.

**Further Requirements**
The School of Civil and Environmental Engineering is the academic unit responsible for the program. The School will consult with the Faculty of Science in approving the BSc component of the program. Students must satisfy admission requirements for both the BE in Environmental Engineering and BSc programs or may transfer from the BE in Environmental Engineering program after completion of at least one year if they have a credit or higher average.

Course credits can accrue simultaneously for both component degrees where there is an overlap of courses from the Environmental Engineering program and Science and Mathematics programs.

**Computing Requirements**
For information about computing requirements, please refer to the School website: [www.civeng.unsw.edu.au/currentstudents/general/computing](http://www.civeng.unsw.edu.au/currentstudents/general/computing)

**Professional Recognition**
The BE in Environmental Engineering is fully accredited by the Institution of Engineers, Australia, meeting the examination requirements for admission to graduate and corporate membership of the Institution. Substantial or complete recognition is accorded to the BE programs by overseas engineering institutions.

### 3626 Environmental Engineering/Bachelor of Arts

**Bachelor of Engineering Bachelor of Arts BE BArts**

**Typical Duration**
3 years

**Minimum UOC for Award**
240 units of credit

**Typical UOC per Session**
24 units of credit

**Program Description**
With this combined degree program, students can add their choice of an Arts program to the standard, professionally accredited Environmental Engineering (3625) program offered by the School of Civil and Environmental Engineering. It provides flexibility in the choice of courses within the full Arts program and enables students to gain a broad education in Arts and Social Sciences, as well as specialised studies in Environmental Engineering.

Because Engineering and Arts programs can have a common content, such as mathematics and physics, two additional sessions of study is required to gain the additional qualification of Bachelor of Arts. In general, this additional study is taken concurrently with the BE program and both can be completed in ten sessions.

**Eligibility**
The program is open to all students who satisfy both the Environmental Engineering (3625) and Arts entry conditions. Students may enter directly in Year 1 or may apply to transfer from the normal engineering program after completion of at least one year if they have a credit or higher average. Transfer after the second year may result in students taking more than minimum time to complete the combined program.

The BE BA program is administered by the School of Civil and Environmental Engineering. The School will consult with the Faculty of Arts and Social Sciences in approving the BA component of the program. The final program and timetable must be approved by the School of Civil and Environmental Engineering.

Students should start discussing their program with representatives of the School and the Faculty of Arts and Social Sciences as early as possible. Students should themselves determine the Arts program that they wish to undertake. The Arts and Social Sciences section in this Handbook describes the options. There are no special rules on what courses should be included in each year. Students should schedule the Arts and Engineering components to suit their preferences, while meeting the constraints of timetables and prerequisites.

Students will need to refer to the Faculty of Arts and Social Sciences section in this Handbook.

**Program Structure**

**CVENB13626 and Arts Plan**
Please contact the School of Civil and Environmental Engineering and the Faculty of Arts for the Program Structure of this combined degree.

**Honours**
Honours is awarded to students who have achieved above average results and who undertake an Honours Thesis in their Final Year. A School weighted average is calculated for each student. A different weighting factor for each year of the program is applied to the marks in each course by units of credit as follows:

- Year 1 x 1
- Year 2 x 2
- Year 3 x 4
- Year 4 x 5

**Academic Rules**

1. Students must complete 60 units of credit in the BA program, with no more than 24 units of credit obtained at Level 1 (ie in courses designed for students in their first year of study). Of these 24 Level 1 units of credit, no more than 12 units of credit may be from any one school or department.

2. Students must complete a major sequence (42 units of credit) in one of the following areas:
   - Australian Studies
   - Chinese Studies
   - Development Studies
   - Education
   - English
   - European Studies
   - Film
   - French
   - German Studies
   - Greek
   - History
   - History and Philosophy of Science
   - Indonesian Studies
   - Japanese Studies
   - Korean Studies
   - Linguistics
   - Media, Culture & Technology
   - Music
   - Philosophy
Policy Studies
Political Economy
Politics and International Relations
Russian Studies
Sociology and Anthropology
Spanish & Latin American Studies
Theatre & Performance Studies
Women's and Gender Studies

3. Except for courses completed as part of the major sequence, no more than 12 units of credit may be obtained from courses in the BA program which are offered by schools outside the Faculty of Arts and Social Sciences.

4. No course included for credit in the BE program can be included in the 60 units of credit required at Rule 1 for the BA program.

5. Students must complete the full requirements of Program 3625 in Environmental Engineering except that they are exempt from the General Education requirements of the BE program. However, students will not be eligible for graduation for the BE until a minimum of 12 units of credit of the BA program have been successfully completed.

6. Students who complete the requirements for the BA program and the first two years of the BE program may proceed to graduation with the degree of Bachelor of Arts.

7. Students may be awarded Honours in the BA by successful completion of Honours year. It should be noted that entry into a particular BA Honours program might require completion of courses additional to those specified under Rules 1-4.

8. The total units of credit in the program is 240.

For academic rules relating to the Bachelor of Engineering component of this combined program, please refer to the ‘Rules for Progression and Award of Degrees’ under Faculty Information and Assistance in this Handbook.

Industrial Experience
Industrial experience is an integral part of the programs. This can be taken within Australia or overseas. Students must complete at least sixty days of approved industrial experience. Students are strongly recommended to gain as much industrial experience as possible during the session breaks throughout their period of study.

Professional Recognition
Both the BE in Civil Engineering and the BE in Environmental Engineering are fully accredited by the Institution of Engineers, Australia, meeting the examination requirements for admission to graduate and corporate membership of the Institution. Substantial or complete recognition is accorded to the BE programs by overseas engineering institutions.

Computing Requirements
For information about computing requirements, please refer to the School website: www.civeng.unsw.edu.au/currentstudents/general/computing

3715 Environmental Engineering/Bachelor of Commerce
BE BCom
Please refer to the program entry for 3715 Bachelor of Engineering Bachelor of Commerce under ‘Program Rules and Information’ in this Handbook.

4777 Environmental Engineering/Bachelor of Laws
Bachelor of Engineering Bachelor of Laws BE LLB
CVENB14777 and Laws Plan
This program provides students with professional qualifications in areas of very great importance to the community. The program is attractive to students who have in mind a career involving environmental issues, engineering and the law. Most large developments raise a formidable range of legal issues, and there is a need for highly qualified personnel who are able to understand both the engineering and the legal dimensions of development, both in Australia and overseas.

The Faculty of Law administers this program. For full details, see entry under the Faculty of Law in this Handbook.

Fast-Track Programs with Master of Engineering Science

3620 Civil Engineering/Master of Engineering Science – Plan CVENG13620
Bachelor of Engineering Master of Engineering Science BE MEngSc

3625 Environmental Engineering/Master of Engineering Science – Plan CVENH13625
Bachelor of Engineering Master of Engineering Science BE MEngSc

Students may undertake a 4.5 year full-time fast-track program leading to the awards of either Bachelor of Engineering in Civil Engineering or Environmental Engineering and Master of Engineering Science.

Program of Study
Students undertake the first three years of the standard BE program in either Civil or Environmental Engineering. Subject to satisfying a minimum performance over these three years they (a) complete standard S1 program of Year 4 without Honours thesis (b) substitute 12 units of credit of the standard Year 4 BE degree program with a School approved 12 units of credit of graduate coursework in their Year 4; (c) undertake a 12 units of credit of project/thesis work over the Summer (9th) Semester; and (d) undertake 24 units of credit of graduate coursework in the 10th semester (first half of their 5th year) in the following areas:


It may not be possible to complete a specialisation in all sub disciplines in this fast-track mode.

School of Computer Science and Engineering

Head of School: Professor PJ Compton
Associate Head of School: Associate Professor WH Wilson
Student Office Manager: Miss CJ Nock
Undergraduate Program Directors: Dr A Mahidadia (Computer Engineering)
Associate Professor S Parameswaran (Computer Engineering)
Associate Professor K Robinson (Software Engineering)
Associate Professor A Hoffmann (Computer Science)
Dr TD Lambert (Computer Science & Computer Science Honours)
Dr B Gaeta (Bioinformatics)

The School of Computer Science and Engineering and the School of Electrical Engineering and Telecommunications have joint responsibility for the curriculum of the Computer Engineering program.

The staff of the School of Computer Science and Engineering is grouped into research groups of Architecture, Artificial Intelligence, Computer Networks, Computer Systems, Database and Software Engineering. Courses in these areas are offered to students taking major studies in Computer Science or Computer Engineering, while introductory-level computing courses are available more generally to students studying Science, Arts or Engineering. Computer Science has links with discrete mathematics, which furnishes the theory behind the algorithms that computer software implements, and electrical engineering, which supplies the present technology underlying physical computing devices.

The School of Computer Science and Engineering, together with the School of Electrical Engineering and Telecommunications, jointly administers the BE Computer Engineering 3645. The BE Software Engineering 3648 is jointly managed with the School of Information Systems. The BE MBiomedE programs 3728, 3749, and 3757 are managed in conjunction with the Graduate School of Biomedical Engineering. The Bachelor of Engineering Bioinformatics 3647 is offered in collaboration with the Faculty of Science.

The School of Computer Science and Engineering also offers the program Bachelor of Science Computer Science 3978. Computer Science is offered as a major in the combined BE BSc programs, BSc BA, BSc BSc, BSc LLB and more recently, BSc BDigMed. It is offered as a minor in the program, BSc (Science and Mathematics) 3970. The School also offers a major sequence in computing within the BA 3400 and BSoSc 3420.
Summary of Undergraduate Programs

Bachelor of Engineering

<table>
<thead>
<tr>
<th>Duration</th>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>3645</td>
<td>BE in Computer Engineering</td>
</tr>
<tr>
<td>3647</td>
<td>BE in Bioinformatics</td>
</tr>
<tr>
<td>3648</td>
<td>BE in Software Engineering</td>
</tr>
<tr>
<td>3651</td>
<td>BE BSc in Software Engineering</td>
</tr>
<tr>
<td>3632</td>
<td>BE BA in Software Engineering</td>
</tr>
<tr>
<td>3653</td>
<td>BE BCom in Software Engineering</td>
</tr>
<tr>
<td>3722</td>
<td>BE BA in Computer Engineering</td>
</tr>
<tr>
<td>3726</td>
<td>BE BSc in Computer Engineering</td>
</tr>
<tr>
<td>3715</td>
<td>BE BCom in Computer Engineering</td>
</tr>
<tr>
<td>3728</td>
<td>BE BSc in Computer Engineering</td>
</tr>
<tr>
<td>3749</td>
<td>BE MBiodeMe in Software Engineering</td>
</tr>
<tr>
<td>3755</td>
<td>BE BSc in Bioinformatics</td>
</tr>
<tr>
<td>3756</td>
<td>BE BA in Bioinformatics</td>
</tr>
<tr>
<td>3715</td>
<td>BE BCom in Bioinformatics</td>
</tr>
<tr>
<td>3757</td>
<td>BE MBiodeMe in Bioinformatics</td>
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Bachelor of Science

<table>
<thead>
<tr>
<th>Duration</th>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>3978</td>
<td>BSc in Computer Science</td>
</tr>
<tr>
<td>3978</td>
<td>BSc in Computer Science</td>
</tr>
</tbody>
</table>

Combined BE BSc in Computer Science

<table>
<thead>
<tr>
<th>Duration</th>
<th>Course</th>
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</thead>
<tbody>
<tr>
<td>3982</td>
<td>BE BSc in Chemical Engineering</td>
</tr>
<tr>
<td>3102</td>
<td>BE BSc in Industrial Chemistry</td>
</tr>
<tr>
<td>3641</td>
<td>BE BSc in Telecommunications</td>
</tr>
<tr>
<td>3711</td>
<td>BE BSc in Aerospace Engineering</td>
</tr>
<tr>
<td>3711</td>
<td>BE BSc in Manufacturing Management</td>
</tr>
<tr>
<td>3711</td>
<td>BE BSc in Mechanical Engineering</td>
</tr>
<tr>
<td>3711</td>
<td>BE BSc in Mechatronic Engineering</td>
</tr>
<tr>
<td>3711</td>
<td>BE BSc in Naval Architecture</td>
</tr>
<tr>
<td>3725</td>
<td>BE BSc in Electrical Engineering</td>
</tr>
<tr>
<td>3730</td>
<td>BE BSc in Civil Engineering</td>
</tr>
<tr>
<td>3735</td>
<td>BE BSc in Environmental Engineering</td>
</tr>
<tr>
<td>3746</td>
<td>BE BSc in Surveying and Spatial Information Systems</td>
</tr>
</tbody>
</table>

Combined BSc BDigMed

<table>
<thead>
<tr>
<th>Duration</th>
<th>Course</th>
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<tbody>
<tr>
<td>3982</td>
<td>BSc Computer Science Bachelor of Digital Media</td>
</tr>
</tbody>
</table>

Combined BSc BSc

<table>
<thead>
<tr>
<th>Duration</th>
<th>Course</th>
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</thead>
<tbody>
<tr>
<td>3984</td>
<td>BSc BSc in Computer Science</td>
</tr>
</tbody>
</table>

Combined BSc with Other Degrees

<table>
<thead>
<tr>
<th>Duration</th>
<th>Course</th>
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</thead>
<tbody>
<tr>
<td>3529</td>
<td>BCom BSc Commerce/Science</td>
</tr>
<tr>
<td>3935</td>
<td>BSc BSc Sc Science/Social Science</td>
</tr>
<tr>
<td>3968</td>
<td>BSc BA Science/Arts</td>
</tr>
<tr>
<td>4770</td>
<td>BSc LLB Science/Law</td>
</tr>
</tbody>
</table>

For a description of the combined BE BSc programs, see the entries in this Handbook for the Schools conducting the Engineering major. Majors in the program 3978 are also offered in Computer Science and Psychology, Computer Science and Geography, and Computer Science and Philosophy. For the BA degree program, see the Arts and Social Sciences section in this Handbook and for the BSc LLB program, see the Law section in this Handbook. For the BSc BA and BSc BSc, see the Science entry in this Handbook. For the BSc BCom, see the Commerce entry in this Handbook.

Computing Requirements

Information regarding recommended computing equipment and software for the program is available from the School of Computer Science and Engineering Student Office.

General Education Courses

It may not be possible for computing students to enrol in General Education courses which are similar in content to the courses offered in their respective degree program. For a comprehensive list, please refer to the CSE website: www.cse.unsw.edu.au/school/teaching/courses/gened.html

Please note: Most undergraduate programs in the Faculty of Engineering are currently under revision, subject to approval by the University Council. Students commencing in 2006 should refer to the Online Handbook (www.handbook.unsw.edu.au) for up-to-date information about program structures.

Bachelor of Engineering BE

Typical Duration
4 years

Minimum UOC for Award
192 units of credit

Typical UOC per Session
24 units of credit

Program Description

The School of Computer Science and Engineering and the School of Electrical Engineering and Telecommunications have joint responsibility for the curriculum of the Computer Engineering program.

The staff of the School of Computer Science and Engineering is grouped into research groups of Architecture, Artificial Intelligence, Computer Systems, Database and Software Engineering. Courses in these areas are offered to students taking major studies in Computer Science or Computer Engineering, while introductory-level computing courses are available more generally to students studying Science, Arts or Engineering. Computer Science has links with discrete mathematics, which furnishes the theory behind the algorithms that computer software implements, and electrical engineering, which supplies the present technology underlying physical computing devices.

Program Structure

Plan COMP813645

Year 1

- ELEC1011 Electrical Engineering 1 (6 UOC)
- MA1H1081 Discrete Mathematics (6 UOC)
- PHYS1131 Higher Physics 1A (6 UOC)
- PHYS1231 Higher Physics 1B (6 UOC)
- And ONE of the following courses:
  - COMP1011 Computing 1A (6 UOC)
  - COMP1711 Higher Computing 1A (6 UOC)
- And ONE of the following courses:
  - COMP1021 Computing 1B (6 UOC)
  - COMP1721 Higher Computing 1B (6 UOC)
- And ONE of the following courses:
  - MATH1131 Mathematics 1A (6 UOC)
  - MATH1141 Higher Mathematics 1A (6 UOC)
- And ONE of the following courses:
  - MATH1231 Mathematics 1B (6 UOC)
  - MATH1241 Higher Mathematics 1B (6 UOC)

Year 2

- ACC70003 Introduction to Accounting Principles (3 UOC)
- COMP2121 Microprocessors and Interfacing (6 UOC)
- COMP3111 Software Engineering (6 UOC)
- COMP5322 Digital Circuits and Systems (6 UOC)
- ELEC2031 Circuits and Systems (3 UOC)
- ELEC2032 Electronics and Systems (3 UOC)
- MATH2859 Probability, Statistics and Information (3 UOC)
- And ONE of the following courses:
  - COMP2011 Data Organisation (6 UOC)
  - COMP2711 Higher Data Organisation (6 UOC)
- And ONE of the following courses:
  - MATH2510 Real Analysis (3 UOC)
  - MATH2610 Higher Real Analysis (3 UOC)
- And ONE of the following courses:
  - MATH2520 Complex Analysis (3 UOC)
  - MATH2620 Higher Complex Analysis (3 UOC)
- Plus General Education (6 UOC)
Year 3

COMP3211 Computer Architecture (6 UOC)
COMP3711 Software Project Management (6 UOC)
ELEC3006 Electronics A (6 UOC)
EELE3013 Telecommunication Systems 1 (6 UOC)

And ONE of the following courses:

COMP2231 Operating Systems (6 UOC)
COMP2891 Extended Operating Systems (6 UOC)

And ONE of the following courses:

COMP3120 Introduction to Algorithms (3 UOC)
MA1259 Linear Algebra for Engineers (3 UOC)

Plus 2 Electives (12 UOC)
Plus General Education (3 UOC)

Year 4

COMP4910 Thesis Part A (3 UOC)
COMP4911 Thesis Part B (3 UOC)
COMP4920 Professional Issues and Ethics (3 UOC)

Plus 4 Electives (24 UOC)

Plus General Education (3 UOC)

Elective Courses

1. The Program Director must approve the program selected by each student. Not all electives are offered in each session. Students are advised each year of the timetable of available electives. It may be possible to substitute other electives run by the participating schools, apart from those listed below, but this is not permitted if it unduly restricts the range of courses studied overall.

2. Electives for Stages 3 and 4 total 36 units of credit (6 courses of 6 units of credit, or equivalent) and are selected from Groups N, S, CE3, CE4, and D (see below), with these restrictions:

   i) At least 6 units of credit must be taken from Group N.
   ii) At least 12 units of credit must be taken from Group CE4.
   iii) At most 12 units of credit may be counted from Group S.

Group N Networks Electives

And ONE of the following courses:

COMP3331 Computer Networks and Applications (6 UOC)
COMP3991 Extended Computer Networks and Applications (6 UOC)
ELEL3018 Data Networks 1 (6 UOC)
TELE4332 Data Networks 2 (6 UOC)

Group S Science Electives

MATH2301 Mathematical Computing (6 UOC)
MA1240 Finite Mathematics (3 UOC)
MATH3411 Information, Codes and Ciphers (6 UOC)
PHYS2010 Mechanics (3 UOC)
PHYS2020 Computational Physics (3 UOC)
PHYS2040 Quantum Physics (3 UOC)

Group CE3 Level-3 Computer Engineering Electives

COMP3141 Software System Design and Implementation (6 UOC)
ELEC3004 Signal Processing and Transform Methods (6 UOC)
ELEC3014 Systems and Control 1 (6 UOC)
ELEL3016 Electronics B (6 UOC)
TELE301 Switching System Design (6 UOC)
EELE3305 Network Management (6 UOC)
COMP3131 Programming Languages and Compilers (6 UOC)
COMP3151 Foundations ofConcurrency (6 UOC)
COMP3161 Concepts of Programming Languages (6 UOC)
COMP3111 Database Systems (6 UOC)
COMP3411 Artificial Intelligence (6 UOC)
COMP3421 Computer Graphics (6 UOC)
COMP3431 Robotic Software Architecture (6 UOC)
COMP3441 Cryptography and Security (6 UOC)
COMP3511 Human Computer Interaction (6 UOC)

Group CE4 Level-4 Computer Engineering Electives

COMP4001 Object-Oriented Software Development (6 UOC)
COMP4003 Industrial Software Development (6 UOC)
COMP4132 Advanced Functional Programming (6 UOC)
COMP4133 Advanced Compiler Construction (6 UOC)
COMP4151 Algorithm Verification (6 UOC)
COMP4211 Advanced Architectures and Algorithms (6 UOC)
COMP4411 Experimental Robotics (6 UOC)
COMP4412 Introduction to Modal Logic (6 UOC)
COMP4415 First-order Logic (6 UOC)
COMP4416 Intelligent Agents (6 UOC)
COMP4418 Knowledge Representation (6 UOC)
COMP4511 User Interface Design and Construction (6 UOC)
COMP9116 Software System Development Using the B-Method and B-Toolkit (6 UOC)
COMP9117 Software Architecture (6 UOC)
COMP9242 Advanced Operating Systems (6 UOC)
COMP9243 Distributed Systems (6 UOC)
COMP9414 Next Generation Database Systems (6 UOC)
COMP9315 Database Systems Implementation (6 UOC)
COMP9318 Data Warehousing & Data Mining (6 UOC)
COMP9321 E-Commerce Systems Implementation (6 UOC)
COMP9332 Network Routing and Switching (6 UOC)
COMP9333 Advanced Computer Networks (6 UOC)
COMP9334 Systems Capacity Planning (6 UOC)
COMP9417 Machine Learning (6 UOC)
COMP9444 Neural Networks (6 UOC)
COMP9515 Patta Recognition (6 UOC)
COMP9517 Computer Vision (6 UOC)
COMP9519 Multimedia Authoring (6 UOC)
COMP9790 Principles of Global Navigation (6 UOC)
ELEC4503 Electronics C (6 UOC)
ELEC4522 Microelectronics Design and Technology (6 UOC)
ELEC4544 Speech & Audio Processing (6 UOC)
ELEC4570 Digital Image Processing Systems (6 UOC)
SOLA3540 Applied Photovoltaics (6 UOC)
TELE4313 Optical Communications (6 UOC)
TELE4323 Digital Modulation and Coding (6 UOC)
TELE4333 Wireless Data Communication Systems (6 UOC)
TELE4343 Source Coding and Compression (6 UOC)
TELE4352 Data Networks 2 (6 UOC)
TELE4353 Mobile and Satellite Communication Systems (6 UOC)
TELE4354 Network Management (6 UOC)
TELE4363 Telecommunications Systems 2 (6 UOC)
TELE9357 Advanced Networking (6 UOC)

And ONE of the following courses:

COMP9231 Integrated Digital Systems (6 UOC)
ELEC4532 Integrated Digital Systems (6 UOC)

General Education Requirements

Students in this program must also satisfy the General Education requirements. This is usually 12 UOC taken in second and third year studies. For further information, please refer to General Education section in this Handbook.

It may not be possible for computing students to enrol in General Education courses which are similar in content to the courses offered in their respective degree program. For a comprehensive list, please refer to the CSE website: www.cse.unsw.edu.au/school/teaching/courses/gened.html

Honours

Honours will be awarded to students who have achieved superior grades in courses over the whole program including the successful completion of a thesis at sufficient standard. Weighted average marks required for Honours grades are given below:
The School of Computer Science and Engineering uses an internal method for calculating this average, the information provided by New South Student is not used for this purpose.

Honours Class 1: WA greater than or equal to 75
Honours Class 2: Division 1: WA equal to 70 up to and including 74
Division 2: WA equal to 65 up to and including 69

Academic Rules

For program rules relating to the Bachelor of Engineering, please refer to the ‘Rules for Progression and Award of Degrees’ under ‘Faculty Information and Assistance’ in this Handbook.
Industrial Training
All students in the BE in Computer Engineering, Bioinformatics Engineering and Software Engineering programs must complete at least 60 days of approved Industrial Training before the end of Year 4.

Computing Requirements
Information regarding recommended computing equipment and software for the program is available from the School of Computer Science and Engineering Student Office.

Further Requirements
1. A HSC Maths mark of 145-150 is required in Maths Extension 1 or a mark of 186-200 in Maths Extension 2 or a UAI >97 in order to do COMP1711.
2. A mark of at least 75DN is required in COMP1011 or COMP1711 in order to do COMP1721.
3. A mark of at least 75DN is required in COMP1021 or COMP1721 in order to do COMP2711.

Professional Recognition
The Institution of Engineers, Australia
The professional body for engineering in Australia is the Institution of Engineers, Australia (IEAust), which has as its first objective the promotion of the science and practice of engineering in all its branches. The IEAust has its national headquarters in Canberra and functions through a series of divisions, the local one being the Sydney Division. Within each division are branches representing the main interests within the profession, e.g. civil, mechanical, electrical, engineering management and environmental engineering.

Students of an approved school of engineering may join the Institution as a student member (StudIEAust). Student members receive the monthly publication Engineers Australia. Enquiries should be directed to the Transactions which contains articles on a particular branch of engineering.

Student members are invited to participate in the Excellence Award for Work Experience, the National Young Engineer of the Year Award and to avail themselves of other IEAust services including the Mentor Scheme and industrial experience guidance.

For more information and membership application forms, contact the Institution of Engineers, Australia, Sydney Division, 1st Floor, 118 Alfred Street, Milsons Point 2061, telephone 8923 7100, website www.ieaust.org.au

3647 Bioinformatics
Bachelor of Engineering BE
Typical Duration
4 years
Minimum UOC for Award
192 units of credit
Typical UOC per Session
24 units of credit

Program Description
The School of Computer Science and Engineering and the Faculty of Science jointly administer the Bioinformatics program. Day-to-day administration is conducted through the Computer Science and Engineering Student Office, to which enquiries should be directed.

The stages of the program are shown below. It should be noted that it is possible to adapt the program by moving courses, subject to prerequisite requirements. Approval should be obtained for changes.

The School also offers the combined degrees BE (Bioinformatics)/BA (program 3756), BE (Bioinformatics)/BSc (program 3755), the concurrent degree BE (Bioinformatics)/MBiomedE (program 3757), and also the fast-track program BE/MEngSc (plan BINF13647).

Program Structure
Plan COMPB13647

Year 1
BINF1001 Bioinformatics 1 (6 UOC)
BIOS1201 Molecules, Cells and Genes (6 UOC)
And ONE of the following courses:
BIOC3201 Principles of Molecular Biology (Advanced) (6 UOC)
COMP2041 Software Construction: Techniques and Tools (6 UOC)
LIFE2101 Introductory Biochemistry & Microbiology (6 UOC)
MATH1081 Discrete Mathematics (6 UOC)
And ONE of the following courses:
BINF2001 Bioinformatics 2 (6 UOC)
COMP2201 Principles of Molecular Biology (Advanced) (6 UOC)
COMP2711 Higher Computing 1A (6 UOC)
And ONE of the following courses:
MAC1131 Mathematics 1A (6 UOC)
MATH1141 Higher Mathematics 1A (6 UOC)
And ONE of the following courses:
MATH1231 Mathematics 1B (6 UOC)
MATH1241 Higher Mathematics 1B (6 UOC)

Year 2
BINF3001 Bioinformatics 2 (6 UOC)
COMP3201 Principles of Molecular Biology (Advanced) (6 UOC)
COMP3204 Software Construction: Techniques and Tools (6 UOC)
LIFE2101 Introductory Biochemistry & Microbiology (6 UOC)
MATH1081 Discrete Mathematics (6 UOC)
And ONE of the following courses:
BINF3202 Genetics (6 UOC)
BINF3262 Genetics (Advanced Level) (6 UOC)
And ONE of the following courses:
COMP3011 Data Organisation (6 UOC)
COMP3711 Higher Data Organisation (6 UOC)
And ONE of the following courses:
MATH2801 Theory of Statistics (6 UOC)
MATH2901 Higher Theory of Statistics (6 UOC)

Year 3
BINF3002 Bioinformatics 3 (6 UOC)
BIOC3312 Molecular Biology of Nucleic Acids (6 UOC)
COMP3311 Database Systems (6 UOC)
COMP3711 Software Project Management (6 UOC)
And ONE of the following courses:
COMP3312 Algorithms and Programming Techniques (6 UOC)
COMP3621 Extended Algorithms and Programming Techniques (6 UOC)
3 Electives (2 Year 3 electives in S1 and 1 Year 3 elective in S2. At least one from Life Science and one from COMP/MATH) (18 UOC)

General Education
(3 UOC)

Year 4
BINF4910 Thesis Part A (3 UOC)
BINF4911 Thesis Part B (12 UOC)
BINF4920 Professional Issues and Ethics for Bioinformatics (3 UOC)
3 electives (at least one from Life Science and one from COMP/MATH) (18 UOC)

General Education
(9 UOC)

Electives for Stages 3 and 4 total 42 units of credit and are selected from the lists below:

Year 3 Electives
BIOC3311 Molecular Biology of Proteins (6 UOC)
BIOC3315 Human Genetics and Variation (6 UOC)
BIOC3281 Recombinant DNA Techniques (6 UOC)
BIOC3291 Genes, Genomes & Evolution (6 UOC)
BIOT3011 The Biotechnology A (6 UOC)
BIOT3061 Biopharmaceuticals (6 UOC)
COMP2121 Microprocessors and Interfacing (6 UOC)
COMP3111 Software Engineering (6 UOC)
COMP3411 Artificial Intelligence (6 UOC)
COMP3431 Robotic Software Architecture (6 UOC)
And ONE of the following courses:
COMP3231 Operating Systems (6 UOC)
COMP3891 Extended Operating Systems (6 UOC)
And ONE of the following courses:

**COMP3331** Computer Networks and Applications (6 UOC)
**COMP3931** Extended Computer Networks and Applications (6 UOC)

And ONE of the following courses:

**MATH2831** Linear Models (6 UOC)
**MATH2931** Higher Linear Models (6 UOC)

**Year 4 Electives**

**BIU13071** Commercial Biotechnology (6 UOC)
**COMP3151** Foundations of Concurrency (6 UOC)
**COMP3222** Digital Circuits and Systems (6 UOC)
**COMP3511** Human Computer Interaction (6 UOC)
**COMP4511** User Interface Design and Construction (6 UOC)
**COMP9243** Distributed Systems (6 UOC)
**COMP9351** Next Generation Database Systems (6 UOC)
**COMP9318** Data Warehousing & Data Mining (6 UOC)
**COMP9333** Advanced Computer Networks (6 UOC)
**COMP9417** Machine Learning (6 UOC)
**COMP9444** Neural Networks (6 UOC)
**MATH3621** Statistical Modelling and Computing (6 UOC)
**MATH3801** Microbial Physiology (6 UOC)
**MATH3821** Microbial Genetics (6 UOC)

And ONE of the following courses:

**MATH3801** Probability and Stochastic Processes (6 UOC)
**MATH3901** Higher Probability and Stochastic Processes (6 UOC)

And ONE of the following courses:

**MATH3811** Statistical Inference (6 UOC)
**MATH3911** Higher Statistical Inference (6 UOC)

Other elective courses are as follows:

- **MICR3011** Microbial Physiology (6 UOC)
- **MICR3021** Microbial Genetics (6 UOC)

- **MICR3021** Microbial Genetics (6 UOC)

**Computing Requirements**

Information regarding recommended computing equipment and software for the program is available from the School of Computer Science and Engineering Student Office.

**Professional Recognition**

The Institution of Engineers, Australia

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### 3648 Software Engineering

**Bachelor of Engineering BE**

**Typical Duration**
4 years

**Minimum UOC for Award**
192 units of credit

**Typical UOC per Session**
24 units of credit

**Program Description**

The School of Computer Science and Engineering and the School of Information Systems, Technology and Management jointly administer the Software Engineering Program. Day-to-day administration is conducted through the Computer Science and Engineering Student Office, to which enquiries should be directed.

The stages of the program are shown below. It should be noted that it is possible to adapt the program by moving courses, subject to prerequisite requirements. Approval should be obtained for changes.

The School also offers the combined degrees BE (Software Eng)/BSc (program 3651), BE (Software Eng)/BA (program 3652), BE (Software Eng)/BCom (program 3715), the concurrent degree BE (Software Eng)/MBiomedE (program 3749) and also the fast track program BE (Software Eng)/MEngSc (plan SENGL13648).

**Program Structure**

**Plan SENGL3648**

**Year 1**

<table>
<thead>
<tr>
<th>Unit Code</th>
<th>Course Title</th>
<th>UOC</th>
</tr>
</thead>
<tbody>
<tr>
<td>INF51603</td>
<td>Business Data Management</td>
<td>6</td>
</tr>
<tr>
<td>INF51611</td>
<td>Requirements Engineering</td>
<td>3</td>
</tr>
<tr>
<td>MATH1081</td>
<td>Discrete Mathematics</td>
<td>6</td>
</tr>
<tr>
<td>MATH2400</td>
<td>Finite Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>SENG1031</td>
<td>Software Engineering Workshop 1</td>
<td>6</td>
</tr>
</tbody>
</table>

And ONE of the following courses:

**COMP1011** Computing 1A (6 UOC)
**COMP1711** Higher Computing 1A (6 UOC)

And ONE of the following courses:

**MATH1131** Mathematics 1A (6 UOC)
**MATH1141** Higher Mathematics 1A (6 UOC)

And ONE of the following courses:

**COMP3021** Computing 1B (6 UOC)
**COMP3721** Higher Computing 1B (6 UOC)

**Year 1 - Free Electives**

(6 UOC)
Computing Requirements

Information regarding recommended computing equipment and software for the program is available from the School of Computer Science and Engineering Student Office.

Honours

Honours will be awarded to students who have achieved superior grades in courses over the whole program including the successful completion of a thesis at a sufficient standard. Weighted average marks required for Honours grades are given below. The School of Computer Science and Engineering uses an internal method for calculating this average, the information provided by New South Student is not used for this purpose.

Honours Class 1: WA greater than or equal to 75
Honours Class 2: Division 1: WA equal to 70 up to and including 74
Division 2: WA equal to 65 up to and including 69

Academic Rules

For program rules relating to the Bachelor of Engineering, please refer to the ‘Rules for Progression and Award of Degrees’ under ‘Faculty Information and Assistance’ in this Handbook.

Industrial Training Requirements

All students in the BE in Computer Engineering, Bioinformatics Engineering and Software Engineering programs must complete at least 60 days of approved Industrial Training before the end of Year 4.

Computing Requirements

Information regarding recommended computing equipment and software for the program is available from the School of Computer Science and Engineering Student Office.

Professional Recognition

The Institution of Engineers, Australia

The professional body for engineering in Australia is the Institution of Engineers, Australia (IEAust), which has as its first objective the promotion of the science and practice of engineering in all its branches.
And ONE of the following courses:

COMP1021 Computing 1B (6 UOC)
COMP1721 Higher Computing 1B (6 UOC)

And ONE of the following courses:

MATH1131 Mathematics 1A (6 UOC)
MATH1141 Higher Mathematics 1A (6 UOC)

And ONE of the following courses:

MATH1231 Mathematics 1B (6 UOC)
MATH1241 Higher Mathematics 1B (6 UOC)

Plus Electives (18 UOC)

Computer Science has mathematics and computing courses in year 1, representing five out of eight courses for a full-time student. Electives are chosen from areas such as Physics, Information Systems, Chemistry, Philosophy, Psychology, Geography, and Economics.

Year 2

COMP2121 Microprocessors and Interfacing (6 UOC)
COMP2041 Software Construction: Techniques and Tools (6 UOC)
COMP2920 Professional Issues and Ethics (3 UOC)

And ONE of the following courses:

COMP2011 Data Organisation (6 UOC)
COMP2711 Higher Data Organisation (6 UOC)
Electives (21 UOC)
General Education (6 UOC)

Four of the ten courses in Year 2 comprise core computing. The remainder are electives. Common electives include mathematics (many choices), psychology, geography, biology, chemistry, physics, economics, arts, more first-year courses (maximum 12 UOC), material that follows on from first-year electives and information systems.

Year 3

COMP3111 Software Engineering (6 UOC)
Level 3/4 Computer Science Electives (24 UOC)
General Education
Electives (12 UOC)

Between five and seven computing courses (selected from available Level 3 and 4 courses) are taken in Year 3. Students proceeding to the Honours year must take at least six Level 3 courses in computing or other disciplines.

Level 3 Computing Electives

COMP3131 Programming Languages and Compilers (6 UOC)
COMP3141 Software System Design and Implementation (6 UOC)
COMP3151 Foundations of Concurrency (6 UOC)
COMP3161 Concepts of Programming Languages (6 UOC)
COMP3211 Computer Architecture (6 UOC)
COMP3222 Digital Circuits and Systems (6 UOC)
COMP3311 Database Systems (6 UOC)
COMP3411 Artificial Intelligence (6 UOC)
COMP3421 Computer Graphics (6 UOC)
COMP3431 Robotic Software Architecture (6 UOC)
COMP3441 Cryptography and Security (6 UOC)
COMP3511 Human Computer Interaction (6 UOC)

One of the following:

COMP3121 Algorithms and Programming Techniques (6 UOC)
COMP3821 Extended Algorithms and Programming Techniques (6 UOC)

One of the following:

COMP3231 Operating Systems (6 UOC)
COMP3891 Extended Operating Systems (6 UOC)

One of the following:

COMP3331 Computer Networks and Applications (6 UOC)
COMP3993 Extended Computer Networks and Applications (6 UOC)

Level 4 Computing Electives

COMP4001 Object-Oriented Software Development (6 UOC)
COMP4003 Industrial Software Development (6 UOC)
COMP4133 Advanced Compiler Construction (6 UOC)
COMP4151 Algorithm Verification (6 UOC)
COMP4418 Knowledge Representation (6 UOC)
COMP4511 User Interface Design and Construction (6 UOC)
COMP3931 Next Generation Database Systems (6 UOC)
COMP9231 Integrated Digital Systems (6 UOC)
COMP9243 Distributed Systems (6 UOC)
COMP9318 Data Warehousing & Data Mining (6 UOC)

COMP9321 E-Commerce Systems Implementation Infrastructure (6 UOC)
COMP9332 Network Routing and Switching (6 UOC)
COMP9333 Advanced Computer Networks (6 UOC)
COMP9334 Systems Capacity Planning (6 UOC)
COMP9417 Machine Learning (6 UOC)
COMP9444 Neural Networks (6 UOC)
COMP9515 Pattern Recognition (6 UOC)
COMP9517 Computer Vision (6 UOC)
COMP9519 Multimedia Authoring (6 UOC)

COMP9790 Principles of Global Navigation Satellite System (GNSS) Positioning (6 UOC)

COMP9791 Modern Navigation & Positioning Technologies (6 UOC)

With the approval of the Program Director, students in this program wishing to fulfil the requirements for a major in a second discipline, as well as the Computer Science requirements, may substitute a course from the other discipline for one of the Level 3/4 Computer Science courses. Students who have met the required prerequisites may also select electives from COMP4XXX and COMP9XXX courses.

General Education Requirements

Students in this program must also satisfy the General Education requirements. This is usually 12 UOC taken in second and third year studies. For further information, please refer to the General Education section in this Handbook.

It may not be possible for computing students to enrol in General Education courses which are similar in content to the courses offered in their respective degree program. For a comprehensive list, please refer to the CSE website: www.cse.unsw.edu.au/school/teaching/courses/gened.html

Honours

Year 4 Honours (Optional) COMP4H3978

Computer Science Honours takes one year full-time or two years of part-time study.

Normally, students are expected to have attained an average mark of 65 (according to NewSouth Student calculations) to qualify for entry to the Honours year. Students who do not meet this expectation may be admitted in special circumstances. Students who have graduated with a three-year computer science degree from UNSW or another university can apply for admission to Honours. Application forms are available from the Student Office of Computer Science and Engineering in K17 G01. Detailed information about the program is available at the Honours website at: www.cse.unsw.edu.au/~cs4914

COMP4910 Thesis Part A (3 UOC)
COMP4911 Thesis Part B (15 UOC)

Computing Electives

Level 3/4 Computer Science Courses (subject to approval) (12 UOC)
Level 4 Computer Science Courses (subject to approval) (18 UOC)

Computer ScienceHonours students must at least complete 18UOC Level 4 elective courses. Students may substitute level 4 courses from other schools with the permission of the Program Director.

Academic Rules

Please refer to Program Structure for the Academic Requirements relating to this program.

1. A HSC Maths mark of 145-150 is required in Maths Extension 1 or a mark of 186-200 in Maths Extension 2 or a UAI > 97 in order to do COMP1711.
2. A mark of at least 75DN is required in COMP1021 or COMP1711 in order to do COMP1721.
3. A mark of at least 75DN is required in COMP1021 or COMP1721 in order to do COMP2711.
4. Students may take COMP3111 Software Engineering in either semester.
5. Electives, COMP electives and General Education courses may be allocated between first and second semesters according to the student's preference, but the total units of credit per semester should be 24. COMP3111 is offered in both semesters.
Computing Requirements
Information regarding recommended computing equipment and software for the program is available from the School of Computer Science Engineering Student Office.

3726 Computer Engineering/Bachelor of Science
Bachelor of Engineering Bachelor of Science BE BSc
Typical Duration
3 years
Minimum UOC for Award
240 units of credit
Typical UOC per Session
24 units of credit

Program Description
With this combined degree program students can add a science program to the standard, professionally accredited engineering program BE in Computer Engineering offered by the School of Computer Science & Engineering. All science majors within program 3970 are available. Students who achieve a creditable performance, 65CR average after one or two years of their Computer Engineering program, may apply to transfer to the combined BE in Computer Engineering/BSc program.

There are no special rules on what to include in each year. Students should schedule the science and engineering components to suit their preferences while meeting the constraints of timetables and prerequisites. The Faculty of Science section in this Handbook describes the options and the School of Computer Science and Engineering Student Office can supply sample programs showing what previous students have arranged.

In addition to the BE program, students must complete a minimum of 60 units of credit in Science courses, including a major sequence in an approved area. The Science office must approve the Science component while the School of Computer Science & Engineering will approve the final program and schedule.

In the Faculty of Engineering, Honours are awarded for superior performance in the standard program. In the Faculty of Science, the award of Honours requires a separate program involving at least one further year of study.

Program Objectives and Learning Outcomes
Combined Degree Programs - Computer Engineering

Students in Computer Engineering who maintain a high average performance may qualify for the award of two degrees in five years of combined full-time study in which the requirements of the degrees have been merged. The degrees referred to here are the Bachelor of Engineering (Computer Engineering)/Bachelor of Arts BE BA and the Bachelor of Engineering (Computer Engineering)/Bachelor of Science BE BSc. Students wishing to gain a degree at Honours level in Arts or Science as part of their combined degree program shall meet all the relevant requirements of the Faculty concerned and of the appropriate schools.

Students wishing to enrol in, transfer into, or continue in a combined program shall have complied with all the requirements for prerequisite study, sequencing and academic attainment (a credit average, i.e. 65%) of both the program authorities concerned.

Students who commence a combined program, but subsequently do not wish to proceed with both areas of study, or who fail to maintain a credit average performance, should revert to a single degree program with appropriate credit for courses completed.

Students in a combined degree program are exempt from all General Education requirements. However, if the student reverts to the single degree program, the usual General Education requirements for that program apply.

There will be a testamur for each part of the combined degree program.

Students who complete the BE program first may proceed to graduation with the degree of Bachelor of Engineering in the usual way.

Program Structure
Plan COMPB13726

Please refer to the program entry for 3645 BE in Computer Engineering and contact the School of Computer Science and Engineering and the Faculty of Science for more information.

Honours
Honours will be awarded to students who have achieved superior grades in courses over the whole program including the successful completion of a thesis at sufficient standard. Weighted average marks required for Honours grades are given below: The School of Computer Science and Engineering uses an internal method for calculating this average, the information provided by New South Student is not used for this purpose.

Honours Class 1: WA greater than or equal to 75
Honours Class 2: Division 1: WA equal to 70 up to and including 74
Division 2: WA equal to 65 up to and including 69

Academic Rules
For academic rules relating to the Bachelor of Engineering component of this combined program, please refer to the ‘Rules for Progression and Award of Degrees’ under ‘Faculty Information and Assistance’ in this Handbook.

Industrial Training
All students in the BE in Computer Engineering, Bioinformatics Engineering and Software Engineering programs must complete at least 60 days of approved Industrial Training before the end of Year 4.

Further Requirements
1. A HSC Maths mark of 145-150 is required in Maths Extension 1 or a mark of 186-200 in Maths Extension 2 or a UAI >97 in order to do COMP1711.
2. A mark of at least 75DN is required in COMP1011 or COMP1711 in order to do COMP1721.
3. A mark of at least 75DN is required in COMP1021 or COMP1721 in order to do COMP2711.

Computing Requirements
Information regarding recommended computing equipment and software for the program is available from the School of Computer Science and Engineering Student Office.

Professional Recognition
The Institution of Engineers, Australia and the Australian Computer Society.

For more information, please refer to ‘Professional Recognition’ in the program entry for 3645 Computer Engineering.

3722 Computer Engineering/Bachelor of Arts
Bachelor of Engineering Bachelor of Arts BE BA
Typical Duration
5 years
Minimum UOC for Award
240 units of credit
Typical UOC per Session
24 units of credit

Program Description
Anyone who meets the entry requirements for both Computer Engineering and Arts is eligible for the combined program. Students may enter directly in first year or may apply to transfer from the normal Engineering program later, although with late transfer it might not be possible to complete the program in minimum time.

The BE in Computer Engineering BA combined program requires the completion of 240 UOC, including at least 60 UOC of Arts courses, and must contain a major sequence of 42 UOC at stages 2 and 3 in a single Arts discipline. Students in this combined program are exempt from the General Education requirement. The major Arts discipline may not be Computer Science.

The Faculty of Arts and Social Sciences must approve the Arts component while the School of Computer Science & Engineering will approve the final program and schedule.

In the Faculty of Engineering, Honours are awarded for superior performance in the standard program. In the Faculty of Arts, the award of Honours requires a separate program involving at least one further year of study.

Further Requirements
1. A HSC Maths mark of 145-150 is required in Maths Extension 1 or a mark of 186-200 in Maths Extension 2 or a UAI >97 in order to do COMP1711.
2. A mark of at least 75DN is required in COMP1011 or COMP1711 in order to do COMP1721.
3. A mark of at least 75DN is required in COMP1021 or COMP1721 in order to do COMP2711.

Computing Requirements
Information regarding recommended computing equipment and software for the program is available from the School of Computer Science and Engineering Student Office.

Professional Recognition
The Institution of Engineers, Australia and the Australian Computer Society.

For more information, please refer to ‘Professional Recognition’ in the program entry for 3645 Computer Engineering.
Program Objectives and Learning Outcomes

Combined Degree Programs - Computer Engineering

Students in Computer Engineering who maintain a high average performance may qualify for the award of two degrees in five years of combined full-time study in which the requirements of the degrees have been merged. The degrees referred to here are the Bachelor of Engineering (Computer Engineering)/Bachelor of Arts BE BA and the Bachelor of Engineering (Computer Engineering)/Bachelor of Science BE BSc. Students wishing to gain a degree at Honours level in Arts or Science as part of their combined degree program shall meet all the relevant requirements of the Faculty concerned and of the appropriate schools.

Students wishing to enrol in, transfer into, or continue in a combined program shall have complied with all the requirements for prerequisite study, sequencing and academic attainment (a credit average, i.e. 65%) of both the program authorities concerned.

Students who commence a combined program, but subsequently do not wish to proceed with both areas of study, or who fail to maintain a credit average performance, should revert to a single degree program with appropriate credit for courses completed.

Students in a combined degree program are exempt from all General Education requirements. However, if the student reverts to the single degree program, the usual General Education requirements for that program apply.

There will be a testamur for each part of the combined degree program.

Students who complete the BE program first may proceed to graduation with the degree of Bachelor of Engineering in the usual way.

Program Structure

Plan COMPB13722

Please refer to the program entry for 3645 BE in Computer Engineering and contact the School of Computer Science and Engineering and the Faculty of Arts and Social Sciences for more information.

Honours

Honours will be awarded to students who have achieved superior grades in courses over the whole program including the successful completion of a thesis at sufficient standard. Weighted average marks required for Honours grades are given below. The School of Computer Science and Engineering uses an internal method for calculating this average, the information provided by New South Student is not used for this purpose.

Honours Class 1: WA equal to or greater than 75
Honours Class 2: Division 1: WA equal to 70 up to and including 74
Division 2: WA equal to 65 up to and including 69

Academic Rules

For academic rules relating to the Bachelor of Engineering component of this combined program, please refer to the ‘Rules for Progression and Award of Degrees’ under ‘Faculty Information and Assistance’ in this Handbook.

Industrial Training

All students in the BE in Computer Engineering, Bioinformatics Engineering and Software Engineering programs must complete at least 60 days of approved Industrial Training before the end of Year 4.

Further Requirements

1. A HSC Maths mark of 145-150 is required in Maths Extension 1 or a mark of 186-200 in Maths Extension 2 or a UAI 97 in order to do COMP1711.
2. A mark of at least 75DN is required in COMP1011 or COMP1711 in order to do COMP1721.
3. A mark of at least 75DN is required in COMP1021 or COMP1721 in order to do COMP2711.

Computing Requirements

Information regarding recommended computing equipment and software for the program is available from the School of Computer Science and Engineering Student Office.

Professional Recognition

The Institution of Engineers, Australia, and the Australian Computer Society.

For more information, please refer to ‘Professional Recognition in the program entry for 3645 Computer Engineering.

3715 Computer Engineering/Bachelor of Commerce
BE BCom

Please refer to the program entry for 3715 Bachelor of Engineering Bachelor of Commerce under ‘Program Rules and Information’ in this Handbook.

3728 Computer Engineering/Master of Biomedical Engineering

Bachelor of Engineering Master of Biomedical Engineering BE MBiomedE

Typical Duration

5 years

Minimum UOC for Award

240 units of credit

Typical UOC per Session

24 units of credit

Program Description

The BE (Computer Engineering) /Master of Biomedical Engineering concurrent degree program is offered jointly through the School of Computer Science and Engineering and the Graduate School of Biomedical Engineering.

Program Structure

Plan COMPB13728

Year 1

Biom1001 Professional Biomedical Studies (3 UOC)
Biom2010 Biomedical Engineering Practice (3 UOC)
Chem1817 Chemistry 1ME (3 UOC)
Math1090 Discrete Mathematics for Electrical Engineers (3 UOC)
Phys1131 Higher Physics 1A (6 UOC)
Phys1231 Higher Physics 1B (6 UOC)
And ONE of the following courses:
COMP1011 Computing 1A (6 UOC)
COMP1711 Higher Computing 1A (6 UOC)
And ONE of the following courses:
Math1131 Mathematics 1A (6 UOC)
Math1141 Higher Mathematics 1A (6 UOC)
And ONE of the following courses:
COMP1021 Computing 1B (6 UOC)
COMP1721 Higher Computing 1B (6 UOC)
And ONE of the following courses:
Math1231 Mathematics 1B (6 UOC)
Math1241 Higher Mathematics 1B (6 UOC)

Year 2

Aull19001 Introduction to Accounting Principles (3 UOC)
Anat2511 Fundamentals of Anatomy (3 UOC)
Biom9420 Clinical Laboratory Science (3 UOC)
Comp2121 Microprocessors and Interfacing (6 UOC)
Comp3111 Software Engineering (6 UOC)
Elec1011 Electrical Engineering 1 (6 UOC)
And ONE of the following courses:
Comp2011 Data Organisation (6 UOC)
Comp2711 Higher Data Organisation (6 UOC)
And ONE of the following courses:
Math2510 Real Analysis (3 UOC)
Math2610 Higher Real Analysis (3 UOC)
And ONE of the following courses:
Math2520 Complex Analysis (3 UOC)
Math2620 Higher Complex Analysis (3 UOC)
General Education (3 UOC)

Year 3

Comp3211 Computer Architecture (6 UOC)
Comp3222 Digital Circuits and Systems (6 UOC)
Further Requirements

1. A HSC Maths mark of 145-150 is required in Maths Extension 1 or a mark of 186-200 in Maths Extension 2 or a UAI > 97 in order to do COMP1711.
2. A mark of at least 75DN is required in COMP1011 or COMP1711 in order to do COMP1721.
3. A mark of at least 75DN is required in COMP1021 or COMP1721 in order to do COMP2711.

Computing Requirements

Information regarding recommended computing equipment and software for the program is available from the School of Computer Science and Engineering Student Office.

Professional recognition

The Institution of Engineers, Australia.

For more information, please refer to ‘Professional Recognition in the program entry for 3645 Computer Engineering.

3755 Biinformatics/Bachelor of Science

Bachelor of Engineering Bachelor of Science BE BSc

Typical Duration

5 years

Minimum UOC for Award

240 units of credit

Typical UOC per Session

24 units of credit

Program Description

The combined Bachelor of Engineering in Bioinformatics/Bachelor of Science program allows students to study additional Science courses in their Bioinformatics program to gain a broader understanding of the various scientific disciplines that contribute to Bioinformatics (such as mathematics, statistics and chemistry) or constitute major application areas of bioinformatics (for example, medical sciences or biotechnology).

Students must meet the entry requirements for the BE (Bioinformatics) program and the Bachelor of Science program, and must complete the courses and electives required by the Bioinformatics program (3647) as well as 60 additional units of credit in Science courses, including an approved major sequence of 42 UOC at Stages 2 and 3. Combined programs are exempt from the General Education requirement. Approved majors are listed in Table A of the BSc program (3970).

The stages of a generic combined program are shown below. It should be noted that it is possible to adapt the program by moving courses, subject to prerequisite requirements and overall program requirements. The School of Computer Science and Engineering Student Office can supply examples of specific combined programs.

Program Structure

Plan BINFB13755

Year 1

BINF1001 Biinformatics 1 (6 UOC)
BIOS1201 Molecules, Cells and Genes (6 UOC)

And one of the following courses:

BIOS1101 Evolutionary and Functional Biology (6 UOC)
CHEM1021 Fundamentals of Chemistry 1B (6 UOC)
CHEM1041 Higher Chemistry 1D (6 UOC)

And one of the following courses:

CHEM1011 Fundamentals of Chemistry 1A (6 UOC)
CHEM1031 Higher Chemistry 1C (6 UOC)

And one of the following courses:

COMP1011 Computing 1A (6 UOC)
COMP1711 Higher Computing 1A (6 UOC)

And one of the following courses:

COMP1021 Computing 1B (6 UOC)
COMP1721 Higher Computing 1B (6 UOC)

And one of the following courses:

MATH1131 Mathematics 1A (6 UOC)
MATH1141 Higher Mathematics 1A (6 UOC)

And one of the following courses:
Mathematics 1B (6 UOC)
Math1241 Higher Mathematics 1B (6 UOC)

Year 2
BI0C2201 Principles of Molecular Biology (Advanced) (6 UOC)
COMP2041 Software Construction: Techniques and Tools (6 UOC)
LH1J3101 Introductory Biotechnology & Microbiology (6 UOC)
MATH1081 Discrete Mathematics (6 UOC)
And ONE of the following courses:
BI0S2021 Genetics (6 UOC)
BI0S2621 Genetics (Advanced Level) (6 UOC)
And ONE of the following courses:
MATH2801 Theory of Statistics (6 UOC)
MATH2901 Higher Theory of Statistics (6 UOC)
Plus 2 Science majors level 1 or 2 (6 UOC S1 and 6 UOC S2)

Year 3
BINF2001 Bioinformatics 2 (6 UOC)
BI0C3121 Molecular Biology of Nucleic Acids (6 UOC)
COMP3311 Database Systems (6 UOC)
And ONE of the following courses:
COMP2011 Data Organisation (6 UOC)
COMP2711 Higher Data Organisation (6 UOC)
Plus 2 Science majors level 2 (6 UOC S1 and 6 UOC S2)
Plus 1 Year 3 elective (6 UOC)
Plus 2 General Education Courses (6 UOC)

Year 4
BINF3001 Bioinformatics 3 (6 UOC)
BINF4920 Professional Issues and Ethics for Bioinformatics (3 UOC)
COMP3711 Software Project Management (6 UOC)
And one of the following courses:
COMP3121 Algorithms and Programming Techniques (6 UOC)
COMP3821 Extended Algorithms and Programming Techniques (6 UOC)
Plus 4 level 3 Science majors (24 UOC)
Plus 1 Year 3 elective (6 UOC)
Overall electives in Stages 3 and 4 must include at least one computer science and one life science elective.

Year 5
BINF4910 Thesis Part A (3 UOC)
BINF4911 Thesis Part B (12 UOC)
Plus 2 Level 3 Science majors (12 UOC)
Plus 3 Year’s 3/4/5 electives (18 UOC)

Year 3 and 4 Electives
BI0C3111 Molecular Biology of Proteins (6 UOC)
BI0C3151 Human Genetics and Variation (6 UOC)
BI0C3281 Recombinant DNA Techniques (6 UOC)
BI0C3291 Genes, Genomes & Evolution (6 UOC)
BIOT3011 Biotechnology A (6 UOC)
BIOT3061 Biopharmaceuticals (6 UOC)
COMP2121 Microprocessors and Interfacing (6 UOC)
COMP3311 Software Engineering (6 UOC)
COMP3411 Artificial Intelligence (6 UOC)
MICR3021 Microbial Genetics (6 UOC)
One of the following:
COMP3531 Computer Networks and Applications (6 UOC)
COMP3931 Extended Computer Networks and Applications (6 UOC)

Year 5 Electives
BI0U3071 Commercial Biotechnology (6 UOC)
COMP3151 Foundations of Concurrency (6 UOC)
COMP3222 Digital Circuits and Systems (6 UOC)
COMP3511 Human Computer Interaction (6 UOC)
COMP3931 Next Generation Database Systems (6 UOC)
COMP3958 Data Warehousing & Data Mining (6 UOC)
COMP3933 Advanced Computer Networks (6 UOC)
COMP3947 Machine Learning (6 UOC)
COMP4944 Neural Networks (6 UOC)
BI0H3621 Statistical Modelling and Computing (6 UOC)
MICR3011 Microbial Physiology (6 UOC)
Level 3 MATH electives and other COMP3/4/9 electives may also be considered. Electives must include at least one life science and at least one COMP course.

General Education Requirements
Students in this program must also satisfy the General Education requirements. This is usually taken in second and third year studies. For further information, please refer to the General Education section in this Handbook.

Honours
Honours will be awarded to students who have achieved superior grades in courses over the whole program including the successful completion of a thesis at sufficient standard. Weighted average marks required for Honours grades are given below. The School of Computer Science and Engineering uses an internal method for calculating this average, the information provided by New South Student is not used for this purpose.

Honours Class 1: WA greater than or equal to 75
Honours Class 2: Division 1: WA equal to 70 up to and including 74
Division 2: WA equal to 65 up to and including 69

Academic Rules
For academic rules relating to the Bachelor of Engineering component of this combined program, please refer to the ‘Rules for Progression and Award of Degrees’ under ‘Faculty Information and Assistance’ in this Handbook.

Industrial Training
All students in the BE in Computer Engineering, Bioinformatics Engineering and Software Engineering programs must complete at least 60 days of approved Industrial Training before the end of Year 4.

Further Requirements
1. A HSC Maths mark of 145-150 is required in Maths extension 1 or a mark of 186-200 in Maths Extension 2 or a UAI > 97 in order to do COMP1711.
2. A mark of at least 75DN is required in COMP1011 or COMP1711 in order to do COMP1721.
3. A mark of at least 75DN is required in COMP1021 or COMP1721 in order to do COMP2711.

Computing Requirements
Information regarding recommended computing equipment and software for the program is available from the School of Computer Science and Engineering Student Office.

Career Information
The Institution of Engineers, Australia
For more information, please refer to ‘Professional Recognition’ in the program entry for 3647 Bioinformatics.

3756 Bioinformatics/Bachelor of Arts
Bachelor of Engineering Bachelor of Arts BE BA

Typical Duration
5 years
Minimum UOC for Award
240 units of credit
Typical UOC per Session
24 units of credit

Program Description
Students qualify for the award of the two degrees of Bachelor of Engineering (Bioinformatics) and Bachelor of Arts. This cross-disciplinary program allows students to add their choice of Arts major to the standard Bioinformatics program and obtain the broader education offered by Arts and Social Sciences.

Students must meet the entry requirements for the BE (Bioinformatics) program and the Bachelor of Arts program, and must complete the courses and electives required by the Bioinformatics program (3647) as well as 60 additional units of credit in arts courses, including an approved major sequence of 42UOC at stages 2 and 3. Approved majors are given in List A of the Bachelor of Arts (3400) program. Combined programs are exempt from the General Education requirement.
The stages of a generic combined program are shown below. It should be noted that it is possible to adapt the program by moving courses, subject to prerequisite requirements and overall program requirements. The School of Computer Science and Engineering Student Office can supply examples of specific programs.

Program Structure
Plan BINF13756

Year 1
BINF1001 Bioinformatics 1
BIOS1201 Molecules, Cells and Genes
And ONE of the following courses:
BIOS1111 Evolutionary and Functional Biology
CHEM1021 Fundamentals of Chemistry 1B
CHEM1041 Higher Chemistry 1D
And ONE of the following courses:
CHEM1011 Fundamentals of Chemistry 1A
CHEM1031 Higher Chemistry 1C
And ONE of the following courses:
COMP1011 Computing 1A
COMP1711 Higher Computing 1A
And ONE of the following courses:
COMP1021 Computing 1B
COMP1721 Higher Computing 1B
And ONE of the following courses:
MATH1131 Mathematics 1A
MATH1141 Higher Mathematics 1A
And ONE of the following courses:
MATH1231 Mathematics 1B
MATH1241 Higher Mathematics 1B

Year 2
BIOC2201 Principles of Molecular Biology (Advanced)
COMP2041 Software Construction: Techniques and Tools
LIFE2101 Introductory Biochemistry & Microbiology
MATH1081 Discrete Mathematics
And ONE of the following courses:
BIOS2021 Genetics
BIOS2621 Genetics (Advanced Level)
And ONE of the following courses:
MATH2801 Theory of Statistics
MATH2901 Higher Theory of Statistics
Plus 2 Arts major level 1 (6 UOC S1 and 6 UOC S2)

Year 3
BINF2001 Bioinformatics 2
BIOC3121 Molecular Biology of Nucleic Acids
COMP3311 Database Systems
And ONE of the following courses:
COMP2011 Data Organisation
COMP2711 Higher Data Organisation
Plus Arts major level 2
Plus Arts major level 2 or Arts elective
Plus 2 Year 3 electives (12 UOC)

Year 4
BINF3001 Bioinformatics 3
BINF4920 Professional Issues and Ethics for Bioinformatics
COMP3711 Software Project Management
And one of the following courses:
COMP3121 Algorithms and Programming Techniques
COMP3821 Extended Algorithms and Programming Techniques
2 Arts major level 2 (12 UOC)
2 Arts major level 2 or Arts elective (12 UOC)
Level 3 elective (6 UOC)

Note: Overall electives in stages 3 and 4 must include at least one computer science elective and one life science elective.

Year 5
BINF4910 Thesis Part A (3 UOC)
BINF4911 Thesis Part B (12 UOC)

Plus 2 level 3 Arts major (12 UOC)
Plus 3 Years 3 or 4 or 5 electives (18 UOC)

Years 3 and 4 Electives
BIOC3111 Molecular Biology of Proteins (6 UOC)
BIOC3151 Human Genetics and Variation (6 UOC)
BIOC3201 Recombinant DNA Techniques (6 UOC)
BIOC3291 Genes, Genomes & Evolution (6 UOC)
BIOT3011 Biotechnology A (6 UOC)
BIOT3061 Biopharmaceuticals (6 UOC)
COMP2121 Microprocessors and Interfacing (6 UOC)
COMP3111 Software Engineering (6 UOC)
COMP3411 Artificial Intelligence (6 UOC)
COMP3431 Robotic Software Architecture (6 UOC)
MATH3801 Probability and Stochastic Processes (6 UOC)
MATH3901 Higher Probability and Stochastic Processes (6 UOC)
MICR3121 Microbial Genetics (6 UOC)

And ONE of the following:
COMP3331 Computer Networks and Applications (6 UOC)
COMP3931 Extended Computer Networks and Applications (6 UOC)

Year 5 Electives
BIOT3101 Commercial Biotechnology (6 UOC)
COMP3151 Foundations of Concurrency (6 UOC)
COMP3221 Digital Circuits and Systems (6 UOC)
COMP3511 Human Computer Interaction (6 UOC)
COMP3934 Next Generation Database Systems (6 UOC)
COMP3933 Advanced Computer Networks (6 UOC)
COMP39417 Machine Learning (6 UOC)
COMP39444 Neural Networks (6 UOC)
MATH3811 Statistical Inference (6 UOC)
MATH3821 Statistical Modelling and Computing (6 UOC)
MATH3911 Higher Statistical Inference (6 UOC)
MICR3011 Microbial Physiology (6 UOC)

Level 3 MATH electives and other COMP3/4/9 electives may also be considered. Electives must include at least one life science and at least one COMP course.

Academic Rules
For academic rules relating to the Bachelor of Engineering component of this combined program, please refer to the ‘Rules for Progression and Award of Degrees’ under ‘Faculty Information and Assistance’ in this Handbook.

Industrial Training
All students in the BE in Computer Engineering, Bioinformatics Engineering and Software Engineering programs must complete at least 60 days of approved Industrial Training before the end of Year 4.

Further Requirements
1. A HSC Maths mark of 145-150 is required in Maths extension 1 or a mark of 186-200 in Maths Extension 2 or a UAI > 97 in order to do COMP1711.
2. A HSC Maths mark of 145-150 is required in Maths extension 1 or a mark of 186-200 in Maths Extension 2 or a UAI > 97 in order to do COMP1711.
3. A HSC Physics mark of 145-150 is required in Physics extension 1 or a mark of 186-200 in Physics Extension 2 or a UAI > 97 in order to do COMP1711.

Computing Requirements
Information regarding recommended computing equipment and software for the program is available from the School of Computer Science and Engineering Student Office.

Professional Recognition
The Institution of Engineers, Australia
For more information, please refer to 'Professional Recognition in the program entry for 3647 Bioinformatics.'
Bachelor of Engineering Master of Biomedical Engineering BE MBiomedE

Typical Duration
5 years

Minimum UOC for Award
240 units of credit

Typical UOC per Session
24 units of credit

Program Description
The BE (Bioinformatics)/Master of Biomedical Engineering concurrent degree program is offered jointly through the School of Computer Science and Engineering, the Faculty of Science and the Graduate School of Biomedical Engineering. The combined Bachelor of Engineering in Bioinformatics/Master of Biomedical Engineering program allows students to combine the software engineering/molecular biology focus of bioinformatics with the broader engineering and medical emphases of the biomedical engineering program.

Students who are enrolled in a joint program are expected to maintain a Credit (65%) average across courses taken from each of the composite programs. Students who fail to meet this condition will be counselled about their suitability to remain in the combined program.

The stages of a generic combined program are shown below. It should be noted that it is possible to adapt the program by moving courses, subject to prerequisite requirements and overall program requirements.

Program Structure
Plan BINA613757

Year 1
- BINF1001 Bioinformatics 1 (6 UOC)
- BIOS1201 Molecules, Cells and Genes (6 UOC)
- And ONE of the following courses:
  - COMP1011 Computing 1A (6 UOC)
  - COMP1711 Higher Computing 1A (6 UOC)
- And ONE of the following courses:
  - COMP1712 Computing 1B (6 UOC) OR COMP1721 Higher Computing 1B (6 UOC)
- And ONE of the following courses:
  - MATH1131 Mathematics 1A (6 UOC)
  - MATH2131 Higher Mathematics 1B (6 UOC)
- And ONE of the following courses:
  - CHEM1001 Fundamentals of Chemistry 1A (6 UOC)
  - CHEM2101 Higher Chemistry 1A (6 UOC)

Year 2
- BINF2001 Bioinformatics 2 (6 UOC)
- BIOL2201 Principles of Molecular Biology (Advanced) (6 UOC)
- BIOM2010 Biomedical Engineering Practice (3 UOC)
- COMP2041 Software Construction: Techniques and Tools (6 UOC)
- COMP3711 Software Project Management (6 UOC)
- LIFE2101 Introductory Biochemistry & Microbiology (6 UOC)
- MA110900 Discrete Mathematics for Electrical Engineers (3 UOC)
- And ONE of the following courses:
  - COMP2011 Data Organisation (6 UOC)
  - COMP2711 Higher Data Organisation (6 UOC)

And ONE of the following courses:
- MATH2801 Theory of Statistics (6 UOC)
- MA119001 Higher Theory of Statistics (6 UOC)
- General Education (3 UOC)

Year 3
- BINF3001 Bioinformatics 3 (6 UOC)
- BIOL3121 Molecular Biology of Nucleic Acids (6 UOC)
- COMP3311 Database Systems (6 UOC)
- And ONE of the following courses:
  - COMP3121 Algorithms and Programming Techniques (6 UOC)
  - COMP3821 Extended Algorithms and Programming Techniques (6 UOC)

Year 4
- BIOM3021 Genetics (6 UOC)
- BIOM2621 Genetics (Advanced Level) (6 UOC)
- 2 BIOM 9XXX Biomedical Engineering electives (12 UOC each)

And ONE of the following courses:
- MATH2311 Linear Models (6 UOC)
- MATH2931 Higher Linear Models (6 UOC)

Year 5
- BIOM5904 Thesis Part B (12 UOC)
- BIOM9410 Regulatory Req of Biomed Tech (6 UOC)
- BIOM9XXX or COMP9XXX 1 Biomedical engineering elective+ (12 UOC)
- And ONE of the following courses:
  - BIOM9913 Project Report (12 UOC)
  - COMPS41 or COMP3998 Industrial Training (6 UOC)

Level 3 MATH electives and other level 3/4/9 COMP electives may be also considered. Electives must include at least two life science electives and at least two COMP or MATH electives.
Recommended Biomedical Engineering Electives:

- BIOM9027 Medical Imaging (6 UOC)
- BIOM9332 Biocompatibility (6 UOC)
- BIOM9420 Clinical Laboratory Science (6 UOC)
- BIOM9440 Biomedical Practical Measures (6 UOC)
- BIOM9430 Clinical Information Systems (6 UOC)
- BIOM9613 Medical Instrumentation (6 UOC)

Note that the BE (Bioinformatics) program allows a variation in standard prerequisites for some courses. Bioinformatics students who want to enrol in these courses will need to request manual enrolment after consultation with the program authority.

General Education Requirements

UNSW wants all students to develop skills in a broad range of areas, not just in their specific study discipline, and so students in all degrees are required to undertake a number of general studies courses outside their discipline. It may not be possible for Bioinformatics Engineering students to enrol in general education courses that are similar in content to the courses offered in the Bioinformatics Engineering degree.

For a comprehensive list, please refer to the CSE website: www.cse.unsw.edu.au/undergrad/current/gened.html

Academic Rules

For academic requirements relating to this program, please refer to Program Structure and contact the School of Computer Science and Engineering for more information.

Industrial Training Requirement

At least 60 days of approved industrial training must be completed before graduation. Industrial Training should be concurrent with enrolment and is best accumulated in the summer recesses at the end of Years 2 and 3, but must be completed by the end of Year 4. Opportunities exist for 6 months industrial placement in Year 3.

Further Requirements

Assumed Knowledge

Assumed knowledge for Mathematics (MATH1131); students will be expected to have achieved the equivalent of a combined mark of at least 100 in HSC Mathematics and HSC Mathematics Extension 1. Failure to meet this required knowledge means that General Mathematics (MATH1011) will have to be taken first. Assumed knowledge for English: at least band 3 in 2 Unit Standard English.

Professional Recognition

Accreditation will be sought from Engineers Australia and the Australian Computing Society.

Career Opportunities

Data analysis and software development in drug companies, biotechnology companies and medical and biological research institutes. Graduates from this course will also be well trained to take up careers in other areas of computational data analysis, such as in banks and insurance companies. They could also pursue careers in other more general areas of computing.

3651 Software Engineering/Bachelor of Science

Bachelor of Engineering Bachelor of Science BE BSc

Typical Duration

3 years

Minimum UOC for Award

240 units of credit

Typical UOC per Session

24 units of credit

Program Description

The stages of a generic combined program are shown below. It should be noted that it is possible to adapt the program by moving courses, subject to prerequisite requirements and the overall requirements given under Academic Rules below.

Day to day administration of this program is conducted through the Computer Science and Engineering Student Office, to which enquiries should be directed.
The major Science discipline may not be Computer Science.

Students who are enrolled in a combined program are expected to maintain a credit (65% or higher) average across courses taken from each of the composite programs. Students who fail to meet this condition will be counselled about their suitability to remain in the combined program. Refer to the School of Computer Science and Engineering website for examples of specific SE/Science programs: [www.cse.unsw.edu.au/seng](http://www.cse.unsw.edu.au/seng)

**Industrial Training Requirements**

All students in the BE in Computer Engineering, Bioinformatics Engineering and Software Engineering programs must complete at least 60 days of approved Industrial Training before the end of Year 4.

**Further Requirements**

1. A HSC Maths mark of 145-150 is required in 2 & 3 units Maths or 186-200 in 3 & 4 units Maths or a UAI > 97 in order to do COMP1711.
2. A mark of at least 75DN is required in COMP1011 or COMP1711 in order to do COMP1721.
3. A mark of at least 75DN is required in COMP1021 or COMP1721 in order to do COMP2711.
4. The chosen courses must form a major sequence of 42 units of credit at stages 2 and 3.
5. To satisfy prerequisites it may be necessary to use a different arrangement of courses than shown above.
6. All students in the BE/BSc Software Engineering/Science program must complete at least 60 days of approved Industrial Training before the end of Year 5 to fulfill the requirements of SENG4903 in stage 5.

**Professional Recognition**

The Institution of Engineers, Australia

For more information, please refer to ‘Professional Recognition’ in the program entry for 3648 Software Engineering.

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**3652 Software Engineering/Bachelor of Arts**

**Bachelor of Engineering Bachelor of Arts BE BA**

**Typical Duration**

5 years

**Minimum UOC for Award**

240 units of credit

**Typical UOC per Session**

24 units of credit

**Program Description**

Day-to-day administration of this program is conducted through the Computer Science and Engineering Student Office, to which enquiries should be directed.

The stages of the program are shown below. It should be noted that it is possible to adapt the program by moving courses, subject to prerequisite requirements. Approval should be obtained for changes.

**Program Structure**

Plan SENG13652

**Year 1**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>UOC</th>
</tr>
</thead>
<tbody>
<tr>
<td>INF51603</td>
<td>Business Data Management</td>
<td>6</td>
</tr>
<tr>
<td>INF51611</td>
<td>Requirements Engineering</td>
<td>3</td>
</tr>
<tr>
<td>MATH1101</td>
<td>Discrete Mathematics</td>
<td>6</td>
</tr>
<tr>
<td>MATH2401</td>
<td>Finite Mathematics</td>
<td>6</td>
</tr>
<tr>
<td>SENG1020</td>
<td>Software Engineering Workshop 1</td>
<td>6</td>
</tr>
</tbody>
</table>

**Stage 1 Arts electives**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMP1011</td>
<td>Computing 1A</td>
</tr>
<tr>
<td>COMP1021</td>
<td>Computing 1B</td>
</tr>
<tr>
<td>COMP1721</td>
<td>Higher Computing 1B</td>
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</tbody>
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**Stage 2**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMP2121</td>
<td>Microprocessors and Interfacing</td>
</tr>
<tr>
<td>COMP2111</td>
<td>System Modeling Design</td>
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**Stage 3**

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<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>COMP3711</td>
<td>Software Project Management</td>
</tr>
<tr>
<td>INF52693</td>
<td>Systems Analysis and Design</td>
</tr>
<tr>
<td>MATH2859</td>
<td>Probability, Statistics and Information</td>
</tr>
<tr>
<td>SENG2010</td>
<td>Software Engineering Workshop 2A</td>
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<tr>
<td>SENG2020</td>
<td>Software Engineering Workshop 2B</td>
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**Stage 4**

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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>COMP2011</td>
<td>Data Organisation</td>
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<tr>
<td>COMP2711</td>
<td>Higher Data Organisation</td>
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</table>

**Stage 5**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>SENG4910</td>
<td>Thesis Part A</td>
</tr>
<tr>
<td>SENG4911</td>
<td>Thesis Part B</td>
</tr>
<tr>
<td>SENG4921</td>
<td>Professional Issues and Ethics</td>
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</table>

**Arts electives**

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>Arts electives</td>
<td>(12 UOC)</td>
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**Stage 6**

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arts electives</td>
<td>(6 UOC)</td>
</tr>
</tbody>
</table>

**Academic Rules**

The BE (Software Engineering)/BA combined program requires the completion of 240 units of credit, including at least 60UOC (Units of Credit) of Arts courses, and must contain a major sequence of 42UOC at stages 2 and 3 in a single Arts discipline. To satisfy the requirement of the combined program, the free electives and the General Education electives of the standard Software Engineering program are assigned to Arts electives. Combined Programs are exempt from the General Education requirement.

The major Arts discipline may not be Computer Science.

Students who are enrolled in a combined program are expected to maintain a credit (65% or higher) average across courses taken from each of the composite programs. Students who fail to meet this condition will be counselled about their suitability to remain in the combined program.

The stages of a generic combined program are shown above. In general, it will be necessary to adapt the program by moving courses to meet the requirements of particular Arts majors. This generic program can accommodate 72 units of credit of Arts electives.

Refer to the School of Computer Science and Engineering website for examples of specific SE/Arts programs: [www.cse.unsw.edu.au/seng](http://www.cse.unsw.edu.au/seng)

The Faculty of Arts and Social Science should approve all Arts programs.

**Further Requirements**

1. An HSC Maths mark of 145-150 is required in 2 & 3 Unit Maths or 186-200 in 3 & 4 Unit Maths or a UAI >97 in order to do COMP1711.
2. A mark of at least 75DN is required in COMP1011 or COMP1711 in order to do COMP1721.
3. A mark of at least 75DN is required in COMP1021 or COMP1721 in order to do COMP2711.
4. The chosen courses must form a major sequence of 42 UOC.
5. To satisfy prerequisites it may be necessary to use a different arrangement of courses than shown above.
6. To accommodate particular sequences of Arts electives it may be necessary to change the distribution of SE electives between stages 3, 4 and 5.
7. All students in the BE/BA Software Engineering/Arts program must complete at least 60 days of approved Industrial Training before the end of Year 5 to fulfill the requirements of SENG4903 in Stage 5.
Please Note
1. The above staging of the program represents one possible sequence of courses. The staging of the courses may be modified, subject to prerequisites and timetabling. In particular, the FCE and SE electives may be redistributed.
2. Further information regarding SE electives can be found at www.cse.unsw.edu.au/seng

Academic Rules
The Bachelor of Engineering in Software Engineering Bachelor of Commerce combined program requires the following:

- At least 96 units of credit from the courses offered by the Faculty of Commerce and Economics (FCE) including: ACCT 1501, ACCT1511, ECON1101, ECON1102, and...
- Completion of a major of at least 48 units of credit in an FCE approved disciplinary stream and a minor of 24 units of credit in INFS courses of which no more than 12 units of credit may be Level 1 courses.
- No more than 60 units of credit of Level 1 FCE courses.
- 6 units of credit of first year mathematics courses as required for the Software Engineering program, and at least 6 units of credit in statistics and mathematics chosen from ECON1203, MATH1041, MATH1111, MATH1141, MATH1200, MATH1285, MATH2811, MATH2841, or alternative statistics and mathematics courses approved by the program advisor.

Students who are enrolled in a combined program are expected to maintain a Credit (65% or higher) average across courses taken from each of the composite programs. Students who fail to meet this condition will be counselled about their suitability to remain in the combined program.

The stages of a generic combined program are shown above. In general, it will be necessary to adapt the program by undertaking courses to meet the requirements of particular Commerce majors. This generic program accommodates 96 UOC of courses from FCE.

The Faculty of Commerce and Economics should approve the BCom program.

3749 Software Engineering/Master of Biomedical Engineering

Bachelor of Engineering Master of Biomedical Engineering BE MBiomedE

Typical Duration
5 years

Minimum UOC for Award
240 units of credit

Typical UOC per Session
24 units of credit

Program Description
The BE (Software Engineering)/Master of Biomedical Engineering concurrent degree program is offered jointly through the School of Computer Science and Engineering and the Graduate School of Biomedical Engineering. Students who are enrolled in a joint program are expected to maintain a Credit (65%) average across courses taken from each of the composite programs.

Program Structure
Plan SENG413749

Year 1
BIOC2010 Biomedical Engineering Practice (3 UOC)
INFS1603 Business Data Management (6 UOC)
INFS1611 Requirements Engineering (3 UOC)
MATH1081 Discrete Mathematics (6 UOC)
MATH2400 Finite Mathematics (3 UOC)
SENG1011 Software Engineering Workshop 1 (6 UOC)
And ONE of the following courses:
COMP1011 Computing 1A (6 UOC)
COMP1711 Higher Computing 1A (6 UOC)
COMP1721 Higher Computing 1B (6 UOC)
And ONE of the following courses:
INFS1603 Business Data Networks (6 UOC)
SENG3010 Software Engineering Workshop 3A (3 UOC)
SENG3020 Software Engineering Workshop 3B (3 UOC)
SE Electives (24 UOC)

Stage 4
Faculty of Commerce & Economics Electives (48 UOC)

Stage 5
SENG4910 Thesis Part A (6 UOC)
SENG4911 Thesis Part B (12 UOC)
SENG4921 Professional Issues and Ethics (6 UOC)
Software Engineering Electives (24 UOC)

At least 3 UOC of the Software Engineering electives must be chosen from INFS courses.

Further information regarding SE electives can be found at www.cse.unsw.edu.au/seng
3983 Computer Science/Bachelor of Science

Bachelor of Science Bachelor of Science (Computer Science) BSc BSc

Typical Duration
4 years

Minimum UOC for Award
192 units of credit

Typical UOC per Session
24 units of credit

Program Description

With this combined degree program, students can add a Science program to the standard, professionally accredited BSc in Computer Science program offered by the School of Computer Science and Engineering. All Science majors within program 3970 are available.

Students who meet the entry requirements for the Bsc in Computer Science program 3978 and for the Bachelor of Science program 3970 may apply to enter the combined Bachelor of Science Bachelor of Science (Computer Science) program.

Students should schedule the Science and Computer Science components to suit their preferences while meeting constraints of timetables and prerequisites. The Science Faculty section in this Handbook describes the Science options and the School of Computer Science and Engineering Student Office can supply sample programs indicating what previous students have arranged.

In addition to the BSc in Computer Science program 3978, students must complete a minimum of 84 units of credit in Science courses, including a major sequence in an approved area. The Science office must approve the Science component while the School of Computer Science and Engineering will approve the final program and schedule.

The award of Honours in either the Science or the Computer Science program requires at least one further year of study.

Students wishing to gain a degree at Honours level as part of their combined degree program shall meet all the relevant requirements of the faculty concerned and of the appropriate schools. Such students may enrol for the Honours year only on the recommendation of both the program authorities concerned.

Program Structure

Plan COMPA13983

Year 1

Sample Program:

Choose ONE of the following courses:

- COMP1011 Computing 1A
- COMP1711 Higher Computing 1A

And ONE of the following courses:

- COMP1021 Computing 1B
- COMP1721 Higher Computing 1B

Other

And ONE of the following courses:

- MATH1131 Mathematics 1A
- MAIH1341 Higher Mathematics 1A

And ONE of the following courses:

- MAIH1231 Mathematics 1B
- MAIH1241 Higher Mathematics 1B

Plus Science Electives, Level 1 (24 UOC)

Year 2

- COMP2121 Microprocessors and Interfacing
- COMP2041 Software Construction: Techniques and Tools
- MATH1081 Discrete Mathematics

And ONE of the following courses:

- COMP2011 Data Organisation
- COMP2711 Higher Data Organisation

Plus Science Electives, Level 2 (24 UOC)

Year 3

- COMP3111 Software Engineering

Plus Level 3/4 Computer Science Electives (18 UOC)

Plus Science Electives, Levels 2 & 3 (24 UOC)

General Education Requirements

UNSW wants all students to develop skills in a broad range of areas, not just in their specific study discipline, and so students in all degrees are required to undertake a number of general studies courses outside their discipline. It may not be possible for Computer Engineering students to enrol in general education courses that are similar in content to the courses offered in the Computer Engineering degree. For a comprehensive list, please refer to the CSE website: www.cse.unsw.edu.au/undergrad/current/gened.html

Academic Rules

For academic requirements relating to this program, please refer to Program Structure and contact the School Office for more information.
Year 4
COMP2920  Professional Issues and Ethics  (3 UOC)
Plus Level 3/4 Computer Science Electives  (6 UOC)
Plus Other Computer Science Electives  (6 UOC)
Plus Science Electives, Levels 2 & 3  (12 UOC)
Plus Electives  (15 UOC)
General Education Courses  (6 UOC)

External courses which may be included here and count towards the 84 UOC Computer Science electives, include: MATH2301, MATH3411/3301, TELE3013, PHYS1601 & 2601 and any of ELEC1011, 2031, 2032, 2042, 3004, 3006, 3014, 3016, 3017, 3041, 4042, 4412, 4413, 4503, 4522 and 4532.

General Education Requirements
Students in this program may also need to satisfy the General Education requirements. It may not be possible for computing students to enrol in General Education courses which are similar in content to the courses offered in their respective degree program. For a comprehensive list, please refer to the CSE website: www.cse.unsw.edu.au/school/teaching/courses/gened.html

Academic Rules
For academic requirements relating to this program, please refer to Program Structure and contact the School of Computer Science and Engineering for more information.

3968 Computer Science/Bachelor of Arts
Bachelor of Science Bachelor of Arts BSc BA

Typical Duration
4 years

Minimum UOC for Award
192 units of credit

Typical UOC per Session
24 units of credit

Program Description
The double degree of BSc (Computer Science) BA normally requires an additional stage of study, and enables students to complete the requirements of the BSc (Computer Science) and a school, department, or program of the Faculty of Arts and Social Sciences.

For admission to the program, students must satisfy the entry requirements for both the BSc (Computer Science) and the Faculty of Arts and Social Sciences. Students in this program must complete 192 units of credit of study. Students are required to undertake courses totalling 84 units of credit from the Science component and also 84 units of credit from the Arts component of which 42 units of credit would be from an approved major sequence (refer to Lists A and B in the rules for program 3400 Bachelor of Arts, in the Faculty of Arts and Social Science section of this Handbook). The remaining 24 units of credit may be taken from either area.

Students should enrol in at least 24 Level 1 units of credit and no more than 36 Level 1 within the Arts component of the program. Of these, no more than 12 units of credit can be taken in any one school or department.

The award of Honours in either the Arts or Social Sciences or the Computer Science component requires at least a further year of study, and the Honours year is subject to the admission requirements of the corresponding Arts and Social Sciences program or the Honours program in Computer Science. The School of Computer Science and Engineering administers this degree.

The specific requirements for the BSc Computer Science are described in the Engineering section of the Handbook, under program code 3978 BSc Computer Science.

Program Structure
Plan COMPA13968

Year 1
MATH1081  Discrete Mathematics  (6 UOC)
And ONE of the following courses:
COMP1011  Computing 1A  (6 UOC)
COMP1711  Higher Computing 1A  (6 UOC)
And ONE of the following courses:
COMP1021  Computing 1B  (6 UOC)
COMP1721  Higher Computing 1B  (6 UOC)
And ONE of the following courses:
MATH1131  Mathematics 1A  (6 UOC)
MATH1141  Higher Mathematics 1A  (6 UOC)

Year 2
COMP2121  Microprocessors and Interfacing  (6 UOC)
COMP2041  Software Construction: Techniques and Tools  (6 UOC)
COMP2920  Professional Issues and Ethics  (3 UOC)
And ONE of the following courses:
MATH1231  Mathematics 1B  (6 UOC)
MATH1241  Higher Mathematics 1B  (6 UOC)

Year 3
COMP3111  Software Engineering  (6 UOC)
And ONE of the following courses:
COMP2041  Software Construction: Techniques and Tools  (6 UOC)

3982 Computer Science/Bachelor of Digital Media
Bachelor of Science Bachelor of Digital Media BSc BDM

Typical Duration
4 years

Minimum UOC for Award
192 units of credit

Typical UOC per Session
24 units of credit

Program Description
The double degree of BSc (Computer Science) BDM combined program provides both a technical and creative foundation to the development and use of computer graphics. It also allows specialisation in the final semester in either the technical or creative strand of computer graphics and associated fields.

Program Structure
Plan COMPA13982
Plan DIGMA13982

Year 1
Sample Program:
SOMA1600  Language of Digital Media  (6 UOC)
SOMA1604  Introduction to Digital Media  (6 UOC)
SOMA1608  Digital Composite 1  (6 UOC)
SOMA2602  Sound Media 1  (6 UOC)
MATH1081  Discrete Mathematics  (6 UOC)
And ONE of the following courses:
COMP1011  Computing 1A  (6 UOC)
COMP1711  Higher Computing 1A  (6 UOC)
And ONE of the following courses:
COMP1021  Computing 1B  (6 UOC)
COMP1721  Higher Computing 1B  (6 UOC)
And ONE of the following courses:
MATH1131  Mathematics 1A  (6 UOC)
MATH1141  Higher Mathematics 1A  (6 UOC)

Year 2
COMP2041  Software Construction: Techniques and Tools  (6 UOC)
MATH2400  Finite Mathematics  (3 UOC)
MATH2859  Probability, Statistics & Information  (3 UOC)
SOMA1603  Digital Video 1  (6 UOC)
SOMA2607  Multimedia 1  (6 UOC)
SOMA2609  3D Graphics & Modelling 1  (6 UOC)
And ONE of the following courses:
COMP2041  Software Construction: Techniques and Tools  (6 UOC)
COMP2711  Higher Data Organisation  (6 UOC)
Students undertake the first three years (6 semesters) of the BE program in Computer Engineering. Subject to satisfying 75% over Years 2 and 3 (see Rules for Progression and the Award of Degrees), they (a) substitute 12 units of credit of the standard 4th year BE degree program with a School approved 12 units of credit of graduate coursework in their 4th year; (b) they undertake a 12 units of credit of project/thesis work over the summer (9th) semester; and (c) they undertake 24 units of credit of graduate coursework in the 10th semester (first half of their 5th year).

3647 Biinformatics/Master of Engineering Science – Plan BINFL13647

Bachelor of Engineering Master of Engineering Science Science – Plan BINFL13647

Students may undertake 4.5 years (10 semesters) full-time fast-track program leading to the award of a Bachelor of Engineering and a Master of Engineering Science in Computer Engineering. Students undertake the first three years (6 semesters) of the BE program in Computer Engineering. Subject to satisfying 75% over Years 2 and 3 (see Rules for Progression and the Award of Degrees), they (a) substitute 12 units of credit of the standard 4th year BE degree program with a School approved 12 units of credit of graduate coursework in their 4th year; (b) they undertake a 12 units of credit of project/thesis work over the summer (9th) semester; and (c) they undertake 24 units of credit of graduate coursework in the 10th semester (first half of their 5th year).

3648 Software Engineering/Master of Engineering Science – Plan SENGL13648

Bachelor of Engineering Master of Engineering Science Science – Plan SENGL13648

Students may undertake a 4.5 years (10 semesters) full-time fast-track program leading to the award of a Bachelor of Engineering and a Master of Engineering Science in Software Engineering. Students undertake the first three years (6 semesters) of the BE program in Software Engineering. Subject to satisfying 75% over years 2 and 3 (see ‘Rules for Progression and the Award of Degrees’), they (a) substitute 12 units of credit of the standard 4th year BE degree program with a School approved 12 units of credit of graduate coursework in their 4th year; (b) they undertake a 12 units of credit of project/thesis work over the summer (9th) semester; and (c) they undertake 24 units of credit of graduate coursework in the 10th semester (first half of their 5th year).

School of Electrical Engineering and Telecommunications

Head of School: Professor BG Celler

Director of Academic Studies: Associate Professor E Ambikairajah

Administrative Officers: Ms. G. Fong

The School comprises several discipline areas indicating shared research interests and teaching commitments: Telecommunications; Signal Processing; Energy Systems; Microelectronics; Photonics; Systems and Control. Electrical Engineering and Telecommunications has close links with the pure sciences and mathematics. Its technology is changing rapidly and the School’s teaching and research programs are constantly being updated to meet the challenges of present and future needs.

The School offers undergraduate and graduate training in all branches of the professions of electrical engineering and telecommunications. Our degree programs are accredited by the Institution of Engineers, Australia, as meeting the requirements for admission to graduate membership. The School is also associated with the Australian Photonics Co-operative Research Centre which conducts research into optical fibre communication devices and technology.

A very vibrant Co-op program is offered for Electrical Engineering and Telecommunications students. Co-operative scholarships are funded by Australia’s premier industries.

Summary of Undergraduate Programs

Normal full-time

<table>
<thead>
<tr>
<th>Single Degree Programs</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>3640 BE in Electrical Engineering</td>
<td>4 years</td>
</tr>
<tr>
<td>3643 BE in Telecommunications</td>
<td>4 years</td>
</tr>
<tr>
<td>3644 BE in Photonic Engineering</td>
<td>4 years</td>
</tr>
</tbody>
</table>

Combined Degree Programs

<table>
<thead>
<tr>
<th>Combined Degree Programs</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>3646 BE BA in Telecommunications</td>
<td>5 years</td>
</tr>
<tr>
<td>3720 BE BA in Electrical Engineering</td>
<td>5 years</td>
</tr>
<tr>
<td>3725 BE BSc in Electrical Engineering</td>
<td>5 years</td>
</tr>
<tr>
<td>3641 BE BSc in Telecommunications</td>
<td>5 years</td>
</tr>
<tr>
<td>3634 BE BSc in Photonic Engineering</td>
<td>5 years</td>
</tr>
<tr>
<td>3715 BE BCom in Electrical Engineering</td>
<td>5.5 years</td>
</tr>
<tr>
<td>3715 BE BCom in Photonic Engineering</td>
<td>5.5 years</td>
</tr>
<tr>
<td>3715 BE BCom in Telecommunications</td>
<td>5.5 years</td>
</tr>
</tbody>
</table>

Fast-Track Programs

<table>
<thead>
<tr>
<th>Fast-Track Programs</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>3640 BE MEngSc in Electrical Engineering</td>
<td>4.5 years</td>
</tr>
<tr>
<td>3643 BE MEngSc in Telecommunications</td>
<td>4.5 years</td>
</tr>
</tbody>
</table>

Concurrent Degree Programs

<table>
<thead>
<tr>
<th>Concurrent Degree Programs</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>3723 BE MBiomedE in Telecommunications</td>
<td>5 years</td>
</tr>
<tr>
<td>3727 BE MBiomedE in Electrical Engineering</td>
<td>5 years</td>
</tr>
</tbody>
</table>


The undergraduate curricula are progressively revised to provide flexible training to suit the future needs of students. Individual student needs can be further met by substitution provisions within the programs.

Combined Degree Programs

Combined degree programs lead to the award of the Bachelor of Engineering in either Electrical Engineering or Telecommunications, combined with a Bachelor degree in Arts or Science (usually Computer Science, Mathematics or Physics). There is a fast-track degree available which leads to the awards of Bachelor of Engineering in either Electrical Engineering or Telecommunications and Master of Engineering Science. With the Graduate School of Biomedical Engineering, there is also available a concurrent degree program leading to the award of Bachelor of Engineering/Master of Biomedical Engineering. Students who are in combined degree programs must maintain a Credit average performance (i.e. 65% weighted average mark) in order to stay in the program.

Guidelines for Substitution of Courses

To suit the special abilities or needs of individual students, a limited number of course substitutions is permitted within each program. Any such substitution must have prior approval of the Head of School.

1. The substituted course is of at least the same length and level as the prescribed course.

2. Core courses are normally substituted with courses covering similar material.
3. Students may substitute for two of the Professional Electives, courses of suitable level and difficulty from areas relevant to the profession of Electrical Engineering. One of these substitutions may be a Year 3 elective from within the School. Substitution of one postgraduate course within the School is permitted, provided that the student has passed Year 3 Electrical Engineering and Telecommunications courses at an adequate level and a similar course is not offered at the undergraduate level.

4. Substitution is not permitted if it unduly restricts the range of courses studied to only one area of electrical engineering or computer systems.

5. Substitution is normally not permitted in Year 1 or Year 2.

Guide to Industrial Training Requirement

Each student is personally responsible for ensuring the completion of the full 60 days compulsory industrial training prescribed as part of the requirements for the award of the degree. Industrial training should be concurrent with enrolment and is best accumulated in the summer recesses at the end of Years 2 and 3, but must be completed by the end of Year 4.

Students should be involved in general work with professional engineers and take an active part in their work in the design of simple equipment, solving of engineering problems, or any other work which is relevant to the profession of engineering.

At the end of each period of employment every student must submit a report, typically 2000-3000 words, summarising the work done; the training received and including a description of the organisation of the company.

Industrial training will be assessed as a compulsory part of the course ELEC4011 Ethics and Electrical Engineering Practice. Students must complete the industrial training requirement in order to receive a completed assessment for this course.

Please note: Most undergraduate programs in the Faculty of Engineering are currently under revision, subject to approval by the University Council. Students commencing in 2006 should refer to the Online Handbook (www.handbook.unsw.edu.au) for up-to-date information about program structures.

3640 Electrical Engineering
Bachelor of Engineering BE

Typical Duration
4 years

Minimum UOC for Award
192 units of credit

Typical UOC per Session
24 units of credit

Program Description

The School offers undergraduate and graduate training in all branches of the professions of electrical engineering and telecommunications. The Degree programs are accredited by The Institution of Engineers, Australia as meeting the requirements for admission to graduate membership. The School is also associated with the Australian Photonics Co-operative Research Centre which conducts research into Optical Fibre communication devices and technology.

A very vibrant Co-op program is offered for Electrical Engineering and Telecommunications students. Co-operative scholarships are funded by Australia’s premier industries.

Options within Electrical Engineering include: Telecommunications, Photonics, Systems & Control, Energy Systems, Microelectronics, Signal Processing.

The undergraduate curricula are being progressively revised to provide flexible training to suit the future needs of students. Individual student needs can be further met by substitution provisions within the programs.

Program Structure

Year 1

Session One

ELEC1010 Introduction to Electrical Engineering (3 UOC)
ELLC1011 Electrical Engineering 1 (6 UOC)
MATH1090 Discrete Mathematics for Electrical Engineers (3 UOC)
MATH1141 Higher Mathematics 1A (6 UOC)
PHYS1131 Higher Physics 1A (6 UOC)

Session Two

COMP1091 Solving Problems with Software (6 UOC)
ELEC1041 Digital Circuits (6 UOC)
MATH1241 Higher Mathematics 1B (6 UOC)
PHYS1231 Higher Physics 1B (6 UOC)

Note: MATH1141 and MATH1241 may be taken at the ordinary level (MATH1131 and MATH1231).

Year 2

Session One

COMP2091 Computing 2 (6 UOC)
ELEC2031 Circuits and Systems (3 UOC)
MATH2131 Higher Several Variable Calculus (6 UOC)
PHYS2939 Physics 2 (Electrical Engineering) (3 UOC)

Session Two

ELEC2015 Electromagnetic Applications (3 UOC)
ELLC2032 Electronics and Systems (3 UOC)
ELEC2042 Real Time Instrumentation (3 UOC)
MATH2509 Linear Algebra for Engineers (3 UOC)
MATH2620 Higher Complex Analysis (3 UOC)
MATH2859 Probability, Statistics and Information (3 UOC)

And TWO General Education courses in Session 1 and TWO General Education courses in Session 2.

Note: MATH2620 and MATH2111 may be taken at the ordinary level (MATH2520 and MATH2101).

Year 3

Session One

ELEC2041 Microprocessors & Interfacing (6 UOC)
ELEC3004 Signal Processing and Transform Methods (6 UOC)
ELEC3005 Electric Energy 1 (6 UOC)
ELEC3006 Electronics A (6 UOC)

Session Two

ELEC3014 Systems and Control 1 (6 UOC)
ELEC3017 Electrical Engineering Design (6 UOC)

TWO Electives from the following:

COMP2011 Data Organisation (6 UOC)
ELLC3013 Electric Energy 2 (6 UOC)
ELEC3016 Electronics B (6 UOC)
ELLC3041 Real Time Engineering (6 UOC)
TELE3013 Telecommunication Systems 1 (6 UOC)
TELE3018 Data Networks 1 (6 UOC)

Students who intend to major in particular disciplines should note that certain Year 3 elective courses may be prerequisites for the Professional Electives they choose in Year 4. COMP2011 may be taken at the higher level (COMP2711).

Year 4

Session One

ELEC4010 Project Management for Professional Services (3 UOC)
ELEC4910 Thesis Part A (3 UOC)

And THREE Professional Electives

Session Two

ELEC4011 Ethics & Elec. Eng. Practice (3 UOC)
ELLC4911 Thesis Part B (9 UOC)

And TWO Professional Electives

Note: The Thesis may only be taken by students with an Honours-level weighted average at the end of Year 3. Other students enrol in the Group Thesis (ELEC4914 and ELEC4915).

Students who intend to major in particular disciplines should note that certain Year 3 elective courses may be prerequisites for the Professional Electives they choose in Year 4.

COMP2031 may be taken at the higher level (COMP2711).

Professional Electives

Microelectronics

ELEC4503 Electronics C (6 UOC)
ELEC4522 Microelectronics Design and Technology (6 UOC)
ELEC4532 Integrated Digital Systems (6 UOC)

Systems and Control

ELEC4412 Control of Continuous-time Systems (6 UOC)
ELEC4413 Control of Discrete-time Systems (6 UOC)
Energy Systems
ELEC4205 Electrical Energy Systems (6 UOC)
ELEC4216 Electrical Drive Systems (6 UOC)
ELEC4240 Power Electronics (6 UOC)
SOLA3540 Applied Photovoltaics (6 UOC)

Signal Processing
ELEC4042 Signal Processing 2 (6 UOC)
ELEC4483 Biomedical Instrumentation, Measurement and Design (6 UOC)

Telecommunications
IELE4313 Optical Communications (6 UOC)
IELE4323 Digital Modulation and Coding (6 UOC)
IELE4333 Wireless Data Communication Systems (6 UOC)
IELE4343 Source Coding and Compression (6 UOC)
IELE4352 Data Networks 2 (6 UOC)
IELE4353 Mobile and Satellite Communication Systems (6 UOC)
IELE4354 Network Management (6 UOC)
IELE4363 Telecommunications Systems 2 (6 UOC)

Computer Systems
COMP3111 Software Engineering (6 UOC)
COMP3211 Computer Architecture (6 UOC)
COMP3231 Operating Systems (6 UOC)
COMP3311 Database Systems (6 UOC)
COMP4111 Artificial Intelligence (6 UOC)
MAHI4111 Information, Codes and Ciphers (6 UOC)

Business Administration
ELEC4444 New Business Creation (6 UOC)

Professional Elective courses in Computer Systems area require either COMP2011 or COMP2021 as a prerequisite.

Because of timetabled clashes, not all combinations of courses are possible.

The program selected by each student must be approved by the Head of School. Not all electives are offered each session, nor is the full range available to part-time students. Students are advised each year of the timetable of available electives.

General Education
Please refer to General Education Requirements under ‘Faculty Information and Assistance’ in this Handbook.

Honours
In the Bachelor of Engineering degree programs the same formal program is offered to both Pass students and to those aiming at Honours. Honours will be awarded for meritorious performance over the program: special attention is paid to a candidate's performance in the final year courses and thesis project.

In the cases of combined degrees, such as the BE BA or the BE BSc, the award of the BA or BSc degree at Honours level requires two additional sessions of study.

Students wishing to gain a degree at Honours level in Arts or in Science as part of their combined degree program must meet all the relevant requirements of the Faculty of Arts and Social Sciences or the Faculty of Science and of the appropriate school concerned. Students may enrol for the Honours year only on the recommendation of the Head of their School in the Faculty of Engineering and with the approval of the Head of the appropriate Arts or Science School. For Honours in Science, approval must also be sought from the Science Cross Faculty Standing Committee or its delegated authorities. AUSTUDY support is available for the combined degree program including the Honours level.

Academic Rules
For program rules relating to the Bachelor of Engineering, please refer to the ‘Rules for Progression and Award of Degrees’ under ‘Faculty Information and Assistance’ in this Handbook.

Industrial Training
Each student is personally responsible for ensuring the completion of the full 60 days compulsory industrial training prescribed as part of the requirements for the award of the degree. Industrial Training should be concurrent with enrolment and is best accumulated in the summer recesses at the end of Years 2 and 3, but must be completed by the end of Year 4.

Students should in general work with professional engineers and take an active part in their work in the design of simple equipment, solving of engineering problems, or any other work which is relevant to the profession of Engineering.

At the end of each period of employment every student must submit a report, typically 2000-3000 words, summarising the work done, the training received and including a description of the organisation of the company.

Industrial Training will be assessed as a compulsory part of the course ELEC4011 Ethics and Electrical Engineering Practice. Students must complete the industrial training requirement in order to receive a completed assessment for this course.

Part-time Programs
After completing Year 1 full-time, it is possible for students to progress with a program which has a part-time load (less than 18 units of credit in any session). Very few undergraduate courses are offered in the evenings and students need to be able to attend classes as the timetable demands. Formal part-time programs, that provide courses at times suited to part-time students, are not offered.

Further Information
Guidelines for Substitution of Courses
To suit the special abilities or needs of individual students a limited number of course substitutions is permitted within each program. Any such substitution must have prior approval of the Head of School.

1. The substituted course is of at least the same length and level as the prescribed course.
2. Core courses are normally substituted with courses covering similar material.
3. Students may substitute for two of the Professional Electives, courses of suitable level and difficulty from areas relevant to the profession of Electrical Engineering. One of these substitutions may be a Year 3 elective from within the School. Substitution of one postgraduate course within the School is permitted, provided that the student has passed Year 3 Electrical Engineering and Telecommunications courses at an adequate level and a similar course is not offered at the undergraduate level.
4. Substitution is not permitted if it unduly restricts the range of courses studied to only one area of electrical engineering or computer systems.
5. Substitution is normally not permitted in Year 1 or Year 2.

Computing Requirements
Information regarding recommended computing equipment for the courses offered by the School is available from the School Office or the School's computer resources website.

3643 Telecommunications
Bachelor of Engineering BE
Typical Duration
4 years
Minimum UOC for Award
192 units of credit
Typical UOC per Session
24 units of credit

Program Description
The School offers undergraduate and graduate training in all branches of the professions of electrical engineering and telecommunications. The Degree programs are accredited by The Institution of Engineers, Australia as meeting the requirements for admission to graduate membership. The School is also associated with the Australian Photonics Co-operative Research Centre which conducts research into Optical Fibre communication devices and technology.

A very vibrant Co-op program is offered for Electrical Engineering and Telecommunications students. Co-operative scholarships are funded by Australia's premier industries.

Options within Electrical Engineering include: Telecommunications, Photonics, Systems & Control, Energy Systems, Microelectronics, Signal Processing.

The undergraduate curricula are being progressively revised to provide flexible training to suit the future needs of students. Individual student needs can be further met by substitution provisions within the programs.
## Program Structure

### Year 1

**Session One**
- ELEC1011 Electrical Engineering 1 (6 UOC)
- MATH1090 Discrete Mathematics for Electrical Engineers (3 UOC)
- MAH1141 Higher Mathematics 1A (6 UOC)
- PHYS1131 Higher Physics 1A (6 UOC)
- TELE1010 Introduction to Telecommunications (3 UOC)

**Session Two**
- COMP1091 Solving Problems with Software (6 UOC)
- ELEC1041 Digital Circuits (6 UOC)
- MATH1241 Higher Mathematics 1B (6 UOC)
- PHYS1231 Higher Physics 1B (6 UOC)

*Note: MATH1141 and MATH1241 may be taken at the ordinary level (MATH1131 and MATH1231).*

### Year 2

**Session One**
- COMP2091 Computing 2 (6 UOC)
- ELEC2031 Circuits and Systems (3 UOC)
- ELEC2041 Microprocessors & Interfacing (6 UOC)
- MATH2111 Higher Several Variable Calculus (6 UOC)
- MATH2829 Probability, Statistics and Information (3 UOC)

**Session Two**
- ELEC2032 Electronics and Systems (3 UOC)
- ELEC2042 Real Time Instrumentation (3 UOC)
- MAH2209 Linear Algebra for Engineers (3 UOC)
- MATH2620 Higher Complex Analysis (6 UOC)
- TELE3018 Data Networks 1 (6 UOC)

Two General Education courses (3 UOC)

*Note: MATH2620 and MATH2111 may be taken at the ordinary level (MATH2520 and MATH2011).*

### Year 3

**Session One**
- ELEC3006 Electronics A (6 UOC)
- PHYS2939 Physics 2 (Electrical Engineering) (6 UOC)
- ITEL3013 Telecommunication Systems 1 (6 UOC)
- TELE4352 Data Networks 2 (6 UOC)

One General Education course (3 UOC)

**Session Two**
- ITEL3004 Signal Processing and Transform Methods (6 UOC)
- ELEC3017 Electrical Engineering Design (6 UOC)
- TELE3015 High Freq Electromagnetics (3 UOC)

One General Education course (3 UOC)

One Elective from the following:
- COMP2011 Data Organisation (6 UOC)
- ELEC3014 Systems and Control 1 (6 UOC)
- ELEC3016 Electronics B (6 UOC)
- ELEC3041 Real Time Engineering (6 UOC)

*Notes: Students who intend to major in particular disciplines should note that certain Year 3 elective courses may be prerequisites for the Professional Electives they choose in Year 4.*

COMP2011 may be taken at the higher level (COMP2711)

### Year 4

**Session One**
- ELEC4010 Project Management for Professional Services (3 UOC)
- ITEL4354 Network Management (6 UOC)
- TELE4363 Telecommunications Systems 2 (6 UOC)
- TELE4910 Thesis Part A (3 UOC)

ONE Professional Elective (6 UOC)

**Session Two**
- ELEC4011 Ethics and Electrical Engineering Practice (3 UOC)
- ITEL4911 Thesis Part B (9 UOC)

TWO Professional Electives (12 UOC)

*Note: The Thesis is taken by students with an Honours-level weighted average at the end of Year 3. Other students enrol in the Group Thesis (TELE4914 and TELE4915).*

### Professional Electives

**Microelectronics**
- ELEC4503 Electronics C (6 UOC)
- ELEC4522 Microelectronics Design and Technology (6 UOC)
- ELEC4532 Integrated Digital Systems (6 UOC)

### Systems & Control
- ELEC4412 Control of Continuous-time Systems (6 UOC)
- ELEC4413 Control of Discrete-time Systems (6 UOC)

### Signal Processing
- ELEC4042 Signal Processing 2 (6 UOC)
- ELEC4483 Biomedical Instrumentation, Measurement and Design (6 UOC)

### Telecommunications
- ITEL4313 Optical Communications (6 UOC)
- ITEL4323 Digital Modulation and Coding (6 UOC)
- ITEL4333 Wireless Data Communication Systems (6 UOC)
- ITEL4352 Data Networks 2 (6 UOC)
- ITEL4343 Source Coding and Compression (6 UOC)
- ITEL4353 Mobile and Satellite Communication Systems (6 UOC)
- ITEL4354 Network Management (6 UOC)
- ITEL4363 Telecommunications Systems 2 (6 UOC)

*Note: ITEL4363, ITEL4352 and ITEL4354 are Core courses for BE in Telecommunications students.*

### Computer Systems
- COMP3111 Software Engineering (6 UOC)
- COMP3211 Computer Architecture (6 UOC)
- COMP3231 Operating Systems (6 UOC)
- COMP3311 Database Systems (6 UOC)
- COMP3411 Artificial Intelligence (6 UOC)
- MAH3411 Information, Codes and Ciphers (6 UOC)

### Business Administration
- ELEC4444 New Business Creation (6 UOC)

Professional Elective courses in the Computer Systems area require either COMP2011 or COMP2021 as a prerequisite.

Because of timetabling clashes, not all combinations of courses are possible. The program selected by each student must be approved by the Head of School. Not all electives are offered each session, nor is the full range available to part-time students. Students are advised each year of the timetable of available electives.

### General Education

Please refer to General Education Requirements under ‘Faculty Information and Assistance’ in this Handbook.

### Honours

In the Bachelor of Engineering degree programs the same formal program is offered to both Pass students and to those aiming at Honours. Honours will be awarded for meritorious performance over the program: special attention is paid to a candidate’s performance in the final year courses and thesis project.

In the cases of combined degrees, such as the BE BA or the BE BSc, the award of the BA or BSc degree at Honours level requires two additional sessions of study.

Students wishing to gain a degree at Honours level in Arts or in Science as part of their combined degree program must meet all the relevant requirements of the Faculty of Arts and Social Sciences or the Faculty of Science and of the appropriate School concerned. Students may enrol for the Honours year only on the recommendation of the Head of their School in the Faculty of Engineering and with the approval of the Head of the appropriate Arts or Science School. For Honours in Science, approval must also be sought from the Science Cross Faculty Standing Committee or its delegated authorities. AUSTUDY support is available for the combined degree program including the Honours level.

### Academic Rules

For program rules relating to the Bachelor of Engineering, please refer to the ‘Rules for Progression and Award of Degrees’ under ‘Faculty Information and Assistance’ in this Handbook.

### Industrial Training Requirements

Each student is personally responsible for ensuring the completion of the full 60 days compulsory industrial training prescribed as part of the requirements for the award of the degree. Industrial Training should be concurrent with enrolment and is best accumulated in the summer recesses at the end of Years 2 and 3, but must be completed by the end of Year 4.
Students should in general work with professional engineers and take an active part in their work in the design of simple equipment, solving of engineering problems, or any other work which is relevant to the profession of Engineering.

At the end of each period of employment every student must submit a report, typically 2000-3000 words, summarising the work done, the training received and including a description of the organisation of the Company

Industrial Training will be assessed as a compulsory part of the course ELECT4011 Ethics and Electrical Engineering Practice. Students must complete the industrial training requirement in order to receive a completed assessment for this course.

Further Information
Guidelines for Substitution of Courses
To suit the special abilities or needs of individual students a limited number of course substitutions is permitted within each program. Any such substitution must have prior approval of the Head of School.

1. The substituted course is of at least the same length and level as the prescribed course.
2. Core courses are normally substituted with courses covering similar material.
3. Students may substitute for two of the Professional Electives, courses of suitable level and difficulty from areas relevant to the profession of Electrical Engineering. One of these substitutions may be a Year 3 elective from within the School. Substitution of one postgraduate course within the School is permitted, provided that the student has passed Year 3 Electrical Engineering and Telecommunications courses at an adequate level and a similar course is not offered at the undergraduate level.
4. Substitution is not permitted if it unduly restricts the range of courses studied to only one area of electrical engineering or computer systems.
5. Substitution is normally not permitted in Year 1 or Year 2.

Computing Requirements
Information regarding recommended computing equipment for the courses offered by the School is available from the School Office or the School’s computer resources website.

3644 Photonic Engineering
Bachelor of Engineering BE
Typical Duration
4 years
Minimum UOC for Award
192 units of credit
Typical UOC per Session
24 units of credit

Program Description
The School offers undergraduate and graduate training in all branches of the professions of electrical engineering and telecommunications. The Degree programs are accredited by The Institution of Engineers, Australia as meeting the requirements for admission to graduate membership. The School is also associated with the Australian Photonics Co-operative Research Centre which conducts research into Optical Fibre communication devices and technology.

A very vibrant Co-op program is offered for Electrical Engineering and Telecommunications students. Co-operative scholarships are funded by Australia’s premier industries.

Options within Electrical Engineering include: Telecommunications, Photonics, Systems & Control, Energy Systems, Microelectronics, Signal Processing.

The undergraduate curricula are being progressively revised to provide flexible training to suit the future needs of students. Individual student needs can be further met by substitution provisions within the programs.

Program Structure
Year 1
Session One
ELEC1011 Electrical Engineering I (6 UOC)
MATH1190 Discrete Mathematics for Electrical Engineers (3 UOC)
MATH1141 Higher Mathematics 1A (6 UOC)
PHTN1010 Introduction to Photonics (3 UOC)
PHYS1131 Higher Physics 1A (6 UOC)

Session Two
COMP1091 Solving Problems with Software (6 UOC)
ELEC1041 Digital Circuits (6 UOC)
MATH1241 Higher Mathematics 1B (6 UOC)
PHYS1231 Higher Physics 1B (6 UOC)

Note: MATH1131 and MATH1241 may be taken at the ordinary level (MATH1131 and MATH1231)

Year 2
Session One
COMP2091 Computing 2 (6 UOC)
ELEC2031 Circuits and Systems (3 UOC)
MATH2111 Higher Several Variable Calculus (6 UOC)
MATH2859 Probability, Statistics and Information (3 UOC)
PHYS2050 Laser and Spectroscopy Lab (3 UOC)
PHYS2040 Quantum Physics (3 UOC)

Session Two
ELEC2032 Electronics and Systems (3 UOC)
ELEC2042 Real Time Instrumentation (3 UOC)
MATH2121 Higher Mathematical Methods for Differential Equations (3 UOC)
MATH2830 Linear Algebra for Engineers (3 UOC)
MATH2620 Higher Complex Analysis (3 UOC)
PHYS2005 Electromagnetism (3 UOC)
PHYS2010 General Education (6 UOC)

Note: MATH2111, MATH2620 and MATH2121 may be taken at the ordinary level (MATH2101, MATH2520 and MATH2120)

Year 3
Session One
ELEC3004 Signal Processing and Transform Methods (6 UOC)
ELEC3006 Electronics A (6 UOC)
PHYS3030 Electromagnetism (Advanced) (3 UOC)
PHYS3570 Laser and Spectroscopy Lab (3 UOC)
One 6UOC General Education Courses needs to be taken in Year 3 Session 1.

Session Two
ELEC3017 Electrical Engineering Design (6 UOC)
PHYS3060 Advanced Optics (3 UOC)
PHYS3310 Physics of Solid State Devices (3 UOC)
ELEC3013 Telecommunication Systems 1 (6 UOC)
6 UOC electives from the following courses:
COMP2011 Data Organisation (6 UOC)
ELEC2041 Microprocessors & Interfacing (6 UOC)
ELEC3014 Systems and Control 1 (6 UOC)
PHYS3010 Quantum Mechanics (Advanced) (3 UOC)
PHYS3080 Solid State Physics (3 UOC)
TELE3018 Data Networks 1 (6 UOC)

Notes: The elective courses ELEC2041, PHYS3010 and PHYS3080 are scheduled in Session 1 only. In this case the General Education elective can be moved to Session 2.

PHYS3030 may be taken at the ordinary level (PHYS3230).

Year 4
Session One
ELEC4010 Project Management for Professional Services (3 UOC)
ELEC4011 Ethics and Electrical Engineering Practice (3 UOC)
PHYS4979 Photonic Devices (6 UOC)
PHYS4980 Solid State Physics (6 UOC)
TELE4313 Optical Communications (6 UOC)
One Professional Elective (6 UOC)

Session Two
ELEC4011 Ethics and Electrical Engineering Practice (3 UOC)
ELEC4911 Thesis Part B (9 UOC)
Two Professional Electives (12UOC)

Notes: The Thesis may only be taken by students with an Honours level weighted average at the end of Year 3. Other students should enrol in the Group Thesis (ELEC4914 and ELEC4915).

Students who intend to major in particular disciplines should note that certain Year 3 elective courses may be prerequisites for the Professional Electives they choose in Year 4.
Further Information

Guidelines for Substitution of Courses
To suit the special abilities or needs of individual students a limited number of course substitutions is permitted within each program. Any such substitution must have prior approval of the Head of School.

1. The substituted course is of at least the same length and level as the prescribed course.
2. Core courses are normally substituted with courses covering similar material.
3. Students may substitute for two of the Professional Electives, courses of suitable level and difficulty from areas relevant to the profession of Electrical Engineering. One of these substitutions may be a Year 3 elective from within the School. Substitution of one postgraduate course within the School is permitted, provided that the student has passed Year 3 Electrical Engineering and Telecommunications courses at an adequate level and a similar course is not offered at the undergraduate level.
4. Substitution is not permitted if it unduly restricts the range of courses studied to only one area of electrical engineering or computer systems.
5. Substitution if normally not permitted in Year 1 and Year 2.

Computer Requirements
Information regarding recommended computing equipment for the courses offered by the School is available from the School Office or the School’s computer resource website.

3725 Electrical Engineering/Bachelor of Science
Bachelor of Engineering Bachelor of Science BE BSc

Typical Duration
5 years

Minimum UOC for Award
240 units of credit

Typical UOC per Session
24 units of credit

Program Description
Combined degree programs lead to the award of the Bachelor of Engineering in either Electrical Engineering or Telecommunications, combined with a Bachelor degree in Arts or Science (usually Computer Science, Mathematics or Physics). Students who are in the combined degrees program must maintain a credit average performance (i.e. 65% weighted average mark) in order to stay in the program. These programs qualify candidates for the award of two degrees in five years of combined full-time study in which the requirements of the degrees have been merged.

Program Structure
Year 1
As for Program 3640

Year 2
Session One
COMP2091 Computing 2 (6 UOC)
ELEC2031 Circuits and Systems (3 UOC)
ELEC2041 Microprocessors & Interfacing (6 UOC)
MATH2111 Higher Several Variable Calculus (6 UOC)
PHYS2939 Physics 2 (Electrical Engineering) (3 UOC)

Session Two
Science Elective/Core
ELEC2015 Electromagnetic Applications (3 UOC)
ELEC2032 Electronics and Systems (3 UOC)
MATH2620 Higher Complex Analysis (3 UOC)
MATH2859 Probability, Statistics and Information (3 UOC)

Notes: The Core/Elective course will be PHYS2999 for Science with a Physics major, COMP2011 or COMP2711 & COMP2041 for Computer Science, and is a free elective for either Science with a Mathematics major.

For a Science Major other than Computer Science, COMP1021 can be moved to Session 2 to enable a Session 1 elective to be taken.

MATH2620 and MATH2111 may be taken at the ordinary level (MATH2520 and MATH2011).
Further Information

Guidelines for Substitution of Courses
For ‘Guidelines for Substitution of Courses’, please refer to the program entry for 3640 Electrical Engineering.

3720 Electrical Engineering/Bachelor of Arts

Bachelor of Engineering Bachelor of Arts BE BA

Typical Duration
5 years

Minimum UOC for Award
240 units of credit

Typical UOC per Session
24 units of credit

Program Description

Combined degree programs lead to the award of the Bachelor of Engineering in either Electrical Engineering or Telecommunications, combined with a Bachelor degree in Arts or Science (usually Computer Science, Mathematics or Physics). Students who are in the combined degrees program must maintain a credit average performance (i.e. 65% weighted average mark) in order to stay in the program.

These programs qualify candidates for the award of two degrees in five years of combined full-time study in which the requirements of the degrees have been merged.

All combined degree programs are administered by the School of Electrical Engineering and Telecommunications.

Program Structure

Year 1
As for Program 3640

Year 2
Session One
COMP2091 Computing 2 (6 UOC)
ELEC2031 Circuits and Systems (3 UOC)
ELEC2041 Microprocessors & Interfacing (6 UOC)
MATH2111 Higher Several Variable Calculus (6 UOC)
PHYS2959 Physics 2 (Electrical Engineering) (3 UOC)

Session Two
Arts Elective/Core
Arts Elective
ELEC2015 Electromagnetic Applications (3 UOC)
ELEC2032 Electronics and Systems (3 UOC)
MATH2620 Higher Complex Analysis (3 UOC)
MATH2859 Probability, Statistics and Information (3 UOC)

Note: COMP2091 can be moved to Session 2 to enable a Session 1 elective to be taken. MATH2620 and MATH2111 may be taken at the ordinary level (MATH2520 and MATH2111); COMP1091 and COMP2091 may be taken at the ordinary level (COMP1711 and COMP1721).

Year 3
Session One
ELEC3004 Signal Processing and Transform Methods (6 UOC)
ELEC3005 Electric Energy 1 (6 UOC)
ELEC3006 Electronics A (6 UOC)
Year 2 Arts Elective

Session Two
ELEC2042 Real Time Instrumentation (3 UOC)
ELEC3014 Systems and Control 1 (6 UOC)
ELEC3017 Electrical Engineering Design (6 UOC)
MATH2509 Linear Algebra for Engineers (3 UOC)
One ELEC Elective (Year 3)

Year 4
Session One
Four Year 3 Arts Electives

Session Two
One Year 3 Arts Elective
One ELEC Elective (Year 3)
Two Electives [Art, ELEC (Year 3)]
Note: ELEC (Year 3) electives are chosen from the Year 3 Elective list for 3640. It will be possible to delay/advance elective by 1 or more session to enable as flexible a choice as possible, providing the structure of the program (i.e. units of credit in each session) is maintained, and that ultimately all required core and elective courses are taken.

Year 5
As for Year 4 of Program 3640

Honours
In the Bachelor of Engineering degree programs the same formal program is offered to both Pass students and to those aiming at Honours. Honours will be awarded for meritorious performance over the program: special attention is paid to a candidate's performance in the final year courses and thesis project.

In the cases of combined degrees, such as the BE BA or the BE BSc, the award of the BA or BSc degree at Honours level requires two additional sessions of study.

Students wishing to gain a degree at Honours level in Arts or in Science as part of their combined degree program must meet all the relevant requirements of the Faculty of Arts and Social Sciences or the Faculty of Science and of the appropriate school concerned. Students may enrol for the Honours year only on the recommendation of the Head of their School in the Faculty of Engineering and with the approval of the Head of the appropriate Arts or Science School. For Honours in Science, approval must also be sought from the Science Cross Faculty Standing Committee or its delegated authorities. AUSTUDY support is available for the combined degree program including the Honours level.

Academic Rules
1. Students must complete 60 units of credit in the BA program with no more than 24 units of credit obtained at Level 1 (i.e. subjects designed for students in their first year of study). Of these 24 Level 1 units of credit, no more than 12 units of credit may be from any one school of department.

2. Students must complete a major sequence (42 units of credit) in one of the following areas:
   - Australian Studies
   - Chinese Studies
   - Development Studies
   - Education
   - English
   - Environmental Studies*
   - European Studies
   - Film
   - French
   - German Studies
   - Greek
   - History
   - History and Philosophy of Science
   - Indonesian Studies
   - Japanese Studies
   - Korean Studies
   - Linguistics
   - Media, Culture & Technology
   - Music
   - Philosophy
   - Policy Studies
   - Political Economy
   - Politics and International Relations
   - Russian Studies
   - Sociology & Anthropology
   - Spanish & Latin American Studies
   - Theatre & Performance Studies
   - Women's and Gender Studies

   *Students completing an Environmental Studies major sequence must complete, in addition to the 30 upper level units of credit specified, 6 level 1 units of credit in an approved course. Students must also complete a minor sequence of 24 units of credit on one of the other areas listed above.

3. Except for courses completed as part of the Environmental Studies major sequences, no more than 12 units of credit may be obtained from subjects in the BA program which are offered by schools outside the Faculty of Arts and Social Sciences.

4. No subject included for credit in the BE programs can be included in the 60 units of credit required at Rule 1 for the BA program.

5. Students must complete the full requirements of the program 3640 BE in Electrical Engineering except that they are exempt from the General Education requirement of the BE BSc program. However, students will not be eligible for graduation for the BE until a minimum of 12 units of credit of the BA have been successfully completed.

6. Students who complete the requirements for the BA program and the first two years of the BE BA program may proceed to graduation with the degree of Bachelor of Arts.

7. Students may be awarded Honours in the BA by successful completion of an Honours year. It should be noted that entry into a particular BA Honours program will require completion of courses additional to those specified under rules 1-4.

8. The total units of credit in the combined program is 5 x 48 = 240. For academic rules relating to the Bachelor of Engineering component of this combined program, please refer to the ‘Rules for Progression and Award of Degrees’ in this Handbook.

Industrial Training
Each student is personally responsible for ensuring the completion of the full 60 days compulsory industrial training prescribed as part of the requirements for the award of the degree. Industrial training should be concurrent with enrolment and is best accumulated in the summer recesses at the end of Years 2 and 3, but must be completed by the end of Year 4.

Students should be involved in general work with professional engineers and take an active part in their work in the design of simple equipment, solving of engineering problems, or any other work which is relevant to the profession of engineering.

At the end of each period of employment every student must submit a report, typically 2000-3000 words, summarising the work done, the training received and including a description of the organisation of the company.

Industrial training will be assessed as a compulsory part of the course ELEC4011 Ethics and Electrical Engineering Practice. Students must complete the industrial training requirement in order to receive a completed assessment for this course.

Further Information
Computing Requirements
Information regarding recommended computing equipment for the courses offered by the School is available from the School Office or the School’s computer resources website.

Guidelines for Substitution of Courses
For ‘Guidelines for Substitution of Courses’, please refer to the program entry for 3640 Electrical Engineering.

3715 Electrical Engineering/Bachelor of Commerce
BE BCom
Please refer to the program entry for 3715 Bachelor of Engineering Bachelor of Commerce under ‘Program Rules and Information’ in this Handbook. Information about the program structure can be found in the Online Handbook program entry for 3715 BE BCom under the area of specialisation Electrical Engineering.

3727 Electrical Engineering/Master of Biomedical Engineering
Bachelor of Engineering Master of Biomedical Engineering BE MBiomedE
Typical Duration
3 years
Minimum UOC for Award
240 units of credit
Typical UOC per Session
24 units of credit

Program Description
A Bachelor of Engineering degree in Electrical Engineering and a Master of Biomedical Engineering degree (BE MBiomedE) can both be completed in five years of concurrent study. Students must maintain a 65% Credit average to retain their enrolment in MBiomedE.
Program Structure

Year 1

Session One
BIOM1101 Professional Biomedical Studies (3 UOC)
ELEC1011 Electrical Engineering 1 (6 UOC)
MAIH1990 Discrete Mathematics for Electrical Engineers (3 UOC)
PHYS1131 Higher Physics 1A (6 UOC)
and ONE of the following courses:
MATH1131 Mathematics 1A (6 UOC)
MATH1141 Higher Mathematics 1A (6 UOC)

Session Two
BIOM2010 Biomedical Engineering Practice (3 UOC)
CHEM1817 Chemistry 1ME (3 UOC)
COMP1991 Solving Problems with Software (6 UOC)
PHYS1231 Higher Physics 1B (6 UOC)
and ONE of the following courses:
MATH2131 Mathematics 1B (6 UOC)
MATH2141 Higher Mathematics 1B (6 UOC)

Year 2

Session One
BIOM9420 Clinical Laboratory Science (6 UOC)
COMP2091 Computing 2 (6 UOC)
ELEC2031 Circuits and Systems (3 UOC)
MAIH2011 Several Variable Calculus (6 UOC)
PHYS2939 Physics 2 (Electrical Engineering) (3 UOC)

Session Two
ELEC1041 Digital Circuits (6 UOC)
ELEC2015 Electromagnetic Applications (3 UOC)
ELEC2032 Electronics and Systems (3 UOC)
MATH2509 Linear Algebra for Engineers (3 UOC)
MATH2659 Probability, Statistics and Information (3 UOC)
and ONE of the following courses:
MATH2520 Complex Analysis (3 UOC)
MATH2620 Higher Complex Analysis (3 UOC)
General Education (3 UOC)

Year 3

Session One
ELEC2041 Microprocessors & Interfacing (6 UOC)
ELEC3004 Signal Processing and Transform Methods (6 UOC)
ELEC3006 Electronics A (6 UOC)
ELEC4010 Project Management for Professional Services (3 UOC)
General Education (3 UOC)

Session Two
ELEC2042 Real Time Instrumentation (3 UOC)
ELEC3014 Systems and Control 1 (6 UOC)
ELEC3017 Electrical Engineering Design (6 UOC)
ELEC4011 Ethics and Electrical Engineering Practice (3 UOC)
Plus one Biomedical Engineering Elective (6 UOC)

Year 4

Session One
BIOM9430 Electromedical Standards (6 UOC)
ELEC3005 Electric Energy 1 (6 UOC)
PHYS2101 Physiology 1A (6 UOC)
Plus one Biomedical Engineering Elective (6 UOC)

Session Two
BIOM5910 Thesis Part A (6 UOC)
ELEC4483 Biomedical Instrumentation, Measurement and Design (6 UOC)
PHYS2201 Physiology 1B (6 UOC)
Plus one Electrical Engineering Elective from Stage 3 List (6 UOC)

Year 5

Session One
BIOM5911 Thesis Part B (6 UOC)
Two Biomedical Engineering Electives (12 UOC)
One Electrical Engineering Professional Elective (6 UOC)

Session Two
BIOM9410 Regulatory Req of Biomed Tech (6 UOC)
BIOM9913 Project Report (12 UOC)
Plus one Electrical Engineering Elective from Stage 3 List (6 UOC)

Preferred Biomedical Engineering Electives

Session Two
BIOM9027 Medical Imaging (6 UOC)

Other Biomedical Engineering Electives

Session One
BIOM9060 Biomedical Systems Analysis (6 UOC)
BIOM9510 Introductory Biomechanics (6 UOC)
BIOM9701 Dynamics of the Cardiovascular System (6 UOC)
SESC9451 Experimental Biomechanics (6 UOC)

Session Two
ANAT2511 Fundamentals of Anatomy (6 UOC)
BIOM9321 Physiological Fluid Mechanics (6 UOC)
BIOM9432 Biocompatibility (6 UOC)
BIOM9440 Biomedical Practical Measures (6 UOC)
BIOM9450 Clinical Information Systems (6 UOC)
BIOM9541 Mechanics of the Human Body (6 UOC)
BIOM9551 Biomechanics of Physical Rehabilitation (6 UOC)
BIOM9561 Mechanical Properties of Biomaterials (6 UOC)

Electrical Engineering & Telecommunications Stage 3 Elective List

Electronics
ELEC3016 Electronics B (6 UOC)

Energy Systems
ELEC3015 Electric Energy 2 (6 UOC)

Control
ELEC3014 Systems and Control 1 (6 UOC)
ELEC3041 Real Time Engineering (6 UOC)

Telecommunications
TELE3013 Telecommunication Systems 1 (6 UOC)
TELE3018 Data Networks 1 (6 UOC)

Computer Systems
COMP2021 Digital System Structures (6 UOC)
COMP2711 Higher Data Organisation (6 UOC)

Electrical Engineering & Telecommunications Professional Electives

Electronics
ELEC4503 Electronics C (6 UOC)
ELEC4522 Microelectronics Design and Technology (6 UOC)
ELEC4532 Integrated Digital Systems (6 UOC)

Control
ELEC4412 Control of Continuous-time Systems (6 UOC)
ELEC4413 Control of Discrete-time Systems (6 UOC)

Energy Systems
ELEC4205 Electrical Energy Systems (6 UOC)
ELEC4216 Electrical Drive Systems (6 UOC)
ELEC4240 Power Electronics (6 UOC)
SOLA3540 Applied Photovoltaics (6 UOC)

Signal Processing
ELEC4042 Signal Processing 2 (6 UOC)
ELEC4483 Biomedical Instrumentation, Measurement and Design (6 UOC)

Business Administration
ELEC4444 New Business Creation (6 UOC)

Telecommunications
TELE4313 Optical Communications (6 UOC)
TELE4323 Digital Modulation and Coding (6 UOC)
TELE4333 Wireless Data Communication Systems (6 UOC)
TELE4343 Source Coding and Compression (6 UOC)
TELE4352 Data Networks 2 (6 UOC)
TELE4353 Mobile and Satellite Communication Systems (6 UOC)
TELE4354 Network Management (6 UOC)
TELE4363 Telecommunications Systems 2 (6 UOC)

Computer Systems
COMP3231 Operating Systems (6 UOC)
COMP3411 Artificial Intelligence (6 UOC)
COMP3111 Software Engineering (6 UOC)
COMP3211 Computer Architecture (6 UOC)
COMP3311 Database Systems (6 UOC)
MATH3411 Information, Codes and Ciphers (6 UOC)
General Education Requirements
Students in this program must also satisfy the General Education requirements. This is usually 12 UOC taken in second and third year studies.

Each Faculty has responsibility for deciding what courses are able to be counted towards the General Education requirement for their students. The Faculty of Engineering is committed to providing the widest range of choice of general education electives for its students. It strongly encourages students to make the best use of this flexibility. Please contact your School Office for further information on General Education electives available to you.

For further information, please refer to the General Education section in this Handbook.

Academic Rules
For academic requirements relating to this program, please refer to Program Structure and contact the School of Electrical Engineering and Telecommunications for more information.

3641 Telecommunications/Bachelor of Science
Bachelor of Engineering Bachelor of Science BE BSc
Typical Duration
5 years
Minimum UOC for Award
240 units of credit
Typical UOC per Session
24 units of credit

Program Description
Combined degree programs lead to the award of the Bachelor of Engineering in either Electrical Engineering or Telecommunications, combined with a Bachelor degree in Arts or Science (usually Computer Science, Mathematics or Physics). Students who are in the combined degrees program must maintain a credit average performance (i.e. 65% weighted average mark) in order to stay in the program.

These programs qualify candidates for the award of two degrees in five years of combined full-time study in which the requirements of the degrees have been merged.

Program Structure
Year 1
As for Program 3643
Year 2
Session One
COMP2091 Computing 2 (6 UOC)
ELEC2031 Circuits and Systems (3 UOC)
ELEC2041 Microprocessors & Interfacing (6 UOC)
MATH2111 Higher Several Variable Calculus (6 UOC)
MATH2859 Probability, Statistics and Information (3 UOC)

Session Two
ELEC2032 Electronics and Systems (3 UOC)
MATH2620 Higher Complex Analysis (3 UOC)
TELE3018 Data Networks 1 (6 UOC)
Science Core/Elective (6 UOC)
Science Elective (6 UOC)

Notes: The Core/Elective subject will be PHYS2999 for Science with a Physics major, COMP2011 or COMP2711 and COMP2041 for Computer Science, and is a free elective for either Science with a Mathematics major. For a Science Major other than Computer Science, COMP1021 can be moved to Session 2 to enable a Session 1 elective to be taken. MATH2620 and MATH2111 may be taken at the ordinary level (MATH2520 and MATH2011).

Year 3
Session One
ELEC2042 Real Time Instrumentation (3 UOC)
ELEC3006 Electronics A (6 UOC)
PHYS2939 Physics 2 (Electrical Engineering) (3 UOC)
TELE3013 Telecommunication Systems 1 (6 UOC)
TELE4352 Data Networks 2 (6 UOC)

Session Two
ELEC3004 Signal Processing and Transform Methods (6 UOC)
ELEC3017 Electrical Engineering Design (6 UOC)
MATH2509 Linear Algebra for Engineers (3 UOC)
HILE3013 High Freq Electromagnetics (3 UOC)
Science Elective (6 UOC)

Year 4
Session One
FOUR Year 3 Science Electives (24 UOC)

Session Two
ELEC3041 Real Time Engineering (6 UOC)
THREE Year 3/4 Science Electives (18 UOC)

Note: It will be possible to delay/advance electives by 1 or more sessions to enable as flexible a choice as possible, providing the structure of the program (i.e. units of credit in each session) is maintained, and that ultimately all required core and elective courses are taken.

Year 5
As for Year 4 of Program 3643.

Honours
In the Bachelor of Engineering degree programs the same formal program is offered to both Pass students and to those aiming at Honours. Honours will be awarded for meritorious performance over the program: special attention is paid to a candidate's performance in the final year courses and thesis project.

In the cases of combined degrees, such as the BE BA or the BE BSc, the award of the BA or BSc degree at Honours level requires two additional sessions of study.

Students wishing to gain a degree at Honours level in Arts or in Science as part of their combined degree program must meet all the relevant requirements of the Faculty of Arts and Social Sciences or the Faculty of Science and of the appropriate school concerned. Students may enrol for the Honours year only on the recommendation of the Head of their School in the Faculty of Engineering and with the approval of the Head of the appropriate Arts or Science School. For Honours in Science, approval must also be sought from the Science Cross Faculty Standing Committee or its delegated authorities. AUSTUDY support is available for the combined degree program including the Honours level.

Academic Rules
For academic rules relating to the combined degree Bachelor of Engineering Bachelor of Science, please refer to the ‘Rules for Progression and Award of Degrees’ under ‘Faculty Information and Assistance’ in this Handbook.

Industrial Training Requirements
Each student is personally responsible for ensuring the completion of the full 60 days compulsory industrial training prescribed as part of the requirements for the award of the degree. Industrial training should be concurrent with enrolment and is best accumulated in the summer recesses at the end of Years 2 and 3, but must be completed by the end of Year 4.

Students should be involved in general work with professional engineers and take an active part in their work in the design of simple equipment, solving of engineering problems, or any other work which is relevant to the profession of engineering.

At the end of each period of employment every student must submit a report, typically 2000-3000 words, summarising the work done, the training received and including a description of the organisation of the company.

Industrial training will be assessed as a compulsory part of the course ELEC4011 Ethics and Electrical Engineering Practice. Students must complete the industrial training requirement in order to receive a completed assessment for this course.

Further Information
Computing Requirements
Information regarding recommended computing equipment for the courses offered by the School is available from the School Office or the School’s computer resources website.

Guidelines for Substitution of Courses
For ‘Guidelines for Substitution of Courses’, please refer to the program entry for 3643 Telecommunications.
3646 Telecommunications/Bachelor of Arts

Bachelor of Engineering Bachelor of Arts BE BA

Typical Duration
5 years

Minimum UOC for Award
240 units of credit

Typical UOC per Session
24 units of credit

Program Description
Combined degree programs lead to the award of the Bachelor of Engineering in either Electrical Engineering or Telecommunications, combined with a Bachelor degree in Arts or Science (usually Computer Science, Mathematics or Physics). Students who are in the combined degrees program must maintain a Credit average performance (i.e. 65% weighted average mark) in order to stay in the program.

These programs qualify candidates for the award of two degrees in five years of combined full-time study in which the requirements of the degrees have been merged.

All combined degree programs are administered by the School of Electrical Engineering and Telecommunications.

Program Structure
Year 1
As for Program 3643

Year 2
Session One
COMP2091 Computing 2 (6 UOC)
ELEC2031 Circuits and Systems (3 UOC)
ELEC2041 Microprocessors & Interfacing (6 UOC)
MATH2111 Higher Several Variable Calculus (6 UOC)
MATH2859 Probability, Statistics and Information (3 UOC)

Session Two
ELEC2032 Electronics and Systems (3 UOC)
MATH2620 Higher Complex Analysis (3 UOC)
TELE3018 Data Networks 1 (6 UOC)
Arts/Science Elective (6 UOC)
Arts Elective (6 UOC)

Note: The Elective/Core subject will be PHYS2999 for Science with a Physics major, COMP2011 or COMP2711 & COMP2041 for Computer Science, and a free elective for either Science with a Mathematics major or Arts.

For Arts, or a Science Major other than Computer Science, COMP1021 can be moved to Session 2 to enable a Session 1 elective to be taken. MATH2620 and MATH2111 may be taken at the ordinary level (MATH2520 and MATH2011).

Year 3
Session One
ELEC2042 Real Time Instrumentation (3 UOC)
ELEL3006 Electronics A (6 UOC)
PHYS2939 Physics 2 (Electrical Engineering) (3 UOC)
TELE3013 Telecommunication Systems 1 (6 UOC)
TELE4352 Data Networks 2 (6 UOC)

Session Two
ELEC3004 Signal Processing and Transform Methods (6 UOC)
ELEC3017 Electrical Engineering Design (6 UOC)
MATH2509 Linear Algebra for Engineers (3 UOC)
TELE3015 High Freq Electromagnetics (3 UOC)
Arts/Elective (6 UOC)

Year 4
Session One
FOUR Year 3 Arts Electives (24 UOC)

Session Two
ELEC3041 Real Time Engineering (6 UOC)
THREE Year 3/4 Arts Electives (18 UOC)

Note: It will be possible to delay/advance electives by 1 or more sessions to enable as flexible a choice as possible, providing the structure of the program (i.e. units of credit in each session) is maintained, and that ultimately all required core and elective courses are taken.

Year 5
As for Year 4 of Program 3643.

Academic Rules
For Arts, in addition to the BE course, students must complete 60 units of credit offered by the Arts faculty, comprising a major sequence within Arts.

General Education is not required for a combined degree program, with the exception of the BE MBiomedE program. A mathematics major is not normally permitted for the BA. The BE BSc combined degree is more appropriate for this.

There will be a testamur for each part of a combined degree program. Testamurs for the BE BA, the BE BSc and the BE MBiomedE are awarded at a single graduation ceremony.

3715 Telecommunications/Bachelor of Commerce

BE BCom

Please refer to the program entry for 3715 Bachelor of Engineering Bachelor of Commerce under ‘Program Rules and Information’ in this Handbook. Information about the program structure can be found in the Online Handbook program entry for 3715 BE BCom under the area of specialisation Telecommunications.

3723 Telecommunications/Master of Biomedical Engineering

Bachelor of Engineering Master of Biomedical Engineering BE MBiomedE

Typical Duration
5 years

Minimum UOC for Award
240 units of credit

Typical UOC per Session
24 units of credit

Program Description
A Bachelor of Telecommunications degree in Electrical Engineering and a Master of Biomedical Engineering degree (BE MBiomedE) can both be completed in five years of concurrent study. Students must maintain a 65% Credit average to retain their enrolment in MBiomedE.

Program Structure
Year 1
Session One
BIOM1001 Professional Biomedical Studies (3 UOC)
ELEC3011 Electrical Engineering I (6 UOC)
MATH1090 Discrete Mathematics for Electrical Engineers (3 UOC)
PHYS1131 Higher Physics 1A (6 UOC)

And ONE of the following courses:
MATH1131 Mathematics 1A (6 UOC)
MATH1141 Higher Mathematics 1A (6 UOC)

Session Two
BIOM2010 Biomedical Engineering Practice (3 UOC)
CHEM1817 Chemistry 1ME (3 UOC)
COMP1091 Solving Problems with Software (6 UOC)
PHYS1231 Higher Physics 1B (6 UOC)

And ONE of the following courses:
MATH1231 Mathematics 1B (6 UOC)
MATH1241 Higher Mathematics 1B (6 UOC)

Year 2
Session One
BIOM9420 Clinical Laboratory Science (6 UOC)
ELEC2091 Computing 2 (6 UOC)
ELEC2031 Circuits and Systems (3 UOC)
MATH2601 Several Variable Calculus (6 UOC)
MATH2859 Probability, Statistics and Information (3 UOC)
Session Two
ELEC1041 Digital Circuits (6 UOC)
ELEC2032 Electronics and Systems (3 UOC)
ELEC2042 Real Time Instrumentation (3 UOC)
MATH2509 Linear Algebra for Engineers (3 UOC)
TELE3018 Data Networks 1 (6 UOC)
And ONE of the following courses:
MATH2520 Complex Analysis (3 UOC)
MATH2620 Higher Complex Analysis (3 UOC)
Year 3
Session One
tLL3J004 Signal Processing and Transform Methods (6 UOC)
ELEC3006 Electronics A (6 UOC)
LL3C0110 Project Management for Professional Services (3 UOC)
PHYS2939 Physics 2 (Electrical Engineering) (3 UOC)
TELE4352 Data Networks 2 (6 UOC)
Session Two
ELEC3017 Electrical Engineering Design (6 UOC)
ELEC4011 Ethics and Electrical Engineering Practice (3 UOC)
TELE3013 Telecommunication Systems 1 (6 UOC)
TELE3015 High Freq Electromagnetics (3 UOC)
One Biomedical Elective (6 UOC)
Year 4
Session One
BIOM9430 Electromedical Standards (6 UOC)
ELEC2941 Microprocessors & Interfacing (6 UOC)
PHPH2010 Physiology 1A (6 UOC)
One Electrical Engineering Elective from Stage 3 List (6 UOC)
Session Two
BIOM9910 Thesis Part A (6 UOC)
PHPH2020 Physiology 1B (6 UOC)
TELE4354 Network Management (6 UOC)
General Education (6 UOC)
Year 5
Session One
BIOM9511 Thesis Part B (6 UOC)
TELE4363 Telecommunications Systems 2 (6 UOC)
One Biomedical Engineering Elective (6 UOC)
One Biomedical Engineering Elective (6 UOC)
or
One Electrical Professional Elective (6 UOC)
Session Two
BIOM9410 Regulatory Req of Biomed Tech (6 UOC)
ONE of the following options:
BIOM9913 Project Report (12 UOC)
or
Two Biomedical Electives (12 UOC)
Plus One Biomedical Engineering Elective (6 UOC)
Preferred Biomedical Engineering Electives
Session One
BIOM9613 Medical Instrumentation (6 UOC)
Session Two
BIOM9027 Medical Imaging (6 UOC)
BIOM9440 Biomedical Practical Measures (6 UOC)
Other Biomedical Engineering Electives
Session One
BIOM9060 Biomedical Systems Analysis (6 UOC)
BIOM9510 Introductory Biomechanics (6 UOC)
BIOM9601 Biomedical Applications of Microcomputers 1 (6 UOC)
BIOM9701 Dynamics of the Cardiovascular System (6 UOC)
SEC9451 Experimental Biomechanics (6 UOC)
Session Two
ANAT2511 Fundamentals of Anatomy (6 UOC)
BIOM9311 Mass Transfer in Medicine (6 UOC)
BIOM9321 Physiological Fluid Mechanics (6 UOC)
BIOM9332 Biocompatibility (6 UOC)
BIOM9450 Clinical Information Systems (6 UOC)
BIOM9541 Mechanics of the Human Body (6 UOC)
BIOM9531 Biomechanics of Physical Rehabilitation (6 UOC)
BIOM9561 Mechanical Properties of Biomaterials (6 UOC)
Electrical Engineering & Telecommunications Stage 3 Elective List
Electronics
ELEC3016 Electronics B (6 UOC)
Energy Systems
ELEC3015 Electric Energy 2 (6 UOC)
Control
ELEC3014 Systems and Control 1 (6 UOC)
ELEC3041 Real Time Engineering (6 UOC)
Telecommunications
TELE3913 Telecommunication Systems 1 (6 UOC)
TELE3918 Data Networks 1 (6 UOC)
Computer Systems
COMPP011 Data Organisation (6 UOC)
COMPP211 Higher Data Organisation (6 UOC)
Electrical Engineering & Telecommunications Professional Electives
Electronics
ELEC4503 Electronics C (6 UOC)
LL3C4522 Microelectronics Design and Technology (6 UOC)
ELEC4532 Integrated Digital Systems (6 UOC)
Control
ELEC4412 Control of Continuous-time Systems (6 UOC)
LL3C4413 Control of Discrete-time Systems (6 UOC)
Energy Systems
LL3C4205 Electrical Energy Systems (6 UOC)
ELEC4216 Electrical Drive Systems (6 UOC)
ELEC4240 Power Electronics (6 UOC)
SOLA3540 Applied Photovoltaics (6 UOC)
Signal Processing
ELEC4042 Signal Processing 2 (6 UOC)
ELEC4483 Biomedical Instrumentation, Measurement and Design (6 UOC)
Business Administration
ELEC4444 New Business Creation (6 UOC)
Telecommunications
TELE4314 Optical Communications (6 UOC)
TELE4323 Digital Modulation and Coding (6 UOC)
TELE4333 Wireless Data Communication Systems (6 UOC)
TELE4343 Source Coding and Compression (6 UOC)
TELE4352 Data Networks 2 (6 UOC)
TELE4353 Mobile and Satellite Communication Systems (6 UOC)
TELE4354 Network Management (6 UOC)
TELE4363 Telecommunications Systems 2 (6 UOC)
Computer Systems
COMPP3111 Software Engineering (6 UOC)
COMPP3211 Computer Architecture (6 UOC)
COMPP331 Operating Systems (6 UOC)
COMPP331 Database Systems (6 UOC)
LCOM3441 Artificial Intelligence (6 UOC)
MATH3441 Information, Codes and Ciphers (6 UOC)
General Education
Please refer to General Education Requirements under ‘Faculty Information and Assistance’ in this Handbook.
Academic Rules
For academic requirements relating to this program, please refer to Program Structure and contact the School of Electrical Engineering and Telecommunications for more information.

Bachelor of Engineering Bachelor of Science BE BSc
Typical Duration
5 years
Minimum UOC for Award
240 units of credit
Program Description

This combined degree program leads to the award of the Bachelor of Engineering in Photonic Engineering, combined with a Bachelor degree in Science (usually Computer Science, Mathematics or Physics). Students who are in the combined degrees program must maintain a Credit average performance (i.e. 65% weighted average mark) in order to stay in the program.

These programs qualify candidates for the award of two degrees in five years of combined full-time study in which the requirements of the degrees have been merged.

Program Structure

Year 1

Session One

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>UOC</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELEC1011</td>
<td>Electrical Engineering 1</td>
<td>6</td>
</tr>
<tr>
<td>MAH1190</td>
<td>Discrete Maths for Elec Eng</td>
<td></td>
</tr>
<tr>
<td>PHTH1010</td>
<td>Intro to Photonics</td>
<td>3</td>
</tr>
<tr>
<td>PHYS1131</td>
<td>Higher Physics 1A</td>
<td>6</td>
</tr>
</tbody>
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And one of the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>UOC</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH1131</td>
<td>Mathematics 1A</td>
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</tr>
<tr>
<td>MATH1141</td>
<td>Higher Mathematics 1A</td>
<td>6</td>
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Session Two

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>UOC</th>
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</thead>
<tbody>
<tr>
<td>COMP1191</td>
<td>Solving Problems with Software</td>
<td>6</td>
</tr>
<tr>
<td>ELEC1041</td>
<td>Digital Circuits</td>
<td>6</td>
</tr>
<tr>
<td>PHYS1231</td>
<td>Higher Physics 1B</td>
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And one of the following courses:

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>UOC</th>
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</thead>
<tbody>
<tr>
<td>MATH1231</td>
<td>Mathematics 1B</td>
<td>6</td>
</tr>
<tr>
<td>MATH1241</td>
<td>Higher Mathematics 1B</td>
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Year 2

Session One

<table>
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<tr>
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<tbody>
<tr>
<td>COMP2091</td>
<td>Computing 2</td>
<td>6</td>
</tr>
<tr>
<td>ELEC2031</td>
<td>Circuits and Systems</td>
<td>3</td>
</tr>
<tr>
<td>MAH2859</td>
<td>Prob. Stats and Information</td>
<td>3</td>
</tr>
<tr>
<td>PHYS2030</td>
<td>Laboratory A</td>
<td></td>
</tr>
<tr>
<td>PHYS2040</td>
<td>Quantum Physics</td>
<td>3</td>
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And one of the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>MATH2011</td>
<td>Several Variable Calculus</td>
<td>6</td>
</tr>
<tr>
<td>MATH2111</td>
<td>Higher Severable Variable Calc</td>
<td>6</td>
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</table>

Session Two

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>UOC</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELEC2032</td>
<td>Electronics and Systems</td>
<td>3</td>
</tr>
<tr>
<td>MAH2130</td>
<td>Higher Math Methods for DEs</td>
<td>3</td>
</tr>
<tr>
<td>MAH2599</td>
<td>Linear Algebra for Engineers</td>
<td></td>
</tr>
<tr>
<td>PHYS2050</td>
<td>Electromagnetism</td>
<td>3</td>
</tr>
</tbody>
</table>

Plus two Science Core Courses 6 UOC, totalling 12 UOC

Year 3

Session One

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>UOC</th>
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</thead>
<tbody>
<tr>
<td>ELEC2042</td>
<td>Real Time Instrumentation</td>
<td>3</td>
</tr>
<tr>
<td>ELEC3006</td>
<td>Electronics A</td>
<td>6</td>
</tr>
<tr>
<td>PHYS3030</td>
<td>Electromagnetism (Advanced)</td>
<td>3</td>
</tr>
<tr>
<td>PHYS3770</td>
<td>Laser and Spectroscopy Lab</td>
<td>3</td>
</tr>
</tbody>
</table>

And one of the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>UOC</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH2520</td>
<td>Complex Analysis</td>
<td>3</td>
</tr>
<tr>
<td>MATH2620</td>
<td>Higher Complex Analysis</td>
<td>3</td>
</tr>
</tbody>
</table>

Plus one Science Elective (6 UOC)

Session Two

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>UOC</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELEC3004</td>
<td>Signal Processing &amp; Transform</td>
<td>6</td>
</tr>
<tr>
<td>ELEC3017</td>
<td>Electrical Engineering Design</td>
<td>6</td>
</tr>
<tr>
<td>PHYS3060</td>
<td>Advanced Optics</td>
<td>3</td>
</tr>
<tr>
<td>PHYS3311</td>
<td>Physics of Solid State Devices</td>
<td>3</td>
</tr>
</tbody>
</table>

Plus one 3rd Year Electrical Engineering Elective (6 UOC)

Year 4

Session One

Four Year 3 Science Electives 6 UOC each, totaling 24 UOC.

Session Two

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>UOC</th>
</tr>
</thead>
<tbody>
<tr>
<td>TELE3013</td>
<td>Telecommunications Systems 1</td>
<td>6</td>
</tr>
</tbody>
</table>

Plus one Year 3 Science Elective (6 UOC)

Plus two Science Electives 6 UOC, totalling 12 UOC.

Year 5

Session One

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>UOC</th>
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</thead>
<tbody>
<tr>
<td>ELEC4010</td>
<td>Project Mgt for Pro. Services</td>
<td>3</td>
</tr>
<tr>
<td>PHYS4979</td>
<td>Photonic Devices</td>
<td>6</td>
</tr>
<tr>
<td>TELE4313</td>
<td>Optical Communications</td>
<td>6</td>
</tr>
</tbody>
</table>

And one of the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>UOC</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELEC4910</td>
<td>Thesis Part A</td>
<td>3</td>
</tr>
<tr>
<td>ELEC4914</td>
<td>Group Thesis Part A</td>
<td>3</td>
</tr>
</tbody>
</table>

Plus one Electrical Engineering Professional Elective (6 UOC)

Session Two

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>UOC</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELEC4911</td>
<td>Ethics &amp; Elec. Eng. Practice</td>
<td>3</td>
</tr>
</tbody>
</table>

And one of the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>UOC</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELEC4911</td>
<td>Thesis Part B</td>
<td>9</td>
</tr>
<tr>
<td>ELEC4915</td>
<td>Group Thesis Part B</td>
<td>9</td>
</tr>
</tbody>
</table>

Plus two Electrical Engineering Professional Electives 6 UOC each, totaling 12 UOC.

Academic Rules

For academic rules relating to the combined degree Bachelor of Engineering Bachelor of Science, please refer to the ‘Rules for Progression and Award of Degrees’ under ‘Faculty Information and Assistance’ in this Handbook.

3715 Photonic Engineering/Bachelor of Commerce

BE BCom

Please refer to the program entry for 3715 Bachelor of Engineering Bachelor of Commerce under ‘Program Rules and Information’ in this Handbook. Information about the program structure can be found in the Online Handbook program entry for 3715 BE BCom under the area of specialisation Photonic Engineering.

Fast Track Programs with Master of Engineering Science

3640 Electrical Engineering/Master of Engineering Science – Plan ELEC13640
Bachelor of Engineering Master of Engineering Science BE MEng Sc

3643 Telecommunications/Master of Engineering Science – Plan TELE13643
Bachelor of Engineering Master of Engineering Science BE MEng Sc

Students may undertake a 4.5 years (10 semesters) full-time fast-track program leading to the awards of a Bachelor of Engineering and a Master of Engineering Science in Electrical Engineering or Telecommunications. Students undertake the first three years (6 semesters) of the BE program in Electrical Engineering or Telecommunications. Subject to satisfying a minimum performance over these three years (see Rules for progression and the Award of Degrees), they (a) substitute 12 units of credit of the standard 4th year BE degree program with a School approved 12 units of credit of graduate coursework in their 4th year; (b) undertake a 12 units of credit of graduate coursework in the 4th year; (c) undertake a 24 units of credit of graduate coursework in the 10th semester (first half of their 5th year).

School of Mechanical and Manufacturing Engineering (incorporating Aerospace Engineering, Mechatronic Engineering and Naval Architecture)

Head of School: Professor H Kaebernick
Executive Assistant to Head of School: Associate Professor P Mathew
Administrative Officer: Mrs G Jance

The School offers a Bachelor of Engineering program with plans in Aerospace Engineering, Manufacturing Engineering and Management, Mechanical Engineering, Mechatronic Engineering and Naval Architecture. Also offered are combined degree programs with Science or Arts, and Bachelor/Master degree programs with Biomedical Engineering or Engineering Science.
No formal part-time programs are offered by the School. However, it is possible for students to undertake studies with a reduced load of courses. Students intending to take a reduced load are advised that very few undergraduate courses are offered in the evening.

Summary of Programs and Plans

The plans under program 3710, which lead to the award of the degree of Bachelor of Engineering (BE), are designed to provide the appropriate academic training for the professional engineer in the fields of Aerospace Engineering, Manufacturing Engineering and Management, Mechanical Engineering, Mechanatronic Engineering and Naval Architecture. The first two years of these plans are identical, whilst the third and fourth years of the plans contain a number of common courses. Elective courses provide for a limited degree of specialisation in the fourth year of the Mechanical Engineering and Mechanatronic Engineering plans. The Aerospace Engineering, Manufacturing Engineering and Management, and Naval Architecture plans do not have elective components. Each student is required to submit a thesis at the end of the final year and to present a seminar on the topic of the thesis.

The School also offers combined programs with Science (3711) or Arts (3712) leading to the award of the degrees of Bachelor of Engineering and Bachelor of Science (BE BSc) and Bachelor of Engineering and Bachelor of Arts (BE BA) respectively. These combined programs enable students to major in the areas of Computer Science, Materials Science, Mathematics, Physics, Statistics or another relevant field, in addition to studying their chosen Engineering plan.

The School, in addition, offers combined programs with Commerce (3715) under the faculty with the following areas of specialisations – Manufacturing Engineering and Management, Mechanical Engineering and Mechanatronic Engineering, leading to the award of the degrees of Bachelor of Engineering and Bachelor of Commerce. For rules for progression in this program, the student's attention is directed to the ‘Faculty Rules of Progression’ for program 3715 contained in this Handbook.

Bachelor/Masters programs are also available. After five years of study, Mechanical and Mechanatronic Engineering students may obtain a Bachelor of Engineering/Master of Biomedical Engineering (BE MBiomedE) degree. After four and a half years of study, Manufacturing Engineering and Management, Mechanical Engineering and Mechanatronic Engineering students may obtain a Bachelor of Engineering/Master of Engineering Science (BE MEngSc) degree.

Industrial Experience

Industrial experience is an integral part of the programs. This can be taken within Australia or overseas. Students must complete a total of 60 working days of industrial experience. A written report describing this experience is a requirement to passing the common, fourth year course MECH4001, Communications for Professional Engineers.

Recognition

The Institution of Engineers, Australia, recognises the degree of BE in any of the undergraduate programs offered by the School as meeting the examination requirements for admission to graduate and corporate membership. Substantial or complete recognition is accorded to the BE degree programs by overseas engineering institutions.

The award of the BE degree in Aerospace Engineering is recognised by the Royal Aeronautical Society as giving exemption from the formal examination requirements for corporate membership. Advancement from graduate membership to associate membership grade is awarded on a case by case basis after a further period of some years of professional experience.

The award of the BE degree in Naval Architecture is recognised by the Royal Institution of Naval Architects (RINA), London, as the academic qualification for corporate membership of that body.

Program Progression Guidelines

The student's attention is directed to the ‘Faculty Rules for Progression’ under ‘Rules for Progression and Award of Degrees’ in this Handbook. In addition, the following points should be noted:

- A student who is faced with compiling a timetable comprising courses from two academic years must give preference to courses from the lower year.

General Education

For students taking the Manufacturing Engineering and Management plan, the accounting courses GENC1001, GENC1002 or GENC1003 should not be chosen as they partially duplicate core course ACC79003.

Thesis Arrangements

- The course MECH4001 Communications for Professional Engineers must only be taken in conjunction with either MECH4003 Thesis A or MECH4004 Thesis B.

- MECH4003 and MECH4004 must be undertaken in two consecutive sessions which are the final two sessions of candidature.

- A student must not be enrolled in more than 24 units of credit in any session involving MECH4003 and MECH4004.

- A single thesis project is commenced in MECH4003 and completed in MECH4004. MECH4004 carries the mark for the thesis project.

- MECH4003 is graded satisfactory (SY) / failure (FN). If a student receives a failure (FN) in MECH4003, a student cannot proceed with MECH4004.

- If the project is abandoned during MECH4004, or if MECH4004 is failed, then the satisfactory (SY) for MECH4003 is changed to failure (FN). To complete the degree, a completely new topic must be chosen and the student must enrol again in both MECH4003 and MECH4004. (For BE MBiomedE students, read BIOMS5001 instead of MECH4003 and BIOM5002 instead of MECH4004)

Programs and Plans

UNSW terminology uses the concept of “plans” within “programs”. Most students are in one plan within a program. For example, a BE mechanical engineering student in program 3710 is in plan MECHA13710. The fifth character “A” indicates the “standard” plan. Other examples are:

- BE: Aerospace Engineering AEROA13710
- BE: Mechanical Engineering MTRNA13710

Combined degree BE BA and BE BSc students and BE MBiomedE students are in two plans simultaneously throughout their five years; one engineering and the other arts, science or biomedical engineering respectively. For example:

- BE Manufacturing Engineering/BA French major MANFA13712 and FREN13712
- BE Naval Architecture/BSc Physics major NAVLA13711 and PHYS13111
- BE Mechanical Engineering/MBiomedE MTRNA133688 and BIOMA13688

The BE degree is only completed after five years.

BE MEngSc students are in the standard single degree plan and program for the first three years. In fourth year they transfer to a special plan within the same program. For example:

- BE Mechatronic Engineering/MBiomedEng MTRNA13710 (Years 1–3), MTRNL13710 (Year 4).

The BE degree is completed after four years. In fifth year they transfer to the appropriate postgraduate program described in the Postgraduate Handbook.

Please note: Most undergraduate programs in the Faculty of Engineering are currently under revision, subject to approval by the University Council. Students commencing in 2006 should refer to the Online Handbook (www.handbook.unsw.edu.au) for up-to-date information about program structures.

3710 Bachelor of Engineering BE

Aerospace Engineering (plan AEROA13710)

Manufacturing Engineering and Management (plan MANFA13710)

Mechanical Engineering (plan MECHA13710)

Mechatronic Engineering (plan MTRNA13710)

Naval Architecture (plan NAVLA13710)

Typical Duration

4 years

Minimum UOC for Award

192 units of credit

Typical UOC per Session

24 units of credit

Program Description

The plans under program 3710, which lead to the award of the degree of Bachelor of Engineering (BE), are designed to provide the appropriate academic training for the professional engineer in the fields of Aerospace Engineering, Manufacturing Engineering and Management, Mechanical
### Programs and Plans

The University's New South Solutions computer software uses the concept of "planning" within its programs. Most students are in one plan within a program. For example, a BE mechanical engineering student in program 3710 is in plan MECHA13710. The fifth character "A" indicates the "standard" plan. Other examples are: BE Aerospace engineering AEROA13710; BE Manufacturing Engineering and Management MANFA13710; BE Mechatronic Engineering MTRNA1310; BE Naval Architecture NAVLA13710.

Double degree BE BA, BE BSc and BE BiomedE students are in two plans simultaneously throughout their five years; one engineering and the other arts, science or biomedical engineering respectively. For example BE Manufacturing Engineering/BA French major MANFA13712 and FREN13712 BE Mechatronic Engineering/BiomedE MTRNA13688 and BIOMA13688.

The Be degree is only completed after five years.

Double degree BE MEngSc students are in the standard degree plan and program for the first three years. In fourth year they transfer to a special plan within the same program. For example:

BE Mechatronic Engineering/MEngSc MTRNA13710 (years 1-3), MTRNL13170 (year 4).

The degree is completed after four years. In fifth year they transfer to the appropriate postgraduate program described in the Postgraduate Handbook.

### Program Structure

#### Year 1

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>UOC</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM1817</td>
<td>Chemistry 1ME</td>
<td>3</td>
</tr>
<tr>
<td>MANF1130</td>
<td>Introduction to Manufacturing</td>
<td>6</td>
</tr>
<tr>
<td>MATH1131</td>
<td>Mathematics 1A</td>
<td>6</td>
</tr>
<tr>
<td>MATH1231</td>
<td>Mathematics 1B</td>
<td>6</td>
</tr>
<tr>
<td>MATS9520</td>
<td>Engineering Materials</td>
<td>3</td>
</tr>
<tr>
<td>MECH1120</td>
<td>Design and the Engineering Profession</td>
<td>3</td>
</tr>
<tr>
<td>MECH1300</td>
<td>Engineering Mechanics 1</td>
<td>6</td>
</tr>
<tr>
<td>MECH1400</td>
<td>Mechanics of Solids 1</td>
<td>6</td>
</tr>
<tr>
<td>MECH1500</td>
<td>Computer 1M</td>
<td>3</td>
</tr>
<tr>
<td>PHYS1169</td>
<td>Physics 1 (Chem, Mech, Min Eng)</td>
<td>3</td>
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</table>

#### Year 2

<table>
<thead>
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<th>Course Name</th>
<th>UOC</th>
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<tbody>
<tr>
<td>ELEC0807</td>
<td>Electrical Engineering 1E</td>
<td>6</td>
</tr>
<tr>
<td>MATH2029</td>
<td>Engineering Mathematics 2A</td>
<td>3</td>
</tr>
<tr>
<td>MATH2039</td>
<td>Engineering Mathematics 2B</td>
<td>3</td>
</tr>
<tr>
<td>MATH2839</td>
<td>Statistics SM</td>
<td>3</td>
</tr>
<tr>
<td>MECH2101</td>
<td>Machine Design A</td>
<td>3</td>
</tr>
<tr>
<td>MECH2102</td>
<td>Machine Design B</td>
<td>3</td>
</tr>
<tr>
<td>MECH2300</td>
<td>Engineering Mechanics 2</td>
<td>3</td>
</tr>
<tr>
<td>MECH2411</td>
<td>Mechanics of Solids 2A</td>
<td>3</td>
</tr>
<tr>
<td>MECH2412</td>
<td>Mechanics of Solids 2B</td>
<td>3</td>
</tr>
<tr>
<td>MECH2611</td>
<td>Fluid Mechanics A</td>
<td>3</td>
</tr>
<tr>
<td>MECH2612</td>
<td>Fluid Mechanics B</td>
<td>3</td>
</tr>
<tr>
<td>MECH2712</td>
<td>Thermodynamics A</td>
<td>3</td>
</tr>
<tr>
<td>MECH2712</td>
<td>Thermodynamics B</td>
<td>3</td>
</tr>
</tbody>
</table>

### Aerospace Engineering (plan AEROA13710)

#### Years 3 and 4

The Aerospace Engineering plan covers the analysis, design and operation of aircraft and spacecraft. Graduates work mainly on the design and manufacture of flight vehicles, their operation with major or satellite airways and research for civil and military aerospace organisations. Owing to the international nature of the aerospace industry, the topics studied cover a similar area and, in general, to the same depth of understanding as professional training programs in aerospace in other industrial countries. The aerospace industry is one of Australia’s major exporters of high value added manufactured goods.

The Faculty has approved an arrangement whereby students who satisfy the requirements of the first two years of a Mechanical Engineering four year degree program at any Australasian tertiary institution may be admitted to Years 3 and 4 of the plan leading to the Bachelor of Engineering degree in Aerospace Engineering. The proviso is that the Head of the School is satisfied that the courses studied at the other institution are equivalent and gives their recommendation.

### Manufacturing Engineering and Management (plan MANFA13710)

#### Years 3 and 4

The Manufacturing Engineering and Management plan is designed for students with engineering ability whose interests lie in the planning, development and control of manufacturing or service operations. In the Manufacturing Engineering and Management courses, the problems associated with the practical economics of manufacturing operations are stressed. The aim is to provide students with the education necessary to carry out an industrial job and to examine it critically in the light of economic efficiency.

Traditional engineering programs do not embrace the problems which are characteristic of Manufacturing Engineering and Management. These programs include the analysis of a product to ensure satisfactory functioning with respect to methods and sequence of manufacturing operations; the disposition of buildings and of equipment within them to permit efficient handling of materials; the avoidance of bottle necks; the related problems of quality and cost control, testing and inspection;
labour and personnel relations; and, finally, the problem of distribution and sales.

The financial and economic aspects are studied as the problem in manufacturing has not been solved until the final translation of the product into money has been accomplished successfully. While it is not intended to develop an expert in accounting practice or economics, it is intended to produce an engineer with an appreciation of the problems of cost and one who can apply considerations of ultimate economy to all industrial problems. The techniques of operations research may be applied here, where mathematical models of real-life situations are constructed and manipulated to yield optimal solutions as guides to management.

An engineer trained in Manufacturing Engineering and Management may initially be employed in any of the following major areas of industrial activity: industrial economic analysis; planning and control of production; product and process design; methods engineering; operations research.

<table>
<thead>
<tr>
<th>Year 3</th>
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<th>S2</th>
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<tbody>
<tr>
<td>ACCT9003 Introduction to Accounting Principles</td>
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<td>MANF3210 Product Manufacture</td>
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<td>MANI3300 Computers in Manufacturing</td>
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<td>MANF3601 Manufacturing Operations Analysis A</td>
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**HPW UOC**

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<td>MANF4012 Analysis of Manufacturing Systems B</td>
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<td>MANF4601 Computer Aided Production</td>
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<td>MECH4004 Thesis B</td>
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</table>

**Mechanical Engineering (plan MECHA13710)**

**Years 3 and 4**

The Mechanical Engineering plan provides a versatile, comprehensive coverage of areas involving the conception and design of machinery and mechanical plant, the supervision of its construction, operation and maintenance, the planning and supervision of large engineering projects, and general engineering management. Due to its wide range, a number of options are provided as Technical Elective courses in the final year. These are preferentially linked to provide a direction appropriate to the needs of Australian industry and to the specific interests of students, although some flexibility is available if required. Typical fields which may be encompassed by the plan include building services, computer-aided design, power generation, energy and environmental systems, gas and liquid handling, bio-mechanics, materials handling, control systems, and transport. An emphasis is placed on the application of engineering science, development and management in these fields.

<table>
<thead>
<tr>
<th>Year 3</th>
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<th>UOC</th>
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<tbody>
<tr>
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<tr>
<td>MECH35101 Machine Systems Design A</td>
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<td>MECH35204 Engineering Experimentation B</td>
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<td>MECH3211 Linear Systems Analysis</td>
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<td>MECH3300 Engineering Mechanics 3</td>
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<td>MECH3330 Vibration Analysis</td>
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<tr>
<td>MECH3400 Mechanics of Solids 3</td>
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<tr>
<td>MECH3520 Programming and Numerical Methods</td>
<td>3</td>
<td>-</td>
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<tr>
<td>MECH35601 Thermofluid System Design</td>
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<tr>
<td>MECH3602 Advanced Thermodynamics</td>
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<tr>
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<td>-2</td>
<td>3</td>
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</tbody>
</table>

**Year 4**

| MANF4430 Management for Engineers | 6 | 6 |
| MECH4001 Communications for Professional Engineers | 3 | 3 |
| MECH4003 Thesis A | 0 | 6 |
| MECH4004 Thesis B | 0 | 9 |
| MTRN4221 Industrial Robotics | 3 | 3 |
| Technical Electives | -x | 6 |
| Technical Electives | -x | 12 |

**Mechatronic Engineering Technical Electives**

24 units of credit of Technical Elective courses are required. They may be selected from the postgraduate list of courses of the School or from Years 3 and 4 courses from other plans run by the School. Prerequisite and corequisite requirements must be satisfied. Approval is required for the selection of any course from outside the School. Due to staff availability and to demand, it is likely that not all of the Technical Electives will be always on offer. Students are advised in November which Technical Electives will be offered in the following year.

**Mechatronic Engineering (plan MTRNA13710)**

**Years 3 and 4**

The Mechatronic Engineering plan provides the student with the ability to acquire a hybrid range of skills based on mechanics, electronics and computing. Whilst there is a comprehensive coverage of mechanical engineering and design areas, the plan enables a deeper understanding of the principles supporting the conception, design, construction, maintenance, integration and repair of intelligent machines. Typical examples of these machines are robots, white goods, cameras, automated test equipment and transport vehicles.

Typical fields which may be encompassed by the plan include building services, computer controlled plant, manufacturing, robotics and materials handling. An emphasis is placed on the application of engineering science, development and management in these fields.

<table>
<thead>
<tr>
<th>Year 3</th>
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<tr>
<td>ELEC2042 Real Time Instrumentation</td>
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<td>MECH3101 Machine Systems Design A</td>
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<td>General Education Elective</td>
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**Year 4**

| MANF4430 Management for Engineers | 6 | 6 |
| MECH3601 Thermofluid System Design | 3 | 3 |
| MECH4001 Communications for Professional Engineers | 3 | 3 |
| MECH4003 Thesis A | 0 | 6 |
| MECH4004 Thesis B | 0 | 9 |
| MTRN4221 Industrial Robotics | 3 | 3 |
| Technical Electives | -x | 6 |
| Technical Electives | -x | 12 |
List given below. Included must be at least one of COMP3111, COMP3331 or ELEC3041. However they may, with approval, be selected from the postgraduate list of courses of the School or from other undergraduate plans run by the School. Prerequisite and corequisite requirements must be satisfied.

Approval is required for the selection of any course from outside the School.

Due to staff availability and to demand, it is likely that not all of the Technical Electives listed will be always on offer. Students are advised in November which Technical Electives will be offered in the following year.

HPW UOC

Preferred Electives List

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<td>COMP3331</td>
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<td>ELEC3041</td>
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<td>MTRN9211</td>
<td>Modelling and Control of Mechatronic Systems</td>
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<tr>
<td>MTRN9222</td>
<td>Intelligent Machines</td>
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<tr>
<td>MTRN9223</td>
<td>Machine Condition Monitoring</td>
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Naval Architecture (plan NAVLA13710)

Years 3 and 4

Naval Architecture is the branch of engineering which is concerned with the design, building and utilisation of all types of ships and marine vehicles.

Naval architects must be conversant with a wide variety of skills, including most forms of engineering and architecture. This is because a ship or a boat must be a completely self-sufficient vehicle containing a number of systems and able to withstand the loads from the sea. Yachts, fishing boats, ferries, catamarans and pleasure craft are just a few of the types of vessels that are studied during the program.

The Faculty has approved an arrangement whereby students who satisfy the requirements of the first two years of a Mechanical Engineering four year degree program at any Australasian tertiary institution may be admitted to Years 3 and 4 of the program leading to the Bachelor of Engineering degree in Naval Architecture. The proviso is that the Head of the School is satisfied that the courses studied at the other institution are equivalent and give their recommendation.

HPW UOC

Year 3

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<td>Principles of Control</td>
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<td>NAVL3100</td>
<td>Principles of Ship Design</td>
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<tr>
<td>NAVL3110</td>
<td>Ship Practice</td>
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<td>NAVL3400</td>
<td>Ship Structures 1</td>
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<td>NAVL3603</td>
<td>Ship Hydromechanics A</td>
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Year 4

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<td>NAVL4720</td>
<td>Marine Engineering</td>
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Honours

In the Bachelor of Engineering degree programs the same formal program is offered to both Pass students and to those aiming at Honours. Honours will be awarded for meritorious performance over the program: Special attention is paid to a candidate’s performance in the final year courses and thesis project.

In the cases of combined degrees, such as the BE BA or the BE BSc, the award of the BA or BSc degree at Honours level requires two additional sessions of study.

Students wishing to gain a degree at Honours level in Arts or in Science as part of their combined degree program must meet all the relevant requirements of the Faculty of Arts and Social Sciences or the Faculty of Science and of the appropriate school concerned. Students may enrol for the Honours year only on the recommendation of the Head of their School in the Faculty of Engineering and with the approval of the Head of the appropriate Arts or Science School. For Honours in Science, approval must also be sought from the Science Cross Faculty Standing Committee or its delegated authorities. AUSTUDY support is available for the combined degree program including the Honours level.

Academic Rules

For program rules relating to the Bachelor of Engineering, please refer to the ‘Rules for Progression and Award of Degrees’ under ‘Faculty Information and Assistance’ in this Handbook.

Program Progression Guidelines

The student’s attention is directed to the ‘Rules for Progression & the Award of Degrees’ under ‘Faculty Information and Assistance’ in this Handbook. In addition, the following points should be noted:

A student who is faced with compiling a timetable comprising courses from two academic years must give preference to courses from the lower year.

Thesis Arrangements

The course MECH4001 Communications for Professional Engineers must only be taken in conjunction with either MECH4003 Thesis A or MECH4004 Thesis B.

MECH4003 and MECH4004 must be undertaken in two consecutive sessions which are the final two sessions of candidature.

A student must not be enrolled in more than 24 units of credit in any session involving MECH4003 and MECH4004.

A single thesis project is commenced in MECH4003 and completed in MECH4004. MECH4004 carries the mark for the thesis project.

MECH4003 is graded satisfactory (SY) or failure (FN). If a student receives a failure (FN) in MECH4003, a student cannot proceed with MECH4004.

If the project is abandoned during MECH4004, or if MECH4004 is failed, then the satisfactory (SY) for MECH4003 is changed to failure (FN). To complete the degree, a completely new topic must be chosen and the student must enrol again in both MECH4003 and MECH4004. (For BE Biomedical students, read BIOM5001 instead of MECH4003 and BIOM5002 instead of MECH4004)

Industrial Experience Requirements

Industrial experience is an integral part of the programs. This can be taken within Australia or overseas. Students must complete a total of sixty working days of industrial experience. A written report describing this experience is a requirement to passing the common, fourth year course MECH4004, Communications for Professional Engineers.

Professional Recognition

The Institution of Engineers, Australia, recognises the degree of BE in any of the undergraduate programs offered by the School as meeting the examination requirements for admission to graduate and corporate membership. Substantial or complete recognition is accorded to the BE degree programs by overseas engineering institutions.

The award of the BE degree in Aerospace Engineering is recognised by the Royal Aeronautical Society as giving exemption from the formal examination requirements for corporate membership. Advancement from graduate membership to associate membership grade is awarded on a case by case basis after a further period of some years of professional experience.

The award of the BE degree in Naval Architecture is recognised by the Royal Institution of Naval Architects (RINA), London, as the academic qualification for corporate membership of that body.

General Education

For students taking the Manufacturing Engineering and Management plan, the accounting courses GENC1001, GENC1002 or GENC1003 should not be chosen as they partially duplicate course course ACCT9003.
### 3711 Bachelor of Engineering Bachelor of Science BE BSc

**Aerospace Engineering (plan AEROA13711 + Science plan)**
- Manufacturing Engineering and Management (plan MANFA13711 + Science plan)
- Mechanical Engineering (plan MECHA13711 + Science plan)
- Mechatronic Engineering (plan MTRNA13711 + Science plan)
- Naval Architecture (plan NAVLA13711 + Science plan)

**Typical Duration**
- 5 years

**Minimum UOC for Award**
- 240 units of credit with a minimum of 102 units of credit from Science Faculty

**Typical UOC per Session**
- 24 units of credit

**Program Description**
The combined degree program of five years full-time study enables a student to qualify for the degrees of Bachelor of Engineering and Bachelor of Science (BE BSc). Every session of the program contains only the standard 24 Units of Credit of courses and hence workload should not be greater than in a single degree program. The combined degree program is administered by the School of Mechanical and Manufacturing Engineering.

For the Bachelor of Science the student selects a second plan based on an approved major sequence of courses. A major sequence is defined to comprise 42 Units of Credit of courses at Levels 2 and 3 with at least 18 Units of Credit being at Level 3. Overall, in the combined degree program, at least 84 units of credit must be taught by Science.

In some BSc majors, science courses specific to engineering degrees, e.g. PHYS1169 Physics 1CME, MATH2029 Engineering Mathematics 2A, will be exchanged for courses within that major.

The general layout for the combined degree is given below. Detailed outlines for each combination of engineering and science are available from the School.

Students who commence the program and do not complete the Engineering component may take out a BSc degree on completion of all Science requirements. Similarly, students not wishing to complete the BSc degree, may transfer to a plan under that degree program and be given appropriate credit for courses satisfactorily completed.

**Plans within this program:**
- **Aerospace Engineering** (plan AEROA13711 + Science plan)
- **Manufacturing Engineering and Management** (plan MANFA13711 + Science plan)
- **Mechanical Engineering** (plan MECHA13711 + Science plan)
- **Mechatronic Engineering** (plan MTRNA13711 + Science plan)
- **Naval Architecture** (plan NAVLA13711 + Science plan)

### Program Structure

#### Year 1
- **CHEM1817** Chemistry 1ME (3 UOC)
- **MAPP1110** Introduction to Manufacturing (6 UOC)
- **MATH1131** Mathematics 1A (6 UOC)
- **MATH1231** Mathematics 1B (6 UOC)
- **MATS9520** Engineering Materials (3 UOC)
- **MECH1120** Design and the Engineering Profession (3 UOC)
- **MECH1500** Computing 1M (3 UOC)
- **PHYS1169** Physics 1 (CheM, Mech, Min Eng) (6 UOC)
- Plus 12 units of credits of Science courses

#### Year 2
- **MATH2029** Engineering Mathematics 2A (6 UOC)
- **MATH2039** Engineering Mathematics 2B (6 UOC)
- **MATH2889** Statistics SM (3 UOC)
- **MECH1300** Engineering Mechanics 1 (6 UOC)
- **MECH1400** Mechanics of Solids 1 (6 UOC)
- **MECH2611** Fluid Mechanics A (3 UOC)
- **MECH2612** Fluid Mechanics B (3 UOC)

**MECH2711** Thermodynamics A (3 UOC)
**MECH2712** Thermodynamics B (3 UOC)
Plus 12 units of credit of Science courses.

#### Year 3
- **ELEC0807** Electrical Engineering 1E (6 UOC)
- **MECH2101** Machine Design A (3 UOC)
- **MECH2102** Machine Design B (3 UOC)
- **MECH2300** Engineering Mechanics 2 (3 UOC)
- **MECH2411** Mechanics of Solids 2A (3 UOC)
- **MECH2412** Mechanics of Solids 2B (3 UOC)
- **MECH3000** Professional Responsibilities (3 UOC)
Plus 24 units of credit of Science courses.

#### Year 4
- **S1 Year 3 engineering plan, less 6 units of credit General Education (18 UOC)
- **MECH3000** Professional Responsibilities (3 UOC)
- **S2 Year 3 engineering plan, less General Education & (18 UOC)
- **S2 Year 4 engineering plan, 24 units of credit. (18 UOC)

**Academic Rules**
For academic rules relating to the combined degree Bachelor of Engineering Bachelor of Science, please refer to the ‘Rules for Progression and Award of Degrees’ under ‘Faculty Information and Assistance’ in this Handbook.

### 3712 Bachelor of Engineering Bachelor of Arts BE BA

**Aerospace Engineering (plan AEROA13712 + Arts plan)**
- **Manufacturing Engineering and Management (plan MANFA13712 + Arts plan)**
- **Mechanical Engineering (plan MECHA13712 + Arts plan)**
- **Mechatronic Engineering (plan MTRNA13712 + Arts plan)**
- **Naval Architecture (plan NAVLA13712 + Arts plan)**

**Typical Duration**
- 5 years

**Minimum UOC for Award**
- 240 units of credit

**Typical UOC per Session**
- 24 units of credit

**Program Description**
With this combined degree program students can add their choice of an Arts plan to a professionally accredited engineering plan in Aerospace Engineering, Manufacturing Engineering and Management, Mechanical Engineering, Mechatronic Engineering or Naval Architecture. Thus every session of the combined degree program contains only the standard 24 Units of Credit of courses and hence the workload should not be greater than in a single degree program. Students may enter directly in Year 1 or may apply to transfer from the normal engineering program later, although with late transfer it might not be possible to complete the course in minimum time. In this case the student will have to prescribe their own engineering plan following discussion with the School. The full range of Arts plans is available.

Because the Engineering and Arts plans have common content, such as mathematics and physics, only one more year of study is required to gain the additional qualification of Bachelor of Arts.

**Program Objectives and Learning Outcomes**
Please contact the School of Mechanical & Manufacturing Engineering and the Faculty of Arts for information on the Program Objectives and Learning Outcomes.

**Program Structure**
Plans within this program:
Program Structure
Biomedical Engineering Electives
For a full list of Biomedical Engineering Electives, refer to the Graduate School of Biomedical Engineering in the Postgraduate Handbook.

Year 1
BIOM1001  Professional Biomedical Studies  (3 UOC)
BIOM2010  Biomedical Engineering Practice  (3 UOC)
CHEM1817  Chemistry 1ME  (3 UOC)
MANF1130  Introduction to Manufacturing  (6 UOC)
MATH1131  Mathematics 1A  (6 UOC)
MATH1231  Mathematics 1B  (6 UOC)
MECH1120  Design and the Engineering Profession  (3 UOC)
MECH1300  Engineering Mechanics 1  (6 UOC)
MECH1400  Mechanics of Solids 1  (6 UOC)
PHYS1169  Physics 1 (Chem, Mech, Min Eng)  (6 UOC)

Year 2
BIOM9420  Clinical Laboratory Science  (6 UOC)
ELEC0807  Electrical Engineering 1E  (6 UOC)
MATH2029  Engineering Mathematics 2A  (6 UOC)
MATH2039  Engineering Mathematics 2B  (3 UOC)
MATH2839  Statistics SM  (3 UOC)
MATS9520  Engineering Materials  (3 UOC)
MECH1500  Computing 1M  (3 UOC)
MECH2411  Mechanics of Solids 2A  (3 UOC)
MECH2412  Mechanics of Solids 2B  (3 UOC)
MECH2611  Fluid Mechanics A  (3 UOC)
MECH2612  Fluid Mechanics B  (3 UOC)
MECH2711  Thermodynamics A  (3 UOC)
MECH2712  Thermodynamics B  (3 UOC)

Year 3
ANAT2511  Fundamentals of Anatomy  (6 UOC)
MECH2101  Machine Design A  (3 UOC)
MECH2102  Machine Design B  (3 UOC)
MECH2300  Engineering Mechanics 2  (3 UOC)
MECH3203  Engineering Experimentation A  (3 UOC)
MECH3204  Engineering Experimentation B  (3 UOC)
MECH3211  Linear Systems Analysis  (3 UOC)
MECH3300  Engineering Mechanics 3  (3 UOC)
MECH3330  Vibration Analysis  (3 UOC)
MECH3520  Programming & Numerical Methods  (3 UOC)
MECH3601  Thermofluid System Design  (3 UOC)
MECH3602  Advanced Thermodynamics  (3 UOC)
MENG2121  Principles of Control  (12 UOC)
1 Biomedical Engineering Elective  (6 UOC)

Year 4
BIOM5001  Thesis Part A  (6 UOC)
MANF4430  Management for Engineers  (6 UOC)
MECH3101  Machine Systems Design A  (3 UOC)
MECH3102  Machine Systems Design B  (3 UOC)
MECH3400  Mechanics of Solids 3  (3 UOC)
MECH4001  Communications for Professional Engineers  (3 UOC)
PHHP2221  Principles of Physiology A  (6 UOC)
PHHP2221  Principles of Physiology B  (6 UOC)
1 Biomedical Engineering Elective  (6 UOC)
1 Mechanical Engineering Technical  (6UOC)

Year 5
BIOM5002  Thesis Part B  (9 UOC)
BIOM9410  Regulatory Req of Biomed Tech  (6 UOC)
MECH3000  Professional Responsibilities  (3 UOC)
Biomedical Engineering Electives  (24 UOC)
General Education Electives  (6 UOC)

Masters Thesis
Masters Thesis BIOM9913 Project Report can be taken instead of 12 UOC of Biomedical Engineering Electives.

General Education Requirements
Students in this program must also satisfy the General Education requirements. This is usually 6 UOC taken in the final year of studies.
Each Faculty has responsibility for deciding what courses are able to be counted towards the General Education requirement for their students. The Faculty of Engineering is committed to providing the widest range of choice of general education electives for its students. It strongly encourages students to make the best use of this flexibility. Please contact

3715 Mechanical, Manufacturing or Mechatronic Engineering/Bachelor of Commerce
BE BCom
Please refer to the program entry for 3715 Bachelor of Engineering Bachelor of Commerce under ‘Program Rules and Information’ in this Handbook.

3683 Mechanical Engineering/ Master of Biomedical Engineering
Bachelor of Engineering Master of Biomedical Engineering BE MBiomedE
Typical Duration
5 years
Minimum UOC for Award
240 units of credit
Typical UOC per Session
24 units of credit

Program Description
A Bachelor of Engineering degree in Mechanical Engineering and a Master of Biomedical Engineering degree (BE MBiomedE) can both be completed in five years of concurrent study.

Academic Rules
Eligibility
Anyone who meets the entry requirements for both Engineering and Arts is eligible for the combined program.

Rules
1. In addition to their chosen engineering plan, students must complete a major sequence approved arts plan containing at least 60 units of credit of courses.
Mathematics majors are not usually permitted. BE BSc combined degrees are more appropriate for this.
2. There will be a testamur for each part of the combined degree program.
3. Students who complete the BE program first may proceed to graduation with the degree of Bachelor of Engineering in the usual way provided they have also completed 12 Units of Credit in General Education.

Further Information
Organisation
The BE BA program is administered by the School of Mechanical and Manufacturing Engineering.
Students should start discussing their program with representatives of the School and the Faculty of Arts and Social Sciences as soon as possible - preferably well before enrolment. Enquiries should be directed to the Executive Assistant to the Dean of the Faculty of Arts and Social Sciences.

There are no special rules on what to include in each year. Students should work out for themselves the arts program they would like to add to their chosen engineering plan. The Arts and Social Sciences Faculty section in this Handbook describes the options, and the School of Mechanical and Manufacturing Engineering can supply sample plans showing what previous students have arranged. Although the Arts and Social Sciences Faculty section in this Handbook lists courses from the Faculties of Engineering and Science, it is not permissible for BE BA students to include these courses.

The arts component must be approved by the Faculty of Arts and Social Sciences.
The final program and schedule must be approved by the School.
your School Office for further information on General Education electives available to you.

For further information, please refer to the General Education section in this Handbook.

Academic Rules
For academic requirements relating to this program, please refer to Program Structure and contact the School of Mechanical and Manufacturing Engineering for more information.

3688 Mechatronic Engineering/Master of Biomedical Engineering

Bachelor of Engineering Master of Master of Biomedical Engineering BE MBiomedE

Typical Duration
5 years

Minimum UOC for Award
240 units of credit

Typical UOC per Session
24 units of credit

Program Description
A Bachelor of Engineering degree in Mechatronic Engineering and a Master of Biomedical Engineering degree (BE MBiomedE) can both be completed in five years of concurrent study.

Program Structure

Year 1
BIOM1001 Professional Biomedical Studies (3 UOC)
BIOM2010 Biomedical Engineering Practice (3 UOC)
CHEM1817 Chemistry 1ME (3 UOC)
MANF1130 Introduction to Manufacturing (6 UOC)
MATH1131 Mathematics 1A (6 UOC)
MATH1231 Mathematics 1B (6 UOC)
MECH1120 Design and the Engineering Profession (3 UOC)
MECH1300 Engineering Mechanics 1 (6 UOC)
MECH1400 Mechanics of Solids 1 (6 UOC)
PHYS1169 Physics 1 (Chem, Mech, Min Eng) (6 UOC)

Year 2
BIOM9420 Clinical Laboratory Science (6 UOC)
ELEC2042 Electrical Engineering 1E (6 UOC)
MATH2039 Engineering Mathematics 2A (6 UOC)
MATH2049 Engineering Mathematics 2B (6 UOC)
MATH2839 Statistics SM (3 UOC)
MATS9520 Engineering Materials (3 UOC)
MECH1300 Introduction to Manufacturing (6 UOC)
MECH2411 Mechanics of Solids 2A (3 UOC)
MECH2412 Mechanics of Solids 2B (3 UOC)
MECH2611 Fluid Mechanics A (3 UOC)
MECH2612 Fluid Mechanics B (3 UOC)
MECH2711 Thermodynamics A (3 UOC)
MECH2712 Thermodynamics B (3 UOC)

Year 3
ANAT2511 Fundamentals of Anatomy (6 UOC)
MECH2101 Machine Design A (3 UOC)
MECH2102 Machine Design B (3 UOC)
MECH2300 Engineering Mechanics 2 (3 UOC)
MECH3203 Engineering Experimentation A (3 UOC)
MECH3204 Engineering Experimentation B (3 UOC)
MECH3211 Linear Systems Analysis (3 UOC)
MECH3300 Engineering Mechanics 3 (3 UOC)
MECH3330 Vibration Analysis (3 UOC)
MTRN3201 Digital Logic for Mechatronics (3 UOC)
MTRN3202 Microprocessor Control (3 UOC)
MTRN3212 Principles of Control (3 UOC)
MTRN3330 Computing Applets in Mech.Sys. (3 UOC)
Biomedical Engineering Elective (6 UOC)

Year 4
BIOM5001 Thesis Part A (6 UOC)
ELEC2042 Real Time Instrumentation (3 UOC)
MANF4430 Management for Engineers (6 UOC)
MECH3101 Machine Systems Design A (3 UOC)
MECH3400 Mechanics of Solids 3 (3 UOC)
MECH3601 Thermofluid System Design (3 UOC)
MECH4001 Communications for Professional Engineers (3 UOC)
MTRN4221 Industrial Robotics (3 UOC)
PHYP2121 Principles of Physiology A (6 UOC)
PHYP2221 Principles of Physiology B (6 UOC)
Biomedical Engineering Elective (6 UOC)

Year 5
BIOM5002 Thesis Part B (9 UOC)
BIOM9410 Regulatory Req of Biomed Tech (6 UOC)
BIOM9613 Medical Instrumentation (6 UOC)
MECH3300 Professional Responsibilities (3 UOC)
Biomedical Engineering Electives (12UOC)
Mtrn Technical Elective (6 UOC)
General Education Electives (6 UOC)

Masters Thesis
Masters Thesis BIOM9913 Project Report can be taken instead of 12 UOC of Biomedical Engineering electives.

Biomedical Engineering Electives
For a full list of Biomedical Engineering Electives, refer to the Graduate School of Biomedical Engineering in the Postgraduate Handbook.

General Education Requirements
Students in this program need to satisfy the General Education requirements of 6 units of credit which is taken in the final of the studies. For further information, please refer to the General Education section in this Handbook.

Each Faculty has responsibility for deciding what courses are able to be counted towards the General Education requirement for their students. The Faculty of Engineering is committed to providing the widest range of choice of general education electives for its students. It strongly encourages students to make the best use of this flexibility. Please contact your School Office for further information on General Education electives available to you.

Academic Rules
For academic requirements relating to this program, please refer to Program Structure and contact the School of Mechanical and Manufacturing Engineering for more information.

Fast-Track Program with Master of Engineering Science

3710 Bachelor of Engineering/8710 Master of Engineering Science
BE MEngSc
A Bachelor of Engineering degree in Manufacturing Engineering and Management, in Mechanical Engineering, or in Mechatronic Engineering, and a Master of Engineering Science degree (BE MEngSc) can both be completed in four and a half years of study.

Students undertake the first three years (6 sessions) of the standard BE plan in Manufacturing Engineering and Management, in Mechanical Engineering, or in Mechatronic Engineering. Subject to satisfying a minimum performance requirement over these three years (see below), they (a) substitute 12 units of credit of the standard Year 4 BE degree plan with 12 units of credit of approved postgraduate coursework in their fourth year, (b) they undertake 12 units of credit of project/thesis work over the Summer (9th) Session, and (c) they undertake 24 units of credit of postgraduate coursework in the 10th session (first half of their fifth year).

There will be a testamur for each degree. The degree of Bachelor of Engineering will be awarded on the satisfactory completion of the first eight sessions.

Admission Requirements
Admission to the BE MEngSc will require a credit grade average by the end of Year 3.

3710 Manufacturing Engineering and Management
Years 1, 2 and 3 (plan MANFA13710)
Students in Years 1 and 2 are enrolled in the standard single degree Manufacturing Engineering and Management plan MANFA13710 within program 3710.
Year 4 (plan MANF13710)

In Year 4, students transfer to the special plan MANF13710 within program 3710. Compared to the standard plan for Session 1 of Year 4, the postgraduate course MANF9471 Manufacturing Strategy is substituted for MANF4440 Strategic Manufacturing Management and for MANF4500 Computers in Manufacturing 2. In Session 2, the postgraduate course MANF9340 Factory Automation is substituted for MANF4300 Design of Manufacturing Facilities 2.

### HPW UOC

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</table>

8710 Manufacturing Engineering and Management

After Year 4, students, having completed their engineering program, change to MEngSc program 8710.

**Summer Session between Year 4 and Year 5**

Students undertake a 12 UOC project, MANF9010.

**Year 5**

24 UOC of courses are selected from the School's postgraduate courses. It is suggested that consideration be given to the courses making up the Manufacturing Engineering and Management specialisation plans outlined in the Postgraduate Handbook. Attribution of a specialisation on the Master of Engineering Science testamur may not be possible if project MANF9010 has been taken instead of certain courses. Consult the School for direction on this matter.

### 3710 Mechanical Engineering

*Years 1, 2 and 3 (plan MECH13710)*

Students in Years 1 and 2 are enrolled in the standard single degree Mechanical Engineering plan MECH13710 within program 3710.

**Year 4 (plan MECH13710)**

In Year 4, students transfer to the special plan MECH13710 within program 3710. This plan requires that a minimum of 12 units of credit of postgraduate courses must be selected as part of the 24 units of credit Technical Electives requirement. Typically this means that a minimum of 12 units of credit of MECH9*** courses are selected.

**8710 Mechanical Engineering**

After Year 4, students, having completed their engineering program, change to MEngSc program 8710.

**Summer Session between Year 4 and Year 5**

Students undertake a 12 UOC project, MCH9010.

**Year 5**

24 UOC of courses are selected from the School's postgraduate courses. It is suggested that consideration be given to the courses making up the Mechanical specialisation plans outlined in the Postgraduate Handbook.

### 3710 Mechatronic Engineering

*Years 1, 2 and 3 (plan MTRN13710)*

Students in Years 1 and 2 are enrolled in the standard single degree Mechatronic Engineering plan MTRN13710 within program 3710.

**Year 4 (plan MTRN13710)**

In Year 4, students transfer to the special plan MTRN13710 within program 3710. This plan requires that a minimum of 12 units of credit of postgraduate courses must be selected as part of the 18 units of credit Technical Electives requirement. Typically this means that a minimum of 12 units of credit of MTRN9*** courses are selected.

**8710 Mechatronic Engineering**

After Year 4, students, having completed their engineering program, change to MEngSc program 8710.

### School of Mining Engineering

**Head of School:** Professor BK Hebblewhite

**Director - Undergraduate Studies:** Dr Paul Hagan

**Administrative Assistants:** Mrs Carol Bell, Mrs Kim Russell

Mining Engineering offers a diverse range of career path options, high salary levels and excellent opportunities for career progression. This is because it is a global profession that encompasses a wide range of activities involving people, technology, equipment, financial resources, community and government.

Mining Engineering is concerned with the safe, economic and environmentally sustainable recovery, processing and marketing of mineral resources from the earth. The Mining Engineering degree program includes elements from other disciplines including geology, metallurgy, commerce, economics and management. This means that graduates possessing knowledge of mining processes within this framework are very versatile and can progress rapidly both within the mining industry and in those sectors affiliated to the industry.

Career opportunities exist in areas such as operations and project management, and technical design at mine sites; corporate management within mining organisations; engineering design, geotechnical engineering, environmental engineering, risk management and technology developments with consultants, research organisations and equipment manufacturers; specialist mining software design and development with IT organisations; mine planning and design, financial evaluation and feasibility studies with merchant banks, stock brokers, mining organisations and consultants; policy formulation, administration and regulation with government; as well as opportunities in quarrying, tunnelling for infrastructure development in urban areas, education and training.

Mining engineering is an international profession with the major mining companies operating in many parts of South East Asia, Africa, South and North America and Europe. Our graduates have the flexibility and opportunity to travel in their work if they so desire. Mining Engineering graduates are trained to be versatile, adaptable and responsive to change in a physically and mentally challenging career.

Further details can be found at our website at www.mining.unsw.edu.au.

### School of Mechanical Engineering

**Head of School:** Professor BK Hebblewhite

**Director - Undergraduate Studies:** Dr Paul Hagan

**Administrative Assistants:** Mrs Carol Bell, Mrs Kim Russell

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Career opportunities exist in areas such as operations and project management, and technical design at mine sites; corporate management within mining organisations; engineering design, geotechnical engineering, environmental engineering, risk management and technology developments with consultants, research organisations and equipment manufacturers; specialist mining software design and development with IT organisations; mine planning and design, financial evaluation and feasibility studies with merchant banks, stock brokers, mining organisations and consultants; policy formulation, administration and regulation with government; as well as opportunities in quarrying, tunnelling for infrastructure development in urban areas, education and training.

Mining engineering is an international profession with the major mining companies operating in many parts of South East Asia, Africa, South and North America and Europe. Our graduates have the flexibility and opportunity to travel in their work if they so desire. Mining Engineering graduates are trained to be versatile, adaptable and responsive to change in a physically and mentally challenging career.

Further details can be found at our website at www.mining.unsw.edu.au.

The School offers a four year full-time program in Mining Engineering leading to the award of the degree of Bachelor of Engineering at Pass or Honours level. A five year combined degree program is also available with Civil Engineering, Science or Arts.

After graduation, mining engineers who choose to develop careers in operations management gain further practical experience to obtain a Mine Manager's Certificate of Competency, in either Coal or Metalliferous Mining.

Formal arrangements are in place with the University of Newcastle and the University of Tasmania for students who have completed a specified program to be admitted with advanced standing to Year 3 of the program at UNSW. Recognition of students from other institutions or graduates of other disciplines may also be considered for advanced standing to the program.

Please note: Most undergraduate programs in the Faculty of Engineering are currently under revision, subject to approval by the University Council. Students commencing in 2006 should refer to the Online Handbook (www.handbook.unsw.edu.au) for up-to-date information about program structures.

### 3140 Mining Engineering

**Bachelor of Engineering BE**

**Typical Duration:**

4 years

**Minimum UOC for Award:**

192 units of credit
Typical UOC per Session
24 units of credit

Program Description
Year 1 of the program includes courses that cover the sciences to provide the foundation for many of the engineering courses offered in Year 2. Year 3 is largely devoted to fundamental courses in mining engineering while Year 4 provides advanced instruction in aspects essential for all mining engineers. In addition, the fourth year offers a range of electives that allow students to supplement their studies with a minor specialisation. A number of General Education courses are also prescribed in the program. In keeping with the international career opportunities, students are encouraged to undertake a foreign culture/language course as a General Education elective.

An important requirement in the fourth year is for students to undertake personal research or a study project in mining or minerals engineering for which they are required to submit a dissertation for examination. High achieving students who have maintained a Distinction average grade can also choose to undertake a research project in Years 2 and 3 of the program.

For the award of Honours at the conclusion of the program, students will need to have distinguished themselves in the formal course work, in other assignments as directed by the Head of School and in the final year research project. Some courses in the program require students to attend field trips as part of the learning process. This provides an opportunity for students to gain immediate practical insight into the application of the theoretical concepts presented in courses.

In the undergraduate program, it is compulsory for students to gain practical experience in the mining industry during successive long recesses. A minimum of 80 days needs to be completed on which a student must submit a report and give a presentation on the experience before graduation. The School assists students as much as possible in securing suitable vacation employment.

Program Objectives and Learning Outcomes
The School offers a four year full-time program in Mining Engineering leading to the award of the degree of Bachelor of Engineering at Pass or Honours level. A five year combined degree program is also available in Civil Engineering, in Science, and in Arts.

After graduation, mining engineers who choose to develop careers in operations management gain further practical experience to obtain a Mine Manager’s Certificate of Competency, in either Coal or Metalliferous Mining.

Formal arrangements are in place with the University of Newcastle and the University of Tasmania for students who have satisfactorily completed a specified program to be admitted with advanced standing to Year 3 of the program at UNSW. Recognition of students from other institutions or graduates of other disciplines may also be considered for advanced standing to the program.

Program Structure
Year 1
C.1H1M1817 Chemistry 1ME (3 UOC)
GEOS1111 Fundamentals of Geology (6 UOC)
MATH1131 Mathematics 1A (6 UOC)
MATH1231 Mathematics 1B (6 UOC)
MATS9410 Materials for Mining Engineers (3 UOC)
MINE1010 Introduction to Mining Engineering (6 UOC)
MINE1020 Mining Industry Practice (6 UOC)
MINE1300 Applied Mechanics (6 UOC)
PHYS1169 Physics 1 (Chem, Mech, Min Eng) (6 UOC)

Year 2
ELEC0809 Electrical Engineering 1C (3 UOC)
GMAT0443 Surveying for Mining Engineers (3 UOC)
MATH2029 Engineering Mathematics 2A (6 UOC)
MATH2039 Engineering Mathematics 2B (3 UOC)
MINE2010 Mining Project Development (6 UOC)
MINE2310 Structural Mechanics (6 UOC)
MINE2320 Mining Stress Analysis (3 UOC)
MINE2300 Fluids & Thermodynamics (6 UOC)
MINE2700 Mining Data Analysis (3 UOC)

Year 3
GEOS5300 Mine Geology (3 UOC)
MINE3210 Resource Mining Control System (3 UOC)
MINE3300 Mining Geomechanics (6 UOC)
MINE3410 Coal Mining Systems (6 UOC)
MINE3420 Metal Mining Systems (6 UOC)
MINE3500 Mine Workplace Environment (6 UOC)
MINE3610 Excavation Engineering (6 UOC)
MINE3620 Mine Infrastructure & Services (3 UOC)
MINE3710 Mine Economics and Business Systems (6 UOC)
MINE3800 Mineral Processing (3 UOC)

Year 4
MINE4210 Mine Planning (6 UOC)
MINE4220 Coal Mine Design and Evaluation Project (9 UOC)
MINE4230 Metal Mine Design and Evaluation Project (9 UOC)
MINE4240 Mine Design and Evaluation (9 UOC)
MINE4300 Geotechnical Engineering (6 UOC)
MINE4410 Industry Applications (6 UOC)
MINE4420 Thesis A (6 UOC)
MINE4500 Sustainable Mining Practices (3 UOC)
MINE4700 Mining Law (6 UOC)

General Education Electives (select one)
MINE4800 Mine Simulation and Modelling (3 UOC)
MINE4805 Mineral Process Technology (3 UOC)
MINE4810 Comp Methods in Geomechanics (3 UOC)

General Education Requirements
Please refer to the General Education Requirements under ‘Faculty Information and Assistance’ in this Handbook.

Honours
In the Bachelor of Engineering degree programs the same formal program is offered to both Pass students and to those aiming at Honours. Honours will be awarded for meritorious performance over the program: special attention is paid to a candidate’s performance in the final year courses and thesis project.

In the cases of combined degrees, such as the BE BA or the BE BSc, the award of the BA or BSc degree at Honours level requires two additional sessions of study.

Students wishing to gain a degree at Honours level in Arts or in Science as part of their combined degree program must meet all the relevant requirements of the Faculty of Arts and Social Sciences or the Faculty of Science and of the appropriate school concerned. Students may enrol for the Honours year only on the recommendation of the Head of their School in the Faculty of Engineering and with the approval of the Head of the appropriate Arts or Science School. For Honours in Science, approval must also be sought from the Science Cross Faculty Standing Committee or its deleagated authorities. AUSTUDY support is available for the combined degree program including the Honours level.

Academic Rules
For program rules relating to the Bachelor of Engineering, please refer to the ‘Rules for Progression and Award of Degrees’ under ‘Faculty Information and Assistance’ in this Handbook.

Industrial Experience Requirements
All students must complete at least 80 working days of approved industrial experience (or professional practice in the case of Surveying and Spatial Information Systems students) prior to enrolment in the final year of their program. The award of the degree is dependent on the completion of the requisite periods of industrial employment at a standard approved by the University.
Professional Recognition
The award of the BE degree in Mining Engineering from UNSW is a recognised tertiary qualification required for corporate membership of the Australasian Institution of Mining and Metallurgy (AusIMM). On completion of the degree, a Mining Engineer may apply for Graduate Membership of the AusIMM. Following three years relevant experience after graduation, graduates may apply for Corporate Membership of the Institute. The BE degree in Mining Engineering is also required in some jurisdictions to obtain the statutory qualification of Mine Manager.

3142 Mining Engineering/Bachelor of Science

Bachelor of Engineering Bachelor of Science BE BSc

Typical Duration
5 years

Minimum UOC for Award
240 units of credit

Typical UOC per Session
24 units of credit

Program Description
This option is available to students wishing to supplement their Mining Engineering degree with courses from the Faculty of Science. The minimum time to complete this combined program is five years. The selection of specialisations in the Science component is quite flexible. It is important, however, that students discuss their interests with the relevant program authorities as programs may need to be individually tailored to suit each student. Also, students must undertake the BSc in accordance with the requirements for the award of a BSc degree. There may be restrictions on course availability due to timetabling constraints.

A more structured program is available in the BE(Mining)/BSc(Computer Science) program. This combination is an excellent choice for students who have a strong computing interest. Details of this program are available from the School of Mining Engineering. Please note that there may be a minimum UAI requirement for entry to the combined BE BSc degree. Please contact the School of Mining Engineering for information regarding this combined degree.

Program Structure
Please contact the School of Mining Engineering for information regarding the Program Structure.

Academic Rules
For program rules relating to the Bachelor of Engineering, please refer to the ‘Rules for Progression and Award of Degrees’ under ‘Faculty Information and Assistance’ in this Handbook.

3144 Mining Engineering/Bachelor of Arts

Bachelor of Engineering Bachelor of Arts BE BA

Typical Duration
5 years

Minimum UOC for Award
240 units of credit

Typical UOC per Session
24 units of credit

Program Description
A wide range of options are available in this 5 year combined degree. The Bachelor of Arts degree must be completed in accordance with the requirements for the award of a BA. Students interested in this combined degree must discuss their planned program with the individual program Authorities. There may be restrictions on course availability due to timetabling constraints.

Please note that there may be a minimum UAI requirement for entry to the combined BE/BA degree. Please contact the School of Mining Engineering for more information.

Program Structure
Please contact the School of Mining Engineering and the Faculty of Arts for information on the Program Structure.

Honours
In the Bachelor of Engineering degree programs the same formal program is offered to both Pass students and to those aiming at Honours. Honours will be awarded for meritorious performance over the program: special attention is paid to a candidate’s performance in the final year courses and thesis project.

In the cases of combined degrees, such as the BE BA or the BE BSc, the award of the BA or BSc degree at Honours level requires two additional sessions of study.

Students wishing to gain a degree at Honours level in Arts or in Science as part of their combined degree program must meet all the relevant requirements of the Faculty of Arts and Social Sciences or the Faculty of Science and of the appropriate school concerned. Students may enrol for the Honours year only on the recommendation of the Head of their School in the Faculty of Engineering and with the approval of the Head of the appropriate Arts or Science School. For Honours in Science, approval must also be sought from the Science Cross Faculty Standing Committee or its delegated authorities. AUSTUDY support is available for the combined degree program including the Honours level.

Academic Rules
These combined programs of five years full-time study enable students in the School to qualify for the award of the degrees of Bachelor of Engineering and Bachelor of Arts. With these programs students can add their choice of an Arts major to the standard professionally accredited Mining Engineering program. It provides flexibility in course choice within the full Arts program and enables students to obtain the broader education offered by the Arts and Social Sciences. Since Engineering and Arts programs can have a common content, such as mathematics and physics, approximately two additional sessions of study are required to gain the additional qualifications of Bachelor of Arts. In general, this additional study is taken concurrently with the BE program and both can be completed within 10 sessions.

The programs are open to all students who satisfy both the Mining Engineering and Arts entry conditions. Students may enter directly in Year 1 or may apply to transfer from the normal engineering program after completion of at least one year if they have a credit or higher average or permission from the Head of School.

The BE BA programs are administered by the School of Mining Engineering. The School requires the student to obtain the approval of the Faculty of Arts and Social Sciences for the BA components of their program. The School of Mining Engineering must approve the final program timetable.

1. Students must complete 60 units of credit in the BA program with no more than 24 units of credit obtained at Level 1 (i.e. subjects designed for students in their first year of study). Of these 24 Level 1 units of credit, no more than 12 units of credit may be from any one school of department.

2. Students must complete a major sequence (42 units of credit) in one of the following areas:
   - Australian Studies
   - Chinese Studies
   - Development Studies
   - Education
   - English
   - Environmental Studies
   - European Studies
   - Film
   - French
   - German Studies
   - Greek
   - History
   - History and Philosophy of Science
   - Indonesian Studies
   - Japanese Studies
   - Korean Studies
   - Linguistics
   - Media, Culture & Technology
   - Music
   - Philosophy
   - Policy Studies
   - Political Economy
   - Politics and International Relations
   - Russian Studies
   - Sociology & Anthropology
   - Spanish & Latin American Studies
   - Theatre & Performance Studies
   - Women's and Gender Studies
3. Except for courses completed as part of the Environmental Studies major sequences, no more than 12 units of credit may be obtained from courses in the BA program which are offered by schools outside the Faculty of Arts and Social Sciences.

4. No course included for credit in the BE programs can be included in the 60 units of credit required at Rule 1 for the BA program.

5. Students must complete the full requirements of the program 3140 BE in Mining Engineering except that they are exempt from the General Education requirement of the BE program. However, students will not be eligible for graduation for the BE until a minimum of 12 units of credit of the BA have been successfully completed.

6. Students who complete the requirements for the BA program and the first two years of the BE BA program may proceed to graduation with the degree of Bachelor of Arts.

7. Students may be awarded Honours in the BA by successful completion of an Honours year. It should be noted that entry into a particular BA Honours program will require completion of courses additional to those specified under rules 1-4.

8. The total units of credit in the combined program is 5 x 48 = 240.

Industrial Experience Requirements
All students must complete at least 80 working days of approved industrial experience (or professional practice in the case of Surveying and Spatial Information Systems students) prior to enrolment in the final year of their program. The award of the degree is dependent on the completion of the requisite periods of industrial employment at a standard approved by the University.

3715 Mining Engineering/Bachelor of Commerce
BE BCom
Please refer to the program entry for 3715 Bachelor of Engineering Bachelor of Commerce under ‘Program Rules and Information’ in this Handbook.

3146 Civil Engineering/Mining Engineering
Bachelor of Engineering Bachelor of Engineering BE BE
Students initially enrol in courses in the Bachelor of Engineering (Civil Engineering) program 3620 which is administered by the School of Civil Engineering. The first three and one half years of the combined degree program are therefore identical to the 3620 program. After completing six sessions in the 3620 program, students may apply to enter the Bachelor of Engineering in Mining Engineering program 3146 which is administered by the School of Mining Engineering and aim to complete the mining requirements in four additional sessions. Students considering this option should discuss the above arrangements with the relevant program authorities.

For more information, please refer to the entry under the School of Civil and Environmental Engineering in this Handbook.

Fast Track Program with Master of Engineering Science
3140 Mining Engineering/Master of Engineering Science – Plan MINEP13140
Bachelor of Engineering Master of Engineering Science BE MEngSc
Students may undertake a four and one half years (10 semesters) full-time combined program leading to the awards of a Bachelor of Engineering and a Master of Engineering in Mining Engineering.

Students undertake the first three years (six semesters) of the BE program in Mining Engineering, Subject to satisfying a minimum performance over these three years (see “Rules for Progression and the Award of Degrees”), they must (a) substitute 12 UOC in the standard Yr4 BE degree program with a School approved 12 UOC of graduate coursework in their 4th year; (b) undertake a 12 UOC project/thesis work over the Summer (9th)

Semester; and (c) undertake 24 UOC of graduate coursework in the tenth semester (first half of their 5th year).

Year 1 to Year 3
Same as program 3140

Year 4

<table>
<thead>
<tr>
<th>HPW</th>
<th>UOC</th>
</tr>
</thead>
<tbody>
<tr>
<td>S1</td>
<td>S2</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Mining Management Specialisation Option</td>
<td></td>
</tr>
<tr>
<td>MINE4210 Mine Planning</td>
<td>5</td>
</tr>
<tr>
<td>MINE4300 Geotechnical Engineering</td>
<td>5</td>
</tr>
<tr>
<td>MINE8210 Management Systems</td>
<td>B*</td>
</tr>
<tr>
<td>MINE4410 Industry Applications</td>
<td>4</td>
</tr>
<tr>
<td>MINE4220 Coal Mine Design &amp; Evaluation Project</td>
<td>7</td>
</tr>
<tr>
<td>MINE4230 Metal Mine Design &amp; Evaluation Project</td>
<td>7</td>
</tr>
<tr>
<td>MINE4240 Mine Design &amp; Evaluation Project</td>
<td>7</td>
</tr>
<tr>
<td>MINE4420 Thesis A</td>
<td>4</td>
</tr>
<tr>
<td>MINE8220 Mine Feasibility, Planning and Project Evaluation</td>
<td>B*</td>
</tr>
<tr>
<td>General Education</td>
<td>2</td>
</tr>
</tbody>
</table>

OR

Mining Geomechanics Specialisation Option
| MINE4210 Mine Planning | 5 | 6 |
| MINE8140 Mining Geomechanics | B* | 6 |
| MINE4700 Mining Management 2 | 4 | 6 |
| MINE4410 Industry Applications | 4 | 6 |
| MINE4220 Coal Mine Design & Evaluation Project | 7 | 9 |
| MINE4230 Metal Mine Design & Evaluation Project | 7 | 9 |
| MINE4240 Mine Design & Evaluation Project | 7 | 9 |
| MINE4300 Thesis A | 4 | 6 |
| MINE8760 Mine Geology and Geophysics for Mining Operations | B* | 6 |
| General Education | 2 | 3 |

B* indicates course is presented in block format – contact School for further details.

Year 5 (Summer Session)
MINE8000 Graduate Project | 6 | 12

Year 5 Session 1
During Session 1, students undertake four 6 UOC Mining MEngSc courses according to their specialisation and subject to timetabling constraints.

School of Petroleum Engineering
Director: Professor WV Pinczewski
Petroleum Engineering is a specialised engineering discipline which prepares graduates for careers in the oil and gas industries. Its related operations apply physical, mathematical and engineering principles to identify and solve problems associated with exploration, exploitation, drilling, production and all the related economic and management problems associated with the recovery of hydrocarbons and alternative sources of energy from deep beneath the earth’s surface.

The School of Petroleum Engineering offers both undergraduate and postgraduate programs as well as open learning programs on the Internet leading to the award of Graduate Diploma, Graduate Certificate and Master of Engineering Science degrees in Petroleum Engineering.

The undergraduate program for the award of a Bachelor of Engineering in Petroleum Engineering requires four years of full-time study. This degree is fully accredited and recognised internationally.

Entry is normally into Year 1 of the program. Students who satisfy the requirements of other full-time engineering degree programs at UNSW or any other Australian tertiary institution may be admitted into Year 2 or Year 3 of the undergraduate Petroleum Engineering program. These students will need to complete an appropriately modified Year 2 or Year 3 of the program as the case demands. The same requirements apply to students from accredited tertiary institutions in other countries. The award of Honours in the Petroleum Engineering program requires students to have distinguished themselves in the formal work, as well as in related assignments and industrial training periods as advised by the Director of Undergraduate Studies of the School.
**3045 Petroleum Engineering**

**Bachelor of Engineering BE**

**Typical Duration**
4 years

**Minimum UOC for Award**
192 units of credit

**Typical UOC per Session**
24 units of credit

**Program Description**
The undergraduate program for the award of a Bachelor of Engineering in Petroleum Engineering requires four years of full-time study. This degree is fully accredited and recognised internationally.

Entry is normally into Year 1 of the program. Students who satisfy the requirements of other full-time engineering degree programs at UNSW or any other Australian tertiary institution may be admitted into Year 2 or Year 3 of the undergraduate Petroleum Engineering program. These students will need to complete an appropriately modified Year 2 or Year 3 of the program as the case demands. The same requirements apply to students from accredited tertiary institutions in other countries. The award of Honours in the Petroleum Engineering program requires students to have distinguished themselves in the formal work, as well as in related assignments and industrial training periods as advised by the Director of Undergraduate Studies of the School.

This program extends over four years and students study full-time during the day for 28 weeks of each year (excluding examinations and recess periods).

Successful completion of the BE degree program is accepted by the Institution of Engineers Australia, and the Institution of Chemical Engineers as sufficient academic qualification for corporate membership. The Director of Undergraduate Studies may approve various program patterns involving full-time or part-time studies.

**Program Objectives and Learning Outcomes**
Petroleum Engineering is a specialised engineering discipline which prepares graduates for careers in the oil and gas industries. Its related operations apply physical, mathematical and engineering principles to identify and solve problems associated with exploration, exploitation, drilling, production and all the related economic and management problems associated with the recovery of hydrocarbons and alternative sources of energy from deep beneath the earth's surface.

**Program Structure**

**Year 1**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>UOC</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEIC1020</td>
<td>Introduction to Chemical Engineering</td>
<td>6</td>
</tr>
<tr>
<td>CHEM1011</td>
<td>Fundamentals of Chemistry 1A</td>
<td>6</td>
</tr>
<tr>
<td>MECH1011</td>
<td>Engineering Drawing and Solid Modelling</td>
<td>6</td>
</tr>
<tr>
<td>PHYS1169</td>
<td>Physics 1 (Chem, Mech, Min Eng)</td>
<td>6</td>
</tr>
<tr>
<td>PTRL1010</td>
<td>Introduction to the Petroleum Industry</td>
<td>6</td>
</tr>
<tr>
<td>PTRL1013</td>
<td>Computing - Petroleum Engineers</td>
<td>6</td>
</tr>
<tr>
<td>PTRL1016</td>
<td>Reservoir Rock &amp; Fluid Properties</td>
<td>6</td>
</tr>
</tbody>
</table>

And ONE of the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>UOC</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH1131</td>
<td>Mathematics 1A</td>
<td>6</td>
</tr>
<tr>
<td>MATH1141</td>
<td>Higher Mathematics 1A</td>
<td>6</td>
</tr>
</tbody>
</table>

And ONE of the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>UOC</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH1231</td>
<td>Mathematics 1B</td>
<td>6</td>
</tr>
<tr>
<td>MATH1241</td>
<td>Higher Mathematics 1B</td>
<td>6</td>
</tr>
</tbody>
</table>

**Year 2**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>UOC</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEIC2110</td>
<td>Material &amp; Energy Balances</td>
<td>3</td>
</tr>
<tr>
<td>CEIC2120</td>
<td>Fluid Flow</td>
<td>3</td>
</tr>
<tr>
<td>CEIC2130</td>
<td>Heat Transfer</td>
<td>3</td>
</tr>
<tr>
<td>GEOE3213</td>
<td>Fundamentals of Petroleum Geology</td>
<td>6</td>
</tr>
<tr>
<td>MATH2020</td>
<td>Mathematics 2A</td>
<td>6</td>
</tr>
<tr>
<td>MAHJ2030</td>
<td>Mathematics 2B</td>
<td>3</td>
</tr>
<tr>
<td>MATH2899</td>
<td>Applied Statistics for Chemical Engineers</td>
<td>3</td>
</tr>
<tr>
<td>PTRL2010</td>
<td>Business Communication Skills</td>
<td>6</td>
</tr>
</tbody>
</table>

**Year 3**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>UOC</th>
</tr>
</thead>
<tbody>
<tr>
<td>PTRL3008</td>
<td>Reservoir Engineering A</td>
<td>6</td>
</tr>
<tr>
<td>PTRL3009</td>
<td>Reservoir Engineering B</td>
<td>6</td>
</tr>
<tr>
<td>PTRL3013</td>
<td>Reservoir Characterisation and Modelling</td>
<td>3</td>
</tr>
<tr>
<td>PTRL3016</td>
<td>Field Development Geology for Petroleum Engineers</td>
<td>3</td>
</tr>
<tr>
<td>PTRL3023</td>
<td>Formation Evaluation</td>
<td>6</td>
</tr>
<tr>
<td>PTRL3024</td>
<td>Drilling Fluids &amp; Cementing Techniques</td>
<td>6</td>
</tr>
<tr>
<td>PTRL3025</td>
<td>Petroleum Economics</td>
<td>6</td>
</tr>
</tbody>
</table>

**General Education Requirements**

Please refer to General Education Requirements under ‘Faculty Information and Assistance’ in this Handbook.

**Honours**

In the Bachelor of Engineering degree programs the same formal program is offered to both Pass students and to those aiming at Honours. Honours will be awarded for meritorious performance over the program: special attention is paid to a candidate's performance in the final year courses and thesis project.

In the cases of combined degrees, such as the BE BA or the BE BSc, the award of the BA or BSc degree at Honours level requires two additional sessions of study.

Students wishing to gain a degree at Honours level in Arts or in Science as part of their combined degree program must meet all the relevant requirements of the Faculty of Arts and Social Sciences or the Faculty of Science and of the appropriate school concerned. Students may enrol for the Honours year only on the recommendation of the Head of their School in the Faculty of Arts and with the approval of the Head of the appropriate Arts or Science School. For Honours in Science, approval must also be sought from the Science Cross Faculty Standing Committee or its delegated authorities. AUSTUDY support is available for the combined degree program including the Honours level.

**Academic Rules**
For program rules relating to the Bachelor of Engineering, please refer to the ‘Rules for Progression and Award of Degrees’ under ‘Faculty Information and Assistance’ in this Handbook.

**Industrial Experience Requirements**
All students must complete at least 60 working days of approved industrial experience (or professional practice in the case of Surveying and Spatial Information Systems students) prior to enrolment in the final year of their program. The award of the degree is dependent on the completion of the requisite periods of industrial employment at a standard approved by the University.
3047 Petroleum Engineering/Bachelor of Science

Bachelor of Engineering Bachelor of Science BE BSc

Typical Duration
3 years

Minimum UOC for Award
240 units of credit

Typical UOC per Session
24 units of credit

Program Description

Students may seek to undertake a five-year full-time combined program leading to the award of the degree of Bachelor of Engineering in Petroleum Engineering and Bachelor of Science (BE BSc).

The School of Petroleum Engineering is the academic unit responsible for the program. All programs must be approved by both the Faculty of Engineering and the Faculty of Science. The School will consult with the Faculty of Science in approving the BSc component of the program.

Students must satisfy admission requirements for both the BE in Petroleum Engineering and BSc programs.

Program Structure

With the combined degree program, students complete a full, professionally accredited 4-year Engineering program (which includes Science courses) and add an additional 5th year to augment the Science component of the combined degree program. In all, a minimum of 102 units of credit of science courses must be taken with the combined program, which must include a Science major defined in Table A in the Science Handbook, or an approved major in Computer Science where this is permitted.

Academic Rules

For program rules relating to the Bachelor of Engineering, please refer to the ‘Rules for Progression and Award of Degrees’ under ‘Faculty Information and Assistance’ in this Handbook.

3715 Petroleum Engineering/Bachelor of Commerce

BE BCom

Please refer to the program entry for 3715 Bachelor of Engineering Bachelor of Commerce under ‘Program Rules and Information’ in this Handbook.

School of Photovoltaic and Renewable Energy Engineering

Head of School: Dr R.P. Corkish
Director of Academic Studies: Scientia Professor S.R. Wenzham
Director of Research: Scientia Professor M.A. Green
Undergraduate Coordinator: Dr J.E. Cotter
Postgraduate Coordinator: Dr A.B. Sproul
Research Coordinator: A/Prof A. G. Aberle
Student Administration Manager: Ms. T. Burns

The need for the School of Photovoltaic and Renewable Energy Engineering has arisen due to rapid growth and evolution in the photovoltaic industry in recent years, with considerable demand by industry for UNSW developed technologies and appropriately trained engineers across the entire photovoltaic and renewable energy sectors. It originally comprised three centres established by the Australian Research Council: the Photovoltaics Special Research Centre, the Key Centre for Teaching and Research in Photovoltaic Engineering, and the Special Research Centre for Third Generation Photovoltaics. However, in 2003, the UNSW Centre of Excellence for Advanced Silicon Photovoltaics and Photonics was established merging the three centres into one.

The School offers undergraduate and postgraduate training encompassing all aspects of the photovoltaic and renewable energy sectors. Innovative teaching techniques have been developed to enhance the learning environment. UNSW academics in the photovoltaic field have been consistently ranked amongst the leaders worldwide through international peer review. This team has held the world record for silicon solar cell efficiencies for almost two decades and has been responsible for developing the most successfully commercialised new photovoltaic technology internationally throughout the same period.

Summary of Undergraduate Programs

Normal Full-time

Single Degree Programs

<table>
<thead>
<tr>
<th>Code</th>
<th>Program</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>3642</td>
<td>BE in Photovoltaics and Solar Energy</td>
<td>4 years</td>
</tr>
<tr>
<td>3657</td>
<td>BE in Renewable Energy Engineering</td>
<td>4 years</td>
</tr>
</tbody>
</table>

Combined Degree Programs *

<table>
<thead>
<tr>
<th>Code</th>
<th>Program</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>3655</td>
<td>BE in Photovoltaics and Solar Energy/Bachelor of Science</td>
<td>5 years</td>
</tr>
<tr>
<td>3656</td>
<td>BE in Photovoltaics and Solar Energy/Bachelor of Arts</td>
<td>5 years</td>
</tr>
<tr>
<td>3658</td>
<td>BE in Renewable Energy Engineering/Bachelor of Science</td>
<td>5 years</td>
</tr>
<tr>
<td>3715</td>
<td>BE in Photovoltaics &amp; Solar Energy or BE in Renewable Energy Engineering/Bachelor of Commerce</td>
<td>5.5 years</td>
</tr>
</tbody>
</table>

*Please note: The School is in the process of obtaining approval for a BE in Renewable Energy Engineering / Bachelor of Arts. Please see the School Office if you would like to know more about this proposed program.

Please note: Most undergraduate programs in the Faculty of Engineering are currently under revision, subject to approval by the University Council. Students commencing in 2006 should refer to the Online Handbook (www.handbook.unsw.edu.au) for up-to-date information about program structures.

3642 Photovoltaics and Solar Energy

Bachelor of Engineering BE

Typical Duration
4 years

Minimum UOC for Award
192 units of credit

Typical UOC per Session
24 units of credit

Program Description

The undergraduate engineering degree in Photovoltaics (PV) and Solar Energy was established in 2000 and is a four-year full-time program. It is the first of its kind internationally and won the Education and Awareness Award at the 2004 Energy and Water Green Globe Awards held by the Department of Energy, Utilities and Sustainability. The program has been established in response to rapid growth in the industry in recent years in both manufacturing capacity and job creation. In 2004 global manufacturing of solar cells expanded by 67% - growth reminiscent of the electronics industry in the booming 1980s.

The program includes training in technology development, manufacturing, quality control, reliability and lifecycle analysis, cell interconnection and encapsulation, a range of solar cell applications, system design, maintenance and fault diagnosis, marketing, policy development and the use of other renewable energy technologies. Considerable emphasis is placed on gaining hands-on experience of working with PV devices, modules and systems.

Second Area of Specialisation

The cross-disciplinary nature of photovoltaics and renewable energy applications necessitates many PV engineers possessing broad engineering backgrounds or else working in teams with other engineers. A good example is the UNSW Solar Car Project involving PV engineers, electronics engineers, control engineers, mechanical engineers, chemical engineers, power engineers, biomedical engineers, computer engineers, and communications engineers, etc. Therefore it is important for photovoltaic engineers to have a broader understanding of other engineering disciplines.

A unique feature of this program is that in Year 2, students have the opportunity to select one of ten possible strands to complement their education in Photovoltaics and Solar Energy. Each strand comprises 18 units of credit with the opportunity to subsequently select additional electives in the corresponding area in the final two years, subject to the approval of the Undergraduate Coordinator. The strands available are...
Program Objectives and Learning Outcomes
The broad objective of the program is to produce well educated graduates with the basic skills, attributes and knowledge required to practice as professional engineers. The program aims to produce graduates that are self-motivated, lifelong learners; critical thinkers; problem solvers; independent investigators; team players; good communicators; effective managers; and are environmentally, socially and ethically responsible. More specifically, the School hopes to train and educate engineers to cater for the needs of the rapidly growing and evolving photovoltaics industry.

Students in each course are assessed by way of assignments, tutorials, laboratory/project work and formal examinations. In a small number of courses/projects students are also assessed on their communication, leadership skills and project management through seminar presentations, reports and their demonstrated ability to manage a group/project.

Program Structure
Plan SOLAA13642

Year 1
ELEC1011 Electrical Engineering 1 (6 UOC)
ELEC1041 Digital Circuits (6 UOC)
MATH1141 Higher Mathematics 1A (6 UOC)
MATH1241 Higher Mathematics 1B (6 UOC)
PHYS1131 Higher Physics 1A (6 UOC)
PHYS1231 Higher Physics 1B (6 UOC)
SOLA1050 Introduction to Photovoltaics, Solar Energy and Computing 1 (6 UOC)
SOLA1051 Introduction to Photovoltaics, Solar Energy and Computing 2 (6 UOC)
SOLA1060 Chemical Processes for Renewable Energy Systems (3 UOC)

Note: MATH1141 and MATH1241 may be taken at the lower level (MATH1131 and MATH1231).

Year 2
MATH2120 Mathematical Methods for Differential Equations (3 UOC)
MATH2859 Probability, Statistics and Information (3 UOC)
SOLA2020 Photovoltaic Technology and Manufacturing (6 UOC)
SOLA2051 Project in Photovoltaics and Solar Energy 1 (6 UOC)
SOLA2052 Project in Photovoltaics and Solar Energy 2 (6 UOC)
SOLA2053 Sustainable & Renewable Energy Technologies (6 UOC)
SOLA2060 Introduction to Electronic Devices (3 UOC)
Selected Strand (12 UOC)
General Education Elective (3 UOC)

Note: SOLA2060 is offered every second year and will not be offered in 2006.

Year 3
ELEC2031 Circuits and Systems (3 UOC)
SOLA3010 Photovoltaics in the Built Environment (6 UOC)
SOLA3507 Solar Cells (6 UOC)
SOLA3540 Applied Photovoltaics (6 UOC)
Professional Electives (18 UOC)
Selected Strand (continued) (6 UOC)
General Education (3 UOC)

Note: SOLA3507 is offered every second year and will not be offered in 2006.

Year 4
ELEC4010 Project Management for Professional Services (3 UOC)
ELEC4011 Ethics and Electrical Engineering Practice (3 UOC)
SOLA4910 Thesis Part A (6 UOC)
SOLA4911 Thesis Part B (6 UOC)
SOLA4012 Grid-Connected Photovoltaic Systems (6 UOC)
Professional Electives (12 UOC)
General Education elective (6 UOC)

Notes: Where students have a weighted average mark (WAM) less than 65, they should enrol in the group thesis SOLA4914 and SOLA4915.
SOLA4012 is offered every second year and will not be offered in 2006.

Years 2 & 3 Strand Options
Please note that the strands listed below are subject to change and may not be available every year.

Strand 1 Computing
Choose one of the following courses:
COMP1011 Computing 1A (6 UOC)
COMP1711 Higher Computing 1A (6 UOC)
And choose one of the following courses:
COMP1021 Computing 1B (6 UOC)
COMP1721 Higher Computing 1B (6 UOC)
And choose from the following to complete the strand:
COMP3111 Software Engineering (6 UOC)
ELEC2041 Microprocessors & Interfacing (6 UOC)
Or one of the following courses:
COMP2011 Data Organisation (6 UOC)
SOLa2711 Higher Data Organisation (6 UOC)

Note: Students must choose whether to take Computing 1A, Computing 1B and Data Organisation at the ordinary or higher level.

Strand 2 Electronics
ELEC2032 Electronics and Systems (3 UOC)
ELEC3042 Real Time Instrumentation (3 UOC)
ELEC3006 Electronics A (6 UOC)
And choose from the following to complete the strand:
ELEC3017 Electrical Engineering Design (6 UOC)
ELEC4240 Power Electronics (6 UOC)
ELEC4503 Electronics C (6 UOC)
ELEC4522 Microelectronics Design and Technology (6 UOC)

Strand 3 Electric Energy
ELEC2015 Electromagnetic Applications (3 UOC)
ELEC3005 Electric Energy 1 (6 UOC)
MATH2011 Several Variable Calculus (6 UOC)
PHYS2939 Physics 2 (Electrical Engineering) (6 UOC)

Strand 4 Communications and Control
ELEC2032 Electronics and Systems (3 UOC)
ELEC2042 Real Time Instrumentation (3 UOC)
MATH2011 Several Variable Calculus (6 UOC)
And choose from the following to complete the strand:
ELEC3004 Signal Processing and Transform Methods (6 UOC)
ELEC3014 Systems and Control 1 (6 UOC)
ELEC3013 Telecommunication Systems 1 (6 UOC)

Strand 5 Mathematics
MATH2011 Several Variable Calculus (6 UOC)
MATH2509 Linear Algebra for Engineers (3 UOC)
MATH2520 Complex Analysis (3 UOC)
And choose one from the following to complete the strand:
MATH3041 Mathematical Modelling (6 UOC)
MATH3121 Mathematical Methods (6 UOC)
MATH3241 Fluid Dynamics (6 UOC)
MATH3261 Atmosphere-Ocean Dynamics (6 UOC)

Strand 6 Mechanical Engineering
METH2611 Fluid Mechanics A (3 UOC)
MECH2612 Fluid Mechanics B (3 UOC)
METH2711 Thermodynamics A (3 UOC)
MECH2712 Thermodynamics B (3 UOC)
And choose from the following to complete the strand:
MECH3601 Thermofluid System Design (3 UOC)
MECH3602 Advanced Thermodynamics (3 UOC)
MECH9720 Solar Thermal Energy Design (6 UOC)
MECH9740 Power Plant Engineering (6 UOC)

Strand 7 Civil Engineering
CVEN1021 Civil Engineering Practice 1A (4 UOC)
CVEN1023 Statics (4 UOC)
CVEN1026 Engineering Materials 1 (4 UOC)
CVEN2021 Mechanics of Solids (3 UOC)
CVEN2026 Engineering Materials 2 (3 UOC)

Strand 8 Chemical Engineering
CEIC1020 Introduction to Chemical Engineering (6 UOC)
CHEC2110 Material & Energy Balances (3 UOC)
CEIC2120 Fluid Flow (3 UOC)
CEIC2130 Heat Transfer (3 UOC)
CEIC3110 Thermodynamics (3 UOC)
Strand 9 Physics
MATH2011 Several Variable Calculus (6 UOC)
PHYS2040 Quantum Physics (3 UOC)
PHYS2060 Thermal Physics (3 UOC)

And choose from the following to complete the strand:
PHYS3010 Quantum Mechanics (Advanced) (3 UOC)
PHYS3020 Statistical Physics (3 UOC)
PHYS3080 Solid State Physics (3 UOC)
PHYS3210 Quantum Mechanics (3 UOC)
PHYS3310 Physics of Solid State Devices (3 UOC)
PHYS3770 Laser and Spectroscopy Lab (3 UOC)

PHYS3080 has PHYS3010 or PHYS3210 and PHYS3020 as co-requisites
PHYS3310 has PHYS3080 as a pre-requisite

Strand 10 Faculty of the Built Environment
BENV1072 Design for Energy Efficiency (6 UOC)

And choose from the following to complete the strand:
BLDG1211 Construction Technology 1A (6 UOC)
BLDG1212 Construction Technology 1B (6 UOC)
BLDG1212 requires completion of BLDG1211 - Construction Technology 1A

Professional Electives for Years 3 & 4
Because of timetable clashes not all combinations or courses are possible

Academic Rules
For program rules relating to the Bachelor of Engineering, please refer to the ‘Rules for Progression and Award of Degrees’ under ‘Faculty Information and Assistance’ in this Handbook.

Industrial Experience Requirements
All students must complete at least 60 working days of approved industrial experience prior to enrolment in the final year of their program. The award of the degree is dependent on the completion of the requisite periods of industrial employment at a standard approved by the University.

3657 Renewable Energy Engineering
Bachelor of Engineering BE

Typical Duration
4 years

Minimum UOC for Award
192 units of credit

Typical UOC per Session
24 units of credit

Program Description
This program commenced in 2003 and is a four year full-time program. Discussions on course content have been held with Australian manufacturers, major end-users, the former NSW Sustainable Energy Development Authority, the Australian CRC for Renewable Energy and the industry representative association, Solar Energy Industries Association of Australia. All these organisations have representatives on the Advisory Committee established for the School of Photovoltaic and Renewable Energy Engineering.

Consultation has also taken place as necessary with other schools within UNSW. In particular, the plans for this program have been developed in collaboration with the School of Mechanical Engineering, the School of Electrical Engineering and Telecommunications and the Faculty of the Built Environment. All of these schools will be offering courses within the new program.

Approximately half the material for this new program is in common with the program in Photovoltaics and Solar Energy. However, this new program in Renewable Energy Engineering encompasses a wider range of renewable energy technologies and their use. These include electricity generation from solar thermal systems, photovoltaics, wind turbines, biomass, tidal energy, geothermal systems, and also includes the important areas of solar architecture and the design of energy efficient housing.

Program Objectives and Learning Outcomes
The broad objective of the program is to produce well educated graduates with the basic skills, attributes and knowledge required to practice as professional engineers. The program aims to produce graduates that are self-motivated; lifelong learners; critical thinkers; problem solvers; independent investigators; team players; good communicators; effective managers; and are environmentally, socially and ethically responsible. More specifically, the School hopes to train and educate engineers to cater for the needs of the rapidly growing and evolving renewable energy industry.

Students in each course are assessed by way of assignments, tutorials, laboratory/project work and formal examinations. In a small number of courses/projects students are also assessed on their communication, leadership skills and project management through seminar presentations, reports and their demonstrated ability to manage a group/project.

Program Structure
Plan SOLAA13657

Year 1

ELEC1011 Electrical Engineering 1 (6 UOC)
LLLC1041 Digital Circuits (6 UOC)
MATH1141 Higher Mathematics 1A (6 UOC)
MATH1241 Higher Mathematics 1B (6 UOC)
PHYS1131 Higher Physics 1A (6 UOC)
PHYS1231 Higher Physics 1B (6 UOC)
SOLA1055 Introduction to Renewable Energy Technologies 1 (6 UOC)
SOLA1056 Introduction to Renewable Energy Technologies 2 (3 UOC)
SOLA1060 Chemical Processes for Renewable Energy Systems (3 UOC)

General Education
Please refer to General Education Requirements under ‘Faculty Information and Assistance’ in this Handbook.

Honours
In the Bachelor of Engineering degree programs the same formal program is offered to both Pass students and to those aiming at Honours. Honours will be awarded for meritorious performance over the program: special attention is paid to a candidate's performance in the final year courses and thesis project.

Note: The following courses are offered every second year and will not be offered in 2006. SOLA5051, SOLA5053, SOLA5054, SOLA5055, SOLA5056.

Electives can also be chosen from the courses listed as electives for Electrical Engineering, Mechanical Engineering, Civil Engineering, Environmental Engineering, Computer Science and Engineering and Chemical Engineering for which appropriate prerequisite requirements have been satisfied and which conform to the credit point requirements. Approval to substitute these electives for SOLA professional electives must be sought from the Undergraduate Coordinator. Substitutions will be restricted to a maximum of two.

The program selected by each student must be approved by the Head of School. Not all electives are available each session or each year, nor is the full range available to part-time students. Students are advised each year of the timetable of available electives. Substitution is not permitted if it unduly restricts the range of subjects studied to only one area of Photovoltaic Engineering.

The following courses are offered every second year and will not be offered in 2006. SOLA5051, SOLA5053, SOLA5054, SOLA5055, SOLA5056.
Industrial Experience Requirements

All students must complete at least 60 working days of approved industrial experience prior to enrolment in the final year of their program. The award of the degree is dependent on the completion of the requisite periods of industrial employment at a standard approved by the University.

3655 Photovoltaics and Solar Energy/Bachelor of Science

Bachelor of Engineering Bachelor of Science BE BSc

Typical Duration
5 years

Minimum UOC for Award
240 units of credit

Typical UOC per Session
24 units of credit

Program Description

Students may seek to undertake a five-year full-time combined program leading to the award of the degrees of Bachelor of Engineering in Photovoltaics and Solar Energy and a Bachelor of Science (BE BSc). Students complete a full professionally accredited 4-year Engineering program (which includes Science courses) and add an additional 5th year to augment the Science component of the combined degree program.

Program Objectives and Learning Outcomes

The broad objective of the program is to produce well educated graduates with the basic skills, attributes and knowledge required to practice as professional engineers.

The program aims to produce graduates that are self-motivated; lifelong learners; critical thinkers; problem solvers; independent investigators; team players; good communicators; effective managers; and are environmentally, socially and ethically responsible. More specifically, the School hopes to train and educate engineers to cater for the needs of the rapidly growing and evolving photovoltaics industry.

Students in each course are assessed by way of assignments, tutorials, laboratory/project work and formal examinations. In a small number of courses/projects students are also assessed on their communication, leadership skills and project management through seminar presentations, reports and their demonstrated ability to manage a group/project.

Offering the Photovoltaics and Solar Energy Engineering program in combination with a Bachelor of Science, enables students with broader interests to simultaneously pursue a second degree which will extend their skill set and knowledge beyond the professionally oriented engineering program.

Program Structure

Plan SOLA13655

Students should start discussing their program with representatives of the Faculty of Science as soon as possible, preferably well before enrolment in Year 2. Enquiries should be directed to the Executive Officer in the Science Student Centre, or the Associate Dean for Student Affairs in the Faculty of Science.

Students should work out for themselves the Science program they would like to add to the Photovoltaics and Solar Energy Engineering program. The Faculty of Science section in this Handbook describes the options. There are no special rules on what to include in each year. Students should schedule the Science and Engineering components to suit their preferences while meeting the constraints of timetables and prerequisites.

The Science component must be approved by the Faculty of Science. The final program and schedule must be approved by the School of Photovoltaic and Renewable Energy Engineering.

Honours

(a) BE with Honours

On completion of the requirements for the combined degree a student may qualify for the award of the BE degree with Honours in accordance with the rules for the BE in Photovoltaics and Solar Energy Engineering and the Faculty of Engineering rules for calculation of the grade of Honours (1st Class Honours: a weighted average of 75% or greater; 2nd Class Honours Division 1: a weighted average of 70% or greater; 2nd Class Honours Division 2: a weighted average of 65% or greater, a student being awarded the highest grade of Honours for which they qualify).
Courses making up a full 4-year engineering program described at least 102 units of credit comprising a major in an approved reports and their demonstrated ability to manage a group/project. of courses/projects students are also assessed on their communication, laboratory/project work and formal examinations. In a small number Students in each course are assessed by way of assignments, tutorials, and their disciplinary stream described in the Science section of this Handbook, or a major in Computer Science; and (c) At least 60 days of approved industrial training (required for the award of the BE degree) To meet these requirements, as part of their BE in Photovoltaics and Solar Energy program, students need to complete a strand offered within the Faculty of Science. Please see a list of strands in the program entry for 3642 BE in Photovoltaics and Solar Energy in this Handbook.

3656 Photovoltaics and Solar Energy/Bachelor of Arts

Bachelor of Engineering Bachelor of Arts BE BA

Typical Duration
5 years

Minimum UOC for Award
240 units of credit

Typical UOC per Session
24 units of credit

Program Description

With this combined degree program, students can add their choice of Arts program to the standard Engineering program offered by the School of Photovoltaic and Renewable Energy Engineering. The full range of Arts courses is available. Because the Engineering and Arts programs have many common objectives and content, such as mathematics and physics, only one more year of study is normally required to gain the additional qualification of Bachelor of Arts.

Students should start discussing their program with the Faculty of Arts and Social Sciences office as soon as possible, preferably well before enrolment in Year 2. Students should work out for themselves the Arts program they would like to add to their chosen Engineering program. The Faculty of Arts and Social Sciences section in this Handbook describes the options. The Arts component must be approved by the Faculty of Arts and Social Sciences. The final program and schedule must be approved by the School of Photovoltaic and Renewable Energy Engineering.

Program Objectives and Learning Outcomes

The broad objective of the program is to produce well educated graduates with the basic skills, attributes and knowledge required to practice as professional engineers. The program aims to produce graduates that are self-motivated; lifelong learners; critical thinkers; problem solvers; independent investigators; team players; good communicators; effective managers; and are environmentally, socially and ethically responsible. More specifically, the School hopes to train and educate engineers to cater for the needs of the rapidly growing and evolving photovoltaics industry.

Students in each course are assessed by way of assignments, tutorials, laboratory/project work and formal examinations. In a small number of courses/projects students are also assessed on their communication, leadership skills and project management through seminar presentations, reports and their demonstrated ability to manage a group/project.

Offering the Photovoltaics and Solar Energy Engineering program in combination with a Bachelor of Arts, enables students with broader interests to simultaneously pursue a second degree which will extend their skill set and knowledge beyond the professionally oriented engineering program.

Program Structure

This program comprises five years of full-time study where, in addition to the BE program, students must complete 60 units of credit comprising a major sequence offered by the Faculty of Arts and Social Sciences. Students must apply through UAC for admission into or transfer to this combined program. There are no special rules on what to include in each year. Students should schedule the Arts and Engineering components to suit their preferences while meeting the constraints of timetables and prerequisites. Students who commence this program but subsequently do not wish to proceed with both areas of study, should apply in writing to the Program Authority for permission to revert to the single degree program.

Please contact the School of Photovoltaic and Renewable Energy Engineering and the Faculty of Arts and Social Sciences for more information.

Honours

In the Bachelor of Engineering degree programs the same formal program is offered to both Pass students and to those aiming at Honours. Honours will be awarded for meritorious performance over the program; special attention is paid to a candidate’s performance in the final year courses and thesis project.

In the cases of combined degrees, such as the BE BA, the award of the BA degree at Honours level requires two additional sessions of study. Students wishing to gain a degree at Honours level in Arts as part of their combined degree program must meet all the relevant requirements of the Faculty of Arts and Social Sciences and of the appropriate school concerned. Students may enrol for the Honours year only on the recommendation of the Head of their School in the Faculty of Engineering and with the approval of the Head of the appropriate School in the Faculty of Arts and Social Sciences.

AUSTUDY support is available for the combined degree program including the Honours level.

Academic Rules

1. In additional to the BE program, students must complete 60 units of credit in the BA program with no more than 24 units of credit obtained at Level 1 (i.e. in courses designed for students in their first year of study). Of these 24 Level 1 units of credit, no more than 12 units of credit may be from any one school of department.

2. Students must complete a major sequence (42 units of credit) in one of the following areas: Australian Studies Chinese Studies Development Studies Education English Environmental Studies* European Studies Film French German Studies Greek History History and Philosophy of Science Indonesian Studies Japanese Studies Korean Studies Linguistics Media, Culture & Technology Music Philosophy Policy Studies Political Economy Politics and International Relations Russian Studies Sociology & Anthropology Spanish & Latin American Studies Theatre & Performance Studies Women's and Gender Studies
Students completing an Environmental Studies major sequence must complete, in addition to the 30 Upper Level units of credit specified, 6 level 3 units of credit in an approved course. Students must also complete a minor sequence of 24 units of credit on one of the other areas listed above.

3. Except for courses completed as part of the Environmental Studies major sequences, no more than 12 units of credit may be obtained from subjects in the BA program which are offered by schools outside the Faculty of Arts and Social Sciences.

4. No course included for credit in the BE program can be included in the 60 units of credit required at Rule 1 for the BA program.

5. Students are exempt from the General Education requirement of the BE program. However, students will not be eligible for graduation for the BE until a minimum of 12 units of credit of the BA have been successfully completed.

6. Students who complete the requirements for the BA program and the first two years of the BE BA program may proceed to graduation with the degree of Bachelor of Arts.

7. Students may be awarded Honours in the BA by successful completion of an Honours year. It should be noted that entry into a particular BA Honours program will require completion of courses additional to those specified under rules 1-4.

8. The total units of credit in the combined program is 5 x 48 = 240.

There will be a separate testamur for each part of the combined degree program.

For academic rules relating to the Bachelor of Engineering component of this combined program, please refer to the ‘Rules for Progression and Award of Degrees’ under Faculty Information and Assistance in this Handbook.

Industrial Experience Requirements
All students must complete at least 60 working days of approved industrial experience prior to enrolment in the final year of their program. The award of the degree is dependent on the completion of the requisite periods of industrial employment at a standard approved by the University.

3715 Photovoltaics & Solar Energy/Bachelor of Commerce
BE BCom
Please refer to the program entry for 3715 Bachelor of Engineering Bachelor of Commerce under ‘Program Rules and Information’ in this Handbook.

3658 Renewable Energy Engineering/Bachelor of Science
Bachelor of Engineering Bachelor of Science BE BSc
Typical Duration
5 years
Minimum UOC for Award
240 units of credit
Typical UOC per Session
24 units of credit

Program Description
Students may seek to undertake a five-year full-time combined program leading to the award of two degrees, a Bachelor of Engineering in Renewable Energy Engineering, and a Bachelor of Science (BE BSc). The program is administered by the School of Photovoltaic and Renewable Energy Engineering, however students should seek advice from the Faculty of Science regarding the science component of their program. All programs must be approved by both the School of Photovoltaic and Renewable Energy Engineering and the Faculty of Science.

Program Objectives and Learning Outcomes
The broad objective of the program is to produce well educated graduates with the basic skills, attributes and knowledge required to practice as professional engineers. The program aims to produce graduates that are self-motivated, lifelong learners; critical thinkers; problem solvers; independent investigators; team players; good communicators; effective managers; and are environmentally, socially and ethically responsible. More specifically, the School hopes to train and educate engineers to cater for the needs of the rapidly growing and evolving photovoltaics industry.

Students in each course are assessed by way of assignments, tutorials, laboratory/project work and formal examinations. In a small number of courses/projects students are also assessed on their communication, leadership skills and project management through seminar presentations, reports and their demonstrated ability to manage a group/project.

Offering the Renewable Energy Engineering program in combination with a Bachelor of Science, enables students with broader interests to simultaneously pursue a second degree which will extend their skill set and knowledge beyond the professionally oriented engineering program.

Program Structure
With the combined degree program, students complete a full, professionally accredited 4-year Engineering program (which includes Science courses) and add an additional 5th year to augment the Science component of the combined degree program. In all, a minimum of 102 Units of Credit of Science courses must be taken within the combined program, which must include a Science Major defined in Table A in the Science Handbook, or an approved Major in Computer Science where this is permitted (Computer Science may not be combined with any other computing degree).

For Renewable Energy Engineering students to meet this criteria, they are required to substitute 12 units of credit of approved Science courses for SOLA5050 and SOLA5051 which form part of the standard Renewable Energy Engineering (3657) program.

Approved science courses include any course that forms part of the Maths or Physics strand in the Photovoltaics and Solar Energy (3642) program. Students will then have the opportunity to take SOLA5050 and SOLA5051 in their 3rd or 4th year as a professional elective. Students will need to complete Course Substitution Forms for these substitutions which are available from the School Office.

Award of the Degrees
(i) A student who completes the requirements for both the BE and BSc degrees shall receive at graduation a separate testamur for each of the degrees.
(ii) Both testamurs will be awarded at the same graduation ceremony.
(iii) A student may apply to discontinue the combined BE BSc programs and elect to complete either the BE or the BSc degree in accordance with the rules governing award of that degree. Following the discontinuation of one of the programs (BE or BSc), courses which count toward that program will not in general count toward the remaining single degree unless they meet the single degree requirements in their own right.

Enrolment
(i) An application to enrol as a candidate for the combined program shall be made through UAC or on the prescribed form for international students which shall be lodged with the Registrar at least two calendar months before the commencement of the session in which enrolment is to begin.
(ii) The candidate shall be enrolled as either a full-time or part-time student.

Honours
BE with Honours:
On completion of the requirements for the combined degree a student may qualify for the award of the BE degree with Honours in accordance with the rules for the BE program of specialisation and the Faculty of Engineering rules for calculation of the grade of Honours (1st Class Honours: a weighted average of 75% or greater; 2nd Class Honours Division i: a weighted average of 70% or greater; 2nd Class Honours Division ii: a weighted average of 65% or greater, a student being awarded the highest grade of Honours for which they qualify).

BSc with Honours:
On completion of the requirements for the combined degree a student may be qualified to enrol in an Honours program in the Bachelor of Science and to qualify for the award of the BSc with Honours after successfully completing an additional year of study (48 UOC) as specified in the rules of the Faculty of Science.

Academic Rules
For academic requirements relating to this program, please refer to Program Structure and contact the School of Photovoltaic and Renewable Energy Engineering for more information.
An education in surveying deals with topics such as satellite positioning, geodesy, mapping, survey测量technologies and computations, as applied to applications such as engineering and cadastral surveying, and land management and development in general. With the selection of the appropriate elective courses, a graduate may choose instead to specialise in Spatial Information Systems (SIS), a fast moving IT area. Topics include computing, databases, geographic information systems, GPS technologies, digital mapping, remote sensing and image analysis. SIS applications include land information and resource management, navigation, and telematics.

### 3741 Bachelor of Engineering in Surveying & SIS

The BE in Surveying and SIS is a four year full-time degree program. This program aims to prepare a graduate for a broad range of career opportunities in the various branches of surveying and the numerous SIS disciplines. To this end, the program covers general scientific and IT principles, as well as specialised surveying and SIS topics. This specialisation is provided through the provision of a wide range of elective courses offered in the third and fourth year of the program.

The degree of BE in Surveying and SIS is recognised by the Board of Surveyors of NSW as meeting the requirements for entry as a candidate to become a Registered Surveyor. The degree is also recognised by the Institution of Surveyors, New South Wales, the Spatial Sciences Institute and the Institution of Engineers Australia, for admission as corporate members.

### 3746 Bachelor of Engineering in Surveying & SIS / Bachelor of Science

This combined degree program of five years full-time study enables a student to qualify for the award of the two degrees of Bachelor of Science and Bachelor of Engineering in Surveying & SIS. This program is open to all students who satisfy both the Surveying & SIS and Science entry conditions.

The program is designed for those wishing to broaden their career options.

### 3747 Bachelor of Engineering in Surveying & SIS / Bachelor of Arts

With this combined five year degree program, students can add their choice of an Arts major to the standard, professionally accredited engineering program offered by the School of Surveying and Spatial Information Systems. The program is open to all students who satisfy both the Engineering and Arts entry conditions. The program provides flexibility in the choice of courses within the full Arts program, and enables students to gain a broad education in Arts and Social Sciences, as well as undertake specialised studies in Surveying and SIS.

### 3715 Bachelor of Engineering in Surveying & SIS/Bachelor of Commerce

This combined degree of five ½ years full-time study enables a student to qualify for the award of the two degrees Bachelor of Engineering and Bachelor of Commerce. Please refer to full details under Program Rules and Information in this Handbook.

### 3741 Bachelor of Engineering in Surveying & SIS / Master of Engineering Science

Students may undertake a five year full-time fast-track program leading to the award of the degrees of BE in Surveying & SIS and a Masters of Engineering Science. The aim of the program is to offer an accelerated postgraduate coursework program to high achieving students. In addition to the undergraduate BE degree, graduates receive in-depth specialist training to facilitate employment in discipline specific consulting practices and other specialised disciplines. There is a testamur awarded for each degree. The BE degree will be awarded on the satisfactory completion of the first four years of the program.

### Professional Practice / Industrial Experience

Students are required to complete at least 60 days of Professional Practice experience in each of the above programs.

**Please note:** Most undergraduate programs in the Faculty of Engineering are currently under revision, subject to approval by the University Council. Students commencing in 2006 should refer to the Online Handbook (www.handbook.unsw.edu.au) for up-to-date information about program structures.

### 3741 Surveying and Spatial Information Systems

**Bachelor of Engineering BE**

**Typical Duration**

4 years

**Minimum UOC for Award**

192 units of credit

**Typical UOC per Session**

24 units of credit

**Program Description**

The BE in Surveying and SIS is a four year, full time degree program. This program aims to prepare a graduate for a broad range of career opportunities in the various branches of Surveying and the numerous SIS disciplines. To this end the program covers general scientific and IT principles, as well as specialised Surveying and Spatial Information topics.

Specialisation is provided through the provision of elective courses offered in the third and fourth year of the program.

The degree of BE in Surveying and SIS is recognised by the Board of Surveying and Spatial Information of New South Wales as meeting the requirements for entry as a candidate to become a Registered Surveyor. The degree is also recognised by the Institution of Surveyors, New South Wales, the Spatial Sciences Institute and the Institution of Engineers Australia, for admission as corporate members.

**Program Objectives and Learning Outcomes**

Please contact the School of Surveying & Spatial Information Systems for information on the Program Objectives and Learning Outcomes.

**Program Structure**

**Year 1**

- **GMAT1100** Principles of Surveying (6 UOC)
- **GMAT1150** Survey Methods & Computations (6 UOC)
- **GMAI1200** Visualisation of Spatial Data (6 UOC)
- **GMAT1300** Computing Applications in Geomatics (6 UOC)
- **GMAI1400** Land Studies in Geomatics (6 UOC)
- **PHYS1100** Physics 1 (Geomatic Engineering) (6 UOC)

And one of the following courses:

- **MATH1131** Mathematics 1A (6 UOC)
- **MATH1141** Higher Mathematics 1A (6 UOC)

And one of the following courses:

- **MATH1231** Mathematics 1B (6 UOC)
- **MATH1241** Higher Mathematics 1B (6 UOC)

**Year 2**

- **GMAT2100** Electronic Surveying Instrumentation: Principles & Practice (6 UOC)
- **GMAT2110** Electronic & GPS Positioning Technologies (6 UOC)
- **GMAT2200** Geographic Information Systems & CAD (6 UOC)
- **GMAI2300** Analysis of Observations (3 UOC)
- **GMAT2350** Computing for Spatial Information Sciences (3 UOC)
- **GMAI2700** Geometry of Coordinate Reference Systems (6 UOC)
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>UOC</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH2019</td>
<td>Engineering Mathematics 2CE</td>
<td>6</td>
</tr>
<tr>
<td>MATH2829</td>
<td>Statistics SU</td>
<td>3</td>
</tr>
<tr>
<td>PHYS2969</td>
<td>Physics of Measurement (Geomatic Engineering)</td>
<td>3</td>
</tr>
</tbody>
</table>

*Note:* PHYS2969 may not be offered every year. It can be done in Year 2 or 3.

### Year 3
The program structure for Years 3 and 4 of the program depends on the electives chosen by students.

- **GMAT3200** Geospatial Information Techniques and Applications (6 UOC)
- **GMAT3400** Cadastral Surveying 1 (3 UOC)
- **GMAT3410** Land Economics & Valuation (3 UOC)
- **GMAT3500** Photogrammetry and Remote Sensing (6 UOC)
- **GMAT3150** Field Projects (6 UOC)
- **General Education courses** (6 UOC)
- **Session 1 Electives** (12 UOC)
- **Session 2 Electives** (6 UOC)

#### Electives: Session One
- **BENV2901** City Planning Today (3 UOC)
- **COMP1011** Computing 1A (6 UOC)
- **CVEN0646** Water and Wastewater Engineering (3 UOC)
- **GMAT1100** Surveying Applications (6 UOC)
- **MATH1081** Discrete Mathematics (6 UOC)

#### Electives: Session Two
- **COMP1011** Computing 1A (6 UOC)
- **COMP1021** Computing 1B (6 UOC)
- **COMP2011** Data Organisation (6 UOC)
- **CVEN0656** Soil & Pavement Engineering (3 UOC)
- **GMAT3450** Cadastral Surveying 2 (3 UOC)
- **MATH1081** Discrete Mathematics (6 UOC)

### Year 4
- **GMAT4000** Thesis Part A (3 UOC)
- **GMAT4001** Thesis Part B (9 UOC)
- **GMAT4700** Project Management 1 (3 UOC)
- **GMAT4750** Project Management 2 (3 UOC)
- **GMAT4850** Surveying and Spatial Information Systems for Sustainability (3 UOC)

#### Session 1 Electives
- **GMAT4900** Principles of Global Navigation Satellite System (GNSS) Positioning (6 UOC)
- **GMAT4910** Modern Navigation & Positioning Technologies (6 UOC)
- **GMAT9211** Introduction to Geodesy (6 UOC)
- **MINE3410** Coal Mining Systems (6 UOC)
- **PLAN1122** Development Processes (6 UOC)
- **PLAN2111** Economics of Planning and Development (6 UOC)

#### Electives
Any remaining Year 3 electives and

- **GEOH3911** Environmental Impact Assessment (6 UOC)
- **GMAT4100** Project in Surveying and SIS (6 UOC)
- **GMAT4400** Land Management & Development Project 1 (6 UOC)
- **GMAT4410** Land Subdivision & Development (3 UOC)
- **GMAT4450** Land Management & Development Project 2 (6 UOC)
- **GMAT4900** Principles of Global Navigation Satellite System (GNSS) Positioning (6 UOC)

#### Session 2 Electives
- **GMAT4910** Modern Navigation & Positioning Technologies (6 UOC)
- **GMAT9211** Introduction to Geodesy (6 UOC)
- **MINE3410** Coal Mining Systems (6 UOC)
- **PLAN1122** Development Processes (6 UOC)
- **PLAN2111** Economics of Planning and Development (6 UOC)

The following electives 5 HPW, 6UOC courses may be chosen once COMP1011, COMP1021 and MATH1081 have been completed:

- **COMP2021** Digital System Structures (6 UOC)
- **COMP2041** Software Construction: Techniques and Tools (6 UOC)
- **COMP2411** Logic and Logic Programming (6 UOC)
- **COMP3111** Software Engineering (6 UOC)
- **COMP3121** Algorithms and Programming Techniques (6 UOC)
- **COMP3131** Programming Languages and Compilers (6 UOC)
- **COMP3211** Computer Architecture (6 UOC)
- **COMP3221** Microprocessors and Embedded Systems (6 UOC)
- **COMP3231** Operating Systems (6 UOC)
- **COMP3311** Database Systems (6 UOC)
- **COMP3331** Computer Networks and Applications (6 UOC)
- **COMP3411** Artificial Intelligence (6 UOC)
- **COMP3511** Human Computer Interaction (6 UOC)

and other electives with the approval of the Head of School.

The School has available a list of suggested subject selections for course streams in Cadastral Surveying and Land Development as well as GPS and Geographic Information Systems. Please contact the School Office.

**Total HPW Session 1 & 2 depends on electives chosen**

**Total units of credit:** 48

### General Education
Please refer to General Education Requirements under ‘Faculty Information and Assistance’ in this Handbook.

### Honours
In the Bachelor of Engineering degree programs the same formal program is offered to both pass students and to those aiming at Honours. Honours will be awarded for meritorious performance over the program: special attention is paid to a candidate’s performance in the final year courses and thesis project.

In the cases of combined degrees, such as the BE BA or the BE BSc, the award of the BA or BSc degree at Honours level requires two additional sessions of study.

### Academic Rules
For program rules relating to the Bachelor of Engineering, please refer to the 'Rules for Progression and Award of Degrees' under 'Faculty Information and Assistance' in this Handbook.

### Industrial Experience Requirements
All students must complete at least 60 working days of approved professional practice prior to enrolment in the final year of their program. The award of the degree is dependent on the completion of the requisite periods of professional practice at a standard approved by the University.

### Field Excursions
Students may have to complete a number of field projects as part of their program and are expected to complete all necessary fieldwork for any course. They must be prepared to pay all the appropriate costs associated with these field projects, and must be in attendance at all scheduled examinations, except in exceptional circumstances.

### Professional Recognition
The degree of BE in Surveying and Spatial Information Systems is recognised by the Board of Surveying and Spatial Information of New South Wales as meeting requirements for entry as a candidate to become a Registered Surveyor in New South Wales. The degree is recognised by the Institution of Surveyors, New South Wales, the Spatial Sciences Institute, and the Institute of Engineers Australia (IEAust.) for admission as corporate members.

Students wishing to become Registered Surveyors after graduation are advised to gain practical experience under a Registered Surveyor during their program. Details are obtainable from the Registrar, Board of Surveying and Spatial Information of NSW, P.O. Box 143, Bathurst NSW 2795.

### 3746 Surveying and Spatial Information Systems/Bachelor of Science

#### Bachelor of Engineering Bachelor of Science BE BSc

- **Typical Duration:** 5 years
- **Minimum UOC for Award:** 240 units of credit
- **Typical UOC per Session:** 24 units of credit

#### Program Description
This combined degree program of five years full-time study enables a student to qualify for the award of the two degrees of Bachelor of Engineering in Surveying & SIS and Bachelor of Science. This program is open to all students who satisfy both the Surveying & SIS and Science entry conditions.

The program is designed for those wishing to broaden their career options.

#### Program Structure

##### Year 1

**Session One**

- **COMP1011** Computing 1A (6 UOC)
- **GMAT1100** Principles of Surveying (6 UOC)
- **PHYS1189** Physics 1 (Geomatic Engineering) (6 UOC)
And ONE of the following courses:
MATH1131 Mathematics 1A (6 UOC)
MATH1141 Higher Mathematics 1A (6 UOC)

Session Two
COMP1021 Computing 1B (6 UOC)
MATH1150 Survey Methods & Computations (6 UOC)

And ONE of the following courses:
MATH1231 Mathematics 1B (6 UOC)
MATH1241 Higher Mathematics 1B (6 UOC)
and Year 1 GMAT elective either
GMAT1400 Land Studies in Geomatics (6 UOC)

or
GMAT1200 Visualisation of Spatial Data (6 UOC)

Year 2
Session One
GMAT2100 Electronic Surveying Instrumentation: Principles & Practice (6 UOC)
GMAT2700 Geometry of Coordinate Reference Systems (6 UOC)
MATH1081 Discrete Mathematics (6 UOC)
MATH2289 Statistics 5U (3 UOC)
PHYS2969 Physics of Measurement (Geomatic Engineering) (3 UOC)

Session Two
COMP2011 Data Organisation (6 UOC)
GMAT2110 Electronic & GPS Positioning Technologies (6 UOC)
GMAT2200 Geographic Information Systems & CAD (6 UOC)
GMAT2300 Analysis of Observations (3 UOC)
and Year 2 free elective
Year 3
Session One
GMAT3200 Geospatial Information Techniques and Applications (6 UOC)
GMAT3400 Cadastral Surveying 1 (3 UOC)
COMP2xxx (a level 2 computing elective)

Year 3 electives
CVEN6646 Water and Wastewater Engineering (3 UOC)
GMAT3100 Surveying Applications (6 UOC)
General Education course/s

Year 4
Session One
GMAT4700 Surveying and Spatial Information Systems for Sustainability (3 UOC)
GMAT4850 Surveying and Spatial Information Systems for Sustainability (3 UOC)
COMP3 (a level 3 computing elective)

Year 4 GMAT electives from:
GMAT4400 Land Management & Development Project 1 (6 UOC)
GMAT4410 Land Subdivision & Development (3 UOC)
GMAT4900 Principles of Global Navigation Satellite System (GNSS) Positioning (6 UOC)

Session Two
GMAT4750 Project Management 2 (3 UOC)
COMP3XXX (a level 3 computing elective) and Year 4 GMAT electives from:
GMAT4020 Project in Surveying and SIS (6 UOC)
GMAT4450 Land Management & Development Project 2 (6 UOC)
GMAT4910 Modern Navigation & Positioning Technologies (6 UOC)
GMAT1921 Introduction to Geodesy (6 UOC)

Year 5
Session One
GMAT14000 Thesis Part A (3 UOC)
COMP3 (2 level 3 Comp Science & Engineering electives totalling 12 units of credit)
Year 5 electives (totalling 9 units of credit)

Session Two
GMAT4001 Thesis Part B (9 UOC)
COMP3XXX (a level 3 Comp Scie & Eng. elective), and Year 5 electives (9 units of credit).

Year 5 electives may be chosen from any of the remaining GMAT Year 4 electives or COMP level 3 or 4 courses.

Other arrangements of electives are possible with the approval of the Head of School.

Honours
In the Bachelor of Engineering degree programs the same formal program is offered to both Pass students and to those aiming at Honours. Honours will be awarded for meritorious performance over the program: special attention is paid to a candidate’s performance in the final year courses and thesis project.

In the cases of combined degrees, such as the BE BA or the BE BSc, the award of the BA or BSc degree at Honours level requires two additional sessions of study.

Students wishing to gain a degree at Honours level in Arts or in Science as part of their combined degree program must meet all the relevant requirements of the Faculty of Arts and Social Sciences or the Faculty of Science and of the appropriate school concerned. Students may enrol for the Honours year only on the recommendation of the Head of their School in the Faculty of Engineering and with the approval of the Head of the appropriate Arts or Science School. For Honours in Science, approval must also be sought from the Science Cross Faculty Standing Committee or its delegated authorities. AUSTUDY support is available for the combined degree program including the Honours level.

Academic Rules
For academic rules relating to the combined degree Bachelor of Engineering Bachelor of Science, please refer to the ‘Rules for Progression and Award of Degrees’ under ‘Faculty Information and Assistance’ in this Handbook.

Industrial Experience Requirements
All students must complete at least 60 working days of approved professional practice prior to enrolment in the final year of their program. The award of the degree is dependent on the completion of the requisite periods of profession practice at a standard approved by the University.

Field Excursions
Students may require to complete a number of field projects as part of their program and are expected to complete all necessary fieldwork for any course. They must be prepared to pay all the appropriate costs associated with these field projects, and must be in attendance at all scheduled examinations, except in exceptional circumstances.

Professional Recognition
The degree of BE in Surveying and Spatial Information Systems is recognised by the Board of Surveying and Spatial Information of New South Wales as meeting requirements for entry as a candidate to become a Registered Surveyor in New South Wales. The degree is recognised by the Institution of Surveyors, New South Wales, the Spatial Sciences Institute, and the Institution of Engineers Australia (IEAust.) for admission as corporate members.

Students wishing to become Registered Surveyors after graduation are advised to gain practical experience under a Registered Surveyor during their program. Details are obtainable from the Registrar, Board of Surveying and Spatial Information of NSW, P.O. Box 143, Bathurst NSW 2795.

3747 Surveying and Spatial Information Systems/Bachelor of Arts

Bachelor of Engineering Bachelor of Arts BE BA

Typical Duration
5 years

Minimum UOC for Award
240 units of credit

Typical UOC per Session
24 units of credit

Program Description
With this combined five year degree program, students can add their choice of an Arts major to the standard, professionally accredited
engineering program offered by the School of Surveying and Spatial Information Systems. The program is open to all students who satisfy both the Engineering and Arts entry conditions. The program provides flexibility in the choice of courses within the full Arts program and enables students to gain a broad education in Arts and Social Sciences, as well as to engage in specialised studies in Surveying and Spatial Information Systems.

**Program Structure**

The program is administered by the School of Surveying and Spatial Information Systems.

Students should start discussing their program with representatives of the School and the Faculty of Arts and Social Sciences as soon as possible, preferably well before enrolment. Students should work out for themselves the BA program they would like to add to their Surveying and Spatial Information Systems program. The Faculty of Arts and Social Sciences section in this Handbook describes the options, and the School of Surveying and Spatial Information Systems can supply sample programs.

There are no special rules on what to include in each year. Students should schedule the Arts and Surveying and Spatial Information Systems components to suit their preferences whilst meeting the constraints of timetables and prerequisites.

The Arts component must be approved by the Faculty of Arts and Social Sciences.

The final program and schedule must be approved by the School of Surveying and Spatial Information Systems.

**Honours**

In the Bachelor of Engineering degree programs the same formal program is offered to both Pass students and to those aiming at Honours. Honours will be awarded for meritorious performance over the program: special attention is paid to a candidate's performance in the final year courses and thesis project.

In the cases of combined degrees, such as the BE BA or the BE BSc, the award of the BA or BSc degree at Honours level requires two additional sessions of study.

Students wishing to gain a degree at Honours level in Arts or in Science as part of their combined degree program must meet all the relevant requirements of the Faculty of Arts and Social Sciences or the Faculty of Science and of the appropriate school concerned. Students may enrol for the Honours year only on the recommendation of the Head of their School in the Faculty of Engineering and with the approval of the Head of the appropriate Arts or Science School. For Honours in Science, approval must also be sought from the Science Cross Faculty Standing Committee or its delegated authorities. AUSTUDY support is available for the combined degree program including the Honours level.

**Academic Rules**

1. In addition to the BE program, students must complete 60 units of credit in the BE program with no more than 24 units of credit obtained at Level 1 (i.e. in courses designed for students in their first year of study). Of these 24 Level 1 units of credit, no more than 12 units of credit may be from any one school of department.

2. Students must complete a major sequence (42 units of credit) in one of the following areas:
   - Australian Studies
   - Chinese Studies
   - Development Studies
   - Education
   - English
   - Environmental Studies*
   - European Studies
   - Film
   - French
   - German Studies
   - Greek
   - History
   - History and Philosophy of Science
   - Indonesian Studies
   - Japanese Studies
   - Korean Studies
   - Linguistics
   - Media, Culture & Technology
   - Music
   - Philosophy
   - Policy Studies
   - Political Economy
   - Politics and International Relations
   - Russian Studies
   - Sociology & Anthropology
   - Spanish & Latin American Studies
   - Theatre & Performance Studies
   - Women's and Gender Studies

   *Students completing an Environmental Studies major sequence must complete, in addition to the 10 Upper Level units of credit specified, 6 level 1 units of credit in an approved course. Students must also complete a minor sequence of 24 units of credit on one of the other areas listed above.

3. Except for courses completed as part of the Environmental Studies major sequences, no more than 12 units of credit may be obtained from subjects in the BA program which are offered by schools outside the Faculty of Arts and Social Sciences.

4. No course included for credit in the BE program can be included in the 60 units of credit required at Rule 1 for the BA program.

5. Students are exempt from the General Education requirement of the BE program. However, students will not be eligible for graduation for the BE until a minimum of 12 units of credit of the BA have been successfully completed.

6. Students who complete the requirements for the BA program and the first two years of the BE BA program may proceed to graduation with the degree of Bachelor of Arts.

7. Students may be awarded Honours in the BA by successful completion of an Honours year. It should be noted that entry into a particular BA Honours program will require completion of courses additional to those specified under rules 1-4.

8. The total units of credit in the combined program is 5 x 48 = 240.

There will be a separate testamur for each part of the combined degree program.

For academic rules relating to the Bachelor of Engineering component of this combined program, please refer to the ‘Rules for Progression and Award of Degrees’ under Faculty Information and Assistance in this Handbook.

**Industrial Experience Requirements**

All students must complete at least 60 working days of approved professional practice prior to enrolment in the final year of their program. The award of the degree is dependent on the completion of the requisite periods of professional practice at a standard approved by the University.

**Field Excursions**

Students may have to complete a number of field projects as part of their program and are expected to complete all necessary fieldwork for any course. They must be prepared to pay all the appropriate costs associated with these field projects, and must be in attendance at all scheduled examinations, except in exceptional circumstances.

**Professional Recognition**

The degree of BE in Surveying and Spatial Information Systems is recognised by the Board of Surveying and Spatial Information of New South Wales as meeting requirements for entry as a candidate to become a Registered Surveyor in New South Wales. The degree is recognised by the Institution of Surveyors New South Wales, the Spatial Sciences Institute, and the Institution of Engineers Australia (IEAust.) for admission as corporate members.

Students wishing to become Registered Surveyors after graduation are advised to gain practical experience under a Registered Surveyor during their program. Details are obtainable from the Registrar, Board of Surveying and Spatial Information of NSW, P.O. Box 143, Bathurst NSW 2795.

**3715 Surveying & Spatial Information Systems/Bachelor of Commerce**

**BE BCom**

Please refer to the program entry for 3715 Bachelor of Engineering Bachelor of Commerce under ‘Program Rules and Information’ in this Handbook.
Bachelor of Engineering Master of Biomedical Engineering
BE MBiomedE

Please contact Biomedical Engineering or go to the Biomedical Engineering website (www.gsbme.unsw.edu.au) for specific information on the concurrent degrees.

3757 Bachelor of Engineering (Biometrics)/Master of Biomedical Engineering
3048 Bachelor of Engineering (Chemical Engineering)/Master of Biomedical Engineering
3728 Bachelor of Engineering (Computer Engineering)/Master of Biomedical Engineering
3727 Bachelor of Engineering (Electrical Engineering)/Master of Biomedical Engineering
3138 Bachelor of Engineering (Materials Science)/Master of Biomedical Engineering
3683 Bachelor of Engineering (Mechanical Engineering)/Master of Biomedical Engineering
3688 Bachelor of Engineering (Mechatronic Engineering)/Master of Biomedical Engineering
3749 Bachelor of Engineering(Software Engineering)/Master of Biomedical Engineering
3723 Bachelor of Engineering(Telecommunications Engineering)/Master of Biomedical Engineering

Courses offered in each program can be found listed under the relevant undergraduate teaching school.

Further Study
Postgraduate coursework programs in Biomedical Engineering are also offered. These are the Master of Biomedical Engineering, the Master of Engineering Science in Biomedical Engineering, and the Graduate Diploma in Biomedical Engineering.

Biomedical Engineering research programs offerings are the Master of Science, Master of Engineering and PhD. Research areas can be found listed in the Postgraduate Handbook or on the school website: www.gsbme.unsw.edu.au

Please note: Most undergraduate programs in the Faculty of Engineering are currently under revision, subject to approval by the University Council. Students commencing in 2006 should refer to the Online Handbook (www.handbook.unsw.edu.au) for up-to-date information about program structures.
A Message from the Dean
Welcome to the UNSW Law Faculty. The Law Faculty is committed to teaching and scholarly excellence within a setting of social responsibility. We are also dedicated to preserving the highest levels of student satisfaction in their legal and taxation education.

A Distinctive Faculty
The UNSW Law Faculty has a number of important distinguishing features. The Faculty believes that intellectual and social development is best honed when student views are recognised, appreciated and shared. The Law School, from its inception, began a new tradition of teaching in Australia: interactive teaching and learning in small groups. This mode has since become a model in other law faculties as well. We believe that teaching in small groups of around 40 students stimulates the educational process. The result is a more robust and sharpened learning environment that helps students to develop superior powers of legal analysis.

Our Tax School, Atax, offers a unique distance education program in taxation that is consistent with small group teaching. Our specialised legal centres provide hands-on small group interaction in which students can learn about human rights, indigenous legal rights, constitutional and comparative law, and financial, consumer and youth law. Our library staff further complement small group teaching with their own strong backgrounds in research and service. Last, but not least, our law student representatives actively engage in Law Faculty governance on key committees and in day-to-day administration of Faculty affairs.

An Educational and Professional Environment
Legal education at UNSW reflects two parallel traditions. It combines the tradition of a university education with the professional education of lawyers and those engaged in the taxation profession. While these two traditions are sometimes viewed as disparate, the UNSW Law Faculty treats them as complementary, indeed as mutually reinforcing. We stress the virtue of exploring and applying ideas both as a matter of intellectual inquiry and in applying legal principles to diverse social contexts.

We also hold that a legal education is intended to expose students to social responsibility in its diverse manifestations. We recognise such social responsibility variously, such as by requiring students to participate in the work of the Kingsford Legal Centre (the Faculty’s community legal centre).

We believe, too, that social and legal institutions are mirrored in diversity, not in the pre-emptive interests of any one social group to the exclusion of all others. The UNSW Law Faculty provides education in human rights and consumer law. It also does so in corporate and commercial law. Legal education is a tapestry of difference, not of monolithic uniformity.

We invite you to join us at the UNSW Law Faculty. We challenge you to question tried and tested ideas. We encourage you to study through discourse and to learn by example. Legal education at UNSW is concerned, not only with higher values, but also with applying them in an ethical, coherent and ultimately, sustainable manner.

Leon Trakman, SJD (Harvard)
Dean and Professor of Law
Faculty of Law

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School of Law

Information and Assistance

Who Can Help?
If you require advice about enrolment, degree requirements, progression within programs or information about course content and requirements, contact the School of Law Student Administration Office.
Please refer to the School of Law homepage for timetables and general information: www.law.unsw.edu.au

Advanced Standing
The policy of the School of Law is to grant credit for courses which have been successfully completed in another School of Law where those courses, in the opinion of the School, are equivalent in content and depth to comparable courses at UNSW. Applicants who have completed a full law degree in another country are normally granted credit equivalent to one third of the UNSW degree. All matters regarding credit are at the discretion of the School.

Computing Information
The School of Law manages a multimedia computer laboratory equipped with 26 PCs for instructional purposes. In addition, law students have access to two multimedia computer workspaces which contain 15 networked computers and smart-card controlled laser printers. Research students have access to two dedicated computer workspaces equipped with 21 multimedia computers and printing facilities. The School maintains a World Wide Web server, a CD-ROM server and a document scanning and Character Recognition facility. All students have access to a range of research tools from the computer desktops including email, online and CD-ROM based national and international legal databases, library catalogues and World Wide Web access. For more information, please refer to the booklet ‘IT Resources for Students’ or visit the website at www.law.unsw.edu.au

Course Descriptions
Descriptions of courses offered in 2006 can be found in alphabetical order by the course code at the back of this Handbook or in the Online Handbook at www.handbook.unsw.edu.au

Enrolment Procedures
Continuing Students
Continuing students should follow the procedures publicised at the end of the year.

New Students
New students are informed of enrolment procedures at the time of offer.

Full-time Status
The majority of Law programs are full-time and require attendance at classes four days per week. Students are reminded that a full-time program is intended for students who devote the principal part of their available time to their program. Any additional commitment, in the form of paid work, training for sport at a significant level of achievement or voluntary work in community organisations, is bound to have an effect on a student’s work. Past experience shows that additional commitments beyond 10–15 hours per week almost invariably have an adverse effect on student performance and in some cases have led directly to failure. Students are strongly advised that, if an outside commitment of this order is likely to be maintained consistently over a session, the commitment should be discussed in advance with the Associate Dean (Undergraduate). It should be noted, however, that it is the individual teachers who determine whether outside commitments should constitute grounds for consideration in meeting the requirements of particular courses.

Part-time Status
Students undertaking the part-time program for Bachelor of Laws are expected to attend classes on two afternoons per week during the academic year, usually between 2pm and 6pm on Day 1 and 2pm to 6pm on Day 2.

General Education Requirements
Law students enrolled in the Bachelor of Jurisprudence Bachelor of Laws program must complete General Education requirements. All other law students are deemed to have satisfied the General Education requirement. Detailed information about General Education courses is available in the General Education section of this Handbook.

Guidelines for Maximum Workload
The sequence of study for each program is set out under ‘Program Rules and Information’ in this section of the Handbook. Any student wishing to vary their program (law or non-law) by enrolling in a reduced program or in courses which do not conform to the normal sequence, must seek approval from the Associate Dean (Undergraduate). Undergraduate students wishing to overload must submit an ‘Overload Request’ form at the Student Administration Enquiry Counter. Permission can only be given on the basis of a written application in advance of the relevant session.

Rules for Progression
The School of Law uses a range of assessment methods to assess students. These vary from course to course and include formal examinations, take-home examinations, research projects, class participation, essays and moots (mock trials). Progression in programs is generally dependent on the successful completion of prerequisites and corequisites for courses as listed in the schedules of courses for each program. Students are required to have completed 84 units of credit of core Law courses before enrolling in any elective course.
Summary of Programs

The following programs are available:

Law Programs

Bachelor of Laws (three years full-time), this program is available only to graduates or graduands – program code 4790

Bachelor of Laws (six years part-time), this program is only available to graduates and people over 21 years of age who have completed the University Preparation Program to the requisite standard – program code 4791

Jurisprudence Program

Bachelor of Jurisprudence (three years full-time), this program is only available as part of the combined Juris/Law program. Students unable to complete the requirements for the combined degree may apply to graduate with a Juris.

Combined Programs

Bachelor of Architecture and Bachelor of Laws (seven years full-time) – program code 4705

Bachelor of Art Theory and Bachelor of Laws (five years full-time) – program code 4703

Bachelor of Arts and Bachelor of Laws (five years full-time) – program code 4760

Bachelor of Arts (Media and Communications) and Bachelor of Laws (five years full-time) – program code 4764

Bachelor of Commerce and Bachelor of Laws (five years full-time) – program code 4731

Bachelor of Economics and Bachelor of Laws (five years full-time) – program code 4744

Bachelor of Engineering and Bachelor of Laws (six years full-time) – program codes 4775 and 4777

Bachelor of International Studies and Bachelor of Laws (six years full-time) – program code 4765

Bachelor of Jurisprudence and Bachelor of Laws (five years full-time) – program code 4780

Bachelor of Planning and Bachelor of Laws (seven years full-time) – program code 4707

Bachelor of Science and Bachelor of Laws (five years full-time) – program code 4770

Bachelor of Social Science and Bachelor of Laws (five years full-time) – program code 4761

Bachelor of Social Work and Bachelor of Laws (six years full-time) – program code 4785

Admission to Combined Programs

Students who satisfy the entry requirements may enter the combined programs directly in Year 1. Alternatively, students may apply to transfer into a combined law degree after the completion of one year of study (48 units of credit). Admission is based on a combination of UAI score and tertiary results.

Program Transfers: Students enrolled in combined law programs who discover they have made a wrong choice of program should consult a student advisor in the School of Law as soon as possible. It is sometimes possible to effect changes without seriously affecting progress in the new program; the earlier the change can be made, the easier the transition.

Program Rules and Information

School of Law

4790 Bachelor of Laws (Full-time)

LLB

Typical Duration
3 years

Minimum UOC for Award
144 units of credit

Typical UOC per Session
24 units of credit

Program Description

This program enables students who have already completed another degree to obtain the Bachelor of Laws degree.

1. Duration/Award:
The program is a three-year full-time program leading to the award of Bachelor of Laws (LLB).

2. Entry Requirement:
The program is available to graduates or graduands of another Faculty of UNSW or another approved university.

3. Attendance Requirement:
This program is full-time and requires attendance at classes for four days per week. A part-time version of this program is available for those students who are unable to study full-time (see program 4791).
Program Objectives and Learning Outcomes

Students will acquire a sound knowledge base in the discipline of Law due to their completion of a sequence of core courses and a wide range of elective courses.

Program Structure

Approved Sequence

There is no assumed knowledge requirement for entry to Faculty of Law courses but students must study law courses in an approved sequence. An approved sequence of courses for the program is set out below; other sequences may be approved in special circumstances.

Year 1

Session One

LAW1001 Criminal Law 1 (6 UOC)
LAW1052 Foundations of Law (6 UOC)
LAW1071 Contracts 1 (3 UOC)
LAW2140 Public Law (3 UOC)
LAW6210 Law, Lawyers and Society (6 UOC)

Session Two

LAW1011 Criminal Law 2 (6 UOC)
LAW1061 Torts (6 UOC)
LAW1072 Contracts 2 (6 UOC)
LAW2160 Administrative Law (6 UOC)

Year 2

LAW2150 Property, Equity and Trusts 1 (6 UOC)
LAW2152 Property and Equity 2 (6 UOC)
LAW2153 Federal Constitutional Law (6 UOC)
LAW2311 Litigation 1 (6 UOC)
LAW2321 Litigation 2 (6 UOC)
LAWS4010 Business Associations 1 (6 UOC)
LAWS7420 Advanced Legal Research (2 UOC)
Law elective (4 UOC)

Plus ONE of the following courses
LAW6320 Legal Theory (6 UOC)
LAW682U Law and Social Theory (6 UOC)

Year 3

Law electives (48 UOC)

Total Units 144 UOC

UOC Distribution

<table>
<thead>
<tr>
<th>Core courses</th>
<th>Electives</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>17</td>
<td>6 x 8 UOC, 1 x 4 UOC</td>
<td>52</td>
</tr>
<tr>
<td></td>
<td></td>
<td>144</td>
</tr>
</tbody>
</table>

Academic Rules

Rules Relating to the Bachelor of Laws Program and the Bachelor of Jurisprudence Program

1. (1) The Bachelor of Laws degree may be conferred on the completion of any of the following programs:
   (a) Bachelor of Laws
   (b) Bachelor of Architecture and Bachelor of Laws
   (c) Bachelor of Arts and Bachelor of Laws
   (d) Bachelor of Arts (Asian Studies) and Bachelor of Laws
   (e) Bachelor of Arts (Media and Communications) and Bachelor of Laws
   (f) Bachelor of Art Theory and Bachelor of Laws
   (g) Bachelor of Commerce and Bachelor of Laws
   (h) Bachelor of Economics and Bachelor of Laws
   (i) Bachelor of Engineering and Bachelor of Laws
   (j) Bachelor of International Studies and Bachelor of Laws
   (k) Bachelor of Jurisprudence and Bachelor of Laws
   (l) Bachelor of Science and Bachelor of Laws
   (m) Bachelor of Social Science and Bachelor of Laws
   (n) Bachelor of Social Work and Bachelor of Laws
   (o) Bachelor of Planning and Bachelor of Laws

1. (2) The programs set out in paragraphs (b) to (o) of subrule (1) hereof are referred to in these Rules as ‘combined programs’, and shall be programs of full-time study of not less than five years’ duration.

1. (3) The program leading to the award of the degree of Bachelor of Laws (otherwise than as part of a combined program) shall be either:
   (a) a program of part-time study which (unless otherwise approved by the Faculty for special reasons) shall be of not less than six years’ duration; or
   (b) a program of full-time study of not less than three years’ duration, but no student shall be eligible to enrol in such a program unless he or she is a graduate or graduand of any Faculty of the University or another university approved by the Faculty, or has other qualifications or experience deemed acceptable by the Faculty.

2. No person shall be permitted to enrol in any program in the Faculty of Law at the same time as he or she is enrolled for any other degree or diploma in the University or elsewhere, except as may be necessary to complete the requirements of a combined program, or with the approval of the Faculty.

3. Where, in these Rules, reference is made to the requirement that a candidate shall complete a program, the requirement shall be construed as meaning that the candidate shall:
   (1) attend such lectures, seminars, tutorials or other classes, and such court sessions, offices or institutions as may be described in that program, and maintain a satisfactory standard of preparation for and participation in such classes and activities;
   (2) perform satisfactorily in such exercises, essays, theses and other work (whether written, oral or practical) as may be prescribed in that program and undertake any prescribed reading related to that program; and
   (3) attain a satisfactory standard in the examination or examinations, and such other means of assessment of a candidate’s results in that program as the Faculty may prescribe.

4. The Faculty of Law shall specify a number of units of credit in respect of each Law course for which credit is given in the award of the degree of Bachelor of Jurisprudence or the degree of Bachelor of Laws (whether taken separately or as part of a combined program). On completion of the course, a candidate shall be credited with the specified number of points.

5. (1) Compulsory Courses

In the case of the Bachelor of Laws degree program credit shall be given for the courses set out in the following table, each of which shall, unless otherwise determined by the Faculty, carry the number of units of credit (if any) specified.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>UOC</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAW1001</td>
<td>Criminal Law 1</td>
<td>6</td>
</tr>
<tr>
<td>LAW1011</td>
<td>Criminal Law 2</td>
<td>6</td>
</tr>
<tr>
<td>LAW1052</td>
<td>Foundations of Law</td>
<td>6</td>
</tr>
<tr>
<td>LAW1071</td>
<td>Contracts 1</td>
<td>3</td>
</tr>
<tr>
<td>LAW2140</td>
<td>Public Law</td>
<td>3</td>
</tr>
<tr>
<td>LAW6210</td>
<td>Law, Lawyers and Society</td>
<td>6</td>
</tr>
<tr>
<td>LAW2150</td>
<td>Property, Equity and Trusts 1</td>
<td>6</td>
</tr>
<tr>
<td>LAW2152</td>
<td>Property and Equity 2</td>
<td>6</td>
</tr>
<tr>
<td>LAW2153</td>
<td>Federal Constitutional Law</td>
<td>6</td>
</tr>
<tr>
<td>LAWS2111</td>
<td>Litigation 1</td>
<td>6</td>
</tr>
<tr>
<td>LAWS2121</td>
<td>Litigation 2</td>
<td>6</td>
</tr>
<tr>
<td>LAWS4010</td>
<td>Business Associations 1</td>
<td>6</td>
</tr>
<tr>
<td>LAWS7420</td>
<td>Advanced Legal Research</td>
<td>2</td>
</tr>
<tr>
<td>Law elective</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>LAW6320</td>
<td>Legal Theory</td>
<td>6</td>
</tr>
<tr>
<td>LAW682U</td>
<td>Law and Social Theory</td>
<td>6</td>
</tr>
</tbody>
</table>

Total Units 92 UOC
5.3 Elective Courses

The following is a list of all approved electives. Approximately 25-30 electives are made available each session. The number of students that may take an elective may be limited.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>UOC</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAWS2282</td>
<td>Advanced Administrative Law</td>
<td>(8 UOC)</td>
</tr>
<tr>
<td>LAWS2025</td>
<td>Advanced Contract Law</td>
<td>(8 UOC)</td>
</tr>
<tr>
<td>LAWS1002</td>
<td>Advanced Criminal Law</td>
<td>(8 UOC)</td>
</tr>
<tr>
<td>LAWS2333</td>
<td>Advanced Legal &amp; Social Theory</td>
<td>(8 UOC)</td>
</tr>
<tr>
<td>LAWS2052</td>
<td>Advanced Revenue Law</td>
<td>(8 UOC)</td>
</tr>
<tr>
<td>LAWS2272</td>
<td>Australian Immigration Law and Practice</td>
<td>(8 UOC)</td>
</tr>
<tr>
<td>LAWS2212</td>
<td>Australian Indigenous Law Reporter</td>
<td>(8 UOC)</td>
</tr>
<tr>
<td>LAWS2183</td>
<td>Australian Journal of Human Rights</td>
<td>(8 UOC)</td>
</tr>
<tr>
<td>LAWS1092</td>
<td>Business Associations 2</td>
<td>(8 UOC)</td>
</tr>
<tr>
<td>LAWS2392</td>
<td>Children and the Law</td>
<td>(8 UOC)</td>
</tr>
<tr>
<td>LAWS2123</td>
<td>Chinese Legal System</td>
<td>(8 UOC)</td>
</tr>
<tr>
<td>LAWS2303</td>
<td>Clinical Legal Experience (Intensive)</td>
<td>(16 UOC)</td>
</tr>
<tr>
<td>LAWS2304</td>
<td>Clinical Legal Experience</td>
<td>(8 UOC)</td>
</tr>
<tr>
<td>LAWS2305</td>
<td>Clinical Program</td>
<td>(1 UOC)</td>
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<tr>
<td>LAWS2026</td>
<td>Commercial and Consumer Sales</td>
<td>(8 UOC)</td>
</tr>
<tr>
<td>LAWS2024</td>
<td>Commercial Finance</td>
<td>(8 UOC)</td>
</tr>
<tr>
<td>LAWS2110</td>
<td>Comparative Constitutional Law</td>
<td>(8 UOC)</td>
</tr>
<tr>
<td>LAWS2085</td>
<td>Comparative Law</td>
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</tr>
<tr>
<td>LAWS2082</td>
<td>Conflict of Laws</td>
<td>(8 UOC)</td>
</tr>
<tr>
<td>LAWS2293</td>
<td>Constitutionalism</td>
<td>(8 UOC)</td>
</tr>
<tr>
<td>LAWS2037</td>
<td>Consumer Protection Law</td>
<td>(8 UOC)</td>
</tr>
<tr>
<td>LAWS1003</td>
<td>Crime and Society</td>
<td>(8 UOC)</td>
</tr>
<tr>
<td>LAWS2411</td>
<td>Disability, Rights and the Law</td>
<td>(8 UOC)</td>
</tr>
<tr>
<td>LAWS2412</td>
<td>Discrimination and the Law</td>
<td>(8 UOC)</td>
</tr>
<tr>
<td>LAWS2314</td>
<td>Dispute Resolution</td>
<td>(8 UOC)</td>
</tr>
<tr>
<td>LAWS2335</td>
<td>Economic Analysis of Law</td>
<td>(8 UOC)</td>
</tr>
<tr>
<td>LAWS2051</td>
<td>Elements of Income Tax Law</td>
<td>(8 UOC)</td>
</tr>
<tr>
<td>LAWS2032</td>
<td>Employment Protection Law</td>
<td>(8 UOC)</td>
</tr>
<tr>
<td>LAWS2361</td>
<td>Environmental Law</td>
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</tr>
<tr>
<td>LAWS2313</td>
<td>Evidence and Advocacy</td>
<td>(8 UOC)</td>
</tr>
<tr>
<td>LAWS2316</td>
<td>Expert Evidence</td>
<td>(8 UOC)</td>
</tr>
<tr>
<td>LAWS2394</td>
<td>Families, Property &amp; Death</td>
<td>(4 UOC)</td>
</tr>
<tr>
<td>LAWS2291</td>
<td>Family Law</td>
<td>(8 UOC)</td>
</tr>
<tr>
<td>LAWS2155</td>
<td>Federal Constitutional Law</td>
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</tr>
<tr>
<td>LAWS2341</td>
<td>Feminist Legal Theory</td>
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</tr>
<tr>
<td>LAWS2401</td>
<td>Health and Medical Law</td>
<td>(8 UOC)</td>
</tr>
<tr>
<td>LAWS2413</td>
<td>Housing Law</td>
<td>(8 UOC)</td>
</tr>
<tr>
<td>LAWS2182</td>
<td>Human Rights Law</td>
<td>(8 UOC)</td>
</tr>
<tr>
<td>LAWS2021</td>
<td>Industrial and Intellectual Property</td>
<td>(8 UOC)</td>
</tr>
<tr>
<td>LAWS2027</td>
<td>Industrial Law</td>
<td>(8 UOC)</td>
</tr>
<tr>
<td>LAWS1031</td>
<td>Information Technology Law</td>
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<tr>
<td>LAWS2088</td>
<td>International Advocacy</td>
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<td>LAWS9988</td>
<td>International Business Transactions</td>
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</tr>
<tr>
<td>LAWS2181</td>
<td>International Humanitarian Law</td>
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<tr>
<td>LAWS2086</td>
<td>International Law Moot</td>
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<td>LAWS2084</td>
<td>International Trade Law</td>
<td>(8 UOC)</td>
</tr>
<tr>
<td>LAWS2091</td>
<td>Introduction to Space Law</td>
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</tr>
<tr>
<td>LAWS2090</td>
<td>Issues in Space Law</td>
<td>(8 UOC)</td>
</tr>
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<td>LAWS2241</td>
<td>Jewish Law</td>
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<tr>
<td>LAWS2035</td>
<td>Land Dealings</td>
<td>(8 UOC)</td>
</tr>
<tr>
<td>LAWS2332</td>
<td>Law After Communism</td>
<td>(8 UOC)</td>
</tr>
<tr>
<td>LAWS2332</td>
<td>Law and Social Theory</td>
<td>(8 UOC)</td>
</tr>
<tr>
<td>LAWS2441</td>
<td>Law Journal</td>
<td>(8 UOC)</td>
</tr>
<tr>
<td>LAWS2033</td>
<td>Law of Banking</td>
<td>(8 UOC)</td>
</tr>
<tr>
<td>LAWS2251</td>
<td>Legal History</td>
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</tr>
<tr>
<td>LAWS2311</td>
<td>Legal Theory</td>
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<td>LAWS2031</td>
<td>Occupational Health and Safety Law</td>
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</tr>
<tr>
<td>LAWS1003</td>
<td>Penology</td>
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</tr>
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<td>LAWS2081</td>
<td>Public International Law</td>
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<tr>
<td>LAWS2275</td>
<td>Regulation of Economic Activity</td>
<td>(8 UOC)</td>
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<tr>
<td>LAWS2301</td>
<td>Remedies</td>
<td>(8 UOC)</td>
</tr>
<tr>
<td>LAWS2421</td>
<td>Research Project</td>
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<tr>
<td>LAWS2423</td>
<td>Research Thesis</td>
<td>(8 UOC)</td>
</tr>
<tr>
<td>LAWS2422</td>
<td>Research Thesis: 16 UOC</td>
<td>(16 UOC)</td>
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<tr>
<td>LAWS2079</td>
<td>Restitution</td>
<td>(8 UOC)</td>
</tr>
<tr>
<td>LAWS2307</td>
<td>Social Justice Intern Program</td>
<td>(8 UOC)</td>
</tr>
<tr>
<td>LAWS2414</td>
<td>Social Security Law</td>
<td>(8 UOC)</td>
</tr>
<tr>
<td>LAWS1812</td>
<td>Sport and the Law</td>
<td>(8 UOC)</td>
</tr>
<tr>
<td>LAWS2313</td>
<td>Strategic Public Advocacy</td>
<td>(8 UOC)</td>
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<tr>
<td>LAWS2393</td>
<td>Succession</td>
<td>(8 UOC)</td>
</tr>
<tr>
<td>LAWS1006</td>
<td>The Criminal Appeals Project</td>
<td>(8 UOC)</td>
</tr>
<tr>
<td>LAWS2323</td>
<td>The Criminal Trial</td>
<td>(4 UOC)</td>
</tr>
<tr>
<td>LAWS2292</td>
<td>The High Court of Australia</td>
<td>(8 UOC)</td>
</tr>
<tr>
<td>LAWS2028</td>
<td>The Law of Employment</td>
<td>(8 UOC)</td>
</tr>
<tr>
<td>LAWS2022</td>
<td>Trade Practices</td>
<td>(8 UOC)</td>
</tr>
<tr>
<td>LAWS2312</td>
<td>Trial Process</td>
<td>(8 UOC)</td>
</tr>
<tr>
<td>LAWS2023</td>
<td>Trusts</td>
<td>(8 UOC)</td>
</tr>
</tbody>
</table>

and any other courses specified by the Faculty.

5.4 Postgraduate Electives Available to Undergraduates

The Faculty has determined that, with the permission of the Associate Dean and the course teacher, undergraduate students may enrol in one or more courses offered in the Master of Laws by coursework degree. The units of credit so earned shall be the same as are specified in the Course Descriptions for the Master of Laws.

General guidelines: Students may apply to enrol in an LLM course provided they:

- have completed all compulsory courses;
- have completed any prerequisites;
- are within the last two years of their program;
- have no failures in the last two years;

Such courses shall be taken in a sequence approved by the Faculty.

6. Bachelor of Laws: A candidate for the award of the degree of Bachelor of Laws (whether taken as part of a combined program or as a separate degree) shall complete:

6.1 all of the courses prescribed in Rule 5 under the heading ‘Compulsory Courses’, totalling 92 units of credit,

6.2 selected courses from the courses prescribed in Rule 5 under the heading ‘Elective Courses’ so as to comply with Rule 7,

6.3 such Legal Research and Writing Programs, Prescribed Readings in Law, Moot Court Work and other work as the Faculty may require.

7. (1) Total Units of Credit: A candidate for the award of the degree of Bachelor of Laws shall complete Elective Courses prescribed in Rule 6 to the extent necessary to bring his or her total units of credit for Compulsory and Elective Law Courses to:

(a) Total: 144 UOC (Core: 92 UOC; Electives: 52 UOC)

- Bachelor of Architecture Bachelor of Laws
- Bachelor of Engineering (Civil) Bachelor of Laws
- Bachelor of Engineering (Environmental) Bachelor of Laws
- Bachelor of Town Planning Bachelor of Laws
- Bachelor of Laws

(b) Total: 144 - 150 UOC (Core: 92 UOC; Electives: 52 - 58 UOC)

- Bachelor of Social Work Bachelor of Laws

(c) Total: 150 UOC (Core: 92 UOC; Electives: 58 UOC)

- Bachelor of Social Science Bachelor of Laws

(d) Total: 156 UOC (Core: 92 UOC; Electives: 64 UOC)

- Bachelor of Arts Bachelor of Laws
- Bachelor of Commerce Bachelor of Laws
- Bachelor of Economics Bachelor of Laws

(e) Total: 150 UOC (Core: 92 UOC; Electives: 56 - 60 UOC; Research Project 2 UOC)

- Bachelor of Art Theory Bachelor of Laws
- Bachelor of Science Bachelor of Laws

(f) Total: 156 - 174 UOC (Core: 92 UOC; Electives: 64 - 82 UOC)

- Bachelor of Jurisprudence Bachelor of Laws

7. (2) Approval: A candidate’s choice of Elective Courses shall require the approval of the Faculty.

8. Combined Program: A candidate for the award of the degree of Bachelor of Laws as part of a combined program shall not be eligible to be awarded that degree until he or she has completed the additional requirements applicable to the other degree.

9. Bachelor of Jurisprudence/Bachelor of Laws: In the case of the combined program leading to the award of the degrees of Bachelor of Jurisprudence and Bachelor of Laws, the requirement for the award of the Bachelor of Jurisprudence degree shall be:

(i) Completion of all requirements of the Bachelor of Laws degree program (including Law courses totalling not less than 156 units of credit).

(ii) Completion of a minimum of 54 units of credit in courses in another Faculty or Faculties comprising (unless specially approved by the Faculty) a major sequence of three years’ study comprising 42 units of credit, plus an additional first year course comprising 12 units of credit. Unless he or she obtains special permission from the relevant Head of School, a
A student shall be bound by any requirements as to course prerequisites normally applicable to a course in another Faculty.

(iii) Completion of electives totalling 24 units of credit of electives selected from either the Faculty of Law or another Faculty.

(iv) Completion of General Education courses totalling 6 units of credit.

(v) A candidate shall obtain the approval of the Faculty of Law for the selection, and sequence of study, of courses in other Faculties. In approving such courses, the Faculty shall have regard to the contribution the study of such courses may reasonably be expected to make to the development of the candidate's capacity as a lawyer and understanding of the law.

10. Bachelor of Jurisprudence: The requirement for the award of the Bachelor of Jurisprudence degree shall be:

(i) completion of a program of full-time study of not less than three years' duration comprising law courses totalling not less than 78 units of credit and including the following compulsory courses totalling 54 units of credit:

   **Year 1**
   - LAWS1052 Foundations of Law: 6 UOC
   - LAWS1061 Torts: 6 UOC
   - LAWS1071 Contracts 1: 6 UOC
   - LAWS1072 Contracts 2: 3 UOC
   - LAWS2140 Public Law - 3 UOC

   **Year 2**
   - LAWS1001 Criminal Law 1: 6 UOC
   - LAWS1011 Criminal Law 2: 6 UOC
   - LAWS2160 Administrative Law: 6 UOC
   - LAWS56210 Law, Lawyers & Society: 6 UOC

   **Year 3**
   - LAWS8320 Legal Theory: 6 UOC
   - or
   - LAWS8820 Law and Social Theory: 6 UOC

(ii) Completion of a minimum of 54 units of credit of courses in another faculty or faculties comprising (unless specially approved by the Faculty) a major sequence of three years' study comprising 42 units of credit, plus an additional first year course comprising 12 units of credit. The candidate shall be bound by any requirements as to course prerequisites normally applicable to a course in another faculty.

(iii) Completion of General Education courses totalling 12 units of credit.

(iv) A candidate shall obtain the approval of the Faculty of Law for the selection, and sequence of study, of courses in other faculties. In approving such courses, the Faculty shall have regard to the contribution the study of such courses may reasonably be expected to make to the development of the candidate’s capacity as a lawyer and understanding of the law.

11. Part-Time Study: A student shall not be enrolled as a part-time student unless he or she satisfies the Faculty that his or her special circumstances preclude full-time study, and that his or her previous experience and/or study make it appropriate to admit him or her to part-time study for the award of the degree of Bachelor of Laws as a separate degree.

12. Faculty: In these Rules, unless the contrary is indicated, ‘the Faculty’ means the Faculty of Law.

4791 Bachelor of Laws (Part-time)

**LLB**

**Typical Duration**
6 years part-time

**Minimum UOC for Award**
144 units of credit

**Typical UOC per Session**
24 units of credit

**Program Description**
This program enables students who have already completed another degree to obtain the Bachelor of Laws degree on a part-time study basis. The program covers all the foundation areas of Law in theory and practice.

**Duration/Award**
The program is a six-year part-time program leading to the award of Bachelor of Laws and satisfies academic requirements for admission to practice.

**Entry Requirements**
The program is only available to graduates and people over 21 years of age who have completed the University Preparation Program. The program is not available to people who proceed directly from the Higher School Certificate.

**Attendance Requirements**
The program involves attendance at the Kensington campus on two afternoons a week.

**Electives**
The courses of the LLB degree program are set out in Rule 5 of the Academic Rules, please refer to entry for 4790 Bachelor of Laws. However, it will not be possible to provide the full range of electives at times convenient to part-time students.

**Approved Sequence of Study**
Students must study law courses in an approved sequence. An approved sequence of courses for the program is set out below; other sequences may be approved in special circumstances.

**Transfer to the Full-Time Program**
Students enrolled in program 4791 (part-time) are eligible to apply to transfer to 4790 (full-time) after completing 48 units of credit in the part-time program.

**Program Objectives and Learning Outcomes**
This program aims to provide students with a firm foundation of knowledge relating to the theory and practice of Law.

**Program Structure**

**Year 1**

1. **Session One**

   - LAWS1052 Foundations of Law: 6 UOC
   - LAWS1061 Torts: 6 UOC
   - LAWS1072 Contracts 2: 3 UOC
   - LAWS2140 Public Law: 3 UOC

2. **Session Two**
   - LAWS1061 Torts: 6 UOC
   - LAWS1072 Contracts 2: 6 UOC

**Year 2**

- LAWS1001 Criminal Law 1: 6 UOC
- LAWS1011 Criminal Law 2: 6 UOC
- LAWS2160 Administrative Law: 6 UOC
- LAWS56210 Law, Lawyers & Society: 6 UOC

**Year 3**

- LAWS1081 Property, Equity, and Trusts 1: 6 UOC
- LAWS1082 Property, Equity, and Trusts 2: 6 UOC
- LAWS2311 Litigation 1: 6 UOC
- LAWS2321 Litigation 2: 6 UOC

**Year 4**

- LAWS2150 Federal Constitutional Law: 6 UOC
- LAWS4010 Business Associations 1: 6 UOC
- LAWS7420 Advanced Legal Research: 2 UOC
- Law electives: 4 UOC

**Year 5**

- Law electives: 24 UOC

**Year 6**

- Law electives: 24 UOC

**Academic Rules**
For Academic Rules relating to the Bachelor of Laws program, please refer to the entry for 4790 Bachelor of Laws.
4780 Bachelor of Jurisprudence Bachelor of Laws
BJuris LLB

Typical Duration
5 years

Minimum UOC for Award
240 units of credit

Typical UOC per Session
24 units of credit

Program Description
This program combines the professional Bachelor of Law (LLB) program with the Bachelor of Jurisprudence (BJuris).

The BJuris degree is available either as part of the combined Jurisprudence/Law program or as an "exit degree" for students who decide after admission not to proceed with an LLB degree. It is not available as a separate pass degree for admission purposes. Students wishing to graduate with a BJuris must satisfy the requirements as listed in Rule 10 of the Academic Rules (see refer to the entry for 4790 Bachelor of Laws).

The Bachelor of Jurisprudence, unlike the LLB degree, is not designed to provide a qualification for the professional practice of law. It provides a basic knowledge of law, an opportunity to study selected legal courses of special interest, and significant study in other faculties. Various combinations of non-law courses are possible and the program may be moulded to meet various vocational ends, eg for industrial officers or advocates, public servants, business executives or law librarians.

Teaching methods in Law courses are the same as in the LLB program.

Duration/Awards
The program is a five year full-time combined program leading to the award of the two degrees of Bachelor of Jurisprudence and Bachelor of Laws (BJuris LLB).

Assumed Knowledge
Students must satisfy any assumed knowledge requirements (but not general Faculty assumed knowledge requirements) for courses studied in other faculties.

Non-Law Courses
The non-law courses shall include, unless otherwise approved, a major sequence of 42 units of credit approved by the faculty offering the major sequence. There is an additional requirement of 12 units of credit of non-law courses.

Students are required to obtain the approval of the Faculty of Law for their proposed program of non-law courses and the order in which they are to be studied. In approving such courses, the Faculty shall have regard to the contribution the study of such courses may reasonably be expected to make to the development of his or her capacity as a lawyer and understanding of the law.

BJuris
Candidates may be awarded the degree of Bachelor of Jurisprudence subject to satisfying the requirements as listed in Rule 10 of the Academic Rules, including satisfaction of General Education requirements for the single pass degree (12 units of credit).

Approved Sequence of Study:
Students must study non-law courses in a sequence approved by the non-law faculty and the Faculty of Law, and law courses in a sequence approved by the Faculty of Law. Approved sequences for each combined program are given below; other sequences may be approved under special circumstances.

Program Objectives and Learning Outcomes
On completion of this combined degree program, students should have attained a basic knowledge of the theory and practice of law.

Program Structure
Year 1
Session One
- LAWS1052 Foundations of Law (6 UOC)
- LAWS1071 Contracts 1 (3 UOC)
- LAWS2140 Public Law (3 UOC)
- Non-Law Major Sequence Year 1 (2 x 6 UOC) (12 UOC)

Session Two
- LAWS1061 Torts (6 UOC)
- LAWS1072 Contracts 2 (6 UOC)
- Additional Non-Law Courses (2 x 6 UOC) (12 UOC)

Year 2
- LAWS1001 Criminal Law 1 (6 UOC)
- LAWS1011 Criminal Law 2 (6 UOC)
- LAWS1081 Property, Equity and Trusts 1 (6 UOC)
- LAWS1082 Property and Equity 2 (6 UOC)
- LAWS2160 Administrative Law (6 UOC)
- LAWS6210 Law, Lawyers and Society (6 UOC)
- Non-law Major Sequence Year 2 (12 UOC)

Year 3
- LAWS2150 Federal Constitutional Law (6 UOC)
- LAWS4010 Business Associations 1 (6 UOC)
- Non-Law Major Sequence Year 3 (24 UOC)
- General Education courses (6 UOC)
- Plus ONE of the following courses:
  - LAWS8320 Legal Theory (6 UOC)
  - LAWS8820 Law and Social Theory (6 UOC)

Year 4
- LAWS2311 Litigation 1 (6 UOC)
- LAWS2321 Litigation 2 (6 UOC)
- LAWS7420 Advanced Legal Research (2 UOC)
- Law electives (16 UOC)
- Law or non-law electives (18 UOC)

Year 5
- Law electives (18 UOC)

General Education Requirements
Candidates for the BJuris LLB must complete 6 units of credit of General Education. BJuris LLB is the only combined law degree which has a General Education requirement.

For further information, please refer to General Education section in this Handbook.

Academic Rules
For Academic Rules relating to the Bachelor of Laws program, please refer to the entry for 4790 Bachelor of Laws.

Faculty of Arts & Social Sciences and Faculty of Law

4760 Bachelor of Arts Bachelor of Laws
BA LLB

Typical Duration
5 years

Minimum UOC for Award
240 units of credit

Typical UOC per Session
24 units of credit
Program Description
This program gives students the maximum freedom to follow their interests in the Faculty of Arts and Social Sciences. The Law courses satisfy the requirements for the award of the professional LLB degree.

Areas of specialisation for the Bachelor of Arts include: Australian Studies, Chinese Studies, Cognitive Science, Development Studies, Education, English, Environmental Studies, European Studies, Film, French, German Studies, Greek (Modern), History, History and Philosophy of Science, Indonesian Studies, Italian, Japanese Studies, Jewish Studies, Korean Studies, Linguistics, Media, Culture and Technology, Music, Philosophy, Political Economy, Politics and International Relations, Russian Studies, Policy Studies, Sociology and Anthropology, Spanish and Latin American Studies, Theatre & Performance Studies, Women's and Gender Studies.  

Assumed Knowledge
Students must satisfy the normal assumed knowledge requirements for entry to the Faculty of Arts and Social Sciences, and to individual courses in that faculty.

Program Objectives and Learning Outcomes
In a world where people increasingly have a number of career shifts in their lifetime, humanities and social science graduates possess a unique combination of intellectual and analytical skills which can be readily transferred from one occupation to another. Someone planning a career in policy making, diplomacy, international relations or legal practice will find the BA LLB an excellent preparation.

Program Structure

<table>
<thead>
<tr>
<th>Program Structure</th>
<th>240 UOC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arts &amp; Social Science Courses</td>
<td>84 UOC</td>
</tr>
</tbody>
</table>

Law Courses

| Core courses | 92 UOC |
| Electives (8 courses x 8 UOC) | 64 UOC |

The core courses are taken in a specified sequence during Years 1 to 4, see approved sequence of study below.

After completing the majority of the core courses students are eligible to enrol in electives in Years 4 and 5. For a list of approved Law electives, please refer to the Academic Rules section in the entry for 4790 Bachelor of Laws.

Arts & Social Science Courses

Students must complete a total of 84 units of credit of approved Arts & Social Sciences courses from at least three schools or programs. The 84 UOC must include:

- Plan/major sequence from one school or program | 42 UOC |
- at least two upper level courses from other schools or programs | 12 UOC |
- other courses approved by the Faculty of Arts & Social Sciences | 30 UOC |

A few majors, e.g. Jewish Studies, comprise only 36 UOC. Students selecting such a major will bring their total UOC to 84 by completing an additional 6 UOC course approved by the Faculty of Arts & Social Sciences.

Arts & Social Science Specialisations

For details of the available specialisations and approved major sequences, please refer to Lists A & B of the Academic Rules in the program entry for 3400 Bachelor of Arts (see Arts and Social Sciences entry in this Handbook).

Sequence of Study

Students must study Arts courses in a sequence approved by the Faculty of Arts & Social Sciences and Law courses in a sequence approved by the School of Law. Other sequences may be approved under special circumstances.

Year 1

<table>
<thead>
<tr>
<th>Session One</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAW1051 Foundations of Law</td>
</tr>
<tr>
<td>Arts School A – Level 1 course</td>
</tr>
<tr>
<td>Arts School B – Level 1 course</td>
</tr>
<tr>
<td>Arts School C – Level 1 course</td>
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<table>
<thead>
<tr>
<th>Session Two</th>
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</thead>
<tbody>
<tr>
<td>LAW1051 Torts</td>
</tr>
<tr>
<td>Arts School A – Level 1 course</td>
</tr>
</tbody>
</table>

Year 2

<table>
<thead>
<tr>
<th>Session One</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAW1011 Criminal Law 1</td>
</tr>
<tr>
<td>LAW1071 Contracts 1</td>
</tr>
<tr>
<td>LAW1140 Public Law</td>
</tr>
<tr>
<td>Arts School A - Upper Level courses</td>
</tr>
<tr>
<td>Arts School B - Upper Level courses</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Session Two</th>
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</thead>
<tbody>
<tr>
<td>LAW1011 Criminal Law 2</td>
</tr>
<tr>
<td>LAW1072 Contracts 2</td>
</tr>
<tr>
<td>Arts School A - Upper Level courses</td>
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<tr>
<td>Arts School B - Upper Level courses</td>
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Year 3

<table>
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<tr>
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<tbody>
<tr>
<td>LAW1012 Property &amp; Equity Trusts 1</td>
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<tr>
<td>LAW2011 Administrative Law</td>
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<tr>
<td>Arts - Upper Level courses</td>
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<table>
<thead>
<tr>
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<tbody>
<tr>
<td>LAW1012 Property &amp; Equity 2</td>
</tr>
<tr>
<td>LAW56210 Law, Lawyers &amp; Society</td>
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<td>Arts - Upper Level courses</td>
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Year 4

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<tr>
<th>Session One</th>
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<tbody>
<tr>
<td>LAW2020 Federal Constitutional Law</td>
</tr>
<tr>
<td>LAW2071 Legal Theory</td>
</tr>
<tr>
<td>LAW2140 Law &amp; Social Theory</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Session Two</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAW2071 Legal Theory</td>
</tr>
<tr>
<td>LAW2140 Law &amp; Social Theory</td>
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</table>

Year 5

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Arts electives</td>
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<thead>
<tr>
<th>Session Two</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arts electives</td>
</tr>
</tbody>
</table>

UOC Distribution

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<thead>
<tr>
<th>Number of Courses</th>
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<tbody>
<tr>
<td>Arts &amp; Social Science</td>
<td>84</td>
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<tr>
<td>Major sequence</td>
<td>7 x 6 UOC</td>
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<tr>
<td>2 Upper level courses</td>
<td>2 x 6 UOC</td>
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<tr>
<td>5 other approved courses</td>
<td>5 x 6 UOC</td>
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<tr>
<td>Law</td>
<td>156</td>
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<td>Core courses</td>
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<td>8 x 8 UOC</td>
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<tr>
<td>Total</td>
<td>240</td>
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</tbody>
</table>

Graduation

Students who find they are unable to complete the combined degree may apply to transfer to the single BA program with credit for all courses completed.

General Education Requirements

Students enrolled in combined law degrees are not required to complete General Education courses.

Honours

Students wishing to take the BA degree program at Honours level must obtain prior approval from the relevant schools in the Faculty of Arts and Social Sciences and the Faculty of Law. At least one and possibly two additional years of study are required. Alternatively students may consider...
4761 Bachelor of Social Science Bachelor of Laws
BSocSc LLB
Typical Duration
3 years
Minimum UOC for Award
240 units of credit
Typical UOC per Session
24 units of credit
Program Description
This program provides an opportunity to obtain two degrees of professional importance to the public sector, community service, business and law practice. In addition, the student has the option to work towards a research career in a variety of disciplines.
Duration/Award
The program is of five years full-time study leading to the award of the two degrees of Bachelor of Social Science and Bachelor of Laws (BSocSc LLB).
Assumed Knowledge
Students must satisfy the normal assumed knowledge requirements entry to the Faculty of Arts and Social Sciences, and to individual courses in that faculty.
BSocSc
Students not wishing to proceed to the combined degree BSocSc LLB, may transfer to the BSocSc degree program with credit for all courses completed.
BSocSc Core Courses
The first three years of the program includes the Bachelor of Social Science core program totalling 48 units of credit.
Arts & Social Science Major
1. Students must also complete an approved major sequence in the Faculty of Arts and Social Sciences. The major sequence must be taken in one of the following schools:, Economics/Economic History, Film, Geography, Geology, History, History and Philosophy of Science, Human Resource Management, Industrial Relations & Organisational Behaviour, International Business, Philosophy, Politics & International Relations, Psychology, Sociology & Anthropology, Spanish and Latin American Studies (History), Theatre & Performance Studies.
2. Most major sequences are made up of 42 units of credit; however some require only 36 units of credit. If a 36 unit of credit major is selected, students will be expected to make up the 6 unit of credit shortfall by completing either an additional elective approved by the Faculty of Arts & Social Sciences or by completing an additional law elective. (This will bring the total units of credit of law electives to 64)
Program Objectives and Learning Outcomes
At completion of this program, students will have attained a sound knowledge base in the fields of both Law and Social Science.
Program Structure
Approved Sequence of Study
Students must study Social Science courses in a sequence approved by the Faculty of Arts and Social Science and Law courses in a sequence approved by the Faculty of Law. An approved sequence is given below; other sequences may be approved under special circumstances.
Year 1
Session One
LAWS1052 Foundations of Law (6 UOC)
LAWS1071 Contracts 1 (3 UOC)
LAWS2140 Public Law (3 UOC)
Select ONE of:
SLSF1000 Social Science and Policy (6 UOC)
SLSF1002 Introduction to Policy Analysis (6 UOC)
Plus
Arts & Social Sciences major - Level 1 (6 UOC)
Session Two
LAWS1061 Torts (6 UOC)
LAWS1072 Contracts 2 (6 UOC)
SLSF1001 Research and Information Management (6 UOC)
Arts & Social Sciences major - Level 1 (6 UOC)
Year 2
Session One
LAWS1001 Criminal Law 1 (6 UOC)
SLSF2000 Political Economy and the State (6 UOC)
SLSF2001 Applied Social Research 1 (6 UOC)
Arts & Social Sciences major - Upper Level (6 UOC)
Session Two
LAWS1011 Criminal Law 2 (6 UOC)
LAWS6210 Law, Lawyers and Society (6 UOC)
SLSF2002 Policy Analysis Case Studies (6 UOC)
Arts & Social Sciences major - Upper Level (6 UOC)
Year 3
Session One
LAWS1081 Property, Equity and Trusts 1 (6 UOC)
LAWS2160 Administrative Law (6 UOC)
SLSF3000 Social Theory and Policy (6 UOC)
SLSF3001 Applied Social Research 2 (6 UOC)
Session Two
LAWS1082 Property and Equity 2 (6 UOC)
SLSF3002 Social Science and Policy Project (6 UOC)
Arts & Social Sciences major - Upper Level (12 UOC)
Year 4
Session One
LAWS2150 Federal Constitutional Law (6 UOC)
LAWS2111 Litigation 1 (6 UOC)
LAWS4010 Business Associations 1 (6 UOC)
Plus ONE of the following courses:
LAWS8320 Legal Theory (6 UOC)
LAWS8820 Law and Social Theory (6 UOC)
Session Two
LAWS2321 Litigation 2 (6 UOC)
LAWS7420 Advanced Legal Research (2 UOC)
Plus
Law electives (16 UOC)
or
Arts & Social Science major (6 UOC) & Law electives (10 UOC)
Year 5
Session One
Law electives (24 UOC)
Session Two
Law electives (24 UOC)
UOC Distribution
Number of Courses
UOC
Arts & Social Science
8 × 6 UOC
90
BSocSc core courses
7 × 6 UOC
42*
Major sequence
17
92
Electives
17
58
Total
240
Honours
Honours in Social Science: Students wishing to take the BSocSc program at Honours level must obtain prior approval from the relevant schools in the Faculty of Arts and Social Sciences and the Faculty of Law. At least one and possibly two additional years of study are required. Alternatively students may consider completing the BSocSc degree program at Honours level (4 years) and then seeking admission to the three year LLB degree program for graduates.
4764 Bachelor of Arts (Media & Communications) Bachelor of Laws

BA(Media) LLB

Typical Duration
3 years

Minimum UOC for Award
240 units of credit

Typical UOC per Session
24 units of credit

Program Description
This program combines the professional Bachelor of Laws with the Bachelor of Arts (Media and Communications).

The Bachelor of Arts (Media and Communications) emphasises new computer-based multimedia skills and focuses on Australian media industries in relation to globalisation. The degree is vocationally relevant in its orientation and all students are given significant practical experience in new computer-based multimedia communications technologies. It aims to develop in students a sophisticated understanding of the history, scope and socio-cultural impact of new media technologies, and of the debates that have accompanied their development and use. Second, it offers extensive experience in the production of new media content appropriate for employment in the contemporary media. This degree combination would be of interest to students interested in becoming media lawyers, or in the fields of broadcast media (video-based, multi-media production and post production; research, administration and policy analysis for private corporations, telecommunications companies and government departments.

Program Objectives and Learning Outcomes
In addition to studying eight courses in the Media and Communications core program, students complete six courses from List A of the Faculty of Arts and Social Sciences, to permit them to study a second field in depth. Years 1 and 2 cover multimedia writing and production and contextual media studies. Year 3 consolidates the program’s emphasis on production and analytical skills. This grounding enables students to interpret, create and apply the products of the new media not only in the context of the mass information and entertainment industries, but also in a variety of other public and private sector areas such as education, on-the-job training and specialised information services.

Program Structure
| Law courses | 156 UOC |
| Arts & Social Science Courses | 84 UOC |
| **Total** | **240 UOC** |

Approved Sequence of Study:
The program is structured to allow concurrent study in the two degrees in the first three years with the last two years dedicated to completing the Law component of the LLB.

Students must study Arts courses in a sequence approved by the Faculty of Arts and Social Sciences and Law courses in a sequence approved by the Faculty of Law. Prior to enrolling in electives students are expected to have completed the majority of the core courses.

The approved sequence of study is given below. Other sequences may be approved under special circumstances.

Year 1

**Session One**
LAW2102 Foundations of Law (6 UOC)
MDCM1000 New Media Technologies A (6 UOC)
Arts School List A - Level 1 (6 UOC)
Arts School List A - Level 1 (6 UOC)

**Session Two**
MDCM1001 New Media Technologies B (6 UOC)
LAW2503 Interns (6 UOC)
Arts School List A - Level 1 (6 UOC)
Arts School List A - Level 1 (6 UOC)

**Year 2**

**Session One**
LAW2103 Criminal Law 1 (6 UOC)
LAW2503 Criminal Law 2 (6 UOC)

**Session Two**
LAW1072 Contracts 1 (3 UOC)

General Education Requirements
Students enrolled in a combined law degree are not required to complete General Education courses.

Honours
Honours in the BA Program: Students wishing to take the BA(Media) degree program at Honours level must obtain prior approval from the relevant schools in the Faculty of Arts and Social Sciences and the Faculty of Law. At least one and possibly two additional years of study are required. Alternatively students may consider completing the BA degree program at Honours level (4 years) and then seeking admission to the three year LLB degree program for graduates.

4765 Bachelor of International Studies Bachelor of Laws

BlnSt LLB
Program Description
This program provides an opportunity to obtain two degrees of professional importance to the public sector, community service, business and law practice. The Law courses satisfy the requirements for the award of the professional LLB degree. The International Studies component provides the knowledge and skills essential for understanding and working in the rapidly changing global environment.

The BInSt LLB degree may be taken in one of five areas of specialisation – Asian Studies, Development Studies, European Studies, Global Studies or Language Studies. Features of the degree program include:

- a core sequence of courses in International Studies;
- a choice of one area of concentration from five distinct and integrated programs of study;
- language study;
- access to 12 months study at one of a select group of the best international universities;
- full credit towards the BInSt degree for courses completed overseas;
- financial assistance towards a 12-month period of overseas study.

Program Objectives and Learning Outcomes
This program combines a law degree with one of five international studies streams: Asian Studies, Development Studies, European Studies, Globalisation and Languages. The structure of the program differs between the streams but each includes a combination of humanities and social science courses. An overseas study period of two semesters in either the third or fourth year is an essential component of the program - prerequisite to this is satisfactory progress towards the degree in first and second years of study.

Program Structure

<table>
<thead>
<tr>
<th>Program Structure</th>
<th>288 UOC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Law courses</td>
<td>150 UOC</td>
</tr>
<tr>
<td>Core courses</td>
<td>94 UOC</td>
</tr>
<tr>
<td>Elective courses</td>
<td>56 UOC</td>
</tr>
</tbody>
</table>

The core courses are taken in a specified sequence during Years 1 to 4. Details are given below. After completing the majority of the core courses students are eligible to enrol in electives in Years 4 and 5.

International Studies
A combination of courses as per plan requirements of each stream:
- Two semesters of study in an approved program at an o/s institution
- 48 UOC

General Law sequence (program 4765, plan code LAWSA14765)

<table>
<thead>
<tr>
<th>Year 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Session One</td>
</tr>
<tr>
<td>3 x International Studies courses</td>
</tr>
<tr>
<td>LAWS1052 Foundations of Law</td>
</tr>
</tbody>
</table>

Session Two
| 3 x International Studies courses | (18 UOC) |
| LAWS1061 Torts | (6 UOC) |

Year 2

| Session One |
| 2 x International Studies courses | (12 UOC) |
| LAWS1001 Criminal Law 1 | (6 UOC) |
| LAWS1071 Contracts 1 | (3 UOC) |
| LAWS2140 Public Law | (3 UOC) |

Session Two
| 2 x International Studies courses | (12 UOC) |
| LAWS1011 Criminal Law 2 | (6 UOC) |
| LAWS1072 Contracts 2 | (6 UOC) |

Year 3

| Session One |
| 2 x International Studies courses | (12 UOC) |
| LAWS1081 Property, Equity and Trusts 1 | (6 UOC) |
| LAWS6210 Law, Lawyers and Society | (6 UOC) |

Session Two
International Studies Individual Overseas Study Program A | (24 UOC)
Year 4

Session One

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>UOC</th>
</tr>
</thead>
<tbody>
<tr>
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<td>Individual Overseas Study Program B</td>
<td>24</td>
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</table>

Session Two

<table>
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<th>Course Title</th>
<th>UOC</th>
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<tbody>
<tr>
<td>INST</td>
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</tr>
<tr>
<td>ASIA</td>
<td>ASIA or Asia-Related</td>
<td>6</td>
</tr>
<tr>
<td>CHIN</td>
<td>CHIN (or INDO or KORE or JAPN)</td>
<td>6</td>
</tr>
<tr>
<td>LAWS1082</td>
<td>Property and Equity 2</td>
<td>6</td>
</tr>
</tbody>
</table>

Note: Years 5 and 6 are the same for all five plans.

UOC Distribution

<table>
<thead>
<tr>
<th>Field</th>
<th>Number of Courses</th>
<th>UOC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arts &amp; Social Science</td>
<td>3 x 6 UOC</td>
<td>18</td>
</tr>
<tr>
<td>6 International Studies Core Sequence</td>
<td>3 x 6 UOC</td>
<td>18</td>
</tr>
<tr>
<td>6 ASIA and Asia-related courses</td>
<td>6 x 6 UOC</td>
<td>36</td>
</tr>
<tr>
<td>6 courses from one approved language sequence: Chinese (CHIN), Indonesian (INDO), Japanese (JAPN), or Korean (KORE)</td>
<td>6 x 6 UOC</td>
<td>36</td>
</tr>
<tr>
<td>2 sessions approved Overseas Study Program</td>
<td>2 sessions</td>
<td>48</td>
</tr>
<tr>
<td>Law (same UOC Distribution for all four plans)</td>
<td>2 sessions</td>
<td>48</td>
</tr>
<tr>
<td>Core Courses (set sequence in Yrs 1 – 4, no selection required)</td>
<td>17 x 6 UOC</td>
<td>92</td>
</tr>
<tr>
<td>Law Research Project (LAWS2421)</td>
<td>1 x 2 UOC</td>
<td>2</td>
</tr>
<tr>
<td>7 Electives (Law electives are worth 8 uoc)</td>
<td>7 x 8 UOC</td>
<td>56</td>
</tr>
<tr>
<td>Total</td>
<td>288</td>
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Development Studies (program 4765, plan code COMDB14765)

Year 1

Session One

<table>
<thead>
<tr>
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<th>Course Title</th>
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</thead>
<tbody>
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<td>French or other approved language</td>
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</tr>
<tr>
<td>COMD1001</td>
<td>COMD core course – Level 1</td>
<td>6</td>
</tr>
<tr>
<td>LAWS1052</td>
<td>Foundations of Law</td>
<td>6</td>
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Session Two

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<th>Course Title</th>
<th>UOC</th>
</tr>
</thead>
<tbody>
<tr>
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<td>French or other approved language</td>
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<tr>
<td>COMD1002</td>
<td>COMD core course – Level 1</td>
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<td>LAWS1061</td>
<td>Torts</td>
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Year 2

Session One

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<tr>
<td>FREN</td>
<td>French or other approved language</td>
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<tr>
<td>INS1</td>
<td>INST core course - Level 2</td>
<td>6</td>
</tr>
<tr>
<td>LAWS1001</td>
<td>Criminal Law 1</td>
<td>6</td>
</tr>
<tr>
<td>LAWS1071</td>
<td>Contracts 1</td>
<td>3</td>
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<tr>
<td>LAWS2140</td>
<td>Public Law</td>
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Session Two

<table>
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<th>Course Title</th>
<th>UOC</th>
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</thead>
<tbody>
<tr>
<td>FREN</td>
<td>French or other approved language</td>
<td>6</td>
</tr>
<tr>
<td>INST</td>
<td>INST core course - Level 2</td>
<td>6</td>
</tr>
<tr>
<td>LAWS1011</td>
<td>Criminal Law 2</td>
<td>6</td>
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<tr>
<td>LAWS1072</td>
<td>Contracts 2</td>
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Year 3

Session One

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<tr>
<td>COMD2050</td>
<td>COMD core course – Level 2</td>
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<tr>
<td>LAWS1081</td>
<td>Property, Equity and Trusts 1</td>
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<tr>
<td>LAWS6210</td>
<td>Law, Lawyers &amp; Society</td>
<td>6</td>
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Session Two

<table>
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<tr>
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<th>Course Title</th>
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<tbody>
<tr>
<td>INST3101</td>
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Year 4

Session One

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<tbody>
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Session Two

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<th>Course Title</th>
<th>UOC</th>
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</thead>
<tbody>
<tr>
<td>COMD</td>
<td>COMD core course – Level 4</td>
<td>6</td>
</tr>
<tr>
<td>ECON3110</td>
<td>ECON core course – Level 4</td>
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European Studies (program 4765, plan code EUROA14765)

Year 1

Session One

<table>
<thead>
<tr>
<th>Course Code</th>
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Year 3

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Global Studies (program 4765, plan code GLSTA14765)

Year 1

Session One

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Note: Years 5 and 6 are the same for all five plans.
Language Studies (program 4765, plan code MODLA14765)

**Year 1**

**Session One**
- FREN French or other approved language (6 UOC)
- INST INST core course – Level 1 (6 UOC)
- LAWS1052 Foundations of Law (6 UOC)
- SPAN Spanish or other approved language (6 UOC)

**Session Two**
- FREN French or other approved language (6 UOC)
- INST INST core course – Level 1 (6 UOC)
- LAWS1061 Torts (6 UOC)
- SPAN Spanish or other approved language (6 UOC)

**Year 2**

**Session One**
- FREN French or other approved language (6 UOC)
- LAWS1001 Criminal Law 1 (6 UOC)
- LAWS1071 Contracts 1 (3 UOC)
- LAWS2140 Public Law (3 UOC)
- SPAN Spanish or other approved language (6 UOC)

**Session Two**
- FREN French or other approved language (6 UOC)
- LAWS1072 Contracts 2 (6 UOC)
- SPAN Spanish or other approved language (6 UOC)

**Year 3**

**Session One**
- GLST GLST course – Level 2 or 3 (6 UOC)
- LAWS1081 Property, Equity and Trusts 1 (6 UOC)
- LAWS6210 Law, Lawyers & Society (6 UOC)
- SPAN Spanish or other approved language (6 UOC)

**Session Two**
- INST3101 Individual Overseas Study Program A (24 UOC)

**Year 4**

**Session One**
- INST3102 Individual Overseas Study Program B (24 UOC)

**Session Two**
- INST3900 INST compulsory course – Level 4 (6 UOC)
- LAWS1082 Property and Equity 2 (6 UOC)

**Note:** Years 5 and 6 are the same for all five plans.

---

**General Education Requirements**

Students enrolled in combined law degrees are not required to complete General Education courses.

**Honours**

The BInSt component is available at Honours level. To qualify for the award of the degree at Honours level a student must have obtained 138 UOC in approved courses, satisfied the appropriate prerequisites for entry into the Honours level program, and have obtained a further 48 units of credit in an approved Honours program. The Honours degree is awarded in three classes (Class I, Class II in two Divisions, and Class III). Students who fail to obtain one of these classes may proceed to graduate with a Pass degree.
## 4785 Bachelor of Social Work Bachelor of Laws

### BSW LLB

**Typical Duration**  
6 years

**Minimum UOC for Award**  
288 units of credit

**Typical UOC per Session**  
24 units of credit

### Program Description

This six year full-time program qualifies students for the professional practice of both social work and law.

### Duration/Award

The program is a six year full-time combined program leading to the award of the two degrees of Bachelor of Social Work and Bachelor of Laws (BSW LLB).

### Assumed Knowledge

There are no general assumed knowledge requirements for the Social Work program but students must study Social Work courses in a sequence approved by the Faculty of Arts and Social Sciences.

### BSW

The degree of Bachelor of Social Work is not awarded until the completion of the full six year program, but students unable to complete the full program may apply for advanced standing in the Faculty of Arts and Social Sciences Social Work program.

### Law or Non-Law Electives

Students may complete 6 units of credit in either law or non-law electives.

### Approved Sequence of Study

Students must study social work courses in a sequence approved by the Faculty of Arts & Social Sciences and law courses in a sequence approved by the Faculty of Law. The approved standard sequence of study is detailed below under ‘Program Structure’. Other sequences may be approved under special circumstances.

### Pre-2001 Program

The following structure is for commencing students and for those who entered the program from 2001. There are different program requirements for students who entered the program prior to 2001.

### Criminal Record Checks

It is a requirement that students who are undertaking placements in certain government departments and related organisations undergo a criminal record check.

### Program Objectives and Learning Outcomes

Graduates will be equipped with the knowledge and skills to work in a variety of emerging areas which require an understanding of the law, social work theory and practice and a commitment to social justice. Such areas include consumer protection, tenancy obligations and entitlements, land rights, child custody and family property disputes, social security and welfare rights.

### Program Structure

#### Year 2

**Session One**

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**Session Two**

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<td>Aboriginal People and Social Work</td>
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#### Year 3

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<td>SOCW2001</td>
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<td>SOCW3002</td>
<td>Social Work Practice: Individuals, Families &amp; Groups 2</td>
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**Session Two**

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#### Year 4

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<td>Social Policy 1</td>
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### Plus Law Elective

(4 UOC)

**Year 5

**Session One**

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### Plus ONE of the following courses:

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**Session Two**

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#### Year 6

**Session One**

Law Electives  
(24 UOC)

**Session Two**

Law Electives  
(24 UOC)

**Note:** The first fieldwork practicum commences with a 5 week block (5 days per week) and continues on 3 days per week during session time. The final practicum is a 75 day block.

### UOC Distribution

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Faculty of the Built Environment and Faculty of Law

4705 Bachelor of Architecture Bachelor of Laws

BArch LLB

Typical Duration

7 years

Minimum UOC for Award

336 units of credit

Typical UOC per Session

24 units of credit

Program Description

This program provides an opportunity to obtain two professional degrees. It allows students to add the professionally recognised Law program to the professionally accredited Architecture program offered by the Faculty of the Built Environment.

In terms of career prospects, employers could include law firms specialising in construction law, related government departments and regulatory bodies and architectural practices.

Duration/Award

The program is a seven year full-time combined program leading to the award of the two degrees of Bachelor of Architecture and Bachelor of Laws (BArch LLB). Students may complete the program in 6.5 years or 13 sessions of study if they carry out Work Experience over the summer breaks. This would mean that the enrolment for one session would be 48 units of credit which includes the 24 units of credit for work experience. Because the Architecture program contains a percentage of open electives which can be replaced by law courses, the combined program requires only three additional sessions of study to gain both qualifications. In general, this study is taken concurrently with the BArch program and both can be completed in thirteen sessions. It is considered to have a significant workload throughout these thirteen sessions.

Completion Requirements

From Year 2 both degrees must be studied concurrently with the expectation they students complete the full seven year program prior to graduating with the two degrees. It is not permissible for students enrolled in the combined Law degree program to graduate from the LLB degree until they have completed requirements for the non-Law degree.

Entry Requirements

The combined program is open to students who satisfy both the Architecture and Law entry conditions. Students may enter directly in Year 1 or may apply to transfer from the Architecture Program after the completion of one year if they have achieved a distinction or higher average. All applications for transfer must be registered with the University Admissions Centre. Transfer after the second year may result in the student taking more than the minimum time to complete the combined degree.

Organisation

The BArch LLB program is administered by the Faculty of Law. The Faculty requires the student to obtain approval of the Faculty of Built Environment, Architecture Program for the Architecture courses. The final program and timetable must be approved by the Head of the Architecture Program in the Faculty of the Built Environment.

Program Objectives and Learning Outcomes

At the completion of this program, students will have obtained a sound knowledge base in the fields of both Architecture and Law.

Program Structure

Approved Sequence of Study:

Students must complete Year 1 (48 units of credit) of the Architecture program before attempting any courses from the Law program. In subsequent years students must study architecture courses in a sequence approved by the Faculty of the Built Environment and law courses in a sequence approved by the School of Law. An approved sequence is detailed below. Other sequences may be approved under special circumstances.

Year 1

Session One

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Year 2

Session One

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Year 3

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Session Two

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Year 4

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Session Two

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<th>Course Code</th>
<th>Course Title</th>
<th>UOC</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARCH1381</td>
<td>Professional Practice 1</td>
<td>3</td>
</tr>
<tr>
<td>ARCH1402</td>
<td>Architectural Design Studio 4</td>
<td>9</td>
</tr>
<tr>
<td>ARCH1470</td>
<td>Building Services 1 &amp; 2</td>
<td>6</td>
</tr>
<tr>
<td>LAWS1011</td>
<td>Criminal Law 2</td>
<td>6</td>
</tr>
<tr>
<td>ARCH1583</td>
<td>Work Experience</td>
<td>24</td>
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</table>

Note: Students are required to undertake 24 weeks of approved off-campus activity in the pursuit of architectural work experience after Year 1 and before entering Year 5. This may be carried out in a minimum of eight week components during summer breaks.

Year 5

Session One

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>ARCH1501</td>
<td>Investigation Workshop</td>
<td>9</td>
</tr>
<tr>
<td>ARCH1581</td>
<td>Politics, Community &amp; Practice</td>
<td>3</td>
</tr>
<tr>
<td>LAWS1081</td>
<td>Property, Equity and Trusts 1</td>
<td>6</td>
</tr>
<tr>
<td>Plus ONE of:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LAWS8320</td>
<td>Legal Theory</td>
<td>6</td>
</tr>
<tr>
<td>LAWS8820</td>
<td>Law and Social Theory</td>
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Session Two

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<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>ARCH1502</td>
<td>Graduation Project</td>
<td>9</td>
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<tr>
<td>ARCH1584</td>
<td>Professional Practice 2</td>
<td>3</td>
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<tr>
<td>LAWS1082</td>
<td>Property and Equity 2</td>
<td>6</td>
</tr>
<tr>
<td>LAWS2150</td>
<td>Federal Constitutional Law</td>
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Year 6

Session One

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>LAWS2311</td>
<td>Litigation 1</td>
<td>6</td>
</tr>
<tr>
<td>LAWS4010</td>
<td>Business Associations 1</td>
<td>6</td>
</tr>
<tr>
<td>Plus Law Electives</td>
<td></td>
<td>12</td>
</tr>
</tbody>
</table>
Honours

Honours in Architecture: The degree of Bachelor of Architecture is awarded at either pass or Honours level. Honours is calculated on the basis of 192 units of credit from the Architecture Program and the 72 units of credit concurrently studied from the Law Program. These core law courses are considered in the same manner as Faculty electives for the purposes of the Honours calculation. The combined total units of credit is taken from student performance over 264 units of credit for the purpose of calculating Honours in Architecture.

Academic Rules

For Academic Rules relating to the Bachelor of Laws component of this combined degree program, please refer to the program entry for 4790 Bachelor of Laws.

1. The degrees Bachelor of Architecture and Bachelor of Laws are awarded at either pass or Honours level (BArch only) after the successful completion of a minimum of 192 units of credit from the Architecture Program and 144 units of credit from the Laws Program.

2. To fulfill these requirements, students must complete:
   - 168 units of core courses in Architecture, being all those prescribed in the faculty regulations for this program,
   - 24 units of work experience completed after Year 1 and before Year 5 as prescribed in the faculty regulations for this program,
   - 92 units of core courses in Law, being all those prescribed in the faculty regulations for this program,
   - 52 units of program electives in Law, selected in accordance with the faculty regulations for this program.

3. The standard duration of the program is 7 years consisting of 13 semesters of full-time study (24 units of credit per semester) plus 1 semester of required work experience.

4. Each student is required to undertake 24 weeks of approved off-campus activity in the pursuit of architectural work experience after Year 1 and before entering Year 5.

5. Law units may not be taken until after the student has completed 48 units of credit of the BArch Program.

4707 Bachelor of Planning Bachelor of Laws

BPlan LLB

Typical Duration
7 years

Minimum UOC for Award
336 units of credit

Typical UOC per Session
24 units of credit

Program Description
This program provides an opportunity to obtain two professional degrees. It allows students to add the professionally recognised Law program to the professionally accredited Planning program offered by the Faculty of the Built Environment.

Duration/Award
The program is a seven year full-time combined program leading to the award of the two degrees of Bachelor of Planning and Bachelor of Laws (BPlan LLB).

Because the Planning program contains a percentage of open electives which can be replaced by Law courses, the combined program requires only four additional sessions of study to gain both qualifications. In general, this study is taken concurrently with the BPlan program and both can be completed in a minimum of seven years, consisting of twelve academic sessions (six years), plus two sessions of compulsory Work Experience. This compares with the five-year BPlan program, which consists of eight academic sessions and two sessions (12 months) of compulsory Work Experience.

Although Work Experience is normally undertaken after the completion of five academic sessions, BPlan LLB students may elect to undertake the one year (two sessions) of compulsory Work Experience required for the award of the single BPlan degree after the completion of their BPlan and LLB coursework.

In addition, students may undertake the compulsory Work Experience in flexible ways (subject to the approval of the Planning and Urban Development Program), thereby reducing the overall length of the BPlan LLB Program.

Completion Requirements
From Year 2, both degrees must be studied concurrently with the expectation they students complete the full seven year program prior to graduating with the two degrees. It is not permissible for students enrolled in the combined Law degree program to graduate from the LLB degree until they have completed requirements for the non-Law degree.

Entry Requirements
The combined program is open to students who satisfy both the Planning and Law entry conditions. Students may enter directly in Year 1 or may apply to transfer from the Planning program after the completion of one year. Entry on this basis is competitive and is based on a combination of UAI and tertiary results. Transfer after the second year may result in the student taking more than the minimum time to complete the combined degree.

Organisation
The BPlan LLB course is administered by the Faculty of Law. The Faculty requires the student to obtain approval of the Planning and Urban Development Program in the School of the Built Environment for the Planning components of their program. The final program and timetable must be approved by the Head of the Planning and Urban Development Program.

Approved Sequence of Study
Students must complete Year 1 (48 units of credit) of the Planning program before attempting any courses from the Law program. In subsequent years students must study Planning courses in the sequence approved by the Faculty of the Built Environment and Law courses in a sequence approved by the School of Law. The approved sequence of study is detailed below.

Program Objectives and LearningOutcomes
On completion of this program, students will have attained a sound knowledge base in the fields of both Law and Planning.

Program Structure

Year 1

Session One

BENV1141 Computers and Information Technology (3 UOC)
GEOS1701 Environmental Systems and Processes (6 UOC)
PLAN1011 Urban Society (6 UOC)
PLAN1101 Understanding Design (6 UOC)
PLAN1241 Planning Theory and Practice (6 UOC)

Session Two

GEOH2801 Geographical Information Systems for Built Environment (6 UOC)
PLAN1042 Local Planning (6 UOC)
PLAN1122 Development Processes (6 UOC)
Plus Nominated FBE Elective (6 UOC)

Year 2

Session One

LAW5105 Foundations of Law (6 UOC)
PLAN2032 Urban Design (6 UOC)

LAW 277
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>UOC</th>
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<tbody>
<tr>
<td>PLAN2041</td>
<td>Integrated Planning 1</td>
<td>6</td>
</tr>
<tr>
<td>PLAN2111</td>
<td>Economics of Planning and Development</td>
<td>6</td>
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<tr>
<td></td>
<td><strong>Session Two</strong></td>
<td></td>
</tr>
<tr>
<td>LAWS1061</td>
<td>Torts</td>
<td>6</td>
</tr>
<tr>
<td>LAWS2160</td>
<td>Administrative Law</td>
<td>6</td>
</tr>
<tr>
<td>PLAN2122</td>
<td>History, Heritage and the Built Environment</td>
<td>6</td>
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<tr>
<td>PLAN2152</td>
<td>Resources, Planning and the Natural Environment</td>
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<tr>
<td>LAWS1071</td>
<td>Contracts 1</td>
<td>3</td>
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<tr>
<td>LAWS2140</td>
<td>Public Law</td>
<td>3</td>
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<td><strong>Session Two</strong></td>
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<td>LAWS1081</td>
<td>Work Experience</td>
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<td><strong>Year 4</strong></td>
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<tr>
<td></td>
<td><strong>Session One</strong></td>
<td></td>
</tr>
<tr>
<td>LAWS1072</td>
<td>Contracts 2</td>
<td>6</td>
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<tr>
<td>PLAN3015</td>
<td>Social Planning</td>
<td>6</td>
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<tr>
<td>PLAN3032</td>
<td>Integrated Plan 3</td>
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<tr>
<td>PLAN3052</td>
<td>Qualitative Methods</td>
<td>6</td>
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<tr>
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<td><strong>Session Two</strong></td>
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</tr>
<tr>
<td></td>
<td><strong>Year 5</strong></td>
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</tr>
<tr>
<td>GEOH3671</td>
<td>Transport, Land Use and Environment</td>
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<td>LAWS1001</td>
<td>Criminal Law 1</td>
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<td>LAWS6210</td>
<td>Law, Lawyers and Society</td>
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<td>PLAN4031</td>
<td>Research Design</td>
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<td>PLAN4221</td>
<td>Regional Policy</td>
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<td>LAWS1011</td>
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<td>PLAN4132</td>
<td>Thesis Project</td>
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<tr>
<td>PLAN4142</td>
<td>Professionalism, Ethics and Politics</td>
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<tr>
<td>LAWS1081</td>
<td>Property, Equity and Trusts 1</td>
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<td>LAWS2150</td>
<td>Federal Constitutional Law</td>
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<td>LAWS2311</td>
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<tr>
<td>LAWS1082</td>
<td>Property and Equity 2</td>
<td>6</td>
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<tr>
<td>LAWS2321</td>
<td>Litigation 2</td>
<td>6</td>
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<tr>
<td>LAWS4010</td>
<td>Business Associations 1</td>
<td>6</td>
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<tr>
<td>LAWS7420</td>
<td>Advanced Legal Research</td>
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</tr>
<tr>
<td>Law Electives</td>
<td>(24 UOC)</td>
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</tbody>
</table>

**Note:** Students are required to undertake 24 weeks of approved off-campus activity in the pursuit of architectural work experience after Year 1 and before entering Year 5. This may be carried out in a minimum of eight week components during summer breaks.

**Honours**

The degree of Bachelor of Planning is awarded at either at Pass or Honours level. The award of Honours is calculated on the basis of 144 of credit from the Planning program and 48 units of credit concurrently studied from the Law program. These law courses are considered in the same manner as Faculty of the Built Environment electives for the purposes of the Honours calculation. The combined total units of credit is taken from student performance over 192 units of credit for the purpose of calculating Honours in Planning.

**Academic Rules**

For Academic Rules relating to the Bachelor of Laws component of this combined degree program, please refer to the program entry for 4790 Bachelor of Laws.

1. The degrees Bachelor of Planning and Bachelor of Laws are awarded at either Pass or Honours level (BPlan only) after the successful completion of a minimum of 192 units of credit from the Planning Program and 144 units of credit from the Laws Program.

2. To fulfill these requirements, students must complete:
   - 144 units of core courses in Planning (including nominated electives), being all those prescribed in the faculty regulations for this program.
   - 48 units of work experience as prescribed in the faculty regulations for this program.
   - 92 units of core courses in Law, being all those prescribed in the faculty regulations for this program.
   - 52 units of program electives in Law, selected in accordance with the faculty regulations for this program.

3. The standard duration of the program is 7 years consisting of 12 semesters of full-time study (24 units of credit per semester) plus 2 sessions of required work experience.

4. The standard duration of the program is 7 years, consisting of 12 sessions of full-time study (24 units of credit per session) plus 2 sessions of required work experience.

5. Law units may not be taken until after the student has completed 48 units of credit of the BPlan Program.

**Faculty of Commerce & Economics and Faculty of Law**

**4733 Bachelor of Commerce Bachelor of Laws**

**BCom LLB**

**Typical Duration**

5 years

**Minimum UOC for Award**

240 units of credit

**Typical UOC per Session**

24 units of credit

**Program Description**


This program provides an opportunity to obtain two degrees of professional importance to business, administration and commercial law practice.

**Duration/Award**

The program is a five year full-time combined program leading to the award of the two degrees of Bachelor of Commerce and Bachelor of Laws (BCom/LLB).

**Distinction**

The BCom degree may be awarded with Distinction where a student has achieved a weighted average mark (WAM) of at least 75% in the UNSW courses completed as part of that degree.
Transferring Majors (Plans)
Students must nominate a major (plan code) at enrolment. Subsequent transfers to another major may be possible subject to the approval of both faculties.

Graduation
Candidates enrolled in the combined degree programs may be awarded the degree of BCom after the completion of specified requirements. Full details are given in the ‘Academic Rules’.

Commerce & Economics Courses
Apart from service courses for other faculties, and unless specified as from which discipline they must be chosen, commerce & economics options may be chosen from any course taught by the Faculty of Commerce and Economics according to the requirements for the selected Commerce major. (The usual course prerequisites, corequisites and exclusions apply). No course can be counted both as an option and as a prescribed course.

Approved Sequence of Study
Students must study commerce and economics courses in a sequence approved by the Faculty of Commerce and Economics and law courses in a sequence approved by the Faculty of Law. Approved sequences for each combined program are given below; other sequences may be approved under special circumstances.

Program Objectives and Learning Outcomes
At the completion of this program, students will have obtained a sound knowledge base in the disciplines of both Commerce and Law.

Program Structure
Total units of credit requirements
- Law compulsory courses: 92 UOC
- Law elective courses: 64 UOC
- Approved Commerce courses: 84 UOC

The single major requirement for the BCom is 48 UOC.

PLANS (Majors)
Accounting (program 4733, plan code ACCTA14733)

Year 1
Session One
- ACCT1501 Accounting and Financial Management 1A (6 UOC)
- ECON1101 Microeconomics 1 (6 UOC)
- ECON1202 Quantitative Methods A (6 UOC)
- LAWS1012 Foundations of Law (6 UOC)

Session Two
- ACCT1511 Accounting and Financial Management 1B (6 UOC)
- ECON1102 Microeconomics 1 (6 UOC)
- ECON1203 Quantitative Methods B (6 UOC)
- LAWS1016 Contracts 1 (6 UOC)

Year 2
Session One
- Commerce & Economics Elective 1 (6 UOC)
- ACCT2522 Management Accounting: Process Improvement & Innovation (6 UOC)
- LAWS1001 Criminal Law 1 (6 UOC)
- LAWS1071 Contracts 1 (3 UOC)
- LAWS2140 Public Law (3 UOC)

Session Two
- Commerce & Economics Elective 2 (6 UOC)
- ACCT2542 Corporate Financial Reporting & Analysis (6 UOC)
- LAWS1011 Criminal Law 2 (6 UOC)
- LAWS1072 Contracts 2 (6 UOC)

Year 3
Session One
- Accounting Option 1 (6 UOC)
- ACCT3563 Issues in Financial Reporting & Analysis (6 UOC)
- LAWS1081 Property, Equity and Trusts 1 (6 UOC)
- LAWS2160 Administrative Law (6 UOC)

Session Two
- Accounting Option 2 (6 UOC)
- ACCT3583 Stakeholder Value Management (6 UOC)
- LAWS1082 Property and Equity 2 (6 UOC)
- LAWS56210 Law, Lawyers and Society (6 UOC)

Year 4
Session One
- LAWS2510 Federal Constitutional Law (6 UOC)
- LAWS2311 Litigation 1 (6 UOC)
- LAWS4010 Business Associations 1 (6 UOC)
- LAWS86320 Legal Theory (6 UOC)
- LAWS8820 Law and Social Theory (6 UOC)

Session Two
- LAWS2321 Litigation 2 (6 UOC)
- LAWS7420 Advanced Legal Research (2 UOC)
- Law electives (2 x 8 UOC) (16 UOC)

Year 5
Law electives (48 UOC)

Notes:
- LEGT: Students enrolled in either the BCom LLB are not permitted to enrol in courses from the School of Business Law and Taxation (LEGT).
- Commerce electives can be taken from any courses taught by the Faculty of Commerce and Economics (except LEGT) providing the requirements have been met. Details can be found in the Course Descriptions section of this Handbook.

Professional Recognition: Students wishing to obtain CPA/CA accreditation should choose INFS1602 and FINS1613 as their Commerce and Economics Electives. Please note INFS1602 is no longer mandatory for the CA accreditation.

Accounting Options
- ACCT1501 Accounting and Financial Management 1A (6 UOC)
- ECON1101 Microeconomics 1 (6 UOC)
- LAWS1012 Foundations of Law (6 UOC)
- LAWS1001 Criminal Law 1 (6 UOC)
- LAWS1071 Contracts 1 (3 UOC)
- LAWS2140 Public Law (3 UOC)

Accounting is available at Honours level. Please refer to the ‘Honours’ section below.

Actuarial Studies (program 4733, plan code ACTLB14733)

Year 1
Session One
- ACCT1501 Accounting and Financial Management 1A (6 UOC)
- ECON1101 Microeconomics 1 (6 UOC)
- LAWS1012 Foundations of Law (6 UOC)
- LAWS1001 Criminal Law 1 (6 UOC)
- LAWS1071 Contracts 1 (3 UOC)
- LAWS2140 Public Law (3 UOC)

Session Two
- ACCT1511 Accounting and Financial Management 1B (6 UOC)
- ECON1102 Microeconomics 1 (6 UOC)
- ECON1203 Quantitative Methods B (6 UOC)
- LAWS1016 Contracts 1 (6 UOC)

Year 2
Session One
- ACTL1001 Actuarial Studies and Commerce (6 UOC)
- ECON1102 Microeconomics 1 (6 UOC)
- LAWS1061 Torts (6 UOC)

Session Two
- ACTL1001 Actuarial Studies and Commerce (6 UOC)
- ECON1102 Microeconomics 1 (6 UOC)
- LAWS1061 Torts (6 UOC)

Year 3
Session One
- ACTL2001 Financial Mathematics (6 UOC)
- ACTL2002 Probability and Statistics for Actuaries (6 UOC)
- LAWS1001 Criminal Law 1 (6 UOC)
- LAWS1071 Contracts 1 (3 UOC)
- LAWS2140 Public Law (3 UOC)

Session Two
- ACTL2003 Stochastic Models for Actuarial Applications (6 UOC)
- ACCT1511 Accounting & Financial Management 1B (6 UOC)
- LAWS1011 Criminal Law 2 (6 UOC)
- LAWS1072 Contracts 2 (6 UOC)

Year 4
Session One
- ACTL3003 Insurance Risk Models (6 UOC)
- ACTL3004 Financial Economics for Insurance and Superannuation (6 UOC)
LAWS1081 Property, Equity and Trusts 1 (6 UOC)
LAWS2160 Administrative Law (6 UOC)

Session Two
ACTL3003 Insurance Risk Models (6 UOC)
ACTL3004 Financial Economics for Insurance and Superannuation (6 UOC)
LAWS1082 Property and Equity 2 (6 UOC)
LAWS6210 Law, Lawyers and Society (6 UOC)

Year 4
Session One
LAWS2150 Federal Constitutional Law (6 UOC)
LAWS2511 Litigation 1 (6 UOC)
LAWS4010 Business Associations 1 (6 UOC)
plus ONE of the following courses:
LAWS8320 Legal Theory (6 UOC)
LAWS8820 Law and Social Theory (6 UOC)

Session Two
LAWS2321 Litigation 2 (6 UOC)
LAWS7420 Advanced Legal Research (2 UOC)
2 Law Electives (16 UOC)

Year 5
Law electives totalling 48 units of credit

Note: The combined Commerce/Law program in Actuarial Studies allows students to complete an actuarial major but does NOT enable them to complete all the courses equivalent to Part I and Part II subjects of the professional body “The Institute of Actuaries of Australia”. The program allows students to complete 6 (out of a total of 8) Part I professional actuarial courses.

Actuarial Studies is available at Honours level. Please refer to the ‘Honours’ section below.

Business Economics (program 4733, plan code ECON14733)

Year 1
Session One
ACCT1501 Accounting and Financial Management 1A (6 UOC)
ECON1101 Microeconomics 1 (6 UOC)
ECON1202 Quantitative Methods A (6 UOC)
LAWS1052 Foundations of Law (6 UOC)

Session Two
ALC1151 Accounting and Financial Management 1B (6 UOC)
ECON1102 Microeconomics 1 (6 UOC)
ECON1203 Quantitative Methods B (6 UOC)
LAWS1061 Torts (6 UOC)

Year 2
Session One
LAWS1001 Criminal Law 1 (6 UOC)
LAWS1071 Contracts 1 (3 UOC)
LAWS2140 Public Law (3 UOC)
Economics Elective 1 (6 UOC)
Economics Elective 2 (6 UOC)

Session Two
LAWS1011 Criminal Law 2 (6 UOC)
LAWS1072 Contracts 2 (3 UOC)
Economics Elective 3 (6 UOC)
Economics Elective 4 (6 UOC)

Year 3
Session One
LAWS1081 Property, Equity and Trusts 1 (6 UOC)
LAWS2160 Administrative Law (6 UOC)
Economics Elective 3 (6 UOC)
Economics Elective 4 (6 UOC)

Session Two
LAWS1082 Property and Equity 2 (6 UOC)
LAWS6210 Law, Lawyers and Society (6 UOC)
Commerce/Economics Option 1 (6 UOC)
Commerce/Economics Option 2 (6 UOC)

Year 4
Session One
LAWS2150 Federal Constitutional Law (6 UOC)
LAWS2311 Litigation 1 (6 UOC)
LAWS4010 Business Associations 1 (6 UOC)

Plus ONE of the following courses:
LAWS8320 Legal Theory (6 UOC)
LAWS8820 Law and Social Theory (6 UOC)

Session Two
LAWS2321 Litigation 2 (6 UOC)
LAWS7420 Advanced Legal Research (2 UOC)
Law electives (16 UOC)

Year 5
Law electives totalling 48 units of credit.

Note: Law students may not take any law courses offered by the School of Business Law & Taxation (LEGT)

PLEASE NOTE that six Economics electives are to be selected from the electives below, two electives must be from List B.

List A
ECON2101 Microeconomics 2 S1
ECON2102 Macroeconomics 2 S2
ECON2103 Business and Government S2
ECON2104 Applied Macroeconomics S1
ECON2105 Economics of Corporations S2
ECON2107 The Economics of Information & Technology S1
ECON2109 Economics of Natural Resources S1
ECON2111 Globalisation S2
ECON2112 Game Theory and Business Strategy S1
ECON2113 Economics of E-Commerce S2
ECON2116 Economics of Japanese Business & Government S1
ECON2117 Economics of Tourism S1
ECON2127 Environmental Economics S2
ECON2206 Introductory Econometrics S1
ECON2305 Modern Asian Economic History S1
ECON2313 Australian Economic Development S1
ECON2322 European Integration S2

List B
ECON2207 Econometric Methods S2
ECON3101 Markets and Public Choice S1
ECON3104 International Macroeconomics S1
ECON3106 Public Finance S2
ECON3107 Economics of Finance S1
ECON3109 Economic Growth, Technology & Structural Change S1
ECON3110 Development Economics S2
ECON3112 The Newly Industrialising Economies of East Asia S2
ECON3113 Economic Development in ASEAN Countries S1
ECON3114 Superannuation and Retirement Benefits S2
ECON3116 International Economics S2
ECON3120 Economic Reasoning S2
ECON3121 Managerial Economics S1
ECON3202 Mathematical Economics S1
ECON3203 Econometric Theory S2
ECON3204 Econometric Model Building S2
ECON3206 Financial Econometrics S2

Business Economics is available at Honours level. Please refer to the ‘Honours’ section below.

Business Statistics (program 4733, plan code ECONH14733)

Session One
ALC1151 Accounting and Financial Management 1A (6 UOC)
ECON1101 Microeconomics 1 (6 UOC)
ECON1202 Quantitative Methods A (6 UOC)
LAWS1052 Foundations of Law (6 UOC)

Session Two
ALC1151 Accounting and Financial Management 1B (6 UOC)
ECON1102 Microeconomics 1 (6 UOC)
ECON1203 Quantitative Methods B (6 UOC)
LAWS1061 Torts (6 UOC)

Year 2
Session One
LAWS1001 Criminal Law 1 (6 UOC)
LAWS1071 Contracts 1 (3 UOC)
LAWS2140 Public Law (3 UOC)
Economics Elective 1 (6 UOC)
Economics Elective 2 (6 UOC)

Session Two
LAWS1011 Criminal Law 2 (6 UOC)
LAWS1072 Contracts 2 (3 UOC)
Economics Elective 3 (6 UOC)
Economics Elective 4 (6 UOC)

Year 3
Session One
LAWS1081 Property, Equity and Trusts 1 (6 UOC)
LAWS2160 Administrative Law (6 UOC)
Economics Elective 3 (6 UOC)
Economics Elective 4 (6 UOC)

Session Two
LAWS1082 Property and Equity 2 (6 UOC)
LAWS6210 Law, Lawyers and Society (6 UOC)
Commerce/Economics Option 1 (6 UOC)
Commerce/Economics Option 2 (6 UOC)

Year 4
Session One
LAWS2150 Federal Constitutional Law (6 UOC)
LAWS2311 Litigation 1 (6 UOC)
LAWS4010 Business Associations 1 (6 UOC)

Plus ONE of the following courses:
LAWS8320 Legal Theory (6 UOC)
LAWS8820 Law and Social Theory (6 UOC)

Session Two
LAWS2321 Litigation 2 (6 UOC)
LAWS7420 Advanced Legal Research (2 UOC)
Law electives (16 UOC)

Year 5
Law electives totalling 48 units of credit.

Note: Law students may not take any law courses offered by the School of Business Law & Taxation (LEGT)

PLEASE NOTE that six Economics electives are to be selected from the electives below, two electives must be from List B.

List A
ECON2101 Microeconomics 2 S1
ECON2102 Macroeconomics 2 S2
ECON2103 Business and Government S2
ECON2104 Applied Macroeconomics S1
ECON2105 Economics of Corporations S2
ECON2107 The Economics of Information & Technology S1
ECON2109 Economics of Natural Resources S1
ECON2111 Globalisation S2
ECON2112 Game Theory and Business Strategy S1
ECON2113 Economics of E-Commerce S2
ECON2116 Economics of Japanese Business & Government S1
ECON2117 Economics of Tourism S1
ECON2127 Environmental Economics S2
ECON2206 Introductory Econometrics S1
ECON2305 Modern Asian Economic History S1
ECON2313 Australian Economic Development S1
ECON2322 European Integration S2

List B
ECON2207 Econometric Methods S2
ECON3101 Markets and Public Choice S1
ECON3104 International Macroeconomics S1
ECON3106 Public Finance S2
ECON3107 Economics of Finance S1
ECON3109 Economic Growth, Technology & Structural Change S1
ECON3110 Development Economics S2
ECON3112 The Newly Industrialising Economies of East Asia S2
ECON3113 Economic Development in ASEAN Countries S1
ECON3114 Superannuation and Retirement Benefits S2
ECON3116 International Economics S2
ECON3120 Economic Reasoning S2
ECON3121 Managerial Economics S1
ECON3202 Mathematical Economics S1
ECON3203 Econometric Theory S2
ECON3204 Econometric Model Building S2
ECON3206 Financial Econometrics S2

Business Economics is available at Honours level. Please refer to the ‘Honours’ section below.
Year 4

<table>
<thead>
<tr>
<th>Session One</th>
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<tbody>
<tr>
<td>LAWS2150 Federal Constitutional Law</td>
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<tr>
<td>LAWS2311 Litigation 1</td>
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<tr>
<td>LAWS4010 Business Associations 1</td>
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Plus ONE of the following courses:

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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>LAWS8320 Legal Theory</td>
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<td>LAWS8820 Law and Social Theory</td>
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<tbody>
<tr>
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<tr>
<td>LAWS7420 Advanced Legal Research</td>
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Law electives (16 UOC)

Year 5

Law electives totalling 48 units of credit.

Economic History Electives

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<thead>
<tr>
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<tr>
<td>ECON1302 Australia and the Asia Pacific Economies</td>
<td></td>
</tr>
<tr>
<td>ECON2303 Modern Asian Economic History</td>
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</tr>
<tr>
<td>ECON2313 Australian Economic Development</td>
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</tr>
<tr>
<td>ECON2322 European Integration</td>
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Financial Economics (program 4733, plan code ECON14733)

Year 1

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<td>ECON1101 Microeconomics 1</td>
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<tr>
<td>ECON1202 Quantitative Methods A</td>
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<td>ECON1203 Quantitative Methods B</td>
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<td>LAWS1061 Torts</td>
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Year 2

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<tbody>
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<td>ECON2206 Introductory Econometrics</td>
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<td>LAWS1001 Criminal Law 1</td>
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Year 3

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<tr>
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Financial Economics elective 2 (6 UOC)

Year 4

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<td>LAWS4010 Business Associations 1</td>
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Plus ONE of the following courses:

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<tbody>
<tr>
<td>LAWS8320 Legal Theory</td>
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<td>LAWS8820 Law and Social Theory</td>
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<tbody>
<tr>
<td>LAWS2321 Litigation 2</td>
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<tr>
<td>LAWS7420 Advanced Legal Research</td>
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Law electives (16 UOC)

Year 5

Law electives totalling 48 units of credit.

Financial Economics Electives:

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<tbody>
<tr>
<td>ECON2102 Macroeconomics 2</td>
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<td>ECON2104 Applied Microeconomics</td>
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<td>ECON2112 Game Theory &amp; Business Strategy</td>
<td>S1</td>
</tr>
<tr>
<td>ECON2207 Econometric Methods</td>
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<td>ECON2208 Operations Research</td>
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<td>ECON2213 Statistics for Econometrics</td>
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<td>ECON3101 Markets and Public Choice</td>
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<td>ECON3104 International Macroeconomics</td>
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Economic History Electives

Law electives are available at Honours level. Please refer to the ‘Honours’ section below.

Finance (program 4733, plan code FINS14733)

Year 1

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<td>ECON1202 Quantitative Methods A</td>
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Year 2

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<td>FINS2624 Portfolio Management</td>
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Year 3

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<tbody>
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<td>LAWS1082 Property and Equity 2</td>
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<td>LAWS6210 Law, Lawyers and Society</td>
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<tr>
<td>Finance Elective 3</td>
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<td>Finance Elective 4</td>
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Year 4

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<tr>
<td>LAWS2311 Litigation 1</td>
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<tr>
<td>LAWS4010 Business Associations 1</td>
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Plus ONE of the following courses:

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<th>Course</th>
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<tbody>
<tr>
<td>LAWS8320 Legal Theory</td>
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<td>LAWS8820 Law and Social Theory</td>
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<thead>
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<th>Session Two</th>
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<tbody>
<tr>
<td>LAWS2321 Litigation 2</td>
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<tr>
<td>LAWS7420 Advanced Legal Research</td>
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Law electives (16 UOC)

Year 5

Law electives totalling 48 units of credit.

Finance Electives

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>FINS2622 Emerging Capital Markets</td>
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<tr>
<td>HINS2643 Wealth Management</td>
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FINS3623 Venture Capital (6 UOC)
FINS3625 Applied Corporate Finance (6 UOC)
FINS3626 International Corporate Governance (6 UOC)
FINS3630 Bank Financial Management (6 UOC)
FINS3631 Risk and Insurance (6 UOC)
FINS3633 Real Estate Finance (6 UOC)
FINS3634 Credit Analysis and Lending (6 UOC)
FINS3635 Options, Futures and Risk Management (6 UOC)
FINS3636 Interest Rate Risk Management (6 UOC)
FINS3637 Wealth Management Advice (6 UOC)
FINS3640 Investment Management Modelling (6 UOC)
FINS3641 Security Analysis & Valuation (6 UOC)
FINS3642 Strategies for Investment Management (6 UOC)
FINS3650 International Banking (6 UOC)
FINS3651 International Financial Services (6 UOC)
FINS3775 Research Methods in Finance 1 (6 UOC)

Finance is available at Honours level. Please refer to the ‘Honours’ section below.

Human Resource Management (program 4733, plan code IKOBC14733)
A total of 42 units of credit obtained in Required (18 UOC) and Optional Courses (minimum 18 UOC).

Year 1
Session One
ACCT1501 Accounting and Financial Management 1A (6 UOC)
ECHN1101 Microeconomics 1 (6 UOC)
ECHN1202 Quantitative Methods A (6 UOC)
LAW1052 Foundations of Law (6 UOC)

Session Two
ACCT1511 Accounting and Financial Management 1B (6 UOC)
ECHN1102 Microeconomics 1 (6 UOC)
MGMT1701 Industrial Relations (6 UOC)
LAW1061 Torts (6 UOC)

Year 2
Session One
MGMT1712 Management of Organisations (6 UOC)
MGMT1718 Human Resource Management (6 UOC)
LAW1001 Criminal Law 1 (6 UOC)
LAW1071 Contracts 1 (3 UOC)
LAW2140 Public Law (3 UOC)

Session Two
ECHN1203 Quantitative Methods B (6 UOC)
LAW1011 Criminal Law 2 (6 UOC)
LAW1072 Contracts 2 (3 UOC)
Human Resource Management Elective (List A) (6 UOC)

Year 3
Session One
LAW1081 Property, Equity and Trusts 1 (6 UOC)
LAW2160 Administrative Law (6 UOC)
Human Resource Management Elective (List A or B) (6 UOC)
Human Resource Management Elective (List B) (6 UOC)

Session Two
LAW1082 Property and Equity 2 (6 UOC)
LAW6210 Law, Lawyers and Society (6 UOC)
Human Resource Management Elective (List A or B) (6 UOC)
Human Resource Management Elective (List A) (6 UOC)

Year 4
Session One
LAW2150 Federal Constitutional Law (6 UOC)
LAW2311 Litigation 1 (6 UOC)
LAW4010 Business Associations 1 (6 UOC)
Plus ONE of the following courses:
LAW8320 Legal Theory (6 UOC)
LAW8820 Law and Social Theory (6 UOC)

Session Two
LAW2321 Litigation 2 (6 UOC)
LAW57420 Advanced Legal Research (2 UOC)
Law electives (16 UOC)

Year 5
Law electives totalling 48 units of credit.

Human Resource Management Electives
Option List A (minimum 12 UOC)
MGMT3702 International Human Resource Management Practice (6 UOC)
MGMT3724 Strategic Human Resource Management (6 UOC)
MGMT3728 Managing Pay and Performance (6 UOC)
MGMT3729 Managing Workplace Training (6 UOC)

Option List B (minimum 6 UOC)
MGMT2702 Industrial Law* (6 UOC)
MGMT2704 Social Organisation of Work (6 UOC)
MLM12713 Labour History* (6 UOC)
MGMT2724 Health and Safety at Work (6 UOC)
MLM13705 Management and Employment Relations (6 UOC)
MGMT3708 Research Methods in Employment and Management (6 UOC)
MGMT3721 Negotiation Skills (6 UOC)

Human Resource Management is available at Honours level. Please refer to the ‘Honours’ section below.

*Subject to availability. Please consult the school timetable.

Industrial Relations (program 4733, plan code IROBA14733)
Year 1
Session One
ACCT1501 Accounting and Financial Management 1A (6 UOC)
ECHN1101 Microeconomics 1 (6 UOC)
ECHN1202 Quantitative Methods A (6 UOC)
LAW1052 Foundations of Law (6 UOC)

Session Two
ACCT1511 Accounting and Financial Management 1B (6 UOC)
ECHN1102 Microeconomics 1 (6 UOC)
MLM17102 Labour History* (6 UOC)
LAW1061 Torts (6 UOC)
MGMT1701 Industrial Relations (6 UOC)

Year 2
Session One
ECHN1203 Quantitative Methods B (6 UOC)
LAW1011 Criminal Law 2 (6 UOC)
LAW1071 Contracts 1 (3 UOC)
LAW2140 Public Law (3 UOC)
MGMT2702 Industrial Law (6 UOC)

Session Two
MGMT1702 Labour Organisations (6 UOC)
LAW1011 Criminal Law 2 (6 UOC)
LAW1072 Contracts 2 (6 UOC)
Industrial Relations Elective (List A) (6 UOC)

Year 3
Session One
LAW1081 Property, Equity and Trusts 1 (6 UOC)
LAW2160 Administrative Law (6 UOC)
Industrial Relations Elective (List A or B) (6 UOC)
Industrial Relations Elective (List B) (6 UOC)

Session Two
LAW1082 Property and Equity 2 (6 UOC)
LAW6210 Law, Lawyers and Society (6 UOC)
Industrial Relations Elective (List A or B) (6 UOC)
Industrial Relations Elective (List A) (6 UOC)

Year 4
Session One
LAW2150 Federal Constitutional Law (6 UOC)
LAW2311 Litigation 1 (6 UOC)
LAW4010 Business Associations 1 (6 UOC)
Plus ONE of the following courses:
LAW8320 Legal Theory (6 UOC)
LAW8820 Law and Social Theory (6 UOC)

Session Two
LAW2321 Litigation 2 (6 UOC)
LAW57420 Advanced Legal Research (2 UOC)
Law electives (16 UOC)

Year 5
Law electives totalling 48 units of credit.
Industrial Relations Electives
List A
MGMT2704 Social Organisation of Work
MGMT2715 Labour History*
MGMT3705 Management & Employment Relations
*Subject to availability. Please consult the school timetable.

List B
MGMT1712 Management of Organisations
MGMT2703 International Employment Relations
MGMT2718 Human Resource Management
MGMT2724 Health & Safety at Work
MGMT1702 International Human Resource Management
MGMT3721 Negotiation Skills
MGMT1724 Strategic Human Resource Mgmt
MGMT3728 Managing Pay & Performance
MGMT3729 Managing Workplace Training

Industrial Relations is available at Honours level. Please refer to the ‘Honours’ section below.

Information Systems (program 4733, plan code INFS14733)

Year 1
Session One
ACCT1501 Accounting and Financial Management 1A (6 UOC)
ECON1101 Microeconomics 1 (6 UOC)
ECON1202 Quantitative Methods A (6 UOC)
LAWS1052 Foundations of Law (6 UOC)

Session Two
ACCT1511 Accounting and Financial Management 1B (6 UOC)
INFS1602 Computer Information Systems (6 UOC)
ECON1203 Quantitative Methods B (6 UOC)
LAWS1061 Torts (6 UOC)

Year 2
Session One
ECON1102 Microeconomics (6 UOC)
INFS1603 Business Data Management (6 UOC)
LAWS1001 Criminal Law 1 (6 UOC)
LAWS1071 Contracts 1 (3 UOC)
LAWS2140 Public Law (3 UOC)

Session Two
INFS2603 Systems Analysis and Design (6 UOC)
INFS2607 Business Data Networks (6 UOC)
LAWS1011 Criminal Law 2 (6 UOC)
LAWS1072 Contracts 2 (6 UOC)

Year 3
Session One
LAWS1081 Property, Equity and Trusts 1 (6 UOC)
LAWS2160 Administrative Law (6 UOC)
Information Systems Elective 1 (6 UOC)
Information Systems Elective 2 (6 UOC)

Session Two
LAWS1082 Property and Equity 2 (6 UOC)
LAWS6210 Law, Lawyers and Society (6 UOC)
Information Systems Elective 3 (6 UOC)
Information Systems Elective 4 (6 UOC)

Year 4
Session One
LAWS2150 Federal Constitutional Law (6 UOC)
LAWS2311 Litigation 1 (6 UOC)
LAWS4010 Business Associations 1 (6 UOC)

Plus ONE of the following courses:
LAWS8320 Legal Theory (6 UOC)
LAWS8820 Law and Social Theory (6 UOC)

Session Two
LAWS2321 Litigation 2 (6 UOC)
LAWS7420 Advanced Legal Research (2 UOC)
Law electives (16 UOC)

Year 5
Law electives totalling 48 units of credit.

Information Systems Electives
INFS2609 Software Implementation (6 UOC)
INFS2611 Requirements Elicitation (3 UOC)
INFS3603 Business Intelligence Systems (6 UOC)
INFS3604 Information Technology Management (6 UOC)
INFS3605 Implementation Workshop (6 UOC)
INFS3606 Telecommunications for Electronics Commerce (6 UOC)
INFS3608 Advanced Database Systems (6 UOC)
INFS3611 Design Workshop (6 UOC)
INFS3621 Alternative System Design Methodologies (3 UOC)
INFS3622 Distributed Application Design (3 UOC)
INFS3623 Multimedia Systems Design (3 UOC)
INFS3685 Electronic Commerce Management (6 UOC)

Students who wish to undertake an Honours year in Information Systems must consult the Head of School at the end of Year 2.

International Business (program 4733, plan code IBUSA14733)

Year 1
Session One
ACCT1501 Accounting and Financial Management 1A (6 UOC)
ECON1101 Microeconomics 1 (6 UOC)
ECON1202 Quantitative Methods A (6 UOC)
LAWS1052 Foundations of Law (6 UOC)

Session Two
ALC1131 Accounting and Financial Management 1B (6 UOC)
ECON1102 Microeconomics 1 (6 UOC)
ECON1203 Quantitative Methods B (6 UOC)
LAWS1061 Torts (6 UOC)

Year 2
Session One
MGMT1101 International Business Environment (6 UOC)
MGMT2101 International Business & Multinational Enterprises (6 UOC)
LAWS1001 Criminal Law 1 (6 UOC)
LAWS1071 Contracts 1 (3 UOC)
LAWS2140 Public Law (3 UOC)

Session Two
MGMT1102 Managing Across Cultures (6 UOC)
MGMT3101 International Business Strategy (6 UOC)
LAWS1011 Criminal Law 2 (6 UOC)
LAWS1072 Contracts 2 (6 UOC)

Year 3
Session One
LAWS1081 Property, Equity and Trusts 1 (6 UOC)
LAWS2160 Administrative Law (6 UOC)
International Business Elective (List A) (6 UOC)
International Business Elective (List A or B) (6 UOC)

Session Two
LAWS1082 Property and Equity 2 (6 UOC)
LAWS6210 Law, Lawyers and Society (6 UOC)
MGMT3102 Asia Pacific Business (6 UOC)
International Business Elective (List B) (6 UOC)

Year 4
Session One
LAWS2150 Federal Constitutional Law (6 UOC)
LAWS2311 Litigation 1 (6 UOC)
LAWS4010 Business Associations 1 (6 UOC)

Plus ONE of the following courses:
LAWS8320 Legal Theory (6 UOC)
LAWS8820 Law and Social Theory (6 UOC)

Session Two
LAWS2321 Litigation 2 (6 UOC)
LAWS7420 Advanced Legal Research (2 UOC)
Law electives (16 UOC)

Year 5
Law electives totalling 48 units of credit.

International Business Electives
List A
MGMT2106 Comparative Management Systems in East Asia (6 UOC)
MGMT3103 Global Stakeholder Management*
*Subject to availability. Please consult the school timetable.

**List B**

MGMT1001 Fundamentals of Management
MGMT2105 Chinese Business Enterprise
ECON2105 Economics of the Corporation
ECON2111 Globalisation
ECON2322 European Integration
HINS1612 Capital Markets & Institutions

**Note:** Languages offered by the School of Modern Language Studies may be taken as International Business options. Please consult with the School of International Business about your language options.

Please note that law students may not take law courses offered by the School of Business Law and Taxation (LEGT).

International Business is available at Honours level. Please refer to the ‘Honours’ section below.

**Management (program 4733, plan code MGMTA14733)**

**Year 1**

**Session One**

ACCT1101 Accounting and Financial Management 1A (6 UOC)
ECON1101 Microeconomics 1 (6 UOC)
ECON1202 Quantitative Methods A (6 UOC)
LAW1032 Law (6 UOC)

**Session Two**

ACCT1111 Accounting and Financial Management 1B (6 UOC)
ECON1102 Microeconomics 1 (6 UOC)
LAW1032 Law (6 UOC)
LAW1061 Torts (6 UOC)

**Year 2**

**Session One**

LAW1001 Criminal Law 1 (6 UOC)
LAW1071 Contracts 1 (3 UOC)
LAW2140 Public Law (3 UOC)
MGMT1001 Fundamentals of Management (6 UOC)
Management Elective 1 (List A) (6 UOC)

**Session Two**

MGMT1002 Managing Organisational Behaviour (6 UOC)
MGMT2002 International Business Communication (6 UOC)
LAW1011 Criminal Law 2 (6 UOC)
LAW1072 Contracts 2 (6 UOC)

**Year 3**

**Session One**

LAW1081 Property, Equity and Trusts 1 (6 UOC)
LAW2160 Administrative Law (6 UOC)
MGMT1001 Fundamentals of Management (6 UOC)
Management Elective 1 (List B) (6 UOC)

**Session Two**

LAW1082 Property and Equity 2 (6 UOC)
LAW6210 Law, Lawyers and Society (6 UOC)
MGMT3001 Managing Business Strategy* (6 UOC)
Management Elective (List A or B) (6 UOC)

*Subject to availability. Please consult the school timetable.

**Year 4**

**Session One**

LAW2150 Federal Constitutional Law (6 UOC)
LAW2311 Litigation 1 (6 UOC)
LAW54010 Business Associations 1 (6 UOC)
Plus ONE of the following courses:
LAW8320 Legal Theory (6 UOC)
LAW8820 Law and Social Theory (6 UOC)

**Session Two**

LAW2321 Litigation 2 (6 UOC)
LAW57420 Advanced Legal Research (2 UOC)
Law electives (16 UOC)

**Year 5**

Law electives totalling 48 units of credit.

**List A**

ACCT2522 Management Accounting Process Improvement & innovation
ECON2112 Game Theory & Business Strategy

MGMT1102 Managing Across Cultures
MARK1012 Marketing Fundamentals

**List B**

ACCT1101 Accounting and Financial Management 1A (6 UOC)
ECON1101 Microeconomics 1 (6 UOC)
ECON1202 Quantitative Methods A (6 UOC)
LAW1032 Law (6 UOC)

**Session Two**

ACCT1111 Accounting and Financial Management 1B (6 UOC)
ECON1203 Quantitative Methods B (6 UOC)
LAW1061 Torts (6 UOC)
MARK1012 Marketing Fundamentals (6 UOC)

**Year 2**

**Session One**

LAW1001 Criminal Law 1 (6 UOC)
LAW1071 Contracts 1 (3 UOC)
LAW2140 Public Law (3 UOC)
MARK2051 Consumer Behaviour (6 UOC)
MARK2052 Marketing Research (6 UOC)

**Session Two**

LAW1011 Criminal Law 2 (6 UOC)
LAW1072 Contracts 2 (6 UOC)
MARK2053 Marketing Communications & Promotions Management (6 UOC)
MARK2054 Market Analysis (6 UOC)

**Year 3**

**Session One**

ECON1102 Microeconomics 1 (6 UOC)
LAW1081 Property, Equity and Trusts 1 (6 UOC)
LAW2160 Administrative Law (6 UOC)
MARK3081 Distribution Strategy & Retail Channels (6 UOC)

**Session Two**

LAW1082 Property and Equity 2 (6 UOC)
LAW6210 Law, Lawyers and Society (6 UOC)
MARK3082 Strategic Marketing Management (6 UOC)
Marketing Elective (6 UOC)

**Year 4**

**Session One**

LAW2130 Federal Constitutional Law (6 UOC)
LAW2311 Litigation 1 (6 UOC)
LAW4010 Business Associations 1 (6 UOC)
Plus ONE of the following courses:
LAW8320 Legal Theory (6 UOC)
LAW8820 Law and Social Theory (6 UOC)

**Session Two**

LAW2321 Litigation 2 (6 UOC)
LAW57420 Advanced Legal Research (2 UOC)
Law electives (16 UOC)

**Year 5**

Law electives totalling 48 units of credit.

**Marketing Electives**

MARK1014 Customer Relationship Management
MARK2055 Services Marketing Management
MARK3071 International & Global Marketing
MARK3072 Advanced Consumer Behaviour
MARK3091 New Product & New Service Development
MARK3092 Brand Management

Marketing is available at Honours level. Please refer to the ‘Honours’ section below.
General Education Requirements

Students enrolled in combined law degrees are not required to complete General Education courses. However, if a student wishes to graduate with their BCom degree after 3 years, they are required to complete 12 UOC of General Education from faculties other than Law and Commerce as well as the required Law and Commerce courses for years 1-3.

Honours

The BCom degree is available with Honours. This normally requires an extra year of study between Years 3 and 4. Students interested in undertaking Honours should consult with the relevant School Office at the end of Year 1.

Notwithstanding the above regulations, students undertaking the combined Bachelor of Commerce at Honours level may be awarded the degree of Bachelor of Commerce at Honours level once they have completed the Honours year and the requirements of the first three years of the combined Bachelor of Commerce at Honours Level.

Candidates for Honours in the Commerce degree course must complete one year additional to the minimum of five years required for the Commerce/Law program at Pass level.

The requirements relating to Honours in the BCom degree courses are noted at the end of the program for each specialisation. Students ordinarily will interpolate an Honours year between Years 3 and 4 of the combined course.

Academic Rules

For Academic Rules relating to the Bachelor of Laws component of this combined degree program, please refer to entry for program 4790 Bachelor of Laws.

Rules Relating to the Bachelor of Commerce/Bachelor of Laws Program and the Bachelor of Economics/Bachelor of Law Program

The rules as set out in other sections of this Handbook, shall apply wherever relevant to candidates for the program of Bachelor of Commerce Bachelor of Laws and Bachelor of Economics Bachelor of Laws.

BCom and BEd: Candidates for the combined Commerce/Law or Economics/Law degree program may be awarded the degree of BCom or BEd either when they have successfully completed the entire combined program or, for students enrolling from 1996, when they have completed the requirements for the award of the first three years of the combined Bachelor of Commerce or Bachelor of Economics/Bachelor of Laws program – as set out in the program outline – and subject to satisfaction of General Education requirements for the single pass degree.

Concessions apply in deciding when students enrolled prior to 1995 who have not completed the requirements of the combined degree have nevertheless completed the requirements of the BCom or BEd. Please consult earlier faculty handbooks for the appropriate ‘Rules relating to the award of the degree of Bachelor of Commerce or Bachelor of Economics prior to the completion of the Combined Degree’.

Honours: Notwithstanding the above regulations, students undertaking the combined Bachelor of Commerce or Bachelor of Economics at Honours level/Bachelor of Laws program may be awarded the degree of Bachelor of Commerce or Bachelor of Economics at Honours level once they have completed the Honours year and the requirements of the first three years of the combined Bachelor of Commerce or Bachelor of Economics at Honours Level/Bachelor of Laws program.

Candidates for Honours in the Commerce or Economics degree course must complete one year additional to the minimum of five years required for the Commerce/Law program at Pass level.

The requirements relating to Honours in the BCom and BEd degree courses are noted at the end of the program for each specialisation. Students ordinarily will interpolate an Honours year between Years 3 and 4 of the combined course.

Commerce and Economics Options: Options may be chosen from any offered by the Faculty of Commerce and Economics except for (i) LEGT courses, (ii) service courses for other faculties. Prerequisites apply. No course can be counted both as an option and as a prescribed course.

4744 Bachelor of Economics Bachelor of Laws

BEd LLB

Typical Duration
5 years

Minimum UOC for Award
240 units of credit

Typical UOC per Session
24 units of credit

Program Description

The Bachelor of Laws degree may be combined with a Bachelor of Economics specialising in Economics, Econometrics or Financial Economics.

Program Objectives and Learning Outcomes

This program provides an opportunity to obtain two degrees of professional importance to business, administration and commercial law practice. At the completion of this program students will have obtained a sound knowledge base in the disciplines of both Economics and Law.

Program Structure

Duration/Award:
The program is a five year full-time combined program leading to the award of the two degrees of Bachelor of Economics and Bachelor of Laws (BEd LLB).

Distinction:
The BEd degree may be awarded with Distinction where a student has achieved a weighted average mark (WAM) of at least 75% in the UNSW courses completed as part of that degree.

Transferring Majors (Plans):
Students must nominate a major (plan code) at enrolment. Subsequent transfers to another major may be possible subject to the approval of both Faculties.

Graduation:
Candidates enrolled in the combined degree program BEd/LLB may be awarded the degree of BEd after the completion of specified requirements. Full details are given in the ‘Rules Relating to the Award of Degrees’.

Commerce & Economics courses:
Apart from service courses for other faculties, and unless specified as from which discipline they must be chosen, Commerce and Economics options may be chosen from any taught by the Faculty of Commerce and Economics except for those offered by the School of Business Law and Taxation (LEGT). No course can be counted both as an option and as a prescribed course.

Approved Sequence of Study:
Students must study commerce and economics courses in a sequence approved by the School of Economics and law courses in a sequence approved by the School of Law. Specifically, all or the majority of law core courses must be completed prior to enrolling in law electives. Approved sequences for each combined program are given below; other sequences may be approved under special circumstances.

Total Unit Requirements

Law compulsory courses - 92UOC
Law elective courses - 64UOC
Approved economic courses - 84UOC including the first year compulsory core courses

The single major requirement for the BEd is 60 UOC. Students enrolling in the BEd/LLB complete 60 UOC towards a major and 24 UOC of other approved Commerce & Economics courses including the compulsory first year core courses.

PLANS (Majors)
The following specialisations (majors) are available within the Bachelor of Laws Bachelor of Economics degree: Economics Econometrics Financial Economics.

For details of the recommended sequence of courses in each Economics major, please refer to the following plans.

Economics (program 4744, plan code ECONA14744)

Year 1

Session One

ACCT1101 Accounting and Financial Management 1A (6 UOC)
ECON1101 Microeconomics 1 (6 UOC)
ECON1202 Quantitative Methods A (6 UOC)
LAW5102 Foundations of Law (6 UOC)

Session Two

ACCT1101 Accounting and Financial Management 1B (6 UOC)
ECON1101 Microeconomics 1 (6 UOC)
Faculty of Engineering and Faculty of Law

4775 Bachelor of Engineering in Civil Engineering Bachelor of Laws

BE LLB

Typical Duration
6 years

Minimum UOC for Award
288 units of credit

Typical UOC per Session
24 units of credit

Program Description
This program will provide students with professional qualifications in areas of great importance to the community. The program will prove attractive to students who have in mind a career involving constructive developments.

Most large construction projects raise a formidable range of legal issues, and there appears to be a need for highly qualified personnel who are able to understand both the engineering and the legal dimensions of such projects, both in Australia and overseas.

Duration/Award
The program is a six year full-time combined program leading to the award of the two degrees of Bachelor of Engineering and Bachelor of Laws (BE LLB). There will be a testamur for each degree in the combined program with both degrees being conferred at the completion of the full six-year program.

Assumed Knowledge
A prescribed standard in mathematics for entry to the Faculty of Engineering and to individual courses in that faculty. Further details are available in the UAC Guide.

Bachelor of Engineering
Students who decide not to continue in the LLB may complete the BE but must contact the Head of School of Civil and Environmental Engineering for any credit towards advanced standing in the BE of completed law courses.

Program Objectives and Learning Outcomes
At the completion of this program, students will have obtained a sound knowledge base in the fields of both Civil Engineering and Law.

Program Structure
Approved Sequence of Study:
Students must study engineering courses in a sequence approved by the Faculty of Engineering and law courses in a sequence approved by the Faculty of Law. Other sequences may be approved under special circumstances.

Year 1

Session One
CVEN1021 Civil Engineering Practice 1A (4 UOC)
CVEN1023 Statistics (4 UOC)
CVEN1025 Computing (4 UOC)
LAWS1052 Foundations of Law (6 UOC)

Plus ONE of the following courses:
MATH1131 Mathematics 1A (6 UOC)
MATH1141 Higher Mathematics 1A (6 UOC)

Session Two
CVEN1024 Dynamics (4 UOC)
CVEN1026 Engineering Materials 1 (4 UOC)
Law Electives (24 UOC)

Notes:
All students NOT undertaking an Honours thesis are required to select at least one major or 12 units of credit of Engineering electives. Students undertaking the Honours thesis are required to undertake at least 8 units of credit of Engineering electives. Students must complete a thesis to be considered for Honours in Engineering.

Honours
The degree of Bachelor of Engineering may be conferred as a Pass degree or as an Honours degree. There are two classes of Honours, Class I, and Class II in two divisions. The award and grade of Honours are made in recognition of superior performance throughout the program with greater weighting on courses in the later years.

Students must complete a Civil Engineering thesis to be considered for Honours in Engineering.

Academic Rules
For Academic Rules relating to the Bachelor of Laws component of this combined degree program, please refer to the program entry for 4790 Bachelor of Laws.

4777 Bachelor of Engineering in Environmental Engineering Bachelor of Laws BE LLB

Typical Duration
6 years

Minimum UOC for Award
288 units of credit

Typical UOC per Session
24 units of credit

Program Description
This program will provide students with professional qualifications in areas of great importance to the community. The program will prove attractive to students who have in mind a career involving environmental issues or engineering.

Employment could be with a law firm specialising in environmental law or a regulatory body such as the Environmental Protection Authority.

Assumed Knowledge
A prescribed standard in mathematics for entry to the Faculty of Engineering and to individual courses in that faculty. Further details are available in the UAC Guide.

Bachelor of Engineering
Students who decide not to continue in the LLB may complete the BE but must contact the Head of School of Civil and Environmental Engineering for any credit towards advanced standing in the BE of completed law courses.

Program Objectives and Learning Outcomes
At the completion of this program, students will have obtained a sound knowledge base in the fields of both Environmental Engineering and Law.

Program Structure
Approved Sequence of Study:
Students must study engineering courses in a sequence approved by the Faculty of Engineering and law courses in a sequence approved by the Faculty of Law. An approved sequence appears below.
Year 1
Session One
LAW1052 Foundations of Law (6 UOC)
CVEN1023 Statistics (4 UOC)
CVEN1025 Computing (4 UOC)
CVEN1721 Environmental Engineering Practice 1A (4 UOC)
Plus one of the following:
CHEM1011 Fundamentals of Chemistry A or
CHEM1031 Higher Chemistry C (6 UOC)

Session Two
LAW1061 Iorts (6 UOC)
CVEN1024 Dynamics (4 UOC)
CVEN1026 Engineering Materials 1 (4 UOC)
CVEN1531 Introduction to Water and Atmospheric Chemistry (4 UOC)
Plus one of the following courses:
MATH1131 Mathematics 1A or
MATH1141 Higher Mathematics 1A (6 UOC)

Year 2
Session One
LHL0011 Mass Transfer and Material Balance (3 UOC)
CVEN2023 Mechanics of Solids (3 UOC)
CVEN2025 Engineering Computations 1 (3 UOC)
CVEN2222 Geotechnical Engineering 1 (3 UOC)
GMAT0753 Introduction to Spatial Information Systems (3 UOC)
INFL4120 Chemistry of the Industrial Environment (3 UOC)
LAW1071 Contracts 1 (3 UOC)
LAW2140 Public Law (3 UOC)
Plus one of the following courses:
MATH1231 Mathematics 1B, or
MATH1241 Higher Mathematics 1B (6 UOC)

Year 3
Session One
LHL0030 Atmospheric & Process Chemistry (3 UOC)
CVEN3222 Geotechnical Engineering 2 (3 UOC)
CVEN3438 Transport and the Environment (3 UOC)
CVEN3526 Water Resources Engineering (3 UOC)
LAW3001 Criminal Law 1 (6 UOC)
LAW5620 Law, Lawyers & Society (6 UOC)

Session Two
BIOU3301 Population and Community Ecology (3 UOC)
CVEN3126 Engineering Management 1 (3 UOC)
CVEN3223 Geotechnical Engineering 3 (3 UOC)
CVEN3527 Water Engineering (3 UOC)
CVEN3531 Principles and Applications of Aquatic Chemistry (3 UOC)
CVEN3726 Environmental Policy, Law and Economics (3 UOC)
MAIH2019 Engineering Mathematics 2CE (6 UOC)

Year 4
Session One
CVEN3025 Engineering Computations 2 (3 UOC)
CVEN3725 Waste Management (3 UOC)
CVEN4126 Engineering Management 2 (3 UOC)
CVEN4225 Geotechnical Engineering 4 (3 UOC)
CVEN4526 Water and Wastewater Treatment (3 UOC)
CVEN4533 Transport and Fate of Pollutants (3 UOC)
Plus one of the following courses:
CVEN4000 Honours Thesis Part A (6 UOC)
CVEN4727 Environmental Engineering Practice 4A (6 UOC)
CVEN4728 Environmental Engineering Practice 4B (6 UOC)
CVEN4729 Environmental Engineering Practice 4C (6 UOC)

Session Two
LAW52160 Administrative Law (6 UOC)
LAW56210 Law, Lawyers and Society (6 UOC)
Environmental Engineering Electives (12 UOC)

Year 5
Session One
LAW1081 Property, Equity and Trusts 1 (6 UOC)
LAW2311 Litigation 1 (6 UOC)
LAW54010 Business Associations 1 (6 UOC)
Plus one of the following courses:
LAW8320 Legal Theory (6 UOC)
LAW8820 Law and Social Theory (6 UOC)

Session Two
LAW1082 Property and Equity 2 (6 UOC)
LAW2315 Federal Constitutional Law (6 UOC)
LAW23122 Litigation 2 (6 UOC)
LAW7420 Advanced Legal Research (2 UOC)
Law Elective (4 UOC)

Year 6
Session One
Law Electives (24 UOC)

Session Two
Law Electives (24 UOC)

Total Units of Credit Requirements
Law courses 144 UOC
Engineering courses 144 UOC

Honours
Honours in Engineering: The degree of Bachelor of Engineering may be conferred as a Pass degree or as an Honours degree. There are two classes of Honours, Class I, and Class II in two divisions. The award and grade of Honours are made in recognition of superior performance throughout the program with greater weighting on courses in the later years. Students must complete an Environmental Engineering thesis to be considered for Honours in Engineering.

Academic Rules
For Academic Rules relating to the Bachelor of Laws component of this combined degree program, please refer to the program entry for 4790 Bachelor of Laws.

Faculty of Science and Faculty of Law
4770 Bachelor of Science Bachelor of Laws
BSc LLB
Typical Duration
5 years
Minimum UOC for Award
240 units of credit
Typical UOC per Session
24 units of credit

Program Description
This program combines the professional LLB program with the large number of majors offered within the Faculty of Science. The Science programs provide opportunities for students to prepare themselves for careers in research, technology, science, mathematics and education, or areas of management or public policy which involve the use of science or mathematics.

Major Sequence
(i) Students may select any major from those offered by the Faculty of Science, or a major in Computer Science or Information Systems which are administered by the School of Computer Science and Engineering and the Faculty of Commerce and Economics. (See separate entry.)
(ii) Students should discuss their choice of major with the Science Student Centre prior to enrolment.
(iii) For the majority of majors students are required to complete only 2 law courses in Year 1. For the Psychology major students are required to complete 5. (See separate entry.)

Duration/Award
The program is a five year full-time combined program leading to the award of the two degrees of Bachelor of Science and Bachelor of Laws (BSc LLB).
Assumed Knowledge
Students must satisfy the normal assumed knowledge requirements for entry to the Faculty of Science and to individual courses in that Faculty.

BSc
The degree of Bachelor of Science is not awarded until the completion of the full five-year program, but students unable to complete the full program may apply for advanced standing in the Bachelor of Science degree.

Science Courses
Students must complete a minimum of 84 units of credit, including the requirements of one of the majors outlined in Table A in the Science section of the Handbook or a major in Computer Science. In all cases students must include 24 to 36 units of credit of Level 1 courses.

Law or Science Electives
In addition to the prescribed units of credit of law courses and science courses there is the option to complete 8 units of credit of either law or science electives. Students can satisfy this requirement by completing either a law elective (8 units of credit) or an elective approved by the Faculty of Science (6 units of credit) plus a Law Research Project (2 units of credit).

Approved Sequence of Study:
Students must study Science courses in a sequence approved by the Faculty of Science and Law courses in a sequence approved by the Faculty of Law. A typical structure of a combined Science/Law program is set out below. Subject to timetable restrictions, the full range of Science majors are normally available to Law students. The sequence for Computer Science and Psychology majors is detailed separately.

Program Objectives and Learning Outcomes
At the completion of this program, students will have obtained a sound knowledge base in the disciplines of both Science and Law.

Program Structure
Bachelor of Science/Bachelor of Laws
For all plans other than Computer Science major or Psychology.

Year 1
Session One
LAWS1052 Foundations of Law (6 UOC)
Science courses (Level 1) (12 UOC)
Other approved Science course (Level 1) (6 UOC)

Session Two
LAWS1061 Torts (6 UOC)
Science courses (Level 1) (12 UOC)
Other approved Science course - Level 1 (6 UOC)

Year 2
Session One
LAWS1001 Criminal Law 1 (6 UOC)
LAWS1071 Contracts 1 (3 UOC)
LAWS2140 Public Law (3 UOC)
Science courses (12 UOC)

Session Two
LAWS1011 Criminal Law 2 (6 UOC)
LAWS1072 Contracts 2 (6 UOC)
Science courses (12 UOC)

Year 3
Session One
LAWS1081 Property, Equity and Trusts 1 (6 UOC)
LAWS2160 Administrative Law (6 UOC)
Science courses (12 UOC)

Session Two
LAWS1082 Property and Equity 2 (6 UOC)
LAWS6210 Law, Lawyers and Society (6 UOC)
Science courses (12 UOC)

Year 4
Session One
LAWS2150 Federal Constitutional Law (6 UOC)
LAWS2311 Litigation 1 (6 UOC)
LAWS4010 Business Associations 1 (6 UOC)
Plus ONE of the following courses:
LAWS58320 Legal Theory (6 UOC)
LAWS58820 Law and Social Theory (6 UOC)

Session Two
LAWS2321 Litigation 2 (6 UOC)
LAWS7420 Advanced Legal Research (2 UOC)
Plus:
Law electives (8 UOC)
Law or Science electives (8 UOC)

For the Law or Science elective you can select either:
1 Science elective (6 UOC) + Law Research Project (2 UOC), or 1 Law elective (8 UOC).

Year 5
Session One
Law electives (24 UOC)

Session Two
Law electives (24 UOC)

UOC Distribution

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<th>Science</th>
<th>Number of Courses</th>
<th>UOC</th>
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<td>Additional courses</td>
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<td>Core courses</td>
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<tr>
<td>Electives</td>
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<tr>
<td>Law or Science elective</td>
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<tr>
<td>1 Law elective (8 UOC) or 1 Science elective (6 UOC) plus a Law Research Project (2 UOC)</td>
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<td>Total</td>
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Bachelor of Science Bachelor of Laws with Major in Computer Science (program 4770, plan code COMPA14770) Students interested in this major should consult fully with the Student Office of Computer Science and Engineering prior to enrolment.

Year 1 (Computer Science Major)
Session One
LAWS1052 Foundations of Law (6 UOC)
MATH1081 Discrete Mathematics (6 UOC)
Plus ONE of the following courses:
COMP1711 Higher Computing 1A (6 UOC)
COMP1011 Computing 1A (6 UOC)
Plus ONE of the following courses:
MATH1131 Mathematics 1A (6 UOC)
MATH1141 Higher Mathematics 1A (6 UOC)

Session Two
LAWS1061 Torts (6 UOC)
Science elective (6 UOC)
Plus ONE of the following courses:
COMP1021 Computing 1B (6 UOC)
COMP1721 Higher Computing 1B (6 UOC)
Plus ONE of the following courses:
MATH1231 Mathematics 1B (6 UOC)
MATH1241 Higher Mathematics 1B (6 UOC)

Year 2 (Computer Science Major)
Session One
LAWS1001 Criminal Law 1 (6 UOC)
LAWS1071 Contracts 1 (3 UOC)
COMPA14770 Data Organisation (3 UOC)
LAWS2140 Public Law (3 UOC)

Session Two
LAWS1011 Criminal Law 2 (6 UOC)
LAWS1072 Contracts 2 (6 UOC)
Science elective (6 UOC)

Year 3 (Computer Science Major)
Session One
LAWS1081 Property, Equity and Trusts 1 (6 UOC)
LAWS2160 Administrative Law (6 UOC)
Science courses including advanced computing electives (12 UOC)
Session Two
- LAWS6210 Law, Lawyers and Society (6 UOC)
- LAWS1082 Property and Equity 2 (6 UOC)
- Science courses including advanced computing electives (12 UOC)

Year 4 (Computer Science Major)

Session One
- LAWS2150 Federal Constitutional Law (6 UOC)
- LAWS2311 Litigation 1 (6 UOC)
- LAWS4010 Business Associations 1 (6 UOC)
- Law elective (8 UOC)
- Plus ONE of the following courses:
  - LAWS8320 Legal Theory (6 UOC)
  - LAWS8820 Law and Social Theory (6 UOC)

Session Two
- LAWS2321 Litigation 2 (6 UOC)
- LAWS7420 Advanced Legal Research (2 UOC)
- Law or Science elective (8 UOC)
- Plus ONE of the following courses:
  - LAWS8320 Legal Theory (6 UOC)
  - LAWS8820 Law and Social Theory (6 UOC)

Year 5 (Computer Science Major)

Session One
- Law electives (24 UOC)

Session Two
- Law electives (24 UOC)

Bachelor of Science Bachelor of Laws with Major in Psychology (program 4770, plan code PSYCA14770)

Year 1 (Psychology Major)

Session One
- LAWS1052 Foundations of Law (6 UOC)
- LAWS1071 Contracts 1 (3 UOC)
- LAWS2140 Public Law (3 UOC)
- PSYC1001 Psychology 1A (6 UOC)
- Science course (Level 1) (6 UOC)

Session Two
- LAWS1061 Laws of Evidence (6 UOC)
- LAWS1072 Contracts 2 (6 UOC)
- PSYC2001 Psychology 1B (6 UOC)
- Science course (Level 1) (6 UOC)

Honours: Students interested in completing Honours must contact the School of Psychology at the end of Year 1.

Year 2 (Psychology Major)

Session One
- LAWS1001 Criminal Law 1 (6 UOC)
- LAWS2160 Administrative Law (6 UOC)
- PSYC2001 Research Methods 2 (6 UOC)
- Psychology course - 1 x Level 2 (6 UOC)

Session Two
- LAWS1011 Criminal Law 2 (6 UOC)
- LAWS6210 Law, Lawyers and Society (6 UOC)
- Psychology course - 2 x Level 2 (12 UOC)

Year 3 (Psychology Major)

Session One
- LAWS1081 Property, Equity and Trusts 1 (6 UOC)
- PSYC3001 Research Methods 3A (6 UOC)
- Psychology course - 1 x Level 3 (6 UOC)
- Science course (Level 1) (6 UOC)

Session Two
- LAWS1082 Property and Equity 2 (6 UOC)
- Psychology course - 2 x Level 3 (12 UOC)
- Science course (Level 1) (6 UOC)

Year 4 (Psychology Major)

Session One
- LAWS2150 Federal Constitutional Law (6 UOC)
- LAWS2311 Litigation 1 (6 UOC)
- Law electives (8 UOC)

Honours in Science: Students wishing to complete the BSc degree program at Honours level must obtain prior approval from the Faculty of Science and the Faculty of Law. A standard Honours program in Science requires an additional year of study. Alternatively, students may consider completing a BSc degree program at Honours level (4 years) and then seek admission to the three year LLB degree program for graduates.

Academic Rules

For Academic Rules relating to the Bachelor of Laws component of this combined degree program, please refer to the program entry for 4790 Bachelor of Laws.

College of Fine Arts and Faculty of Law

4703 Bachelor of Art Theory Bachelor of Laws

BArtTh LLB

Typical Duration
5 years

Minimum UOC for Award
240 units of credit

Typical UOC per Session
24 units of credit

Program Description

Students undertaking this combined degree program complete the core requirements of both the Bachelor of Art Theory and the Bachelor of Laws. The combined degree allows students to undertake a focused study in the visual arts and culture.

Students completing the BArtTh LLB are likely to gain employment in Arts or Law, but broader opportunities exist for careers in arts management and policy. The professional contexts courses of the BArtTh will enable students to develop career-related skills and experiences and the theoretical/historical contexts courses will provide depth of knowledge about the arts.

Assumed Knowledge

Students must satisfy the normal assumed knowledge requirements for entry to the Faculty of the College of Fine Arts (COFA) and to individual courses in that Faculty.

Program Objectives and Learning Outcomes

At the completion of this program, students will have obtained a sound knowledge base in the fields of both Art Theory and Law.
Program Structure

Program Structure 240 UOC

Law courses 150 UOC
COFA courses 90 UOC

Law Courses 150 UOC
Core courses 92 UOC (17 courses)
Electives 56 UOC (7 x 8 UOC courses)
Law Research Project (Year 4) 2 UOC

The core courses are taken in a specified sequence during Years 1 to 4. Details are given below. After completing the majority of the core courses students are eligible to enrol in electives in Years 4 and 5.

COFA Courses 90 UOC
Art & Design Theory major 60 UOC (10 x 6 UOC)
Contextual Studies 30 UOC (5 x 6 UOC).

Art Theory Plans and Courses

Sequence of Study

For details of the Art Theory study plan and available courses, please refer to the entry for program 4803, the Bachelor of Art Theory in the College of Fine Arts section in this Handbook.

Students must study Art Theory courses in a sequence approved by the College of Fine Arts and law courses in a sequence approved by the School of Law. A direct link to the standard sequence of study is detailed below. Other sequences may be approved under special circumstances.

Year 1

Session One
LAWS1052 Foundations of Law (6 UOC)
SAHT1101 Mapping the Modern (6 UOC)
SAHT1211 Theories of the Image (6 UOC)
SAHT1221 Contexts for Art (6 UOC)

Session Two
LAWS1061 Torts (6 UOC)
SAHT1102 Mapping the Postmodern (6 UOC)
SAHT1212 Theories of Art History and Culture (6 UOC)
Art Theory Contextual Studies Course (6 UOC)

Note: Students who wish to take the BArtTh degree program at Honours level must consult with the Head of School of Art Theory at the end of Year 1.

Year 2

Session One
LAWS1001 Criminal Law 1 (6 UOC)
LAWS1071 Contracts 1 (3 UOC)
LAWS2140 Public Law (3 UOC)
Art Theory Major Course (6 UOC)
Art Theory Major Course (6 UOC)

Session Two
LAWS1011 Criminal Law 2 (6 UOC)
LAWS1072 Contracts 2 (6 UOC)
Art Theory Contextual Studies Course (6 UOC)
Art Theory Major Course (6 UOC)

Year 3

Session One
LAWS1081 Property, Equity and Trusts 1 (6 UOC)
LAWS2160 Administrative Law (6 UOC)
Art Theory Major Course (6 UOC)
Art Theory Contextual Studies Course (6 UOC)

Session Two
LAWS1082 Property and Equity 2 (6 UOC)
LAWS6e210 Law, Lawyers and Society (6 UOC)
Art Theory Contextual Studies Course (6 UOC)
Art Theory Major Course (6 UOC)

Year 4

Session One
LAWS2150 Federal Constitutional Law (6 UOC)
LAWS2311 Litigation 1 (6 UOC)
LAWS4010 Business Associations 1 (6 UOC)
Plus ONE of the following courses:
LAW58320 Legal Theory (6 UOC)
LAW58820 Law and Social Theory (6 UOC)

Session Two
LAW52321 Litigation 2 (6 UOC)
LAW57420 Advanced Legal Research (2 UOC)
LAW52421 Law Research Project (2 UOC)
Law Elective (8 UOC)
Art Theory Major Course (6 UOC)

Year 5

Session One
Law Electives (3 x 8UOC) (24 UOC)

Session Two
Law Electives (3 x 8UOC) (24 UOC)

General Education Requirements

Students enrolled in combined law degrees are not required to complete General Education courses.

Honours

Honours in Art Theory: Students who wish to take the BArtTh degree program at Honours level must consult with the Head of School of Art Theory at the end of Year 1.

Academic Rules

For Academic Rules relating to the Bachelor of Laws component of this combined degree program, please refer to the program entry for 4790 Bachelor of Laws.

Atax (Australian Taxation Studies Program)

Information and Assistance

Atax delivers tax education across Australia and overseas. It aims to educate tax professionals from all sectors of the tax profession – accounting and legal majors, in the tax groups of large and medium sized corporations, in smaller accounting and law firms and in the Tax Office, State Government Treasury Departments and Revenue Offices. The Atax programs have been developed through intensive consultation with a wide range of experts with interest in both the accounting and legal professions and within UNSW.

Who Can Help?

General correspondence and telephone enquiries relating to student and program administration should be directed to:
Atax Student Services Office
Telephone: (02) 9385 9333
Email: atax@unsw.edu.au
Fax: (02) 9385 9380
Postal Address:
Atax
The University of New South Wales
UNSW Sydney NSW 2052
Australia

Contact details for Academic and General Staff can be found in the Atax Student Guide or on the Atax website: www.atax.unsw.edu.au/contact/

Academic Support

A range of different academic support services is provided by Atax through the Academic Support Coordinator. These include support packages on general study skills and basic grammar and writing skills.

Atax recognises students come to the Bachelor of Taxation program with a broad range of backgrounds. We are responsive to the diverse needs of students. Atax provides both formal and informal academic support options.

Two audio conferences are conducted each semester. These are intended for new students, although continuing students are also welcome to participate. These Audio Conferences provide an opportunity for students to discuss general study skills and examination preparation issues in a relatively informal environment. Students are also encouraged to refer to the UNSW Learning Centre (www.lc.unsw.edu.au) and Atax Student Guide.

The Academic Support Coordinator is regularly available for informal consultation and can direct students to appropriate resources and services. Additional support services are provided through the UNSW Learning Centre.
Centre and other units. The Atax Academic Support Coordinator is the primary contact person for students seeking access to such services. The Student Services Office is able to provide contact details.

**Enrolment Procedures**

Enrolment procedures for Atax programs vary slightly from conventional mode programs. Closing dates are usually much earlier and students should refer to information distributed by the Atax Student Services and Atax website prior to the commencement of each semester.

**Sources of Information**

It is important that students familiarise themselves with various documents and sources of information available.

These include:
- the Atax Website (www.atax.unsw.edu.au)
- the Atax Student Guide

**Atax Website**

You can access the Atax website at www.atax.unsw.edu.au. In addition to general information about Atax, program and course information is available. The website also includes details of conferences and special events, links to individual lecturers’ web pages, relevant research links and Atax Library Online.

**Atax Student Guide**

The Atax Student Guide provides ready access to the basics of Atax administration and contains other study resource materials. This guide provides an essential reference point for the Atax student, with contact lists, enrolment information, calendar of events, assessment procedures, and a Library Guide.

**Orientation**

Orientation sessions for new students are usually held in most Australian cities prior to the commencement of each semester. Study Materials will be dispatched to students prior to Orientation. Orientation serves both academic and administrative purposes, as well as giving students the opportunity to meet lecturers and fellow students.

It is expected that all new students will attend their local Orientation.

**Flexible Distance Delivery**

Students can study from anywhere in Australia or overseas without attending campus lectures. All Atax students are supported with comprehensive, high-quality written Study Materials. Atax has Learning Centres in 22 locations across Australia and its flexible distance education framework incorporates a variety of modes of teaching to effectively deliver the Atax programs.

Students may find the learning environment differs significantly from traditional campus-based study. Students should refer to the Atax Student Guide (provided with Study Materials) or visit www.atax.unsw.edu.au for full information regarding the facilities available:
- Learning Centres
- Study Materials
- Audio Conferences
- Web Course Tools (WebCT)
- Regional Classes*
- Informal Study Groups

* a one-day face to face class in capital cities across Australia.

**Library Services**

Library staff can provide you with telephone support that will assist you to make the most of the wide range of online resources and reference materials available. They can also assist you to access reference materials from a diverse range of sources. Additional information may be found in the Atax Student Guide in the ‘Library Guide’ section. Refer also to Atax Library Online at www.atax.unsw.edu.au or contact the Atax library staff directly: Librarian, telephone (02) 9385 9327 or Library Assistant, telephone (02) 9385 9312.

**Summary of Programs**

**Program Titles and Codes**

Program code: 4620
Program title: Bachelor of Taxation
Qualification Abreviation: BTax

**Program Rules and Information**

**4620 Bachelor of Taxation**

**BTax**

**Typical Duration**

3 years full-time

**Minimum UOC for Award**

144 units of credit

**Typical UOC per Session**

24 units of credit

**Program Description**

The Bachelor of Taxation Degree commenced in 1991 and was the first university undergraduate tax degree offered in Australia. The Bachelor of Taxation can be studied over three years full-time with four courses (or equivalent units of credit) per semester, or six years part-time with two courses (or equivalent) per semester. It is based on the equivalent of 24 courses, of 6 units of credit per course, including 16 core and 8 electives. Some UNSW General Education courses carry only half the credits (3 units of credit) and workload of mainstream courses. Enrolment in such courses could increase the total number of courses to 26.

Students who wish to meet professional accounting entry requirements must study the accounting courses indicated by the Institute of Chartered Accountants in Australia (ICAA) and CPA Australia. (See ‘Particular Requirements for Accounting Professional Entry’)

**Admission Requirements**

Entry to the program is competitive. In assessing applications, the Admissions Committee takes into account the following factors:
- educational achievement
- work experience
- evidence of the ability to handle complex technical issues
- evidence of commitment and motivation
- referees’ reports, if provided

The normal minimum qualification for admission to the program is NSW matriculation (HSC) or equivalent Year 12 qualifications or completion and award of Certificate IV or Associate Diploma or Advanced Diploma in Accounting or equivalent from a TAFE. Consideration will be given to mature age students with extensive technical experience. Students who do not meet Year 12 or TAFE entry requirements may gain entry after completing a University Preparation Program (UPP).

Applications who are not sponsored in their study by the Tax Office must apply via UAC.

**Occupational Destination of Graduates**

Atax graduates are leading fulfilling careers in all parts of private and public practice. They are employed by accounting and legal majors, in the tax groups of large and medium sized corporations, in smaller accounting and law firms and in the Federal Treasury, Tax Office, State Government Treasury Departments and Revenue Offices.

The accounting stream of the Bachelor of Taxation Degree has been considered as satisfying the prescribed qualifications criterion of INCOME TAX REGULATION 156 for registration with the Tax Agents’ Board.
Program Objectives and Learning Outcomes
The objectives of the Bachelor of Taxation are to provide students with:

- a broad-based education in all areas relevant to taxation (including law, accounting, economics and computing) as well as a vocationally specific education;
- knowledge of the basic structure of the Australian tax system, of the essential concepts that underpin taxation, and of the Income Tax Assessment Act and related Acts;
- knowledge of accounting and reporting information, processes and systems, and the integration of such knowledge with the tax system;
- knowledge of legal concepts and principles involved in areas such as contract law, commercial law, administrative law, litigation, company law, banking and finance, property, trusts and equity, and the integration of such knowledge with the tax system;
- skills of statutory interpretation and case analysis;
- skills in organising and solving complex problems by the collection, analysis and application of relevant laws, rules, standards or other information;
- skills of oral and written communication, of negotiation and of advocacy;
- the ability to apply the processes of critical reasoning in evaluating the broad institutional and economic outcomes of tax decisions, including an application of major economic, organisational and information processing concepts;
- the ability to judge appropriate standards of ethical behaviour in their dealings with clients, customers and tax administrators in the tax profession; and
- an awareness of the role of liberal studies as part of a general university education through, in part, the critical analysis of their own professional culture and by exposure in all courses to the broad traditions of critical inquiry.

Program Structure
To complete the Bachelor of Taxation, students are required to do a total of 24-26 courses (or 25-27 if commenced prior to 1999):

- 16 (17 if prior to 1999) compulsory courses
- 2 special category courses
- 4 elective courses
- 2-4 General Education courses to a total of 12 units of credit

Required
ATAX0001 Basic Tax Law and Process (6 UOC)
ATAX0002 Computer Information Systems (6 UOC)
ATAX0003 Microeconomics and the Australian Tax System (6 UOC)
ATAX0004 Framework of Commercial Law (6 UOC)
ATAX0005 Accounting 1 (6 UOC)
ATAX0006 Tax Administration (6 UOC)
ATAX0008 Principles of Capital Gains Taxation (6 UOC)
ATAX0009 Law of Companies, Trusts and Partnerships (6 UOC)
ATAX0010 Accounting 2 (6 UOC)
ATAX0011 Macroeconomics, Government and the Economy (6 UOC)
ATAX0013 Taxation of Companies, Trusts and Partnerships (6 UOC)
ATAX0014 Tax Policy Framework (6 UOC)
AIAU0015 Intermediate Financial Accounting (6 UOC)
AIAU0016 Critical Perspectives and Ethics (6 UOC)
ATAX0017 Tax Accounting Systems (6 UOC)
ATAX0018 Tax Litigation (6 UOC)

Special Category Courses
Two of the following special category courses must be completed:
ATAX0020 Introduction to Australian International Taxation (6 UOC)
AIAU0022 GST: Design and Structure (6 UOC)
ATAX0023 Principles of GST Law (6 UOC)
ATAX0053 Accounting for Complex Structures and Instruments (6 UOC)

Elective Courses
Four of the following elective courses must be completed:
ATAX0022 GST: Design and Structure (6 UOC)
ATAX0023 Principles of GST Law (6 UOC)
ATAX0055 Taxation of Property Transactions (6 UOC)
ATAX0057 Business Finance (6 UOC)
ATAX0058 Quantitative Analysis (6 UOC)
ATAX0059 Management Accounting (6 UOC)
AIAU0060 Auditing and Assurance Services (6 UOC)
ATAX0605 Taxation of Trusts (6 UOC)
ATAX0607 Taxation of Corporate Finance (6 UOC)
ATAX0610 Taxation of Superannuation (6 UOC)
ATAX0614 Selected Problems in Stamp Duty (6 UOC)
ATAX0615 Taxation of Industry and Technology (6 UOC)
ATAX0625 Taxation of Employee Remuneration (6 UOC)
ATAX0626 Taxation and Investment Regulation in China (6 UOC)

Courses designated ATAX06## are postgraduate courses offered at the undergraduate level. They are only available at an advanced stage of the program and only to students who satisfy the relevant course authority they are capable of coping with the demands of the course.

Prerequisites in Courses
ATAX0001 Basic Tax Law and Process for:
ATAX0008 Principles of Capital Gains Taxation
ATAX0009 Law of Companies, Trusts and Partnerships
ATAX0016 Critical Perspectives and Ethics
ATAX0017 Tax Accounting Systems
AIAU0018 Tax Litigation
ATAX0020 Introduction to Australian International Taxation
AIAU0022 GST: Design and Structure
ATAX0023 Principles of GST Law
ATAX0003 Microeconomics and the Australian Tax System for:
ATAX0014 Tax Policy Framework
ATAX0057 Business Finance
ATAX0005 Accounting 1 for:
ATAX0010 Accounting 2
ATAX0017 Tax Accounting Systems
ATAX0006 Tax Administration for:
AIAU0018 Tax Litigation
ATAX0008 Principles of Capital Gains Taxation (or equivalent) for:
ATAX0035 Taxation of Property Transactions
ATAX0009 Law of Companies, Trusts and Partnerships for:
AIAU0013 Taxation of Companies, Trusts and Partnerships
ATAX0020 Introduction to Australian International Taxation
ATAX0010 Accounting 2 for:
ATAX0015 Intermediate Financial Accounting
ATAX0057 Business Finance
AIAU0059 Management Accounting
ATAX0015 Intermediate Financial Accounting for:
ATAX0053 Accounting for Complex Structures and Instruments
ATAX0060 Auditing and Assurance Services
ATAX0023 Principles of Goods and Services Tax Law (or equivalent) for:
ATAX0055 Taxation of Property Transactions
ATAX0058 Quantitative Analysis for
AIAU0057 Business Finance
Particular Requirements for Accounting Professional Entry

Students wanting to gain accounting admission must study the following:

A1AX0053 Accounting for Complex Structures and Instruments (6 UOC)

Also one of the following three other special category courses must be chosen:

A1AX0020 Introduction to Australian International Taxation (6 UOC)
A1AX0022 GST: Design and Structure (6 UOC)
A1AX0023 Principles of GST Law (6 UOC)

Finally, three of the four general electives must be accounting courses. The following three elective courses must be chosen:

A1AX0057 Business Finance (6 UOC)
A1AX0059 Management Accounting (6 UOC)
A1AX0060 Auditing and Assurance Services (6 UOC)

Hence in practice the only decision to be made for students seeking professional accounting entry is between A1AX0020, A1AX0022 and A1AX0023, which are general electives and in the General Education area.

However, Atax also recommends that A1AX0058 be studied as the extra general elective before attempting A1AX0057. As requirements change from time to time, students should check any updates or changes to requirements later in their degree program.

General Education Requirements

Students enrolled in this program must also satisfy the University’s General Education requirements.

Twelve units of credit of General Education must be successfully completed. General Education requirements may, with the prior approval of the BTax Convener, be fulfilled by completion of courses offered in other faculties within UNSW or at other universities. Some of these courses have lower credit value and workload than Atax courses.

Academic Rules

Assessment Policy

The Board of Studies in Taxation has resolved that, in order to pass a course, candidates for the Bachelor of Taxation should obtain:

1. 50% or more of the total marks available in the course and
2. A minimum of 40% of the marks available for the final examination in the course.

Bachelor of Taxation Degree with Distinction

The Assessment Committee of the Board of Studies in Taxation may award the Bachelor of Taxation degree with Distinction when a student satisfies the condition of a 75% weighted average mark (WAM) attained over the student’s degree.

Bachelor of Taxation Degree with Merit

For students who entered the Bachelor of Taxation program prior to 2003, the Assessment Committee of the Board of Studies in Taxation may award the Bachelor of Taxation Degree with Merit when a student satisfies the following conditions:

• a 70% average is attained over the student’s best prescribed merit award number of courses presented for the degree (see table below); and
• the student does not have more than two failures throughout the program.

Provided that where, in the opinion of the Examiners at the Assessment Committee, ‘exceptional circumstances’ exist the Assessment Committee may award the degree with Merit even though a student has not attained a 70% average and/or has three failures throughout the program.

Prescribed merit award number of courses table

Students enrolled in BTax prior to 2003 and therefore eligible for award of either the BTax with Merit or the BTax with Distinction have the option of taking one or the other award.

Exemption Policy/Advanced Standing

Students accepted for enrolment into the Bachelor of Taxation Degree may apply for advanced standing (exemptions from study of particular courses) by completing the form Course Exemption/Advanced Standing. This is available for download from the Atax website at www.atax.unsw.edu.au/students/forms.

Maximum exemption for the BTax is for eight courses of 6 units of credit. The policy on advanced standing for BTax can be accessed via the Atax website at www.atax.unsw.edu.au/study/exemptions.htm#btaxpol

7280 Associate Diploma in Taxation

AssocDipTax

2.5 years full-time

The Associate Diploma in Taxation is not available to students commencing undergraduate study in 2002 or later. For information on this program please refer to www.atax.unsw.edu.au

Non-Award (Single Course), Cross-Institutional and Cross-Group (Faculty) Enrolments

Introduction and Overview

Non-Award enrolments are enrolments in courses or a sequence of courses, which do not lead to, nor (normally) count towards, a formal award of UNSW.

Non-Award study with Atax may count towards Continuing Professional Education (CPE), Continuing Professional Development (CPD) and Continuing Legal Education (CLE) requirements for Chartered Accountants and lawyers respectively.

There are several categories of Non-Award enrolment:

1. Voluntary course enrolment – where the student is taking the course either out of interest or to develop professional competence in an area of specialisation.
2. Cross-Institutional enrolment – where the student enrols in a UNSW course for credit towards an award at another tertiary institution, at which the student is concurrently enrolled.
3. Cross-Group enrolment – where a student from another group (faculty) of UNSW applies to study an Atax course. Written confirmation is required from the other group stating that the course will be credited towards the award.
4. Where an Atax student wishes to enrol in a course at another institution for credit towards their UNSW award, any such courses must be of similar content and level to the corresponding Atax course and specific reasons for the request are required. Atax will normally approve this type of enrolment in special circumstances only. Students are required to complete the normal enrolment procedure at UNSW in order to have the course credited towards their degree.

Cross-Institutional Enrolment Procedures

Procedures for an Atax student entering into a cross-institutional scheme are as follows:

1. Forward full details of the course, including unit of credit value, assessment and content, to the Atax Student Services Office. Outline why you consider the circumstances to be special and indicate the Atax course for which it would be substituted.
2. Your application will then be considered and you will receive written advice regarding its success or otherwise.
3. Make an application to the host institution, presenting approval from Atax (check with the host institution for appropriate procedures).
4. Notify Atax of acceptance by the host institution.
5. Forward a certified copy of the official result (mark and grade) from the course studied at the host institution to Atax once the course assessment has been finalised.

<table>
<thead>
<tr>
<th>Where the number of courses you must complete to qualify for Bachelor of Taxation (after deducting those for which you have been granted exemption)</th>
<th>Your prescribed merit award number of courses is:</th>
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</table>
Cross-Group Enrolment Procedures

Students intending to:

• add/vary Atax courses to/in a program of study from another Group or School within UNSW; or
• add/vary courses from another Group or School within UNSW, to an Atax program;

are strongly advised to contact the Atax Student Services Office so transition arrangements can be effected smoothly. You must ascertain the availability of particular courses and the semesters in which they will be offered. You should arrange for your program authority to provide written approval that the Cross-Group course will be credited to your award program. Also arrangements for delivery/collection of study materials and associated support need to be communicated.

Students based in the Law School in UNSW are regarded as falling within these arrangements.
A Message from the Dean

It is my pleasure to welcome you to the Faculty of Medicine at the University of New South Wales. I would like to focus on who we are and what we stand for. An underlying principle at UNSW, and especially in the Faculty of Medicine, is the link between teaching and research. Our staff tell us that they want to work with us because they have the opportunity to pursue their research and to teach. In addition, many of our staff are doctors and other health care professionals who make major contributions to the delivery of clinical care, particularly in the public hospital system. As well as our full-time salaried staff, more than a thousand doctors attached to hospitals and working in the communities have unpaid conjoint appointments with us and make enormous contributions to teaching and research.

UNSW Medicine has a strong presence at the Kensington campus. In addition, staff and students are based in teaching hospitals in Sydney, Wollongong and regional and rural areas, especially Albury/Wodonga, Wagga Wagga, Coffs Harbour and Port Macquarie.

The Undergraduate Program in Medicine is a central focus. We also have undergraduate programs in Health and Exercise Science, and in Medical Science. There is a diverse array of postgraduate coursework programs such as the Masters in Public Health. Postgraduate research focuses on research masters, PhD and MD programs in all of the clinical, basic science and social science disciplines.

Our students are another rich resource in the Faculty. There is a broad mix of students from many backgrounds and metropolitan, rural and international students are all represented in large numbers. Our teaching and learning methods encourage a student-centred approach and acknowledgement that our staff and our students are our two richest resources.

We remain committed to a learning environment where research and teaching are closely intertwined and where we have close relationships with the healthcare system.

Once again, welcome to the Faculty of Medicine. I hope that you will find the information that you need by browsing through these pages. Should you wish to ask a more specific question, do not hesitate to contact the Faculty Office.

Professor Richard Henry
Acting Dean

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Who Can Help?

This section of the Handbook is designed as a detailed source of information in all matters related to the Faculty of Medicine. If you require advice about enrolment, degree requirements, progression within Programs or with any other general Faculty matter, contact one of the following people located in the Office of the Dean (map reference B27), Faculty of Medicine:

Undergraduate
Justin Joynes
Administrative Officer
Faculty of Medicine
Tel: (02) 9385 2459
Email: j.joynes@unsw.edu.au

General and Admission Enquiries
Office of the Dean
Faculty of Medicine
Tel: (02) 9385 8765
Fax: (02) 9385 1874
Email: info@notes.med.unsw.edu.au.

Elective term/Clerkships
Peter Herring
Administrative Assistant
Faculty of Medicine
Tel: (02) 9385 2452
Email: p.herring@unsw.edu.au
**Faculty of Medicine Website**

The Faculty of Medicine's website address is [www.med.unsw.edu.au](http://www.med.unsw.edu.au)

This website provides information about programs, courses, research interests, news and current events. The website also contains links to all the schools, units, centres and the affiliated research institutes of the Faculty, as well as staff, student and alumni information resources. The Faculty maintains many PC and Macintosh computer laboratories for student access, both on campus and in the Faculty's teaching hospitals. Students can access the web, email, MS Office and educational applications from these computers.

**Course Descriptions**

Descriptions of courses offered in 2006 can be found in alphabetical order by the course code at the back of this Handbook or in the Online Handbook at [www.handbook.unsw.edu.au](http://www.handbook.unsw.edu.au)

**The Faculty**

The Faculty of Medicine was established when the NSW Government accepted a proposal of the Murray Committee of Inquiry into the Future of Australian Universities and announced in December, 1957, that a second medical school in NSW would be established within the re-named University of New South Wales.

The Faculty's first students enrolled in 1961 and 25 of these graduated from the six-year program in 1966. A five-year undergraduate curriculum was introduced in 1974. Although this was a highly successful curriculum, a number of changes in both the hospital and health systems indicated the need for the Faculty to extend the program to a six-year curriculum in 1988. 2004 saw the beginning of a new six year Medicine program designed to suit the needs of 21st century graduates.

The Faculty of Medicine consists of all members of the academic staff, both full-time academics as well as conjoint and adjunct appointees from teaching hospitals, student representatives and other persons nominated by the Faculty. The Presiding Member is elected biennially from the professors and associate professors of the Faculty.

The Dean is the principal channel of communication between the Faculty and the University on administrative matters. The Dean and the Faculty are supported by a number of committees, some of which perform administrative tasks, while many assist in maintaining a constant review of the curriculum and the objectives of medical education.

**Goals of the Faculty**

The primary mission of the Faculty is the pursuit of excellence in medical and biomedical education within a scholarly environment of research and discovery.

**Application Procedures**

Details on application for entry into UNSW medicine programs for both local students and international students can be found on the Faculty's website at [www.med.unsw.edu.au](http://www.med.unsw.edu.au)

**Selection into the Medicine Program**

The Faculty of Medicine implemented new admissions criteria for entry into the UNSW medicine programs from 2003 for both local and international students. Students are selected on the basis of academic merit, results of the Undergraduate Medicine and Health Sciences Admission Test (UMAT) and performance at an interview. Some international applicants are exempt from sitting UMAT due to their place of residence. Further details of the selection process can be found on the Faculty's website at [www.med.unsw.edu.au](http://www.med.unsw.edu.au)

**International Students**

International applicants may only compete for entry as either fee-paying students or as holders of a scholarship awarded by the Australian Government. Enquiries regarding admission of international students should be directed either to UNSW International (tel: +61 2 9385 6996, email: internationaloffice@unsw.edu.au, website: [www.international.unsw.edu.au](http://www.international.unsw.edu.au)) or the Admissions Officer, Faculty of Medicine, at the University of New South Wales, Sydney NSW 2052, Australia. Enquiries regarding Australian Government scholarship holders should be directed to the local Australian Diplomatic Mission or see [www.ausaid.gov.au](http://www.ausaid.gov.au)

**Admission of Indigenous Students**

The Faculty may admit suitably qualified Aboriginal and Torres Strait Islander people. A pre-Medicine program, run for one month, is part of the preparation and selection processes for indigenous students applying for the Medicine program. Further information regarding the admission criteria may be obtained from the Faculty's Indigenous Health Unit on (02) 9385 3677.

**Admission of Disadvantaged Students (ACCESS Scheme)**

The Faculty may admit, within quota, a number of students whose education has been disadvantaged over a two-year period by circumstances beyond their control. Further information may be obtained from the Admissions Officer on (02) 9385 3089.

**Rural Student Entry Scheme**

The Faculty sets aside places in its Medicine program intake each year for students of rural origin who are able to demonstrate to the Faculty that they meet a number of selection criteria. The scheme is designed for high school, undergraduate and graduate students. It is expected that students who gain entry via the Rural Student Entry Scheme will be allocated to a rural hospital and undertake the majority of their final three years in rural hospitals. Further information may be obtained from the Faculty's Rural Health Unit on (02) 9385 3250 or the website [www.rural.med.unsw.edu.au](http://www.rural.med.unsw.edu.au)

**Assumed Knowledge**

There are no prerequisites for entry into the new Medicine program. However there is assumed knowledge of English. Assumed knowledge is a level of achievement at the HSC (or equivalent) considered desirable for successful study in a program or first year course. Students who do not have the assumed level of knowledge are not prevented from enrolling, but may be placed at a considerable disadvantage. It is assumed that upon enrolment students have an adequate command of English language and communication skills.

**Costs in Addition to Fees**

In all UNSW medicine programs, there are costs in addition to fees. The following is an estimate, based on students' experience, of the expenditure which is likely to be incurred over the full length of the program. The amounts quoted are subject to some variation.

<table>
<thead>
<tr>
<th>Item</th>
<th>Approx. Cost</th>
</tr>
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<tbody>
<tr>
<td>Textbooks</td>
<td>1,750</td>
</tr>
<tr>
<td>Two coats (1 laboratory, 1 hospital)</td>
<td>70</td>
</tr>
<tr>
<td>Stethoscope</td>
<td>180–300</td>
</tr>
<tr>
<td>Ophthalmoscope</td>
<td>180–250</td>
</tr>
<tr>
<td>Laboratory Manuals</td>
<td>200</td>
</tr>
<tr>
<td>Miscellaneous (papers, pens, kits, diagnostic equipment and aids, etc.)</td>
<td>30</td>
</tr>
</tbody>
</table>

*One long white coat is required for use in practical classes and one short coat for use in the hospitals.*

**Advice to Students on Computing Requirements and Email Policy**

For details on computer recommendations and specifications see the IT Requirements for UNSW Students policy at: [www.its.unsw.edu.au/policies/policies_home.html](http://www.its.unsw.edu.au/policies/policies_home.html)

All official email from the Faculty of Medicine will be sent to students' UNSW email accounts. It is expected that all UNSW students will either routinely check their UNSW email account or have their UNSW email account forwarded to another email address. Information about managing your UNSW email account can be obtained from: [www.disconnect.unsw.edu.au](http://www.disconnect.unsw.edu.au)

**Attendance at, and Residence in, Hospitals**

From Year 1, students attend hospitals for clinical teaching. For Years 1 to 3 (Year 4 from 2007), students are allocated to a large teaching hospital in Sydney known as their “home hospital”. During the final three years, students are required to undertake some terms in hospitals other than their home hospital. These terms are in other hospitals in Sydney and also in selected larger country hospitals. It is expected that students who gain entry via the Rural Student Entry Scheme will be allocated to a rural hospital and undertake at least 12 months of their final two years in rural hospitals. Other local students may have the option or be required to undertake at least 12 months of studies in rural hospitals. International students are not usually given this option of undertaking an extended placement in rural hospitals. However all students should expect at least 4 weeks in a rural rotation. The Faculty will always consider the personal preferences of students in their allocation to home hospitals and to other hospitals on rotation. However, the Faculty reserves the right to allocate students to hospitals that are not their first preference. Students

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**Laboratory Manuals**

- Ophthalmoscope
- Stethoscope
- Two coats (1 laboratory, 1 hospital)
- Miscellaneous (papers, pens, kits, diagnostic equipment and aids, etc.)

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considering applying for entry into a UNSW medicine program must take this into consideration and be willing to undertake their training in a range of clinical and health care facilities. The Faculty’s policy on ‘Allocation of Students to Clinical Locations’ can be found on the website at www.med.unsw.edu.au

Intern Placement and Registration

Each medical graduate seeking registration as a medical practitioner in NSW must complete a period as an intern in a hospital or institution approved by the NSW Medical Board. Before taking up an intern appointment, a graduate must obtain a certificate of conditional registration from the Medical Board. Intern placement is the responsibility of the Postgraduate Medical Council of the NSW Department of Health. Information concerning intern placement and conditional registration is issued to each student by the Office of the Dean during the final year. Information may also be obtained from:

Internship: The Postgraduate Medical Council, Gladesville Hospital Campus, Victoria Road, Gladesville NSW 2111, Tel: 9817 0551 or see www.pmc.nsw.org.au

Registration: The Registrar, Medical Board of New South Wales, Gladesville Hospital Campus, off Punt Road, Gladesville, Tel: 9879 6799 or see www.nswmb.org.au

Part-time Training and Deferment of Internship

The NSW Medical Board has no objection, in principle, to interns undertaking up to one-half of their internship on a reduced daily hours basis, or deferring internship in limited circumstances. Interns considering these options should contact the Board for further details.

Criminal Record Check

The NSW Department of Health has a policy that all students undertaking clinical placements or who require access in any capacity to facilities operated by the Department (this includes all the Teaching Hospitals used by UNSW in its Medicine programs) must undergo a criminal record check prior to employment or placement in any capacity in the NSW Health System. The check is conducted by the NSW Police Service and is coordinated by the Department of Health and the University. Further details are available on the Faculty’s website at www.med.unsw.edu.au

Clinical placement in the NSW Health System is a substantial and essential element in all UNSW medicine programs. Students who fail to satisfy the requirements of this check at any point during their enrolment in a UNSW medicine program will be excluded from the program. Depending upon the circumstances at the time, students may be eligible to transfer to another program of the University.

Working with Children

Under the Commission for Children and Young People Act 1998 and the Child Protection (Prohibited Employment) Act 1998, students who as part of their enrolment are required to have direct contact with children must declare whether they are a ‘prohibited person’, that is whether they have been convicted of a serious sex offence. It is an offence for a ‘prohibited person’ to work with children.

Clinical placement in Paediatrics is an essential element in all UNSW medicine programs. Any student who is a ‘Prohibited Person’ at any point during their enrolment in a UNSW medicine program will be excluded from the program. Depending upon the circumstances at the time, students may be eligible to transfer to another program of the University.

Students with Blood-borne Viruses and Immunisation for Students

In order to be enrolled in any UNSW medicine programs, students must agree to comply with the Faculty’s Immunisation and Blood-borne Viruses Policy, which aims to minimise the risk of medical students contracting or spreading an infectious disease or blood-borne virus, such as HIV, Hepatitis B or C. Students must also be registered with the NSW Medical Board. Registrants with the Board (including student registrants) who undertake, or could reasonably be expected to undertake, exposure-prone procedures have a professional responsibility to take appropriate steps to know their infective status in relation to blood-borne viruses. All students in all UNSW medicine programs could ordinarily be expected to undertake exposure-prone procedures and all students in the programs must know their infective status. A registrant (student) who is aware he or she has a blood-borne virus infection must not undertake exposure-prone procedures.

Any infectious student who knowingly undertakes an exposure-prone procedure or any student who in any other way endangers the health of patients will be reported to the Medical Board’s Impaired Practitioner Program. This may result in registration being withdrawn, which will result in expulsion from UNSW Medicine and the Medicine programs. Such a student would also be subject to the University’s Student Misconduct procedures and may further be liable to criminal prosecution if a blood-borne virus is knowingly transmitted.

The Immunisation and Blood-borne Viruses Policy of the Faculty of Medicine is found on the website at www.med.unsw.edu.au. Students are required to sign a statement indicating that they have read and agree to comply with this policy at the time of enrolment.

Registration with the NSW Medical Board

Under the Medical Practice Act, all medical students in NSW must be registered with the Board as a prerequisite to undertaking a course of medical study at a medical school in the State. Applications for registration are completed on initial enrolment and upgraded annually. Further details are available on the Board’s website at www.nswmb.org.au

Special Consideration

In order to ensure that students experiencing difficulties which may in turn affect the successful completion of their course assessment are seen and assisted by the Student Affairs Coordinator, a set of guidelines has been established to provide the framework within which the process and operation of a preliminary consideration regime will operate.

These guidelines are publicised in relevant student literature including the Handbook, ensuring that all students in the MBB5 program are aware of the availability of assistance and of the details of the process.

Please note: This process does not prevent or discourage a student from discussing their circumstances with the Course Coordinator. Further, these guidelines are intended to be preliminary to the operation of the UNSW Special Consideration Policy. Students may at any time prefer to rely on the provisions of that policy.

Guidelines:

A. Students with a temporary or reversible medical problem or social situation which has impaired their capacity to prepare for or sit for an assessment. Students should approach the Student Affairs Coordinator to explain their situation as soon as possible.

(1) The Student Affairs Coordinator may require a medical certificate or other documentation to support the claim.

(2) The Student Affairs Coordinator will advise the student whether s/he will support their application for special consideration to the Assessment Review Group should it need to be considered.

(3) If special consideration is granted and the student chooses to sit the assessment, the assessment would be marked in the usual way.

(4) If the student passes the assessment, then the matter will be taken no further.

(5) If the student fails the assessment, the Student Affairs Coordinator will attend the relevant Assessment Review Group meeting and present the case for special consideration.

(6) If the Assessment Review Group supports the Student Affairs Coordinator’s view that special consideration should be granted, the student will be allowed to re-sit the assessment without penalty, that is as though the next assessment was the first time that the student had attempted the assessment.

(7) No upward grading of a mark will occur – if a student passes the assessment at which s/he was eligible for special consideration the mark received will stand and will not be up-graded.

Please note that for special consideration to be granted in this category, there needs to be a belief that the problem leading to the granting of special consideration will have resolved significantly by the time of further assessment.

B. Where a problem occurs during an assessment.

(1) Where this occurs, the Student Affairs Coordinator should be notified at the earliest possible time and within 48 hours of the assessment, unless there are exceptional circumstances.

(2) If the opinion of the Student Affairs Coordinator is that the student was moderately or significantly impaired during the assessment, the Student Affairs Coordinator will represent this opinion at the meeting of the Assessment Review Group.

(3) If the student was able to complete a significant proportion of the examination prior to the acute event occurring, it may be possible to base the student mark on the proportion of the examination completed prior to the problem.
(4) In other situations the total mark obtained by the student may be the only mark that it is possible to derive.
(5) If the student obtains a passing performance, then that could be regarded as the student's mark.
(6) If the student failed that assessment s/he would be allowed to re-sit a subsequent assessment as though this were their first attempt.

**Student Photographs and Identification Badges**

In Year 1 of all UNSW medicine programs, each student is required to be photographed during the first session. These photographs are required for School and Faculty purposes. Hospitals also photograph students to produce identification badges, which must be worn in the hospitals.

**Special Note on Working as a Doctor**

Working as a doctor is both physically and emotionally demanding. They are exposed to stress and disease. If intending applicants have any concerns about these issues or if they are aware of any reason (such as a chronic illness, a disability or a criminal conviction) or any impairment that might make it difficult to gain medical student registration with the NSW Medical Board or to practise as a doctor after graduating from UNSW, they are urged to speak about these important matters in confidence with one of our independent Faculty advisers. To arrange this, telephone the Faculty's Student Affairs Coordinator on (02) 9385 3547.

**Faculty Student Organisations**

The University of NSW Medical Society (Medsoc)
The University of New South Wales Medical Society (Medsoc) is the representative body of the medical students of the University. Further information can be found on the website at: [www.medsoc.org.au](http://www.medsoc.org.au)

Rural Allied Health & Medical Society (RAHMS)
The Rural Allied Health and Medical Society (RAHMS) is a club for allied health and medical students at UNSW from rural, urban and international backgrounds with an interest in rural, indigenous and international health issues. For further information, contact the Rural Health Unit on (02) 9385 3250 or visit their website on [http://rural.med.unsw.edu.au/ruhms](http://rural.med.unsw.edu.au/ruhms)

**Clinical Learning Environments**

**South Eastern Sydney and Illawarra Area Health Service**


**The Prince Henry/The Prince of Wales Hospitals**

Barker Street, Randwick 2031
Tel: (02) 9382 2222, Fax: (02) 9382 2233

The Prince Henry and The Prince of Wales Hospitals were joined under a common management in 1961 to form the principal teaching hospitals for the Medical School of the University of NSW. The Prince of Wales Hospital has recently undergone a period of major redevelopment to enable all acute services to be accommodated on the Randwick Campus, which it shares with the Sydney Children's Hospital, the Royal Hospital for Women and the Prince of Wales Private Hospital.

The Prince Henry and Prince of Wales Hospitals currently cover all specialties and sub-specialities. In addition, statewide services provided include: Hyperbaric Medicine Unit, Spinal Injuries, Lithotripsy, HIV Special Unit and the Albion Street Centre.

**Sydney Children's Hospital**

High Street, Randwick 2031
Tel: (02) 9382 1111, Fax: (02) 9382 1777

This is a paediatric tertiary referral hospital serving the whole of the state, one of three such children's hospitals in NSW and is located at the Randwick campus. It has close links through specialist and resident staff with other teaching and associated hospitals. It provides a complete range of paediatric services and has strong links with complementary adult services at Prince Henry and Prince of Wales Hospitals. There are also strong links with community-based child health services and local private practitioners.

**The Royal Hospital for Women**

Barker Street, Randwick 2031
Tel: (02) 9382 6111, Fax: (02) 9382 6513

The Royal Hospital for Women is the University's principal teaching hospital in obstetrics and gynaecology.

There are approximately 4,000 births annually and over 6,500 gynaecological procedures. It is a specialist hospital for obstetrics and gynaecology and includes a department of neonatal paediatrics. The Hospital has established the Department of Endo-Gynaecology and the Natural Therapies Unit, where natural products are actively researched. The first baby health clinic in NSW, the forerunner of today's Early Childhood Health Centres, was established here in 1906. The State's first Antenatal Clinic was also started at the Royal Hospital for Women in 1912.

The Hospital's Department of Medical Imaging has an international reputation for research and development of ultrasound technique and equipment in obstetrics as does the Gynaecological Oncology Centre, for its work on ovarian cancer and gynaecological malignancy.

**The St George Hospital & Community Health Service**

Gray Street, Kogarah 2217
Tel: (02) 9350 1111, Fax: (02) 9350 3999

The St George Hospital & Community Health Service is one of Sydney's busiest principal referral hospitals. Designated as a major Trauma Service, the hospital accepts referrals from outside its immediate area as well as serving a local district population of approximately 225,000 (of whom more than 25% were born overseas). It has the busiest Emergency Department in metropolitan Sydney. It is a state-of-the-art hospital which covers all general areas of medicine (excluding heart and liver transplants).

A Private Hospital is located adjacent to the campus.

**The St Vincent's Hospital**

Victoria Street, Darlington 2010
Tel: (02) 8382 1111, Fax: (02) 8382 4142

St Vincent's Hospital is a principal referral hospital operated by the Sisters of Charity. It is an acute general hospital with highly developed specialist units in adult medicine and surgery and diagnostic services. The Hospital provides referral services for NSW and Australia and services for the local community. Specialty services at the Hospital include cardiac transplantation, bone marrow transplantation, a Cancer Care Centre which provides an integrated approach to the management of malignancy, a comprehensive AIDS service and a specialist Palliative Care Institute (Sacred Heart Hospice). Extensive primary and secondary services are also provided to meet the needs of the local community and these include medical, surgical, geriatric and drug and alcohol services.

St Vincent's is part of the integrated campus of the Sisters of Charity which comprises St Vincent's Private Hospital, the Garvan Institute of Medical Research, the Victor Chang Cardiac Research Institute, St Vincent's Clinic and the Centre for Immunology.

**Calvary Hospital Kogarah Inc**

91 Rocky Point Road, Kogarah 2217
PO Box 261 Kogarah 1485
Tel: (02) 9587 8333, Fax: (02) 9587 1421

Calvary Hospital Kogarah Inc is an Affiliated Health Organisation conducted by the Sisters of the Little Company of Mary. The Hospital was opened in 1966 and provides multidisciplinary palliative care services for 80 inpatients and day-only admissions. The Hospital has a 20-bed Geriatric Rehabilitation Unit, full multidisciplinary team and therapy gymnasium.

There is a Community Palliative Care Team offering holistic, family-oriented care to people with terminal illnesses within the South Eastern Sydney Area Health Service who choose to live at home. An Outpatient Pain Clinic is available at Calvary for these and other patients. Calvary staff offer a consultative service to nursing homes and private hospitals.

**The Langton Centre**

Corner Nobbs and South Dowling Streets, Surry Hills 2010
Tel: (02) 9332 8777, Fax: (02) 9332 28700

The Langton Centre is a specialist agency for the treatment of addictions. The Centre provides medication detoxification, group and individual counselling, and medical and psychological interventions for dependent drug users. The Centre operates a methadone maintenance clinic and a needle and syringe exchange program.

**St Luke's Hospital Complex**

18 Roslyn Street, Potts Point 2011
Tel: (02) 9356 0200, Fax: (02) 9357 2334

St Luke's Hospital Complex, provides acute hospital, nursing home and aged care services. St Luke's (Private) Hospital is a 108 bed acute General Hospital providing comprehensive surgical, medical and rehabilitation care. Facilities include operating theatres, an intensive care unit, a day surgery/procedures unit, endoscopy unit, telemetry/sleep studies unit,
rehabilitation unit including hydrotherapy pool and diagnostic radiology service, including CT Scan. It also has a purpose built Day Rehabilitation and Injury Management Centre.

Shellharbour Hospital
The Shellharbour Hospital has 150 beds and provides emergency, medical, surgical, obstetric and psychiatric services.

Shoalhaven Hospital
Shoalhaven Hospital is a 143 bed, level 4, district hospital for the Shoalhaven region, providing emergency, elective orthopaedic and plastic surgery, medical, ICU, obstetric, gynaecologic, paediatric, neonatal care as well as rehabilitation services.

Sutherland Hospital Caringbah
Kingsway, Caringbah 2229
Tel: (02) 9540 7111, Fax: (02) 9540 7197
The Sutherland Hospital Caringbah, was founded in 1958. It is a general medical, surgical and obstetric hospital, with various sub-specialties. There are also psychiatric and rehabilitation, oncology and day surgery units, a paediatric ward, and a busy emergency department. Based in the rapidly expanding South Eastern suburbs, the hospital serves an approximate population of 200,000.

Sydney Hospital and Sydney Eye Hospital
Macquarie Street, Sydney 2000
Tel: (02) 9382 7111, Fax: (02) 9382 7320
Sydney Hospital and Sydney Eye Hospital has an Accident and Emergency Service. It provides inpatient and outpatient services in general medicine, general surgery, orthopaedics, ENT, hand surgery, and ophthalmology (including the Lions Eye Bank and Save Sight Institute), Sydney Artificial Eyes, Sydney Sexual Health Centre, Kirketon Road Centre in Kings Cross and the Langton Centre in Surry Hills.

War Memorial Hospital Waverley
125 Birrell Street, Waverley 2024
Tel: (02) 9369 0100, Fax: (02) 9387 7018
War Memorial Hospital, Waverley, is under the governance of the Uniting Church. The hospital runs a geriatric rehabilitation and assessment unit, a rehabilitation outpatient service, a short stay residential respite unit, a day care unit - which provides services for both frail and dementia clients and non-English speaking background groups - and podiatry outpatient services. A hydrotherapy pool supports the inpatient rehabilitation services. The War Memorial Hospital also supports an aged care assessment team, a number of specialist clinics and services, and provides office accommodation for the Waverley Community Team.

Wollongong Hospital
Wollongong Hospital is the major teaching and referral hospital for the Illawarra Area. It provides emergency care, specialist medical and surgical services, intensive care and major diagnostic, maternal and paediatric services for patients referred from throughout the Illawarra. The Wollongong and Port Kembla Hospitals provide complementary services with all acute services located at the Wollongong Hospital.
The Port Kembla Hospital comprises 52 beds for Rehabilitation and Psychiatry Services, and the Wollongong Hospital with 240 beds provides a full range of tertiary services.

Corrections Health Service
Long Bay Correctional Centre
Anzac Parade, Little Bay, 2036
Tel: (02) 9289 2977, Fax: (02) 9311 3005
CHS provides and coordinates a comprehensive range of health services for people in custody within the NSW Correctional System. Major clinical programs include General Practice and Primary Health Care, General Medicine/Surgery, Mental Health Programs, Drug and Alcohol Services, Population Health, Indigenous People’s Health Services, Dental and Imaging Services.

The Sydney South Western Area Health Service
Website: www.swsahs.nsw.gov.au
Liverpool Hospital
Elizabeth St, Liverpool, 2170
Tel: (02) 9282 3000, Fax: (02) 6318
The SWSCS is centred at Liverpool Hospital (600 beds), a principal tertiary referral hospital for the South Western Sydney Area Health Service (SWSAHS). It provides services in all the sub-specialties of internal medicine, general surgery including orthopaedics and plastic surgery, pathology and imaging. It has a Brain Injury Centre and a Cancer Therapy Centre which includes rehabilitation and palliative care.

Bankstown-Lidcombe Hospital
Eldridge Rd, Bankstown, 2200
Tel: (02) 9722 8000, Fax: (02) 9722 8570
This is a major metropolitan acute general hospital providing 454 beds and caters for approximately 30,000 inpatient separations per year. The hospital offers services such as general medicine and surgery, obstetrics, paediatrics, emergency, intensive care, day surgery, endoscopy, psychiatry, neonatology, pathology and imaging.

The Greater Southern Health Service
Wagga Wagga Base Hospital
PO Box 159, Wagga Wagga NSW 2650
Tel: (02) 6938 6666, Fax: (02) 6921 8243
Website: www.gmahs.nsw.gov.au
Wagga Wagga Base Hospital is a 220 bed acute regional hospital and has specialists in most major disciplines (medicine, paediatrics, surgery, orthopaedics, anaesthetics, obstetrics and gynaecology, ENT, ophthalmology, geriatrics, rehabilitation, psychiatry and emergency medicine). The Base Hospital is a significant teaching hospital boasting registrars in medicine, surgery, orthopaedics, anaesthetics, obstetrics and gynaecology and is a primary allocation centre.

Albury Base Hospital
PO Box 326, Albury NSW 2640
Tel: (02) 6058 4444, Fax: (02) 6058 4504
Albury Base Hospital is a modern 155 bed facility providing specialist services to the Albury–Wodonga and the surrounding parts of southwestern NSW and northeastern Victoria. The hospital is the designated regional trauma centre for the region, with a catchment population of approximately 150,000 people. The hospital has a suitably appointed and staffed intensive care unit and emergency department, both of which are accredited for training by many of the Specialist Medical Colleges.

Wodonga Regional Health Service
PO. Box 156, Wodonga, VIC 3689
Tel: (02) 6051 7111, Fax: (02) 6051 7477
The Wodonga Regional Health Service is located in the rural city of Wodonga. Together with the border city of Albury, the Albury-Wodonga district is home to over 90,000 people. The Health Service provides a range of hospital and community health services including Obstetrics, General Medicine, General Surgery, Acute Care, Paediatrics, Emergency, Mental Health, Medical Imaging and Aged, Rehabilitation and Allied Health care.

Griffith Base Hospital
PO Box 1013, Griffith NSW 2680
Tel: (02) 6962 8333 Fax: (02) 6964 1587
Griffith Base Hospital is a 92 bed Base Hospital providing a range of acute specialist services including Emergency Medicine, General Medicine, General Surgery, Paediatric Medicine, Rehabilitation Medicine, ENT, Urology, Paediatric Surgery, Oncology, Obstetrics, Intensive Care, Respiratory Medicine and Rheumatology.

The North Coast Area Health Service
Coffs Harbour Health Campus
Pacific Highway, Coffs Harbour, 2450
Tel: (02) 6656 7000, Fax: (02) 6656 7010
The new Coffs Harbour Health Campus was opened in November 2001 with capacity for 202 beds and a floor area of approximately 25,800 square metres. Services in the new facility are clustered around the needs of defined groups of patients and clients in four distinct Care Centres, namely the Family Care Centre, the Medical and Therapeutic Care Centre, the Critical and Surgical Care Centre, and the Mental and General Well-being Centre.

Port Macquarie Base Hospital
Wrights Road, Port Macquarie 2444
Tel: (02) 6581 2000, Fax: (02) 6580 1110
Port Macquarie Base Hospital was the first privately operated and owned hospital in Australia. This 161 bed hospital opened its doors to the public in November 1994 and is a comprehensive referral hospital for both public and private patients of Port Macquarie and surrounding areas. The hospital provides a 24 hour accident and emergency service; general surgery; orthopaedic surgery; vascular surgery; gynaecology; obstetrics; urology;
ear, nose and throat surgery; renal medicine; oncology; cardiology; thoracic medicine; general medicine; paediatric and neo-natal medicine; psychiatry and emergency medicine. The hospital has been accredited by the Medical Association/Colleges of Physicians, Surgeons, Obstetrics and Gynaecology, Orthopaedics and Psychiatry.

Kempsey District Hospital
River Street Kempsey, Tel: (02) 6652 6155, Fax: (02) 6563 1557
Kempsey Campus Coordinator – Dr Leo Smith – Tel: (02) 6562 6188.
This 106 bed acute general hospital provides emergency services, medicine, surgery, psychiatry, rehabilitation and obstetrics. Durri Aboriginal Medical Service, located in the Kempsey CBD, is a new state of the art facility providing primary health care for indigenous people.

Clinical Learning Environments (Private)
Prince of Wales Private Hospital
Barker Street, Randwick 2031
Tel: (02) 9650 4000  Fax: (02) 9650 4695
St. George Private Hospital
1 South Street, Kogarah 2217
Tel: (02) 9598 5555  Fax: (02) 9598 5000
St. Vincent’s Private Hospital
406 Victoria Street, Darlinghurst 2010
Tel: (02) 8382 7111  Fax: (02) 8382 7334

Faculty Units, Centres and Affiliated Institutes
The Bioanalytical Mass Spectrometry Facility
The Bioanalytical Mass Spectrometry Facility (BMSF) is a UNSW beach-head facility providing research support to investigators on this campus and affiliated teaching hospitals. The BMSF is a major facility for molecular characterisation for the Faculties of Medicine, Science and Engineering at UNSW. The facility is equipped to world class standards enabling all types of mass spectrometry to help answer questions posed by researchers and clinicians. The BMSF is both a research and research-support facility engaged in several areas of study. There are three main overlapping areas of research: large molecule analysis including proteomics, small molecule biomarker research including the monitoring of damage, repair and the cellular changes associated with aging and inflammatory disease, and development of instrumentation and technology for mass spectrometry. The facility offers an analytical service and delivers courses on mass spectrometry and allied topics. The BMSF is in partnership with the Australian Proteome Analysis Facility (Macquarie University) which is funded under the Major National Research Facility Scheme. More information on the BMSF can be obtained at www.bmsf.unsw.edu.au

Centre for Health Informatics
The Centre for Health Informatics (CHI) engages in research, development and commercialisation of advanced information and communication technologies for health care delivery. Further information can be obtained at: www.chi.unsw.edu.au

The Centre conducts research and development in 4 broad areas:
• Evidence-based Decision Support - Developing technologies to provide on-line access to clinically relevant information to support decision making by clinicians and consumers.
• Clinical Communications - Understanding how communication fundamentally supports the process of health care delivery, its role in producing errors, and how new technologies can be used to improve communication.
• Home Telecare - uses information, communications, measurement and monitoring technologies to evaluate health status and deliver health care services to the home from a distance to improve clinical outcomes and allow the elderly and the chronically ill to stay at home longer.
• Evaluation - Assessing the effectiveness of new information and communication technologies in improving health outcomes and delivery.

Postgraduate courses in Health Informatics are offered within Masters degrees in the School of Public Health & Community Medicine.

Centre for Clinical Governance Research in Health
Since 1991, the Centre for Clinical Governance Research in Health has undertaken research and evaluation projects on health sector issues. Its core interest is to investigate issues of policy, governance and leadership in the health sector. The Centre is involved in conducting original research into clinical governance issues, providing a scholarly capability by which to evaluate health sector policies, programs and projects, and contributing to undergraduate medical, postgraduate health services management, and public health and doctoral education. Further information is available at www.med.unsw.edu.au/clingov

Centre for Vascular Research
The Centre for Vascular Research is a multidisciplinary organisation focusing on the causation and treatment of occlusive vascular disease and other pathologies with vascular components. This includes projects on angiogenesis in tumour growth and inflammation. The Centre has laboratories in the John Curtin School of Medical Research at the ANU and the Department of Biochemistry and Molecular Biology, Monash University in addition to UNSW on campus and at Prince of Wales Hospital and St George Clinical School. Details of the Centre, structure, group leaders, research directions and opportunities for undergraduate and postgraduate students are available at www.crv.net.au

Children's Cancer Institute Australia for Medical Research
Children's Cancer Institute Australia for Medical Research is an independent institute affiliated with the Faculty of Medicine, UNSW. The Institute was established in 1976 and occupies a 5 storey complex at the southern end of the Sydney Children's Hospital as well as a number of labs and offices in a nearby building. With staff numbers exceeding 120, including Honours and postgraduate scholars of the University, the Institute undertakes laboratory research on malignant disease in children. Research work is organised into seven programs: experimental therapeutics, molecular diagnostics, molecular carcinogenesis, leukemia biology, stem cell biology, iron metabolism and ination and Australian Cancer Research Foundation Drug Discovery Program. The Institute is the only independent medical research institute in the country focusing solely on research into the nature, origin, cause and treatment of childhood cancers (particularly leukemia and neuroblastoma).

Garvan Institute of Medical Research
The Garvan Institute of Medical Research has a staff of 280 including 45 PhD and MD scholars. The Institute is structured into six major research programs - arthritis and asthma, bone and mineral, cancer, neurobiology, metabolism and diabetes and psychiatric disorders - which are funded through program and Project grants from the National Health and Medical Research Council. Located at the St Vincent's Hospital Campus, the Garvan Institute focuses on the molecular basis of health and disease, integrating a range of basic laboratory based research approaches together with extensive clinical research. Further information is available at www.garvan.org.au

National Centre in HIV Epidemiology and Clinical Research
The National Centre in HIV Epidemiology and Clinical Research (NCHECR) is recognised worldwide as a leader in HIV/AIDS research. The NCHECR undertakes research into HIV/AIDS that focuses on epidemiology, clinical research and clinical trials, in collaboration with other research centres, government departments, the pharmaceutical industry, community groups, health clinics and general practitioners. The priorities of the NCHECR include surveillance and monitoring of HIV infection and AIDS, epidemiological studies of transmission and disease progression, identification of social and behavioural factors affecting HIV disease and the establishment of Australia as a primary site for clinical trials of HIV therapy. As an extension of its role in HIV/AIDS, the Centre also carries out epidemiological and clinical research into other blood borne viruses, particularly Hepatitis C and sexually transmitted infections. Another significant area is the NCHECR’s contribution to international clinical research and provision of research expertise and training to countries of the Asia-Pacific region. Recently the Centre has increased it role in the development and testing of novel vaccines for HIV. More information can be obtained from the Centre’s website: www.med.unsw.edu.au/nchecr

National Perinatal Statistics Unit
The National Perinatal Statistics Unit (NPSU) is a collaborating unit of the Australian Institute of Health and Welfare based at the University of NSW. The NPSU is located on the Randwick Hospital Campus within the School of Women's and Children's Health. The NPSU maintains national perinatal and reproductive health data collections based upon

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data supplied by the States and Territories. An assisted conception data collection is also held based upon data supplied by IVF and GIFT Units from Australia and New Zealand. The NPSU in collaboration with States and Territories and various professional, government, non-government and consumer groups are involved in the continuing development of national reproductive and perinatal health data systems. The NPSU’s objectives are to monitor and interpret national reproductive and perinatal health data, to conduct teaching and research in perinatal and reproductive health and research in perinatal and reproductive health.

National Drug and Alcohol Research Centre
The National Drug and Alcohol Research Centre (NDARC) was established at UNSW in May, 1986 and officially opened in November, 1987. It is funded by the Commonwealth Government as part of the National Drug Strategy (formerly, the National Campaign Against Drug Abuse). NDARC is situated on the UNSW Randwick campus in the eastern suburbs of Sydney. The centre is multidisciplinary and collaborates with medical, psychology, social science and other schools of the University, and with other institutions and individuals in Australia and overseas. The overall mission of NDARC is: by research and related activities to contribute to the minimisation of the harmful consequences of alcohol and other drugs used in Australia by increasing the effectiveness of the Australian treatment response to drug-related problems. Further information is available at http://ndarc.med.unsw.edu.au

Prince of Wales Medical Research Institute
The Prince of Wales Medical Research Institute is an independent institute affiliated with the University. Since its opening in 1993, it has grown to become one of the largest aggregates of research nationally on the functions and disorders of the brain and nervous system. It has a staff of more than 100. In 2003, it established the Mayne Clinical Research Imaging Centre based on a 3T machine. Major lines of research include human sensation and motor cortex function, balance and movement; autonomic nervous system; nervous system morphology (brain “atlases”); Alzheimer’s, Parkinson’s and other neurodegenerative diseases; macular degeneration and blindness; clinical neurophysiology; nerve and spinal cord injury; child injury; chronic pain; and role of endroids in maintaining or altering functions of the nervous system. For further information visit the Institute’s website at: www.powmri.edu.au

Simpson Centre for Health Services Research
The Simpson Centre is a NSW Government funded Research Centre with a strong history of applied research and health service innovation. The genesis of the Simpson Centre was in response to increasing pressure for practical solutions to improve acute services. This has now expanded to include research across traditional boundaries linking acute medical and community based health care delivery. The principal objectives of the Simpson Centre are to: innovate, evaluate research and develop health service systems; disseminate research results and facilitate implementation of validated service innovation. This approach also incorporates examination of cultural and psychosocial factors influencing service delivery and utilisation.

Skin and Cancer Foundation Australia
The Skin and Cancer Foundation was established in 1978 and is affiliated with St. Vincent's Hospital. A broad range of clinics is devoted to the diagnosis and treatment of skin cancer, psoriasis, contact dermatitis, vitiligo and pigmented skin lesions. There is a large dermatopathology service. Clinical trials as well as research in occupational dermatoses and histopathology are pursued. The Foundation provides sunscreen testing and irrraniy testing for new products. The Foundation has a Westmead branch which provides sunscreen testing and irritancy testing for new products as well as being the main centre for dermatological surgery.

Victor Chang Cardiac Research Institute
The VCRI was established in 1994 to honour the vision and memory of the late Dr Victor Chang. It is a member of the St Vincent's Hospital Campus. It aims to conduct the highest quality fundamental research into cardiovascular diseases, with a major emphasis on the prevention, diagnosis and treatment of heart muscle diseases. It currently has active research programs in molecular cardiology relating to the mechanisms of cardioc hypertrophy and signal transduction; developmental biology, gene regulation and enzyme research; the genetics of cardiovascular diseases; cardiac arrhythmias and mechanics; transplantation biology; vascular bioengineering, and the pathophysiology of cardiac ischaemia and coronary restenosis.

Rural Health Unit
The Rural Health Unit was established in 1995 to help address the chronic shortage of doctors in rural areas. Since this time the Unit has seen a rapid growth in personnel and student activities. The principal areas of responsibility of the Rural Health Unit are:

- administration of special entry schemes, such as the Rural Students Entry Scheme (RSES);
- promoting Medicine and allied health to rural high school students;
- administration and support of RAHMS, the Rural Allied Health & Medical Society;
- supporting rural students in Medicine;
- encouraging and supporting students who are interested in pursuing a career in rural health;
- promoting rural health through various avenues, eg. the media and lobbying to the government; scholarships, cadetships, bursaries;
- promoting rural health as a viable alternative to urban based medical practice;
- providing a forum for communication between metropolitan and rural health professionals, eg. workshops;
- conducting research into rural health issues and rural curriculum in the Medicine program; and
- supporting current students of the School of Rural Health and promoting the School to pre-clinical UNSW based students which will increase the opportunities for rural clinical learning.

For more information please visit the Rural Health Unit website http://rural.med.unsw.edu.au

Indigenous Health Unit
The Indigenous Health Unit works in close collaboration with the Rural Health Unit to:

- promote Medicine to school-age and mature Indigenous students;
- administer the Indigenous Entry into Medicine scheme, including the Pre-Medicine program, a preparation to the medical course;
- select students;
- support students throughout their course;
- develop appropriate curricula (in consultation with Indigenous communities);
- develop partnerships with Indigenous communities;
- coordinate teaching in Indigenous Health to all students within Medicine;
- conduct research into Indigenous Health and assist in building the capacity of others to undertake such research.

Program Rules and Information
The Faculty of Medicine introduced an innovative six year undergraduate Medicine program (3802 New Medicine program) that commenced for Year 1 students in 2004. Information below is provided both for this new program and for the existing 3801 Medicine program.

3802 Medicine Program

Bachelor of Medicine Bachelor of Surgery MB BS

Typical Duration
6 years

Minimum UOC for Award
288 units of credit

Typical UOC per Session
24 units of credit

Program Description
This six-year program leads to the award of the degrees Bachelor of Medicine and Bachelor of Surgery - MB BS. This double degree, which is in effect a single degree, may be awarded with Honours Class 1; Honours Class 2, Division I; Honours Class 2, Division II; or at Pass level. The award of Honours is determined on the basis of a student’s performance throughout the six year program, obtained by using the weighted mark for specified assessments in the three phases of the program.
Students who have achieved a high standard in their studies may undertake a one year program of supervised research leading to the award of the BSc(Med) Honours. For details, please refer to the program entry for 3831 Bachelor of Science (Medicine) Honours.

Program Objectives and Learning Outcomes

The objectives of the medicine program are:

- to establish an integrated, interconnected and organised medical knowledge base as a platform for a professional and personal life of learning through experience;
- to develop effective interactions with oneself through reflection; interaction with others through communication; and interaction with information and learning resources through information literacy and critical analysis;
- to develop a set of personal attributes and skills appropriate to the professional practice of Medicine.

These objectives have been translated into a set of educational outcomes; these being eight desired capabilities in graduates of the Medicine program, grouped as follows:

**Applied Knowledge and Skills**

1. Using basic and clinical sciences in medical practice
2. Understanding the social determinants of health and disease
3. Patient assessment and management
4. Effective communication
5. Working as a member of a team
6. Self directed learning and critical evaluation skills
7. Understanding and acting in an ethical and socially responsible manner
8. Development as a reflective practitioner

**Personal Attributes**

**Program Structure**

The duration of the Medicine program is normally 6 years. It has a modular structure comprising a series of fully integrated courses studied over 27 teaching periods, each of 8 weeks duration. There are 4 teaching periods in Years 1-3 (Teaching Periods 1-4). There are five teaching periods (Summer Teaching Period and Teaching Periods 1-4) in years 4-6. The commencement dates of Teaching Periods 1 and 3 correspond to the beginning dates of the standard UNSW Sessions 1 and 2 respectively, and the Summer Teaching Period generally commences on the first Monday in January. Teaching is integrated across discipline areas. Courses usually correspond to an 8-week module, rather than the sessional arrangement applicable to most UNSW courses. However, in general the standard UNSW program load of 48 units of credit (UOC) per year will apply, with most 8-week courses being treated as 10 UOC.

As part of the program, students are required to satisfy the University’s General Education requirements. Please see General Education below.

The program is organised into three phases. **Phase 1** includes an initial Foundations course, followed by 8 x 8 week courses focussing on basic medical sciences in relation to the human life cycle; social, ethical and legal issues related to health care; and early experience in clinical or other health-related environments. During this phase, students will undertake a variety of learning activities involving students from different stages of the program working collaboratively in small groups.

**Phase 2** consists of a minimum of 4 x 8-week courses, with increased clinical content and an emphasis on correlation between prior and current learning.

**Phase 3** consists of a minimum of 9 x 8-week courses with a clinical focus, but still includes relevant content from the basic medical sciences and the social sciences. The sequence of courses in Phase 1 is fixed, but in later phases students will have increasing flexibility to tailor the sequence and content of the courses they undertake to match their interests and needs.

In all phases of the program, students will be required to travel to various clinical environments associated with UNSW, which will be the predominant locations for learning in Phases 2 and 3. These locations include Clinical Schools associated with StVincent’s Hospital, Darlinghurst; St George Hospital, Kogarah; the Randwick Campus Hospitals, various locations in the South Western Sydney Clinical School based around Liverpool; and the School of Rural Health, which has campuses in the Greater Murray and Mid-North coast areas. Throughout the program, students may be attached to multiple sites, which will typically include at least 8 weeks in a non-metropolitan setting.

After completing Phase 1, and typically in Phase 2, students will undertake an Independent Learning Project, equivalent to 3 courses, which unless otherwise negotiated, will be taken consecutively over 4 teaching periods, during which students should also complete 12 UOC of elective courses in a faculty or faculties other than Medicine. This project will offer scope for in-depth study in a variety of possible settings, ranging from laboratory-based work in the biomedical sciences, audits of clinical practice, to-for example - projects dealing with cross-cultural issues or health economics, which may be taken outside the Faculty of Medicine.

Students wishing to undertake a full year of research will be able to enrol in the BSc (Med) Honours program 3831. These students will be exempt from undertaking the Independent Learning Project and will thus complete the combined program over 28 teaching periods in approximately 6.5 years. Exemption from the Independent Learning Project will also be granted to students who have previously completed a research Honours program or higher research degree, or a Master degree with a significant research component, or who can otherwise demonstrate acceptable evidence of independent study or research at a tertiary level. These students will complete the Medicine program over 24 teaching periods.

**PHASE 1**

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<thead>
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<td>Society &amp; Health 1</td>
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<td>Beginnings, Growth &amp; Development 1</td>
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<td>Health Maintenance 1</td>
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<td>Ageing and Endings 1</td>
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<td>MFAC1509</td>
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**PHASE 2 OR 3**

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**General Education Requirements**

As part of the program, students are required to complete 12 UOC of General Education courses (unless exempt under UNSW rules) which may be available as sessional courses or in block mode. Students are also required to undertake 12 UOC of elective courses in a faculty or faculties other than Medicine.

For information on available courses, please refer to the General Education section in this Handbook.
Honours
Award of Honours
This will be calculated on the basis of a weighted mark for specified assessments in the three phases of the program, together with the marks obtained in General Education courses and courses undertaken outside the Faculty of Medicine.

Please note: To be eligible for Honours, students must achieve a grade of Credit or better in the Independent Learning Project, unless they have been exempt from undertaking the project.

The Faculty Assessment Review Group considers the ranked list of students and their marks and decides the cut-off marks for the award of Honours at the various levels. Neither the percentage of the students obtaining Honours at the various levels nor the cut-off marks are predetermined, and the Faculty Assessment Review Group makes its own assessment of the level of academic attainment indicated by the overall program mark.

Relative Weighting Within Phases

Phase 1
End-of-Block Examinations (cumulative) 2
End-of-Phase Examination 1
Portfolio Assessment 2
Clinical & Communication Skills Examination 1

Phase 2
Clinical Examination 3
Portfolio Assessment 3
Project Marks (best 4 if more than 4) 2

Phase 3
Clinical Module Assessments (best 8) 1
Portfolio Assessment 1
Clinical and Correlation Examination 2

Relative Weighting of Phases and Other Components

Phase 1 = 6
Phase 2 = 4
Phase 3 = 8
General Education courses = 1
Additional courses from other Faculties = 1

Academic Rules

Rules of Progression
Assessment in this program is capability based, requiring students to demonstrate their ongoing development with respect to the eight areas of capability. Progression will not be based solely on satisfactory completion of individual courses, nor will it correspond solely to annual stages. Full details are available on the Faculty of Medicine website.

3841 Combined Arts and Medicine Program

Bachelor of Arts Bachelor of Medicine Bachelor of Surgery
BA MB BS

Typical Duration
7 years

Minimum UOC for Award
336 units of credit

Typical UOC per Session
24 units of credit

Program Description
The Arts/Medicine program is an alternative program of study in which, over a seven-year period, a student may complete the degree of Bachelor of Arts, together with the degrees of Bachelor of Medicine and Bachelor of Surgery. A limited number of places is available in this program and these are open only to students who have been accepted for entry into the Faculty of Medicine.

Students who wish to undertake the program should contact the Office of the Dean as soon as possible after receiving their offer of a place in the Medicine Program. Selection of students for the Arts/Medicine program is made approximately two weeks before commencement of Session 1, although students may apply to transfer from the Medicine 3802 program to Arts/Medicine 3841 at the end of Year 1.

Program Objectives and Learning Outcomes
The Arts/Medicine program is intended for those students who wish to continue their interest and studies in the Arts and Social Sciences during their medical studies.

For the Program Objectives of the MBBS component of the Arts/Medicine program, please refer to the program entry for 3802 Medicine in this Handbook.

Program Structure

Over a period of seven years, students will be required to fulfil the requirements of the MB BS degree program as well as 66 units of credit in courses offered by the schools/departments/programs within the Faculty of Arts & Social Sciences, including an approved major sequence. A major sequence equals 42 units of credit (usually 12 at Level 1 and 30 at upper level).

For the Program Structure of the MB BS component of the Arts/Medicine program, please refer to the program entry for 3802 Medicine program.

Honours

Students who have completed the combined Arts/Medicine program are eligible for the award of Honours in the MB BS degree program, based on the weighted mark for specified assessments in the three phases of the MB BS program, together with the marks obtained in the best 24 UOC undertaken in the Faculty of Arts & Social Sciences.

Relative Weighting of Phases and other Components

Phase 1 = 6
Phase 2 = 4
Phase 3 = 8
Arts Courses (best 24 UOC) = 2

For further details on Honours, please refer to the program entry for 3802 Medicine program.

Academic Rules

Students in the BA MB BS program will not be required to complete General Education courses or other courses outside the Faculty of Medicine. They will usually complete the requirements for the BA after 4 years. Upon rejoining the Medicine program, they will undertake a short clinical skills refresher course. Students wishing to undertake a full year of research in Arts will be able to enrol in a BA Honours program. Subject to the sequence of courses taken during Phase 2, these students may be exempt from undertaking the Independent Learning Project and could complete the combined program in approximately 7.5 years.

For academic rules and requirements relating to the MB BS component of the Arts/Medicine program, please refer to the program entry for 3802 Medicine in this Handbook.

3801 Medicine Program – for continuing students only

Bachelor of Science (Medicine) Bachelor of Medicine
Bachelor of Surgery
BSc(Med) MB BS

Please note: This program is not available to commencing students. Details below are provided for the reference of continuing students only. Prospective students should refer instead to the new Medicine program 3802.

Typical Duration
6 years

Minimum UOC for Award
288 units of credit

Typical UOC per Session
24 units of credit

Program Description
This six-year program leads to the award of the degrees of Bachelor of Science (Medicine), Bachelor of Medicine, Bachelor of Surgery - BSc (Med) MB BS.

These degrees, which are in effect a single degree, may be awarded with Honours Class 1; Honours Class II, Division I; Honours Class II, Division II or at Pass level. The award of honours is determined on the basis of a student’s performance throughout the six year program, and is usually obtained by using the weighted average mark for each year, calculated by weighting the courses according to units of credit.
On completion of Year 3 of the six-year program, students also qualify for the degree of Bachelor of Science (Medicine). Students would not ordinarily be awarded the BSc(Med) until the completion of the requirements for the award of the MB BS. However, students who have completed the requirements for the award of the BSc(Med) and are leaving the Medicine Program 3801 (BSc(Med) MB BS), either through their own decision to withdraw or upon exclusion by the University, are eligible to be awarded the BSc(Med) degree at that stage.

Students who have achieved a high standard in their studies may undertake an additional one year program of supervised research leading to the award of the BSc(Med) Honours. For details, please refer to the program description for 3831 BSc(Med) Honours.

Program Objectives and Learning Outcomes

The objectives of the Medicine program are:

1. To produce a graduate with knowledge of medical and behavioural sciences sufficient to understand the scientific basis of medicine and to go forward with medicine as it develops further.
2. To provide a graduate with the flexibility of outlook and training necessary to progress to any field of endeavour in medicine or related disciplines.
3. To provide education in clinical methods and patient care in the main branches of medicine and surgery so that the graduate could undertake patient care under supervision at the level of an intern.
4. To help the graduates understand professional and ethical principles and to be at all times mindful of the individual's obligations to patients, colleagues and the community.

Program Structure

Year 1
Year 1 is not being offered in 2006

Year 2
Year 2 is not being offered in 2006

Year 3
Year 3 is not being offered in 2006

Year 4
Year 4 of the program is primarily based in the teaching hospitals and comprises 6 terms totalling 39 weeks. Of these weeks, 36 will be spent in hospitals and 3 will be spent on campus. For their time in hospitals, students will work as part of a health-care delivery team. The students' responsibilities as part of that team will be increased gradually as new skills are acquired. The philosophy inherent in education by attachment to a hospital team is important. Learning 'on the job' exposes students to real clinical situations incorporating both the medical and social implications of disease and allows the continued development of counselling skills. Thus, students will learn that hospital care should be linked to continuing care in the community, and that there is much emphasis in modern medicine on rehabilitation to maximise patients' chances of resuming their normal role in society. Reading about pathological processes, combined with team discussion of problem patients, provides the ideal environment for the retention of new knowledge.

The teaching of Population Health and Community Medicine is integrated with clinical studies in the teaching hospitals and is a part of the campus teaching program. The Pathology course comprises a component of didactic teaching within the framework of the common campus program and a major hospital-based component taught through a tutorial program.

The course of Clinical Pharmacology (Therapeutics) is introduced during the common campus program and reinforced during discussions of patient management as part of student attachments to clinical units. At the commencement of fourth year, each student will receive a syllabus containing details of the integrated program for Clinical Studies, Pathology, Clinical Pharmacology and Population Health and Community Medicine.

Rules of Progression

Students will be required to pass each of four separate segments of the assessment, namely: a pass in the Population Health and Community Medicine continuous assessment, a pass in the Pathology viva and project report (as a combined mark), a pass in a Short Case clinical examination, and a pass in the combined written papers.

Students who have not completed the General Education components of the Medicine program and who otherwise are eligible to progress to Year 5 are not allowed to progress until they have satisfied such requirements.

The medicine course in Year 4 is conducted over both sessions. The UOC indicated below is for a single session only.

MDSG4001 Integrated Clinical and Community Studies (24 UOC)

Preparation for Year 6 Elective Term

Arrangements for Elective attachments in Year 6 must be made by the students. Students should commence these arrangements in Year 4, especially those wishing to undertake attachments overseas. See course description for MFA6001 under Year 6, below.

Year 5
Year 5 in 2006 is comprised of five teaching periods, each of eight weeks. In (2008 and beyond, the Elective will be undertaken in Year 6.) In the first four Teaching Periods students rotate through blocks of teaching in obstetrics and gynaecology, paediatrics, psychiatry, geriatrics, general practice and subspecialties, rather than studying the courses concurrently. For this purpose students are allocated to a particular group (A, B, C, or D) and will follow the program of that group for the year.

The courses studied in Year 5 are:

MFA6001 Geriatrics/General Practice/Subspecialties (10 UOC)
OBST5001 Obstetrics and Gynaecology (10 UOC)
PAED5101 Paediatrics (10 UOC)
PSYM5001 Psychiatry (10 UOC)
MFA5003 Elective (8 UOC)

Assessment and Rules of Progression

The work of each rotating block is assessed during or towards the end of the block. Students will be required to pass all five courses before progressing to Year 6. Course examiners may, in the time between the sitting of term assessments and the meeting of the Assessment Committee, require students to undertake further assessment. A student who fails one term may be required to repeat that term in a six week remedial period following Term 5-4. Students are warned that they may be required to undertake such additional assessment and should take this into account if making travel arrangements for the period after the end of Term 5. A student who fails two terms or more will be required to repeat all Year 5 courses.

Sequence of Blocks - Group A

Summer Teaching Period: (8 weeks) Paediatrics
Teaching Period 1 (8 weeks) Obstetrics and Gynaecology
Teaching Period 2 (8 weeks) Psychiatry
Teaching Period 3 (8 weeks) Geriatrics/General Practice/Subspecialties
Teaching Period 4 (8 weeks) Elective

Sequence of Blocks - Group B

Summer Teaching Period (8 weeks) Obstetrics and Gynaecology
Teaching Period 1 (8 weeks) Paediatrics
Teaching Period 2 (8 weeks) Geriatrics/General Practice/Subspecialties
Teaching Period 3 (8 weeks) Psychiatry
Teaching Period 4 (8 weeks) Elective

Sequence of Blocks - Group C

Summer Teaching Period (8 weeks) Psychiatry
Teaching Period 1 (8 weeks) Geriatrics/General Practice/Subspecialties
Teaching Period 2 (8 weeks) Paediatrics
Teaching Period 3 (8 weeks) Obstetrics and Gynaecology
Teaching Period 4 (8 weeks) Elective

Sequence of Blocks - Group D

Summer Teaching Period (8 weeks) Geriatrics/General Practice/Subspecialties
Teaching Period 1 (8 weeks) Psychiatry
Teaching Period 2 (8 weeks) Obstetrics and Gynaecology
Teaching Period 3 (8 weeks) Paediatrics
Teaching Period 4 (8 weeks) Elective

Year 6

The first term for Year 6 in 2006 is an Elective term (MFAC6001) of 8 weeks. The remaining five terms totalling 32 weeks are devoted to the course Integrated Clinical Studies 6 (MDSG6001) of which 30 weeks is based in the Teaching Hospitals and 2 weeks will be spent on campus. MDSG6001 is conducted over both sessions. The UOC indicated below for this course is for a single session only.

MDSG6001 Integrated Clinical Studies 6 (22 UOC)
MFA6001 Final Year Elective Term (4 UOC)

Academic Rules

Supplementary Assessment

Details of assessment requirements are contained in the sections on particular years and courses in the program. The following regulations
relate to supplementary assessment, which apply to all years of the Medicine program.

Course examiners may, in the time between the sitting of an assessment and the meeting of the Assessment Committee, require students to present themselves for further assessment to resolve any doubts as to a student’s performance. After the Assessment Committee meets further assessment may be given to allow the Assessment Committee to resolve a doubt. In Years 4 and 6 such additional assessment is usually undertaken in December. Such further assessment may be given when students, through illness or some other acceptable circumstances, have been prevented from taking one or more of the assessments or have been disadvantaged during the assessment.

In Year 5, course examiners may, in the time between the sitting of term assessments and the meeting of the Assessment Committee, require students to undertake further assessment. A student who fails one term may be required to repeat that term in a six week remedial period following Term 5-4. Students are warned that they may be required to undertake such additional assessment and should take this into account if making travel arrangements for the period after the end of Term 5-4. Further assessment may not be granted when the composite mark accurately reflects failure to achieve the required standard of knowledge and understanding of the course.

### 3840 Combined Arts and Medicine Program – for continuing students only

**Bachelor of Arts Bachelor of Science (Medicine)**

**Bachelor of Medicine Bachelor of Surgery**

**BA BSc(Med) MB BS**

*Please note: This program is not available to commencing students. Details below are provided for the reference of continuing students only. Prospective students should refer instead to the new Medicine program 3841.*

**Typical Duration**

7 years

**Minimum UOC for Award**

336 units of credit

**Typical UOC per Session**

24 units of credit

**Program Description**

The Arts/Medicine program is an alternative program of study, in which, over a seven-year program a student may complete the degree of Bachelor of Arts, with the degrees Bachelor of Science/Medicine, Bachelor of Medicine and Bachelor of Surgery. The Arts/Medicine program is intended for those students who wish to continue their interest and studies in the Arts during their medical studies.

Over a period of seven years, students will be required to fulfil the requirements of the BSc(Med) MB BS degree program as well as 60 units of credit in courses offered by the Schools/Departments/Programs within the Faculty of Arts (including an approved major sequence).

Students who have completed the combined Arts/Medicine degree program are eligible for the award of Honours in the BSc(Med) MB BS degree program, based on weighted performance in courses (excluding those courses not in the normal Medicine program) throughout the combined program. The award of Honours shall be determined on the basis of a weighted aggregate mark, calculated as the sum of weighted aggregate marks obtained in the medical component of the program in accordance with the rules applying to the Medicine program 3801.

**Program Objectives and Learning Outcomes**

Program objectives are addressed under the entry for the Medicine program 3801.

**Program Structure**

Students are required to undertake all BSc(Med) MB BS courses plus 60 units of credit from the Faculty of Arts (including a major sequence) during Years 1 to 3. A major sequence equals 42 units of credit (usually 12 at Level 1 and 30 at upper level).

For details of available Faculty of Arts specialisations and courses, please refer to the entry for the Bachelor of Arts program 3400.

**Program Structure**

**Year 1**

Year 1 is not being offered in 2006.

**Year 2**

Year 2 is not being offered in 2006.

**Year 3**

Year 3 is not being offered in 2006.

**Year 4**

Upper Level Arts major sequence plus additional Arts courses (48 UOC)

**Year 5**

Students join Year 4 of the Medicine program.

### Honours

**Ranking for the Award of Honours (Program Codes 3801, 3821 and 3840)**

Students are ranked on the basis of their performance throughout the undergraduate Medicine program. An overall program mark is calculated for each student using the following procedure:

1. A weighted average mark for each year of the program is determined. This year mark is obtained by weighting each of the courses in the year, according to the units of credit. The course weights for each of the years of the program are shown in Table 1 below.

2. The overall program mark is determined by applying the year weightings listed in Table 2 to the weighted year marks.

3. If a student were required to sit for a supplementary assessment (other than for medical reasons or other exceptional circumstances) the course mark used is that awarded for the original assessment.

4. If a student were required to repeat a year (other than for medical reasons or other exceptional circumstances), the weighted year mark used is that obtained at the first attempt.

5. In the calculation of the average weighted program mark for BSc MB BS students, the aggregate mark for the Science component is calculated as a weighted aggregate of all courses counted towards the Science degree. The course weights are as follows:

   - Level I courses weighted by a factor equal to 0.0625 per course, except General Mathematics, Fundamental of Physics and Life Science Physics (0.05 per course) and Higher Chemistry and Higher Mathematics (0.07 per course).
   - Level II courses weighted by 0.1875 per course.
   - Level III courses weighted by 0.25 per course.
   - Level IV courses (Honours) not counted.

The three years of BSc component of the BSc MB BS program are treated as equivalent to the first two years of the MB BS program and therefore have a total year weight of 6 relative to the MB BS year weightings.

There is a limit set of 50 for the best possible score in the first year of the BSc component to put all students, whether or not they undertake Higher Mathematics or Physics, on the same footing. Only the best 144 units of credit in the BSc component are considered in calculating the ranked score.

6. Honours calculation for students undertaking the BA BSc(Med) MB BS program is the same as for the BSc(Med) MB BS program, i.e. the courses in the BA component are not counted.

7. Provision is made for students admitted with advanced standing and/or exemptions in certain courses not to be penalised in the calculation of rankings.

**Award of Honours**

1. The Faculty Year 6 Assessment Review Group considers the ranked list of students and their marks and decides the cut-off marks for the award of Honours at the various levels.

2. Neither the percentage of the students obtaining Honours at the various levels nor the cut-off marks are predetermined, and the Committee makes its own assessment of the level of academic attainment indicated by the overall program mark.

3. As a guide, the distribution of the awards of Honours in 2004 was:

   - **Class I Honours**
     - Program Mark: 72.49% – 80.33%
     - Number of Awards: 21
     - Percent of graduands: 11.5%

   - **Class II Div. 1**
     - Program Mark: 68.84% – 72.37%
     - Number of Awards: 29
     - Percent of graduands: 15.8%
*Class II Div. II*

Program Mark: 66.33% - 68.70%
Number of Awards: 23
Percent of graduands: 12.6%

**Table 1: Course Weights Within Years (Six Year Program)**

**Year 1**
- Anatomy: 12
- Introductory Clinical and Behavioural Studies: 8
- Biology for Medical Students: 4
- Biochemistry for Medical Students: 12

**Year 2**
- Medical Biochemistry and Genetics: 8
- Anatomy 2: 14
- Medical Physiology 1: 16
- Human Behaviour: 6

**Year 3**
- Microbiology for Medical Students: 8
- Pathology: 10
- Medical Physiology 2: 8
- Medical Pharmacology: 10
- Clinical Studies 3: 8
- Medical Ethics and Health Law: 4

**Year 4**
- Integrated Clinical and Community Studies: 48

**Year 5**
- Obstetrics & Gynaecology: 12
- Paediatrics: 12
- Psychiatry: 12
- Geriatrics/General Practice/Subspecialties: 12

**Year 6**
- Integrated Clinical Studies 6: 44

**Table 2: Year Weights**

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</tr>
<tr>
<td>Year 6</td>
<td>6</td>
</tr>
</tbody>
</table>

**Academic Rules**

Please consult Faculty or refer to the printed Handbook relevant to your year of commencement of study.

### 3831 Bachelor of Science (Medicine) Honours

**BSc(Med)Hons**

**Typical Duration**
1 year

**Minimum UOC for Award**
48 units of credit

**Typical UOC per Session**
24 units of credit

**Program Description**

This is a one-year research program offered to students in the six-year Medicine program who have completed the first three years of the six-year Medicine programs 3801 or 3802, or at least the first four years of the seven-year Arts/Medicine programs 3840 or 3841. It is not available to commencing students. For candidates in the programs 3801, 3802, 3840 and 3841.

1.(a) Undergraduates who have successfully completed at least the first three years of the six-year Medicine programs 3801 or 3802, or at least the first four years of the seven-year Arts/Medicine programs 3840 or 3841 may enrol for the degree of BSc(Med)Hons in one of the following programs: Anatomy, Biochemistry, Microbiology, Pharmacology, Physiology, Psychology or in any other program approved by the BSc(Med)Hons Committee provided that the candidate’s performance in the subject area has been of a high standard.

(b) A student may register as a candidate for the degree in any of the Schools of the Faculty of Medicine, the School of Biochemistry, the School of Microbiology or the School of Psychology, subject to the permission of the Head of the School concerned and the BSc(Med)Hons Committee.

2.(a) Medical graduates may enrol for the degree of BSc(Med)Hons in any course approved by the BSc(Med)Hons Committee provided that their performance in the subject area has been of a high standard.

(b) A graduate may be registered as a candidate for the degree in any of the Schools of the Faculty of Medicine, the School of Biochemistry, the School of Microbiology or the School of Psychology, subject to the permission of the Head of the School concerned and the BSc(Med)Hons Committee.

3. The program for each candidate shall be designed to introduce the student to research in the appropriate discipline and shall consist of such formal and special work and any examinations prescribed by the BSc(Med)Hons Committee.

**Enrolment/Progression**

1. The Faculty Administrative Officer will arrange the transfer of enrolment after the BSc(Med)Hons Committee has approved the application.

2. Students will be formally reviewed by members of the Committee twice per year. A mid-year verbal report and discussion will take place between the student, supervisors and Committee covering progress in meeting the aims of the research project and any problems encountered by the student and supervisors.

**Assessment Guidelines**

1. The BSc(Med)Hons Committee determines the assessments for the program on the advice of the supervisors and two assessors who are external to the supervisor and at least one being external to the School of enrolment.

2. The compulsory components of the assessment include a thesis, an essay or literature review, two seminar presentations and a supervisors’ report.

3. Candidates must take part in the activities of the program by participating in seminars, by presenting of essays or literature reviews and other prescribed activities.

4. A thesis is compulsory and forms a major part of the assessment. The thesis must be typed and suitable for subsequent binding if required. The typescript length of the thesis is normally no more than 20,000 words.

5. Candidates are required to present their research projects in the two seminar presentations organised by the BSc(Med)Hons Committee. For students studying overseas, a computer-generated presentation will be requested in lieu of the mid-year seminar and the members of the Committee will have the right to ask questions of the student by phone or email after viewing the presentation.

6. It is desirable that candidates take part in the activities of the school by participation in seminars and other prescribed activities.

7. The degree of BSc(Med)Hons may be awarded in the following grades: Honours Class I; Honours Class II, Division I; Honours Class II, Division II or no award made.

### 3850 Bachelor of Science in Health and Sports Science

**BSc**

*Please note: This program is not available to commencing students. Details below are provided for the reference of continuing students only. Prospective students should refer instead to the new program 3870.*
Typical Duration
4 years

Minimum UOC for Award
192 units of credit

Typical UOC per Session
24 units of credit

Program Authority
Dr Steve Boutcher
Dept Physiology and Pharmacology
Tel: (02) 9385 2877
Email: s.boutcher@unsw.edu.au

Program Officer
Nicole Graham
Tel: (02) 9385 2547
Email: n.graham@unsw.edu.au

Program Description
The program offers a comprehensive education in the area of health and exercise with a focus on the use of physical activity as preventative and rehabilitative therapy. Students can choose to specialise in one of three areas of focus: cardiac, musculoskeletal, or neuromuscular rehabilitation. Four years of full-time study, or the part-time equivalent, leads to the award of a Bachelor of Science (in Health and Exercise Science). The Faculty Assessment Review group may award Honours to students who perform throughout the program with merit. The level of performance required for such award will be determined by the Assessment Review Group. Part-time students undertake a reduced program subject to the availability of courses. A total of 192 units of credit must be successfully completed for the award of this degree. Graduates may expect to find employment in sports medicine clinics, rehabilitation clinics and hospitals, Commonwealth, State and Local Government departments, sports academies and institutes, professional organisations, sporting associations, universities, corporate health, private practice, and gymnastics and fitness centres. In addition, it is expected that graduates become members of the professional body the Australian Association of Exercise and Sports Science.

Program Objectives and Learning Outcomes
The degree is committed to excellence in teaching in the exercise sciences and in exercise clinical training. The degree is designed to enable students to:

• develop a thorough understanding of the relationship between physical activity and health
• develop a broad range of communication skills and an ability to work as a member and a leader of a team
• develop advanced problem solving skills and a capacity for critical thinking
• attain competencies in conducting a broad range of exercise-based clinical tests
• attain skills and detailed clinical knowledge relevant to cardiac, musculoskeletal, or neuromuscular rehabilitation

Program Structure
Stage 1 introduces students to the core science that will serve as a foundation for the following years. Courses include anatomy, histology, chemistry, biology, and psychology. Students will be introduced to the exercise area through three courses: exercise science, lifestyle and health and exercise behavioural science. Stage 2 of the program begins to focus on human physiology, pathology, biochemistry, functional anatomy and exercise physiology while building on the scientific principles acquired in Stage 1. Stage 3 of this multidisciplinary program moves the student towards an integrated understanding of health and exercise and includes courses such as advanced exercise physiology, exercise and health, biomechanics, motor control, cardiac rehabilitation, special populations and clinical movement studies. Stage 4 continues to develop multi-disciplinary expertise through use of specialized courses and a wide range of electives. Electives include courses in clinical exercise physiology, movement rehabilitation, neuromuscular rehabilitation, nutrients and exercise, musculoskeletal diseases and professional practice. Extensive industry experience is a key component of this final year with students participating in practicums in the University’s Healthy Lifestyle Clinic and external (including hospital) placements. Understanding of scientific method is an important component of this program and all students will take a research methods course in Stage 4. Courses offer a mixture of traditional and interactive/case study approaches to learning. General Education is a requirement of all undergraduate courses at this university and can be taken in Stages 2 and 3.

Stage 1 – not being offered in 2006
Stage 2
Session One
ANAT3131 Functional Anatomy 1 (6 UOC)
BIOC2181 Fundamentals of Biochemistry (6 UOC)
PHPH2501 Physiology for Health and Sports Science A (6 UOC)
General Education courses (6 UOC)

Session Two
ANAT3141 Functional Anatomy 2 (6 UOC)
PA1H2201 Processes in Disease (6 UOC)
PHPH2502 Physiology for Health and Sports Science B (6 UOC)
PHPH2503 Exercise Physiology (6 UOC)

Stage 3
Session One
General Education courses (6 UOC)
Plus a further 6 credit points from:
PHPH3211 Cardiorespiratory and Exercise Physiology (6 UOC)
PHPH3502 Skeletal Muscle in Health and Exercise (6 UOC)

Session Two
FOOD3330 Nutrition for Sports Science (6 UOC)
Plus a further 6 credit points from:
BIOC2291 Fundamentals of Molecular Biology (6 UOC)
PATH3207 Musculoskeletal Diseases (6 UOC)
PHPH3131 Neurophysiology (6 UOC)
PSY1101 Psychology 1B (6 UOC)
SCOM2014 Science Communication (6 UOC)

Stage 4
Session One
HESM4501 Research Methods in Physical Activity (6 UOC)
HESC4511 Practicum A (6 UOC)
Electives courses (12 UOC)

Session Two
HESM4321 Practicum B (6 UOC)
elective courses (18 UOC)

Stage 4 Electives
Session One
PHCM9516 Introduction to Public Health (4 UOC)
PHPH3211 Cardiorespiratory and Exercise Physiology (6 UOC)
PHPH3502 Skeletal Muscle in Health and Exercise (6 UOC)
HESC4531 Movement Rehabilitation A (6 UOC)

Session Two
BIOC3261 Human Biochemistry (6 UOC)
FOOD3440 Advanced Nutrition (6 UOC)
PATH3207 Musculoskeletal Diseases (6 UOC)
PHLM9516 Introduction to Public Health (4 UOC)
PHPH3131 Neurophysiology (6 UOC)
SCOM2014 Science Communication (6 UOC)

Notes on Stage 4
Electives: Students must select 6 UOC in session 1 and 12 UOC in session 2 from the available electives. In addition, they must select a further 6 UOC of electives in each of session 1 and session 2 so as to provide a total of 48 units of credit in Stage 4. The latter may be any appropriate UNSW courses for which they have satisfied prerequisites, but for the purposes of achieving professional accreditation, students are strongly encouraged to select courses from those listed.

General Education Requirements
Students in this program must also satisfy the University’s General Education requirements. For further information, please refer to the General Education section in this Handbook.

Academic Rules
For the requirements and regulations governing the Bachelor of Health and Sports Science, please refer to Program Structure section above.

3870 Bachelor of Science in Health and Exercise Science

BSc

Typical Duration
4 years
Program Description

The program offers a comprehensive education in the area of health and exercise with a focus on the use of physical activity as preventative and rehabilitative therapy. Students can choose to specialise in one of three areas of focus: cardiac, musculoskeletal, or neuromuscular rehabilitation. Four years of full-time study, or the part-time equivalent, leads to the award of a Bachelor of Science (in Health and Exercise Science). The Faculty Assessment Review Group may award Honours to students who perform throughout the program with merit. The level of performance required for such award will be determined by the Assessment Review Group. Part-time students undertake a reduced program, subject to the availability of courses. A total of 192 units of credit must be successfully completed for the award of this degree. Graduates may expect to gain employment in sport medicine clinics, rehabilitation clinics and hospitals, Commonwealth, State and Local Government departments, sports academies and institutes, professional organisations, sporting associations, universities, corporate health, private practice, and gyms and fitness centres. In addition to the expected that graduates become members of the professional body: Australian Association of Exercise and Sports Science.

Program Objectives and Learning Outcomes

The degree is committed to excellence in teaching in the exercise sciences and in exercise clinical training. The degree is designed to enable students to:

- develop a thorough understanding of the relationship between physical activity and health
- develop a broad range of communication skills and an ability to work as a member and a leader of a team
- develop advanced problem solving skills and a capacity for critical thinking
- attain competencies in conducting a broad range of exercise-based clinical tests
- attain skills and detailed clinical knowledge relevant to cardiac, musculoskeletal, or neuromuscular rehabilitation

Program Structure

Stage 1 introduces students to the core science that will serve as a foundation for the following years. Courses include anatomy, histology, chemistry, biology, and psychology. Students will be introduced to the exercise area through three courses: exercise science, lifestyle and health, and exercise behavioural science. Stage 2 of the program begins to focus on human physiology, pathology, biochemistry, functional anatomy, and exercise physiology while building on the scientific principles acquired in Stage 1. Stage 3 of this multidisciplinary program moves the student towards an integrated understanding of health and exercise and includes courses such as advanced exercise physiology, exercise and health, biomechanics, motor control, cardiac rehabilitation, special populations, and clinical movement studies. Stage 4 continues to develop multi-disciplinary expertise through use of specialized courses and a wide range of electives. Electives include courses in clinical exercise physiology, movement rehabilitation, neuromuscular rehabilitation, nutrients and exercise, musculoskeletal diseases, and professional practice. Extensive industry experience is a key component of this final year with students participating in practicums in the University’s Healthy Lifestyle Clinic and external (including hospital) placements. Understanding of scientific method is an important component of this program and all students will take a research methods course in Stage 4. Courses offer a mixture of traditional and interactive/case study approaches to learning. General Education is a requirement of all undergraduate courses at this university and can be taken in Stages 2 and 3.

Stage 1

Session One

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<td>BIOS1201</td>
<td>Molecules, Cells and Genes</td>
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<td>CHEM1813*</td>
<td>Chemistry for Health, Exercise, Medical Science</td>
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<td>HESC1501</td>
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<td>PSYC1001</td>
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Session Two

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<tr>
<td>ANAT1511</td>
<td>Introductory Histology for Health and Exercise Science</td>
<td>(3 UOC)</td>
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<tr>
<td>ANAT2111</td>
<td>Introductory Anatomy</td>
<td>(6 UOC)</td>
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<td>HESC1511*</td>
<td>Lifestyle, Kinanthropometry, and Health</td>
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<td>HESC1531*</td>
<td>Exercise Behavioural Science</td>
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<tr>
<td>HESC1540*</td>
<td>Growth, Development, and Physical Activity</td>
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Stage 2

Session One

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<td>BIOC2181</td>
<td>Fundamentals of Biochemistry</td>
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<td>Human Physiology A</td>
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Session Two

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Stage 3

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<td>Physical Activity and Health</td>
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<td>SESC2451*</td>
<td>Biomechanics for Health and Exercise Science</td>
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<td>Research Topics in Health and Exercise Science</td>
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<tr>
<td>HESC3581</td>
<td>Physical Activity in Special Populations</td>
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<td>PHHP3211</td>
<td>Cardiorespiratory and Exercise Physiology</td>
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</tr>
<tr>
<td>PHHP3502</td>
<td>Skeletal Muscle in Health and Exercise</td>
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Session Two

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<td>HESC3521</td>
<td>Advanced Exercise Physiology</td>
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<td>HESC3571</td>
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<td>HESC3531*</td>
<td>Cardiac Rehabilitation and Exercise</td>
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<td>HESC3591*</td>
<td>Research Topics in Health and Exercise Science</td>
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<td>HESC3611*</td>
<td>Clinical Movement Studies</td>
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<td>PATH3207</td>
<td>Musculoskeletal Diseases</td>
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<td>PSYC1011</td>
<td>Psychology 1B</td>
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Stage 4

Session One

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<td>HESC4511</td>
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Session Two

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Stage 4 electives**

Session One

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<td>HESC3581</td>
<td>Physical Activity in Special Populations</td>
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<td>HESC4531</td>
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<td>HESC4541*</td>
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<td>Skeletal Muscle in Health and Exercise</td>
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<td>SESC4451*</td>
<td>Research Projects in Biomechanics</td>
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Session Two

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<td>FOOD3440</td>
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<td>HESC3531*</td>
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<td>HESC3611*</td>
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<td>HESC4571*</td>
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<td>PA1H3207</td>
<td>Musculoskeletal Diseases</td>
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<td>PHPH3131</td>
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</tr>
<tr>
<td>SCOM2014</td>
<td>Science Communication</td>
<td>6 UOC</td>
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</table>

* new courses (some other courses will have minor modifications such as name change, etc.)

** offering of electives dependent on student numbers

**Notes on Stage 4**

Electives: Students must select 6 UOC in session 1 and 12 UOC in session 2 from the available electives. In addition, they must select a further 6 UOC of electives in each of session 1 and session 2 so as to provide a total of 48 units of credit in Stage 4. The latter may be any appropriate UNSW courses for which they have satisfied prerequisites.

**General Education Requirements**

Students in this program must also satisfy the University’s General Education requirements. For further information, please refer to the General Education section in this Handbook.

**Academic Rules**

For the requirements and regulations governing the Bachelor of Health and Exercise Science, please refer to Program Structure section above.
Faculty of Science

A Message from the Dean

We live in amazing times. Science and technology have extended the reach of our senses way beyond the edge of the map of human experience. We can now hear a single electron change orbit inside an atom. We can see into the outer reaches of the universe; feel movements deep inside the Earth’s crust; reach back far into the ancient past; and eavesdrop on events inside a living cell. And we can meet and interact with other people in virtual communities that exist in virtual worlds.

When you study science with us at UNSW, you will be at the leading edge of this exciting revolution. You will learn how to learn, how to follow your curiosity about the world and the way it ticks, and you will acquire a tool-kit of knowledge and skills to equip you to step out into what we hope will be a lifetime of satisfying work.

This section of the Handbook covers the courses and programs available for study in science and provides a framework of the rules and regulations. Staff in the schools of the Faculty and the Science Student Centre are available to help you with administrative matters, course selection and career directions, and with any difficulties you may encounter in your studies.

We encourage you to explore the full diversity of opportunities on offer, to specialise on the one hand and yet gain an appreciation of scholarship in other areas. It is important that you learn to think creatively and critically, and to work with others in order to resolve complex problems.

We wish you every success at UNSW. We hope that the time that you spend with us, as valued members of our community, will be happy, stimulating and productive and that in future years you will look back on “the UNSW experience” as one which set you on the path to fulfilling your career and lifestyle aspirations.

We believe that tomorrow’s leaders will be drawn more and more from the ranks of science. We invite you to join us and let us help to make sense of this amazing world and prepare you to play your important part in a future that promises to be more amazing still.

Professor Michael Archer
Dean
Faculty of Science

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Anatomy
Biochemistry
Biological Science
Ecology
Biotechnology
Chemistry:
  - Medical Chemistry
Food Science and Technology
Genetics
Geoscience
Marine and Coastal Studies
Materials Science
Mathematics:
  - Applied Mathematics
  - Mathematics and Computer Science
Statistics
Mathematics and Finance
Physical Oceanography/Meteorology
Pure Mathematics
Medical Physics
Microbiology and Immunology:
  - Microbiology
Medical Microbiology and Immunology
Molecular Biology
Neuroscience
Physics:
  - Physics
  - Physics and Astronomy
  - Physics with Computer Science
Engineering Physics
Physiology and Pharmacology:
  - Physiology
  - Pharmacology
Psychology

Faculty Information and Assistance

General Information

Science programs are built from the wide range of science and technology-based courses available across UNSW.

These programs are divided into two types: the general ‘Science’ and ‘Advanced Science’ programs, and a range of ‘Vocational Science Programs’ oriented more toward professional or industry-based careers. These programs, and the courses which they are composed of, are described in more detail under ‘Program Rules and Information’. However, the information that follows in this section applies equally to both types of program.

Educational and academic activities at UNSW are organised and administered in faculties. The Faculty of Science is focused towards providing teaching and research in the sciences. Other faculties, including Engineering, Medicine, Arts and Social Sciences, and Commerce and Economics, also make a major contribution to activities in the sciences.

The basic educational building blocks in the sciences are the courses which students take. These courses are drawn together into majors, minors, and study plans providing coherent development of specific disciplines, and these programs are in turn drawn together to form degrees or programs. These majors, minors, and study plans are listed in the contents pages and are described in detail in this section of the Handbook.

Who Can Help?

This section of the Handbook is designed as a detailed source of information in all matters related to the Faculty of Science.

If you require advice about enrolment, degree requirements, progression within programs or any other general matters, contact the Science Student Centre, Robert Webster Building: tel: (02) 9385 6125, fax: (02) 9385 6127 or email: SSO@unsw.edu.au

The office is staffed between 9am and 5pm from Monday to Friday, but this may vary during non-session times.

For information and advice about course content and requirements, contact the appropriate schools/teaching units as indicated in the course descriptions.

The Faculty of Science Website

Please refer to the Faculty of Science website for further information: www.science.unsw.edu.au

Course Descriptions

Descriptions of courses offered in 2006 can be found in alphabetical order by the course code at the back of this Handbook or in the Online Handbook at: www.handbook.unsw.edu.au

Computing Information

Within the Faculty of Science, each of the schools manages or has access to undergraduate computing laboratories equipped with a combination of X-terminals, PCs and Macintoshes. These are connected through the campus-wide network, and are used extensively in undergraduate teaching and in providing email access to all students. This is provided through local and often specialised facilities and through access to regional and national centres. The systems accessible range from PCs to supercomputers together with the associated peripherals and support personnel. For further information on computing, please contact the school office.

Enrolment Procedures

New students will receive enrolment information with their offer of a place in their chosen program.

All students re-enrolling in 2006 should enrol via myUNSW during appointed enrolment periods. Information regarding enrolling online is available from UNSW Student Central, the Science Student Centre or via the web: https://my.unsw.edu.au

The course timetable for second and later years for the Science and the Advanced Science programs is available in late October/early November from the Science Student Centre, in the Robert Webster Building. All re-enrolling students should collect one of these timetables. Students who expect to complete the requirements for their degree in 2006 or are proceeding to Honours will also need to collect form SM2006. This form
is to be completed and returned to the Science Student Centre by early January, after students receive their results.

Students not enrolling before the first day of Session 1 have no guarantee that a place is available in the courses offered in that year. This is particularly important for courses where laboratory space is limited. Students should be aware that some courses may require a field trip which may involve personal costs to the student. Consult individual course authorities for details. Quotas may apply to certain programs and courses and students should consult with program and course authorities for details.

Admission
For applicants applying for admission to UNSW through the Universities Admissions Centre (UAC), this section lists the UAC codes which correspond to the Science programs offered by UNSW.

For admission requirements for Science programs please refer to the appropriate entry in the current UAC Guide or refer to the UAC website: www.uac.edu.au

429000 Science
This is applicable to study in a wide range of Science areas in the Bachelor of Science program 3970, as indicated by the majors outlined in Table A under ‘Plan Rules and Information’.

429003 Science (Communication)
This is applicable to study in a wide range of Science areas in conjunction with a Science Communication stream in the Bachelor of Science (Communication) program 3993. The majors available are the same as for 3970, with the exception of Philosophy, and History and Philosophy of Science.

429004 Science (Media and Communications)
This is applicable to study in a wide range of Science areas, in conjunction with a Media and Communications stream, in the Bachelor of Science (Media and Communications) program 3994. The majors available are the same as for 3970, with the exception of Philosophy, and History and Philosophy of Science.

429007 Medical Science
This is applicable to study in the Bachelor of Medical Science program 3991, as outlined in the ‘Program Rules and Information’ section in this Handbook.

429008 Environmental Science
This is applicable to study in the Bachelor of Environmental Science program 3988, as outlined in the ‘Program Rules and Information’ section in this Handbook.

429013 Advanced Science
This is applicable to study in areas of biological science, behavioural science, chemistry, mathematics and physics in the program 3972 as outlined in the Advanced Science study plan descriptions under ‘Plans Rules and Information’.

This is also applicable to study in program 3986 (Mathematics and Finance) as outlined in the Study Plan description.

The number of places available each year in the Advanced Science programs is limited and this is reflected in a higher UAI. The minimum UAI for these programs is 90.

429016/429017 This is applicable to study Aviation (Flying or Management) in programs 3980/3981.

429018 This is applicable to study Biotechnology in program 3052.

429025 This is applicable to study Optometry/Science in program 3952.

429026 This is applicable to study Psychology in program 3432, leading to a Bachelor of Psychology.

429011 This is applicable to study Nanotechnology in program 3617.

425001 This is applicable to study a number of Materials Science and Engineering plans in physical and process metallurgy, ceramic and materials engineering.

Subject Areas, Programs and Study Plans in Science

<table>
<thead>
<tr>
<th>Subject Area</th>
<th>Available in Program(s)</th>
<th>UAC Entry Code(s)</th>
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<tr>
<td>Advanced Mathematics</td>
<td>3972*</td>
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<tr>
<td>Anatomy</td>
<td>3970, 3972, 3991</td>
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<td>Applied Mathematics</td>
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<td>Biological Anthropology</td>
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<td>Food Science and Nutrition</td>
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<td>History and Philosophy of Science</td>
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<td>Marine Science</td>
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<td>Mathematics and Finance</td>
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<td>Mathematics and Computer Science</td>
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<td>Toxicology</td>
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* Entry to the plan in Advanced Mathematics is by invitation only.

General Rules and Requirements

General Education Requirements

The University requires all students to complete a selection of General Education courses. The General Education Program is an integral part of all UNSW undergraduate programs and gives students the opportunity to...
address some of the key questions they will face as individuals, citizens and professionals.

Students in the Science programs must complete General Education courses totalling 12 units of credit plus an additional 56 hours of study which fosters acceptance of professional and ethical action and social responsibility. See the ‘General Education’ section within this Handbook for a description of General Education course categories.

1. Mainstream courses may be substituted for General Education, but only with the approval of the Associate Dean (Student Affairs). Only 6 units of credit from mainstream courses may be substituted for General Education. Students may also only count a maximum of 6 units of credit of General Education courses from a single faculty.*
2. Students have the freedom to choose their General Education courses, according to the General Education requirements and restrictions detailed in the General Education section at the beginning of this Handbook.
3. Students enrolled in combined degrees are normally exempt from the General Education requirement.

* Please refer to the General Education section of this Handbook for further information on substitution.

Prerequisites, Corequisites and Excluded Courses

All programs are governed by basic conditions or rules that specify what a student needs to complete in order to qualify for a degree. Normally a student will study a mixture of compulsory and elective courses.

Compulsory or core courses are ones that must be studied, usually at the stage specified in the program. Often one compulsory course is a prerequisite for another that comes later.

Elective courses are ones that a student chooses in accordance with his or her own interests, subject to meeting prerequisites and corequisites, and capacity in the course. Some electives may have to be taken from a specified list.

Where a choice of courses is available in a program, students must take care to satisfy prerequisites and corequisites and not complete excluded courses.

Prerequisites are courses that must be satisfactorily completed before a student can progress to a later course. Prerequisites are specified in the course descriptions later in this Handbook and students without a necessary prerequisite for a course will be blocked from enrolment in that course.

Corequisites are courses that must either be completed successfully before, or studied concurrently with, the course for which it is prescribed.

Excluded courses are ones that cannot be counted towards the degree qualification.

Credit Transfer

Students admitted to programs administered by the Faculty of Science (including the Science component of combined degrees) may be granted credit for previous studies. All applications for credit transfer are subject to the following conditions:

1. Where students transfer from another tertiary institution, they shall not in general be granted standing in the course that is superior to that which they attained at the institution from which they transferred.
2. Only courses completed within ten years from the commencement of the UNSW degree will be eligible for transfer credit.
3. The credit granted to students admitted to a program administered by the Faculty of Science based upon any completed degrees or awards held by the applicant may not exceed the amount that will permit the applicant to qualify for the degree by completing the requirements for the latter half of the degree.
4. The credit granted to students admitted to a program administered by the Faculty of Science based upon a partially completed degree or award held by the applicant may not exceed the amount that will permit the applicant to qualify for the degree by completing the requirements for the final year of the degree (excluding Honours).
5. The credit granted to students admitted to a combined degree with the Faculty of Science may not exceed the amount that will permit the applicant to qualify for the science component of the combined degree by completing the science courses from the latter half of the Science component of the degree.
6. Students who have been awarded the degree of Bachelor at Pass level may be permitted to enroll for the award of the degree at Honours level with credit for all courses completed if, during the studies for the Pass degree, they have satisfied the prerequisites for entry to the Honours program determined by the school concerned.

Applicants should note that eligibility for transfer credit in a Science program does not guarantee admission to that program.

Study Load

Students may not undertake a study load of more than 24 units of credit in any session (including General Education). This can be exceeded only in exceptional circumstances by students with an excellent academic record and requires the permission of the Associate Dean (Student Affairs). Students with external commitments, such as part-time employment in excess of ten hours per week, should take fewer courses each session. External commitments will not to be taken into consideration in relation to such matters as extensions of time for submission of written work or failure to attend examinations (which may, for some courses, be scheduled on Saturday mornings). Students not on good academic standing will be notified in writing and may be required to show why they should be allowed to continue in the program or may be given a restricted program.

Students wishing to take courses additional to those required for the award should be aware that the relevant courses may attract an additional fee, payable up-front, as non award courses.

Academic Standing

A level of academic standing will be assigned to students at the end of each main session. These levels are defined as: Good Standing (the student’s current progress is deemed satisfactory), Referall, Probation 1, Probation 2, Suspension, Probation 3 and Exclusion. Movement between levels is based on progress, measured by proportion of load passed. The Program Authority assigns an advisor to each student not in good standing. Continued poor progress can lead to suspension (one year with automatic readmission) or exclusion (two years without automatic readmission). For further information please see ‘General University Rules & Student Information’ earlier in this Handbook.

Progression through Advanced Science, Environmental Science and Medical Science programs is subject to academic performance. Students enrolled in these programs are required to attain an average of 65 or higher each session of their program.

Program and Course Quotas

Quotas are imposed on some programs and courses (usually because of class size constraints related to space). Where quotas are imposed, students’ eligibility to enrol will be assessed on academic merit or on the basis of the requirements of the program of study in which the student is enrolled.

Summary of Programs

The main aims of these Science programs may be summarised as providing opportunities for students to prepare themselves for careers in research, technology, science, mathematics and education, or areas of management or public policy which involve the use of science or mathematics.

The programs (3970, 3991, 3993, 3994) lead to the award of the degree of Bachelor of Science (BSc) at Pass level on the completion of a three-stage program, taking three years of full-time study. A student who completes the program with a high standard of achievement may be permitted to continue to a fourth year in order to take an Honours degree.

The Advanced Science programs (3972, 3986) and the Bachelor of Environmental Science (3988) lead to the award of Bachelor of Science (BSc) on the completion of a four stage program, at Honours or Pass level (level of award and Honours is based on academic performance), taking four years of full-time study. Depending on their program of study, students in their fourth year undertake either a research Honours program or a program of coursework and research.

The time specified (three or four years) is the minimum time required for completion of each program. Students may complete program requirements over a longer period of time or as part-time candidates. Students contemplating part-time study should note that with few exceptions classes are offered in the day only. This applies even at first year level and means that it is not possible to complete studies by evening classes alone.

Science Program (3970)

The three-year Science program has been designed for students who seek a ‘generalist’ degree in which there is a large element of choice. A student can combine courses from two or more Science disciplines, or take courses from outside the Science disciplines.
Advanced Science Programs (3972, 3986)
This program differs from the standard Bachelor of Science program (3970) in that it includes advanced level courses, an Honours year and options tailored to an individual's aptitude and interests.
A feature of the Advanced Science program is the requirement that all students enrol in and complete a specified study plan in a particular discipline or specialisation.

Environmental Science Program (3988)
This is a four-year degree leading to a Bachelor of Environmental Science. A student must complete the core in Environmental Science plus a specialisation in one of the approved disciplines.

Bachelor of Science (Communication) Program (3993)
Bachelor of Science (Media and Communications) Program (3994)
These are three-year Science programs in which students must complete courses in a Communication or Media Studies stream and either a major or two minors in Science. Subject to certain conditions, a student may be permitted to continue into a fourth year to complete an Honours degree.

Medical Science Program (3991)
This is a three-year degree based on structured study plans leading to a Bachelor of Medical Science. Subject to certain conditions, a student may be permitted to continue into a fourth year to complete an Honours degree.

Combined Degree Programs
In these programs, Science is combined with studies in another faculty (e.g. Engineering, Law, Arts and Social Sciences etc.). The basic requirement from Science is that a student should complete at least 84 units of credit in Science including a major selected from Table A.

Courses
Typically, each program requires study of a number of prescribed core courses and elective courses at specified stages or levels to ensure a sound basis in the discipline. Each course is assigned a "Level", which corresponds to the defined stages for each program. There are limits on the number of Level I courses that can be studied in a program (please refer to individual program descriptions). Students are not normally allowed to enrol in courses at a given level before reaching the corresponding stage of the program. Levels are:

- Level I: Stage 1
- Level II: Stage 2
- Level III: Stage 2 or 3
- Level IV: Stage 3 (also Stage 4 in some Advanced Science programs)
- Level V: Stage 4 (or Honours year)

Program Rules and Information

3970 Bachelor of Science

BSc

Typical Duration
3 years

Minimum UOC for Award
144 units of credit

Typical UOC per Session
24 units of credit

Program Description
The three-year Science degree has been designed for students who seek a 'generalist' degree in which there is a large element of choice. A student can combine courses from 2 or more Science disciplines, or take courses from outside the Science disciplines.
The basic rules for the degree are set out in the following sections under Program Objectives and Academic Rules. Students in the Science program need to ensure that they complete at least one Major and either a second Major or a Minor sequence. At least 84 units of credit (out of a total of 144) must be taken from Science. The remainder may be in another Faculty. Subject to certain conditions, a student may be permitted to continue into a fourth year to complete an Honours degree.

Program Objectives and Learning Outcomes
This program has been designed to:
- develop and sustain an interest in and knowledge of Science.
- develop a working knowledge of scientific methods of investigation.
- encourage curiosity and creative imagination and an appreciation of the role of speculation in the selection and solution of problems, the construction of hypotheses, and the design of experiments.
- develop an appreciation of scientific criteria and a concern for objectivity and precision.
- develop confidence and skill in formulating problems and in treating both qualitative and quantitative data.
- develop the ability and disposition to think logically, to communicate clearly by written and oral means, and to read critically and with understanding.
- develop the habit of seeking and recognising relationships between phenomena, principles, theories, conceptual frameworks and problems.
- promote understanding of the significance of science, technology, economics and social factors in modern society, and of the contributions they can make in improving material conditions.
- provide opportunities for the development of students' motivations and social maturity, and an awareness of their capabilities in relation to a choice of career which will be fruitful to themselves and to society.
- provide opportunity to study science in combination with other disciplines.

Program Structure
Majors and Minors
For information regarding course requirements for majors and minors, please consult Table A (Majors) and Table B (Minors) under 'Plan Rules and Information' following in this Handbook, or contact the Science Student Centre for further details.

Elective Courses
Students enrolled in any Science degree may normally only take as electives any courses (subject to satisfying prerequisites) which are specified as electives for their degree, or available within a major or minor in program 3970.

Graduation and Majors
In order to graduate, students must satisfy requirements for the award by passing all the courses and requirements specified for their program. Students who complete requirements will be awarded the degree of Bachelor of Science at Pass or Honours level with a major in the area of specialisation (usually indicated by the name of the major). The award will appear on the testamur as:
- Bachelor of Science in (name of major)
- Bachelor of Science with Honours in (name of Honours specialisation)

General Education Requirements
Students in this program must also satisfy the University's General Education requirements. For further information, please refer to the General Education section in this Handbook.

Academic Rules
Conditions for the Award of the Degree
1. A student must complete 144 units of credit including 12 units of General Education.
2. The degree must contain a Major sequence of study and either a second Major or a Minor sequence.
3. A student must complete at least 36 units and no more than 60 units in Level I courses from at least three schools.
4. A student must complete at least 24 units at Level I from Science Schools (defined as schools in the Science Faculty plus those in other faculties that currently provide programs under the authority of the Faculty of Science).
5. No student may commence Level II courses until 24 Level I units have been successfully completed.
6. No more than 18 Level I units of credit in any one subject area may be counted towards the completion of the degree.
7. A student must complete a minimum of 84 units of credit from Science Schools (defined as Schools in the Science Faculty plus those in other Faculties that currently provide programs under the authority of the Faculty of Science).
8. Progression to Stage 4 Honours is subject to academic performance. Students seeking to enrol in Honours are required to have the permission of the Head of School, to have completed all the requirements for Stages 1, 2 and 3 of the BSc and to have satisfied prerequisite requirements as specified. All General Education must also have been completed. Students who have not qualified for the BSc at Pass level will not be permitted to enrol in Honours.

9. A Major sequence is defined as: at least 42 units at Level II and III in a single discipline or area of study, including at least 18 units at Level III.

10. A Minor sequence is defined as: 24 units of credit at Level II or III. The Minor may either consist of courses available within but not taken as part of a Major or may be a sequence as defined in Table B.

11. Where a student does Majors in two cognate areas that have courses in common, a student may be permitted to have up to 12 units at Level II and 6 units at Level III be counted towards each Major sequence.

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3972 Advanced Science

Bachelor of Science BSc

Typical Duration
4 years

Minimum UOC for Award
192 units of credit

Typical UOC per Session
24 units of credit

Program Description
The Bachelor of Science (Advanced Science) program is designed to cater for the specific abilities and interests of talented students with a UAI (Universities Admissions Index) above 90.00.

A feature of the design of the Advanced Science programs is the requirement that all students enrol in a specific study plan on commencement of the program.

Each study plan is designed to link courses in such a way that a coherent pattern of study is achieved in a specific discipline or specialisation.

A wide choice of study plans, designed to meet specific aims and objectives, is available. Most study plans are identified with a particular school or discipline (e.g. Anatomy, Chemistry), but some are multidisciplinary (e.g. Mathematics and Computer Science).

Note: Some courses and plans are only available in the Advanced Science programs. e.g. Mathematics and Finance, Neuroscience, Physics and Astronomy, etc.

This program differs from the standard Bachelor of Science program (3970) as it includes advanced level courses, an Honours year and options tailored to an individual's aptitude and interests.

Program Objectives and Learning Outcomes
This program aims to provide students with a working knowledge of areas of scientific investigation in order to place them at the forefront of research and discovery in the many rapidly developing areas of science.

Program Structure

Conditions for the Completion of the Advanced Science Program

- A student must complete 144 units of credit including 12 units of General Education in Stages 1-3 and a 48 unit Honours sequence at Stage 4.
- The degree must contain a study plan as specified for each Advanced Science program in this section of the Handbook
- A student must complete at least 36 units of credit and no more than 48 units of credit in Level I courses except where specified in a particular program.
- A student must complete before the end of Stage 3 at least two 3 units of credit courses taken from 'Table X', given below.
- No student may normally commence Level II courses until 24 Level I units have been successfully completed unless approved by the Program Authority.
- Progression to Stages 3 and 4 is subject to academic performance. A student will be required to have attained an average of 65 or higher in courses relevant to the major area and cognate subjects in each prior stage.
- Progression to Stage 4 Honours is subject to academic performance. Students seeking to enrol in Honours are required to have the permission of the Head of School, to have completed all the requirements for Stages 1, 2 and 3 of the BSc (Adv Sci) and to have satisfied prerequisite requirements as specified. Students who have not met the Stages 1, 2 and 3 requirements will not be permitted to enrol in Honours.

Study Plans Available in Advanced Science

- Advanced Mathematics (by invitation only)
- Anatomy
- Applied Mathematics
- Biochemistry
- Biological Science
- Biotechnology
- Chemistry
- Ecology
- Food Science and Technology
- Genetics
- Geosciences
- Marine and Coastal Studies
- Materials Science
- Mathematics and Computer Science
- Mathematics and Finance (program 3986)
- Medical Chemistry
- Medical Microbiology and Immunology
- Microbiology
- Molecular Biology
- Neuroscience
- Pharmacology
- Physical Oceanography/Meteorology
- Physics
- Physics and Astronomy
- Physics and Computing
- Physiology
- Psychology
- Pure Mathematics
- Statistics

For information regarding course requirements for study plans, please consult Study Plans in Advanced Science under 'Plan Rules and Information' section following in this Handbook, or contact the Science Student Office for further details.

Table X

<table>
<thead>
<tr>
<th>Study Plan Code</th>
<th>Program Title</th>
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<tbody>
<tr>
<td>CHLM1000</td>
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<td>LIF1001</td>
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<td>MAIH1000</td>
<td>Marine Biology</td>
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<td>PHYS1000</td>
<td>Physics</td>
</tr>
<tr>
<td>LIFE2001</td>
<td>Environmental Science</td>
</tr>
</tbody>
</table>

General Education Requirements

Students in this program must also satisfy the University's General Education requirements. For further information, please refer to the General Education section in this Handbook.

Academic Rules

See also ‘Conditions for the Completion of the Advanced Science Program’ above.

Rules on Progression and Transfer in the Advanced Science Programs

1. Transferring Study Plans

Students must apply in writing to transfer between study plans within each of the Advanced Science programs. Applications are assessed on academic performance and approval is subject to places being available in the nominated study plan.

2. Accelerated Progression in Advanced Science Programs

There is provision for exceptionally talented students to take higher level courses in Stage 1. Contact the Science Student Centre for details.

3. Progression to Stage 4 Honours in Advanced Science

Progression to Stage 4 is subject to academic performance. Students seeking to enrol in a Stage 4 Honours are required to have the approval of the Head of School and normally will be required:

- to have completed the requirements for Stages 1, 2 and 3 of the specific study plan and to have satisfied prerequisite requirements as specified in that study plan. All General Education also must have been completed;
- to have attained an average of 65 or higher in each stage of the program.
Students should also seek the guidance of the appropriate Head of School at an early stage of study to ensure that the study plan being followed is best suited to lead to the Year 4 Honours.

In addition, admission to a particular Stage 4 Honours is subject to appropriate research and supervision resources being available. Quotas may be imposed for entry in any year, in which case admission will be determined on academic merit.

Students who do not attain an average or 65 or higher in Stage 3 of their program are normally required to transfer to the Science program (3970) and take out the BSc award at Pass level.

4. Transfers from Advanced Science to the Science Program

Students enrolled in the Advanced Science programs (program codes 3972, 3986) who wish to take out the BSc award at Pass level and without proceeding to Stage 4 are required to transfer to the Science program (3970).

Applications to transfer should be lodged no later than the census date for the session in which the student expects to satisfy requirements. Students applying after that date may not be able to graduate in the next round of graduation ceremonies. The application should state the 3970 major in which the student wishes to be enrolled.

Students must satisfy all requirements for the designated Science (3970) major in order to qualify for the award of the BSc. Further information regarding the transfer from the Advanced Science program to majors that are available in the Science program is available through the Science Student Centre.

Students entering Year 3 or Stage 4 of a combined degree program will need to consult with the Science Student Centre.

5. Elective Courses

Students enrolled in any Science program may normally only take as electives any courses (subject to satisfying prerequisites) which are specified as electives for their degree, or available within a major or minor in program 3970.

6. Graduation and Study Plans

In order to graduate, students must satisfy requirements for the award by passing all courses and the requirements specified for their program. Students who complete requirements will be awarded the degree of Bachelor of Science at Honours or Pass level with a major in the area of specialisation (usually indicated by the name of the major or study plan, except that for some Honours candidates the name of the Honours specialisation will appear).

Students who successfully complete Stage 4 of their program will be considered for the award of Honours. The following scale generally applies to Honours gradings and, depending on the structure of the program, is based either on performance in the Stage 4 Honours or on performance over the whole 4 stages of the program:

- Honours Class 1 - mark or weighted average of 85 or greater
- Honours Class 2 Division 1 - mark or weighted average from 75 to 84
- Honours Class 2 Division 2 - mark or weighted average from 65 to 74
- Honours Class 3 or Pass - mark or weighted average below 65

The award will appear on the testamur as:

Bachelor of Science with Honours in (name of specialisation)

3973 Advanced Science in Medical Physics

Bachelor of Science BSc

Note: Not available to commencing students in 2006

Typical Duration
4 years

Minimum UOC for Award
192 units of credit

Typical UOC per Session
24 units of credit

Program Description
This Bachelor of Science (Advanced Science) degree program has a specialisation in Medical Physics. Medical Physics is the application of physics to diagnosis, treatment and prevention of human disease and disability. There is a continuing demand for professional physicists in this area as new physical techniques are rapidly translated into new medical instruments. There is an increasing demand for health physicists in industry and the public service to monitor environmental and occupational sources of radiation and other hazards.

Program Objectives and Learning Outcomes
This program aims to provide an essential strong background in conventional physics including electronics and computing, a general background in the biological sciences and some specialised knowledge in biophysics and medical physics.

Program Structure
Please refer to program entry for 3972 Advanced Science for 'Conditions for Completion of the Advanced Science Program'.

For information regarding program requirements for Medical Physics 3973 please refer to the ‘Plan Rules and Information’ section following in this Handbook.

General Education Requirements
Students in this program must satisfy the University’s General Education requirements. For further information, please refer to the General Education section in this Handbook.

Honours
Honours may be awarded in this program. The basis is a suitably weighted performance over the last three stages of this four-year advanced science degree.

Academic Rules
For academic rules relating to this program, please refer to the program entry for 3972 Advanced Science.

3986 Advanced Science in Mathematics and Finance

Bachelor of Science BSc

Typical Duration
4 years

Minimum UOC for Award
192 units of credit

Typical UOC per Session
24 units of credit

Program Description
This Bachelor of Science (Advanced Science) degree program has a specialisation in Mathematics and Finance. The Mathematics and Finance plan is a four-year plan in which Honours may be awarded on the basis of a weighted average mark of all courses studied in the plan.

Note: Students applying through UAC should choose Advanced Science in their preferences. On admission, students will be transferred to this program on request.

Program Structure
Please refer to program entry for 3972 Advanced Science for ‘Conditions for Completion of the Advanced Science Program’.

For information regarding program requirements for the Mathematics and Finance 3986 please refer to the ‘Plan Rules and Information’ section following in this Handbook.

General Education Requirements
Students in this program must satisfy the University’s General Education requirements. For further information, please refer to the General Education section in this Handbook.

Academic Rules
For academic rules relating to this program, please refer to the program entry for 3972 Advanced Science.

3988 Bachelor of Environmental Science

BEnvSc

Typical Duration
4 years
Program Description

The Environmental Science program contains a core sequence of compulsory courses and a choice of disciplinary specialisations. The specialisations include: Biology, Chemistry, Geography, Earth Science, Marine Biology, Microbiology and Oceanography. Students will need to select a specialisation early in their programs.

Program Objectives and Learning Outcomes

The aim of the program is to provide a strong education in the skills and knowledge necessary to work or carry out research as an environmental scientist. In their final year, students carry out a major independent research project and may also do advanced coursework.

The BEnSc is designed as a four-year (full-time) program. There is also an opportunity for students to combine the BEnSc with a Bachelor of Arts by taking a five-year program. Students who are unable to complete the BEnSc may transfer to the three-year Bachelor of Science and graduate with a BSc with a major in one of the environmental areas.

Program Structure

Stage 1

BIOS1101 Evolutionary and Functional Biology (6 UOC)
CHEM1011 Fundamentals of Chemistry 1A (6 UOC)
ENV5101 Environmental Science 1 (6 UOC)
GEOS1211 Environmental Earth Science (6 UOC)
GEOS1701 Environmental Systems and Processes (6 UOC)
MAH11041 Statistics for Life and Social Sciences* (6 UOC)
And 12 units of credit in one or more of the discipline specialisations

*Note: Students who choose the Oceanography specialisation take MATH1231, NOT MAH11041.

Stage 2

ECON1107 Elements of Environmental Economics (6 UOC)
ENV5203U The Human Environment (6 UOC)
ENV52801 Aspects of Environmental Policy and Law (6 UOC)
And one of the following courses:

BEES2041 Data Analysis for Life and Earth Sciences (6 UOC)
MATH2301 Mathematical Computing (6 UOC)
MAH12841 Statistics SS (6 UOC)
Plus General Education courses (6 UOC)
18 units of credit in Level 2 courses of the discipline specialisation.

Stage 3

BIOS3071 Conservation Biology and Biodiversity (6 UOC)
CHEM3901 Environmental Toxicology (6 UOC)
GEOH3911 Environmental Impact Assessment (6 UOC)
Plus General Education courses (6 UOC)
24 units of credit in Level 3 courses of the discipline specialisation.

Stage 4

Environmental Honours stream relevant to discipline specialisation.

For entry to Honours, a student must have the permission of the relevant Head of School.

Disciplinary Specialisations

Biology

Level 1 BIOS1201
Level 2 BIOS2011, BEES2041, plus at least 6 units of credit from:
BIOS2031, BIOS2031, BIOS2061
Level 3 BIOS3061, BIOS3111 plus further 6 units of credit from
Level 3 BIOS

Chemistry

Level 1 CHEM1021 or CHEM1041, MAH11041
Level 2 CHEM2041, plus 12 units of credit from CHEM2011, CHEM2021, CHEM2031
Level 3 CHEM3041, CHEM3311, plus 6 units of credit from:
CHEM3011, CHEM3021, CHEM3031
plus 6 UOC of Level 2 Chemistry

Note: Students in the Chemistry specialisation take CHEM3111, NOT CHEM3901

Earth Science (formerly Geology)

Level 1 GEOS1111
Level 2 18 units of credit from GEOS2171, GEOS2181, GEOS2291, GEOS2071, GEOS2721
Level 3 GEOS3131, GEOS3281, plus further 6 units of credit from
Level 3 GEOS

Geography

Level 1 GEOH1601
Level 2 GEOS2711, GEOS2721 plus further 6 units of credit from
Level 3 Geography
Level 3 GEOS3761 plus further 12 units of credit from
Level 3 Geography

Marine Biology

Level 1 BIOS1201, CHEM1021
Level 2 BIOC2201, BIOS2011, MICR2011, MICR2201
Level 3 BIOT3081, MICR3071 plus 6 units of credit from
Level 3 Microbiology

Oceanography

Level 1 MATH1231*, PHYS1121, PHYS1221
Level 2 MATH2841, MATH2101, MATH2120, MATH2240,
PHYS2810
Level 3 MAH12301, MAH1321, MAH13241, MAH13261

Note: In all specialisations students may take more advanced versions of courses where these exist.

General Education Requirements

Students in this program must also satisfy the General Education requirements. This is 12 UOC, usually taken in second and third year studies, as indicated in the Program Structure.

For further information, please refer to the General Education section in this Handbook. Students in Environmental Science need to be aware that there are a number of General Education courses which they are excluded from taking, and are advised to consult the BEES Student Office.

Academic Rules

Conditions for the Award of the Environmental Science Degree

• A student must complete 144 units of credit including 12 units of General Education in Stages 1-3 and 48 unit Honours sequence at Stage 4.
• The degree must contain the core in Environmental Science plus a specialisation in one discipline.
• A student must complete at least 36 units of credit and no more than 60 units of credit in Level 1 courses.
• No student may normally commence Level 2 courses until 24 units of credit Level 1 have been successfully completed unless approved by the program adviser or Associate Dean.
• Progression to Stages 3 and 4 is subject to academic performance. A student will be required to have attained an average of 65 or higher in courses relevant to the major area and cognate subjects in each prior stage.
• Progression to Stage 4 Honours is subject to academic performance. Students seeking to enrol in Honours are required to have the permission of the Head of School, to have completed all the requirements for Stages 1, 2 and 3 of the BEnSc and to have satisfied prerequisite requirements as specified. All General Education must also have been completed. Students who have not qualified for the BEnSc at Pass level will not be permitted to enrol in Honours.

3993 Bachelor of Science (Communication) BSc(Comm)

Typical Duration

3 years

Minimum UOC for Award

144 units of credit
Typical UOC per Session
24 units of credit

Program Description
Science Communication is designed to serve students interested in a career in the human and social aspects of science, from entrepreneurship in biotechnology to science journalism and advising on environmental policy to teaching science to the public. Offered for the first time in 2000, the program leads to a three-year Pass or four-year Honours degree. It provides students with a strong grounding in science together with conceptual insights and practical skills in communication. Students address large scale issues, like the role of science in society, as they impact on small scale interactions, such as a conversation between a patient and her doctor. This scope of concerns makes the degree a highly interdisciplinary undertaking for the student who likes to marry theory with practice.

Program Objectives and Learning Outcomes
Please visit the Science Communication website for information on Program Objectives and the Learning Outcomes:  [www.scom.unsw.edu.au](http://www.scom.unsw.edu.au)

Program Structure
Science Communication electives consist of SCOM courses that are not part of the degree program's core as well as selected courses outside SCOM that address key aspects of human, organisational, and mass communication. They can be from Psychology, Marketing, Sociology, Media and Communication, Geography, Safety Science, or like fields, but they may not be from a student's major or minor area of study. A SCOM elective must be approved by the Science Communication Program Office.

Stage 1
SCOM1101 Science, Technology and Society (6 UOC)
SCOM1021 Introduction to Science Communication (6 UOC)
24 units of credit from two Science schools
Electives totalling 12 units of credit

Stage 2
SCOM2U21 Professional Science Communication (6 UOC)
And ONE of the following courses:
HPSC2400 Knowledge and Power (6UOC)
HPSC2500 Environment, Technology and Politics (6UOC)
HPSC2850 Information Technology, Politics and the Media (6UOC) *(not offered in 2006)*
Electives in Communication totalling 6 units of credit
18-24 units of credit in a Science Major or 2 Minors (as required by Major or Minors)
Further electives to give a total of 42 units of credit for Stage 2
Plus General Education (6 UOC)

Stage 3
SCOM3011 Communicating Science: Theory and Practice (6 UOC)
SCOM3021 Science Communication Internship (6 UOC)
Electives in Communication totalling 6 units of credit
24 units of credit in a Science Major or Minors (continued from Stage 2)
Plus General Education (6 UOC)

Honours
Please contact the Faculty of Science for information on Honours studies.

Academic Rules
1. A student must complete 144 units of credit including 12 units of credit of General Education.
2. The degree must contain a Communication major sequence and either a second major drawn from those approved with the BSc (excluding those from the Schools of Philosophy and History and Philosophy of Science) or two approved minor sequences.
3. A student must complete at least 36 and no more than 60 units of credit in Level I courses from at least three schools.
4. A student must complete at least 24 units of credit at Level I from Science Schools (as defined in the rules attached to the conditions for the award of the BSc excluding the Schools of Philosophy and History and Philosophy of Science).
5. No student may commence Level II courses until 24 Level I units of credit have been successfully completed.

6. A student must complete a minimum of 84 units of credit from Science schools (see 4 above).
7. Progression to Stage 4 Honours is subject to academic performance. Students seeking to enrol in Honours are required to have the permission of the Head of School. To complete all the requirements for Stages 1, 2 and 3 of the BSc (Comm) and to have satisfied prerequisite requirements as specified. All General Education must also have been completed. Students who have not qualified for the BSc (Comm) at Pass level will not be permitted to enrol in Honours.

3994 Bachelor of Science (Media & Communications)

BSc(Media)

Typical Duration
3 years

Minimum UOC for Award
144 units of credit

Typical UOC per Session
24 units of credit

Program Description
The Science Media and Communications program leads to a three-year Pass or four-year Honours degree. It is aimed at producing students who have a strong grounding in science together with conceptual and practical skills in media and communication studies. Students gain creative, practical experience with digital media in the production of audiovisual and multimedia works in an advanced multimedia laboratory, together with an understanding of the history and social impacts of media technologies. This focus is combined with a Major or two Minors in Science.

Program Objectives and Learning Outcomes
Please visit the website of the School of Media, Film and Theatre in the Faculty of Arts and Social Sciences for information regarding the Program Objectives and Learning Outcomes, as they teach the core program of multimedia courses - [http://media.arts.unsw.edu.au/media/index.html](http://media.arts.unsw.edu.au/media/index.html)

Program Structure
Stage 1
MDCM1000 New Media Technologies A (6 UOC)
MDCM1001 New Media Technologies B (6 UOC)
24 units of credit from two Science Schools
Electives totalling 12 units of credit

Stage 2
MDCM2000 Researching and Writing for New Media (6 UOC)
MDCM2002 Media Production (6 UOC)
MDCM2003 Multimedia Production (6 UOC)
18-24 units of credit in a Science Major or 2 Minors (as required by Major or Minors)
Further electives to give a total of 42 units of credit for Stage 2
Plus General Education (6 UOC)

Stage 3
MDCM3000 Media Forms (6 UOC)
MDCM3002 Advanced Media Production (6 UOC)
MDCM3003 Multimedia Production in Industry Contexts (6 UOC)
24 units of credit in a Science Major or Minors (continued from Stage 2)
Plus General Education (6 UOC)

General Education Requirements
Students in this program must also satisfy the General Education requirements. This is usually 12 UOC taken in second and third year studies.
For further information, please refer to the General Education section in this Handbook.

Honours
Please contact the Faculty of Science for information on Honours studies.

Academic Rules
1. A student must complete 144 units of credit including 12 units of credit of General Education.
The degree must contain a Media and Communications major sequence and either a second major drawn from those approved within the BSc excluding those from the Schools of Philosophy and History and Philosophy of Science or two approved minor sequences.

A student must complete at least 36 units of credit and no more than 60 units of credit in Level 1 courses from at least three Schools.

A student must complete at least 24 units of credit at Level 1 from Science schools (as defined in the conditions for the award of the BSc excluding the Schools of Philosophy and History and Philosophy of Science).

No student may normally commence Level 2 courses until 24 Level 1 units of credit have been successfully completed.

6. A student must complete a minimum of 84 units of credit from Science schools (see 4 above).

Progression to Stage 4 Honours is subject to academic performance. Students seeking to enrol in Honours are required to have the permission of the Head or Honours Coordinator of the appropriate School. Students who successfully complete Stage 4 of their program will be considered for the award of Honours. Students taking MICR2011 are encouraged enrol in BIOS2621 (or BIOS2621). The prerequisite course, MICR2201 maybe waived with the permission of the course authority.

Note: Students anticipating doing fourth year Honours program should contact the relevant head of school for advice.

Stage 3
Courses totalling 42 units of credit from the following subject areas: Anatomy, Biochemistry and Molecular Biology, Genetics, Microbiology, Immunology, Pathology, Physiology & Pharmacology, Psychology, Biotechnology. Students must nominate a major discipline by taking at least 18 units of credit at level 3 in one of these subject areas and fulfilling other course requirements specified for that major.

General Education courses totalling 6 units of credit

General Education Requirements
Students in this program must satisfy the University’s General Education requirements. For further information, please refer to the General Education section in this Handbook.

Honours
Stage 4
Honours may be taken in the major discipline, subject to progress at credit level through the program. Intending Honours students should consult the Head or Honours Coordinator of the appropriate School. Students who successfully complete Stage 4 of their program will be considered for the award of Honours.

Academic Rules

Conditions for the Award of the Medical Science Degree

- A student must complete 144 units of credit including 12 units of General Education in Stages 1-3.
- Honours is available to suitably qualified students and consists of a 48 unit of credit Honours sequence at Stage 4.
- The degree must contain a sequence of study as specified in the program description.
- A student must complete at least 36 units and no more than 48 units in Level 1 courses.
- A student must complete before the end of Stage 3 the two 3 unit courses SCIF1110 and SCIF2220.
- No student may normally commence Level 2 courses until 24 Level 1 units have been successfully completed unless approved by the Head of School.
- Progression to Stages 3 and 4 is subject to academic performance. A student will be required to have attained an average of 65 or higher in courses relevant to the major area and cognate subjects in each prior stage.
- Progression to Stage 4 Honours is subject to academic performance. Students seeking to enrol in Honours are required to have the permission of the Head of School, to have completed all the requirements for Stages 1, 2 and 3 of the BMedSci and to have satisfied prerequisite requirements as specified. All General Education must also have been completed. Students who have not qualified for the BMedSci at Pass level will not be permitted to enrol in Honours.

Program Structure

Stage 1
BIOS1101 Evolutionary and Functional Biology (6 UOC)
BIOS1201 Molecules, Cells and Genes (6 UOC)
CHEM1011 Fundamentals of Chemistry 1A (6 UOC)
CHEM1021 Fundamentals of Chemistry 1B (6 UOC)
CHEM1041 Higher Chemistry 1D (6 UOC)
PLUS 6 units of credit from:
MATH1031 Mathematics for Life Sciences (6 UOC)
MATH1041 Statistics for Life and Social Sciences (6 UOC)
MATH1131 Mathematics 1A (6 UOC)
MATH1141 Higher Mathematics 1A (6 UOC)
SCIF1110 Perspectives in Medical Science 1 (3 UOC)

One General Education course totalling 3 units of credit.

Elective courses totalling 12 units of credit offered by the following Schools: Computer Science, Mathematics, Physics, History and Philosophy of Science, Psychology.

Stage 2
SCIF2220 Perspectives in Medical Science 2 (3 UOC)

Courses totalling at least 36 units of credit from the following: ANAT2111, ANAT2241, ANAT2341, ANAT2601, ANAT2611, BIOC2101* or BIOC2181, BIOC2201* or BIOC2291, MICR2011**, MICR2201, PHPH2101, PHPH2201, PHPH2H01, PATH2201, BIOS2621 or BIOS2621

One General Education course totalling 3 units of credit.

Elective courses totalling 6 units of credit from the above courses or from the following areas: Biological Science, Chemistry, Computing, Mathematics, Physics, Psychology, History and Philosophy of Science.

*Students are encouraged to enrol in the more advanced biochemistry courses, and should note that BIOC2101 and BIOC2201 are prerequisites in many Stage 3 courses

**Students taking MICR2011 are encouraged enrol in BIOS2621 (or BIOS2621). The prerequisite course, MICR2201 maybe waived with the permission of the course authority.

Program Objectives and Learning Outcomes

Students enrolled in this program will have the opportunity to undertake a fourth year that involves a research program leading to an Honours degree.

Program Structure

Stage 1
BIOS1101 Evolutionary and Functional Biology (6 U.L.C.)
BIOS1201 Molecules, Cells and Genes (6 U.O.C.)
CHEM1011 Fundamentals of Chemistry 1A (6 U.O.C.)
CHEM1031 Higher Chemistry 1C (6 U.O.C.)
CHEM1021 Fundamentals of Chemistry 1B (6 U.O.C.)
CHEM1041 Higher Chemistry 1D (6 U.O.C.)
PLUS 6 units of credit from:
MATH1031 Mathematics for Life Sciences (6 U.O.C.)
MATH1041 Statistics for Life and Social Sciences (6 U.O.C.)
MATH1131 Mathematics 1A (6 U.O.C.)
MATH1141 Higher Mathematics 1A (6 U.O.C.)
SCIF1110 Perspectives in Medical Science 1 (3 U.O.C.)
## Specialist Degrees

### 3980 Bachelor of Aviation (Flying stream)

**BAv**

**Typical Duration**
3 years

**Minimum UOC for Award**
144 units of credit

**Typical UOC per Session**
24 units of credit

### Program Description

The degree of Bachelor of Aviation is offered by the Faculty of Science with input from the Faculty of Engineering.

The aim of this program is to provide an opportunity for students to prepare for a career in the aviation industry. Program 3980 is a Flying stream which allows students the opportunity for flight training. A Management stream is also offered which prepares students more specifically for careers in the managerial sector of the aviation industry - for this Management stream, please refer to program entry for 3981 Bachelor of Aviation (Management stream).

Both streams consist of a core courses selected from the faculties offering the program together with a range of options. The Flying stream additionally includes flight training to a minimum level of Commercial Pilots Licence (CPL) with additional flight training options available dependent upon student progress and requirements. It should be noted that due to the block training nature of the flight training program, teaching periods might not correspond to standard academic sessions.

### Program Objectives and Learning Outcomes

This program aims to prepare students for a career in flying, as a pilot.

### Program Structure

#### Stage 1

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>UOC</th>
</tr>
</thead>
<tbody>
<tr>
<td>AVEN1310</td>
<td>Basic Mechanics</td>
<td>3</td>
</tr>
<tr>
<td>AVEN1910</td>
<td>Introduction to Aircraft Engineering</td>
<td>3</td>
</tr>
<tr>
<td>AVIA1002</td>
<td>Flying Training 1</td>
<td>12</td>
</tr>
<tr>
<td>AVIA1321</td>
<td>Fundamentals of Aviation</td>
<td>6</td>
</tr>
<tr>
<td>AVIA1700</td>
<td>Aviation Safety Management 1</td>
<td>3</td>
</tr>
<tr>
<td>AVIA1900</td>
<td>Aviation Economics</td>
<td>3</td>
</tr>
<tr>
<td>MATH1031</td>
<td>Mathematics for Life Sciences</td>
<td>6</td>
</tr>
<tr>
<td>PHYS1149</td>
<td>Physics 1A (Aviation)</td>
<td>6</td>
</tr>
<tr>
<td>PHYS1249</td>
<td>Environmental Physics (Aviation)</td>
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<tr>
<td>SESC1580</td>
<td>Risk Management 1</td>
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#### Stage 2

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>UOC</th>
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<tbody>
<tr>
<td>AVEN2920</td>
<td>Aviation Technologies 2</td>
<td>3</td>
</tr>
<tr>
<td>AVIA2003</td>
<td>Flying Training 2</td>
<td>18</td>
</tr>
<tr>
<td>AVIA2210</td>
<td>Aviation Human factors 2</td>
<td>3</td>
</tr>
<tr>
<td>MATH1041</td>
<td>Statistics for Life and Social Sciences</td>
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</tr>
<tr>
<td>General Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plus 12 units of credit from:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AVEN2220</td>
<td>Aviation Engineering Experimentation 1</td>
<td>3</td>
</tr>
<tr>
<td>AVEN2910</td>
<td>Aviation Technologies 1</td>
<td>3</td>
</tr>
<tr>
<td>AVEN2930</td>
<td>Aviation Technologies 3</td>
<td>3</td>
</tr>
<tr>
<td>AVIA2800</td>
<td>Management of General Aviation</td>
<td>3</td>
</tr>
<tr>
<td>SESC2580</td>
<td>Risk Management 2</td>
<td>3</td>
</tr>
</tbody>
</table>

Plus further electives (totaling 6 UOC)

#### Stage 3

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>UOC</th>
</tr>
</thead>
<tbody>
<tr>
<td>AVEN3120</td>
<td>Aviation Engineering Experimentation 2</td>
<td>3</td>
</tr>
<tr>
<td>AVIA3201</td>
<td>Airline Resource Management</td>
<td>6</td>
</tr>
<tr>
<td>AVIA3300</td>
<td>Air Traffic Management</td>
<td>3</td>
</tr>
<tr>
<td>AVIA3710</td>
<td>Aviation Safety Management 2</td>
<td>6</td>
</tr>
</tbody>
</table>

Plus one of the following AVIA courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>UOC</th>
</tr>
</thead>
<tbody>
<tr>
<td>AVIA3004</td>
<td>Advanced Flying Training</td>
<td>24</td>
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<tr>
<td>AVIA3101</td>
<td>Airline Management</td>
<td>6</td>
</tr>
<tr>
<td>General Education</td>
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</table>

Additional UOC for a Stage 3 total of 48 from:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>UOC</th>
</tr>
</thead>
<tbody>
<tr>
<td>AVEN3230</td>
<td>Aviation Systems and Avionics</td>
<td>3</td>
</tr>
<tr>
<td>AVEN3420</td>
<td>Aircraft Maintenance</td>
<td>3</td>
</tr>
<tr>
<td>AVEN3610</td>
<td>Aerodynamics, Stability and Control</td>
<td>3</td>
</tr>
<tr>
<td>AVEN3710</td>
<td>Aircraft Propulsion</td>
<td>3</td>
</tr>
<tr>
<td>AVIA3800</td>
<td>Management of Regional Airlines</td>
<td>3</td>
</tr>
</tbody>
</table>

### 3981 Bachelor of Aviation (Management stream)

**BAv**

**Typical Duration**
3 years

**Minimum UOC for Award**
144 units of credit

**Typical UOC per Session**
24 units of credit

### Program Description

The degree of Bachelor of Aviation is offered by the Faculty of Science with input from the Faculty of Engineering.

The aim of this program is to provide an opportunity for students to prepare for a career in the aviation industry. Program 3981 is a Managerial stream which prepares students more specifically for careers in the managerial sector of the aviation industry. A Flying stream, which incorporates flight training, is also available - please refer to program 3980 in this Online Handbook.

Both streams consist of core courses selected from the Faculties offering the program together with a range of options. The Managerial stream offers a selection of courses designed to provide students with a broad base of knowledge in managing the operational aspects of the aviation industry.

### Program Objectives and Learning Outcomes

This program aims to prepare students for a career in the managerial sector of the aviation industry.

### Program Structure

#### Stage 1

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>UOC</th>
</tr>
</thead>
<tbody>
<tr>
<td>AVEN1310</td>
<td>Basic Mechanics</td>
<td>3</td>
</tr>
<tr>
<td>AVEN1910</td>
<td>Introduction to Aircraft Engineering</td>
<td>3</td>
</tr>
<tr>
<td>AVIA1321</td>
<td>Fundamentals of Aviation</td>
<td>6</td>
</tr>
<tr>
<td>AVIA1700</td>
<td>Aviation Safety Management 1</td>
<td>3</td>
</tr>
<tr>
<td>AVIA1900</td>
<td>Aviation Economics</td>
<td>3</td>
</tr>
<tr>
<td>MATH1031</td>
<td>Mathematics for Life Sciences</td>
<td>6</td>
</tr>
<tr>
<td>PHYS1149</td>
<td>Physics 1A (Aviation)</td>
<td>6</td>
</tr>
<tr>
<td>PHYS1249</td>
<td>Environmental Physics (Aviation)</td>
<td>3</td>
</tr>
<tr>
<td>SESC1580</td>
<td>Risk Management 1</td>
<td>3</td>
</tr>
</tbody>
</table>

#### Stage 2

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>UOC</th>
</tr>
</thead>
<tbody>
<tr>
<td>AVIA3851</td>
<td>Airport Management 2</td>
<td>6</td>
</tr>
<tr>
<td>PHYS2810</td>
<td>Atmospheric Physics</td>
<td>3</td>
</tr>
</tbody>
</table>

#### Stage 4 (Honours)

One of the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>UOC</th>
</tr>
</thead>
<tbody>
<tr>
<td>AVIA4001</td>
<td>Aviation Honours - Full Time</td>
<td>24</td>
</tr>
<tr>
<td>AVIA4002</td>
<td>Aviation Honours - Part Time</td>
<td>48</td>
</tr>
</tbody>
</table>

### General Education Requirements

Students in this program must satisfy the University’s General Education requirements. For further information, please refer to the General Education section in this Handbook.

### Academic Rules

A total of 144 units of credit including 12 units of credit of General Education (see above) are required for the completion of the Bachelor of Aviation (3 year degree).
Biotechnology can be defined as the use of various biological processes to make products and perform services. In biotechnology, living cells and biochemical macromolecules such as proteins, DNA and RNA are applied in a rapidly expanding range of activities of direct benefit to society. Biotechnology is used for the production of pharmaceuticals, food and industrial chemicals, in the development of improved crops and livestock, for farming, for environmental clean-up, and in forensics. Modern biotechnology makes practical use of the most recent scientific advances in areas such as molecular genetics and molecular cell biology.

The development of recombinant DNA technology has resulted in the ability to create, modify and improve industrial organisms and to produce large quantities of any useful protein. Based on this technology, biopharmaceuticals including hormones, vaccines, anti-hypertensive agents, anti-inflammatory agents and new therapies for the treatment of cancer are being developed with the potential to revolutionise medicine. The sequencing of the human genome and the rapid emergence of high-throughput genomic and proteomic techniques is resulting in a surge of new drug targets. Translation of this advanced knowledge into useful therapies and improved medical practices requires the application of biotechnology.

Microorganisms and viruses are being modified for use in controlling plant and animal diseases and pests. Diagnostic kits are being developed for use in forensic science and in product identification and quality control. Genetic improvements in agriculture, plants and animals are becoming a reality, as is the control of inborn genetic disorders in humans. The ability to treat diseased and injured organs with replacement cells and tissues generated outside of the body is advancing rapidly.

Bioprocesses are also used for environmental remediation, for the extraction of minerals from low-grade ores, and for the development of novel processes to treat waste and degrade recalcitrant molecules. Environmental biotechnology is an area of vital importance for our increasingly polluted planet.

The future for expansion in all the above areas is immense. Our ability to cope with many medical, environmental, agricultural and manufacturing problems in the 21st century will depend heavily on advances in biotechnology.

This program leads to the award of a Bachelor of Science Degree over four years full-time study, with Honours for students who perform with merit.

**Program Objectives and Learning Outcomes**

The Biotechnology program aims to provide a comprehensive education in all aspects of modern biotechnology.

**Program Structure**

**Stage 1**

**BIOC1201** Molecules, Cells and Genes (6 UOC)
**BIU1101** Introductory Biotechnology (6 UOC)
**CHEM1011** Fundamentals of Chemistry 1A (6 UOC)
**CHEM1021** Fundamentals of Chemistry 1B (6 UOC)
**MATH1031** Mathematics for Life Sciences (6 UOC)
**MATH1041** Statistics for Life and Social Sciences (6 UOC)

**Electives courses totalling 12 UOC recommended.**

**Note:** One of the following courses/combinations may be substituted for MATH1031 and MATH1041:

- MATH1111 General Mathematics 1B (6 UOC)
- or
- MATH1121 Mathematics 1A (6 UOC)
- or
- MATH1141 Higher Mathematics 1A (6 UOC)
- or
- MATH1241 Higher Mathematics 1B (6 UOC)

**Stage 2**

**BIOC2101** Principles of Biochemistry (Advanced) (6 UOC)
**BIOC2201** Principles of Molecular Biology (Advanced) (6 UOC)
**BIOC2621** Genetics (Advanced Level) (6 UOC)
**MICR2011** Microbiology 1 (6 UOC)
**MICR2201** Fundamentals of Microbiology and Immunology (6 UOC)

**General Education courses** (6 UOC)

**PLUS 12 UOC from:**

**BIOC2011** Evolutionary and Physiological Ecology (6 UOC)
**CHEM2021** Organic Chemistry (6 UOC)
**CHEM2041** Chemical and Spectroscopic Analysis (6 UOC)
**PHYP2101** Physiology 1A (6 UOC)

**Stage 3**

**BIOC3121** Molecular Biology of Nucleic Acids (6 UOC)
**BIOT3011** Biotechnology A (6 UOC)
**BIOT3021** Biotechnology B (6 UOC)
**BIU13061** Biopharmaceuticals (6 UOC)

**General Education courses** (6 UOC)

**PLUS one of the following MICR courses:**

**MICR3041** Immunology 1 (6 UOC)
**MICR3641** Immunology 1 (Advanced) (6 UOC)

**PLUS an additional 12 UOC to be selected from the following:**

**BIOC3111** Molecular Biology of Proteins (6 UOC)
**BIOC3271** Molecular Cell Biology (6 UOC)
**BIOC3281** Recombinant DNA Techniques and Eukaryotic Molecular Biology (6 UOC)
**BIOT3081** Environmental Biotechnology (6 UOC)
**MICR3021** Microbial Genetics* (6 UOC)
General Education Requirements

The University requires all students to complete a coherent sequence of General Education courses. The General Education Program is an integral part of the BSc Biotechnology course and gives students the opportunity to address some of the key questions they will face as individuals, citizens and professionals. A total of 12 units of credit in General Education course(s) is required.

For further information, please refer to the General Education section in this Handbook.

Academic Rules

Progression and Exclusion

Students whose performance is unsatisfactory will be notified in writing and asked to show at the end of the academic year why they should remain in their course of study. Any student who fails a course twice, or is deemed to be making unsatisfactory progress, will be considered as having poor academic standing.

Unsatisfactory progress may include:

- failure to achieve an average of 65 or higher in courses attempted in an academic year;
- failing to pass courses totalling at least 24 units of credit in one year;
- failing to complete the requirements for Stage 1 of the program in the first two years of study.

Students not on good academic standing will be notified by the University or Faculty in writing. Notified students will be assessed in accordance with the University’s procedures. Failure to respond accordingly can result in exclusion from a course, the program, or transfer to the Science and Mathematics program (3970), provided that the progression requirements in that course have been met. Also see the section on progression and exclusion (‘Restrictions on Students Re-enrolling’) in the Student Guide.

Progression to Stage 4 Honours

Progression to Stage 4 is subject to academic performance. Students seeking to enrol in a Stage 4 Honours program are required to have the approval of the Head of School and normally will be required:

- to have completed the requirements for Stages 1, 2 and 3 of the program and to have completed all General Education courses;
- to have attained an average of 65 or higher in each Stage of the program.

Students who do not attain an average of 65 or higher in Stage 3 of the program are normally required to transfer to the Science and Mathematics program (3970) and take out the BSc award at Pass level.

Note: Please refer to Program Structure above for rules relating to program requirements.

Career Outcomes

Graduates in Biotechnology will be able to find employment in industries and other organisations involved with drug development, biopharmaceutical production, food processing as well as agricultural and environmental biotechnology.

3135 Materials Science and Engineering

Bachelor of Engineering BE

Typical Duration

4 years

Minimum UOC for Award

192 units of credit

Typical UOC per Session

24 units of credit

Program Description

The field of Materials Science and Engineering offers unlimited possibilities for innovation and development. Attention is being focused on developing and processing metals, ceramics, polymers and composites with improved properties.

The activities of the materials engineer range from materials production, including their extraction from ores and their refining, to the design, development, processing and recycling of materials for use in aerospace, transportation, electronics, energy conversion and biomedical systems. Advanced materials can provide a major competitive advantage in virtually every part of a country’s manufacturing industry. Because Australia is a country rich in minerals, materials science has been designated as a priority area for research and development. Examples of recent and significant developments include the emergence of environmentally friendly and economical metal processing methods, advanced surface coatings, biomedical materials, electrical ceramics, engineering polymers, and advanced composites.

The School of Materials Science and Engineering provides education and training for students to prepare them for a significant and important career in the materials and other industries.

The School of Materials Science and Engineering is in a good position to provide the increased numbers of graduates necessary for development of these new initiatives in materials. It is the only school in Australia that offers professional courses in ceramic engineering, metallurgical engineering and materials engineering as well as providing postgraduate specialisation in these fields.

The School is extremely well equipped with a wide range of advanced computing, thermal analysis, mechanical testing, X-ray and optical and electron microscopy facilities.

The School offers a four-year full-time BE program (3135) with four different plans, and related five-year full-time combined degree program leading to BE/MBiomedE (3136). In addition, six year part-time BSc(Tech) programs are also offered in Ceramics (3030) and Metallurgy (3130).

Program Structure

Plans under program 3135 all of which lead to the award of Bachelor of Engineering (BE) provide appropriate preparation for a professional Physical Metallurgical Engineer (plan MATSE13135), Process Metallurgical Engineer (plan MATSG13135), Materials Engineer (plan MATSH13135) and Ceramic Engineer (plan MATSJ13135). The first two years of all plans are identical and the third and fourth years contain a number of common courses. Students can change their selection among the study plans up to the end of Session 1 of the third year.

Each study plan provides a range of electives in the particular study specialisation concerned. In addition, a limited number of electives can be chosen from other plans.

Concurrent programs are also available with Bachelor of Engineering/ Masters programs in either Commerce (3128) or Biomedical Engineering (3138). To enter program 3128, students start in BE program 3135 and study their academic plan to the end of third year. They then transfer in year 4 to BE Program 3128 and in their 5th year, study under the Master of Commerce program 8400 to obtain the award of Bachelor of Engineering/ Master of Commerce (BEMCom). Similarly, in program 3138, students can study an academic plan within the Bachelor of Engineering program 3135 and then, in the 5th year, study under the Master of Biomedical Engineering Program 3749 to obtain the award of Bachelor of Engineering/ Master of Biomedical Engineering (BE/MBiomedE).

The following structure is applicable to all plans within the Bachelor of Engineering Single Degree Program

Plan MA1SE13135 BE in Physical Metallurgy
Plan MA1SG13135 BE in Process Metallurgy
Plan MA1SH13135 BE in Materials Engineering
Plan MA1SJ13135 BE in Ceramic Engineering

Stage 1 of all plans

CHEM1011 Fundamentals of Chemistry 1A (6 UOC)
CHEM1021 Fundamentals of Chemistry 1B (6 UOC)
MATH1131 Mathematics 1A (6 UOC)
MATH1231 Mathematics 1B (6 UOC)
MATH1021 Computing in Materials Science (3 UOC)
MATS1111 Materials Science 1 (3 UOC)
MECH1030 Engineering Drawing and Solid Modelling (3 UOC)
MECHO440 Engineering Statics (3 UOC)
PHYS1121 Physics 1A (6 UOC)
PHYS1221 Physics 1B (6 UOC)
Stage 2 of all plans

CHEM2718  Physical Chemistry for Materials Science and Engineering (3 UOC)
MATH2049  Mathematics and Statistics for Materials Science A (3 UOC)
MATH2059  Mathematics for Materials Science B (3 UOC)
MA1S1002  Microstructure Analysis (3 UOC)
MA1S1092  Materials and Design 1 (3 UOC)
MA1S1112  Phase Equilibria (3 UOC)
MA1S1142  Crystallography and X-Ray Diffraction (3 UOC)
MA1S1532  Materials Engineering 1B (6 UOC)
MA1S1172  Physical Properties of Materials (3 UOC)
MA1S232  Materials Engineering 1A (3 UOC)
MA1S1262  Mechanical Properties of Materials (6 UOC)
MA1S282  Thermodynamic Materials (6 UOC)
General Education course (3 UOC)

Stage 3 of all plans

MA1S103  Diffusion and Kinetics (3 UOC)
MA1S244  Materials Industry Management A (6 UOC)
MA1S213  Ceramic Materials (3 UOC)
MA1S343  Polymer Science and Engineering (3 UOC)
MA1S403  Physical Metallurgy (3 UOC)
MA1S503  Materials Processing (6 UOC)
MA1S113  Materials Engineering Laboratory (3 UOC)
MA1S5323  Modelling in Materials Engineering I (3 UOC)
Plus Professional Electives totalling 12 UOC
General Education courses (6 UOC)

Stage 4 of all plans

MA1S343  Materials Industry Management B (3 UOC)
MA1S1534  Design Project (3 UOC)
MA1S464  Professional Communication and Presentation (3 UOC)
MA1S3624  Materials Engineering Project (18 UOC)
(9 UOC per session over two sessions)
Plus Professional Electives totalling 18 UOC
or
MA1S3724  Materials Engineering Project (24 UOC)
(12 UOC per session over two sessions)
Plus Professional Electives totalling 12 UOC
General Education courses (6 UOC)

Elective Components (Stage 4)

The following courses have particular objectives, but specific topics are chosen by students for study and research.

MA1S244  Materials Industry Management A (6 UOC)
MA1S354  Design Project (3 UOC)
MA1S464  Professional Communication and Presentation (3 UOC)
MA1S3624  Materials Engineering Project (18 UOC)
(9 UOC per session over two sessions)
MA1S3724  Materials Engineering Projects (24 UOC)
(12 UOC per session over two sessions)

Physical Metallurgy - Plan MATSE13135

The Physical Metallurgy plan is designed to produce graduates with training appropriate to both the metal and product manufacturing industries. The profession is very broad and includes careers in metal manufacturing companies, product manufacturing companies (e.g., white goods, automotive, aircraft), utilities, airline overhaul and maintenance operations, consulting companies and research organisations. Graduates may be employed in production, technical control and development, quality assurance, technical marketing and management. Physical Metallurgy is introduced comprehensively in Stages 3 and 4 by a number of professional electives. Students also undertake a materials design project and a substantial thesis project. Students may complete the first one or two years of their degree at their local university engineering school and then transfer with advanced standing to UNSW.

Physical Metallurgy Professional Electives:

MA1S1214  Welding and Other Joining Processes (3 UOC)
MA1S1414  Surface Treatment and Wear (3 UOC)
MA1S3064  Composite Materials (3 UOC)
MA1S4064  Thermomechanical Processing (3 UOC)
MA1S4084  Specialty Alloys (3 UOC)
MA1S5424  Modelling in Materials Engineering (3 UOC)
NANO3420  Fabrication of Nanostructured Devices (3 UOC)

Process Metallurgy - Plan MATSG13135

The Process Metallurgy plan is designed to produce graduates with training appropriate to the primary metallurgy industry. The profession is very broad and affords opportunities for involvement in many specialist activities in production, technical control or development, in metal or mineral producing industries.

Process Metallurgical Engineering is introduced in Stages 3 and 4 by a number of professional electives and a thesis project. During the program, visits are made to various metallurgical works and students are required to submit reports on some of these. Students may complete the first one or two years of their degree at their local university engineering school and then transfer with advanced standing to UNSW.

Process Metallurgy Professional Electives:

FUEL0040  Fuel Engineering for Materials Processing (3 UOC)
INDC3070  Instrumentation and Process Control (3 UOC)
MA1S3594  Pollution Control in Materials Processing (3 UOC)
MA1S5424  Modelling in Materials Engineering 2 (3 UOC)
MA1S524  Pyrometallurgy 2 – Casting (3 UOC)
MINE3800  Mineral Processing (3 UOC)

Materials Engineering - Plan MATSH13135

The Materials Engineering plan provides a versatile, comprehensive coverage of areas involving: a) the conception and application of properties of materials for use in engineering, structural and specialty needs necessary in the design and development of specific components, b) supervision of manufacturing, c) evaluation and certification of specifications and characteristics, d) production of new, novel and value-added products, e) research, and f) general engineering and project management. The range of Professional Electives and selection of Technical Electives in Years 3 and 4 provide a direction appropriate to the needs of the Australian industry, and to the specific interests of students, together with a degree of flexibility if required. Typical fields which may be encompassed by the plan include steel and non-ferrous metals/alloys production, polymers and composites industry, building materials, civil engineering applications, transport, electrical/electronic industry, biomaterials/biodevices, Australian defence needs: Army, Navy, Airforce, plus the national research laboratories. Due emphasis is placed on collaborating with other appropriate fields of engineering and science disciplines.

Materials Engineering Professional Electives:

MA1S1414  Surface Treatment and Wear (3 UOC)
MA1S2294  Mech. And Thermal Properties of Ceramics (3 UOC)
MA1S2314  Glass-Based Ceramics (3 UOC)
MA1S3064  Composite Materials (3 UOC)
MA1S3574  Polymer Engineering 2 (3 UOC)
MA1S5424  Modelling in Materials Engineering 2 (3 UOC)
NANO3420  Fabrication of Nanostructured Devices (3 UOC)

Ceramic Engineering - Plan MATSJ13135

UNSW offers the only degree specialisation in Ceramic Engineering in Australia. The Ceramic Engineering plan is designed to produce graduates with expertise appropriate to the ceramic manufacturing industries, which include structural ceramics, advanced engineering ceramics, electronic ceramics, whiteware, glass manufacturing and refractories. Graduates are employed in a diverse range of areas including production, research and technical development, quality assurance, technical marketing, consulting and management. In addition to recognition of the degree by the Institute of Engineers Australia, graduates in Ceramic Engineering are also eligible for membership of the Institute of Ceramics of Great Britain, the Royal Australian Chemical Institute and the National Institute of Ceramic Engineers USA.

Ceramic Engineering is introduced comprehensively in Stages 3 and 4 of the program by a number of professional electives which include visits to various ceramic manufacturing plants, a design project and a thesis research project. Students may complete the first one or two years of their degree at their local university engineering school and then transfer with advanced standing to UNSW.

Ceramic Engineering Professional Electives:

FUEL0040  Fuel Engineering for Materials Processing (3 UOC)
MA1S2203  Physico-Chemical Ceramics Laboratory (3 UOC)
MA1S2263  Sintering of Ceramics (3 UOC)
MA1S2294  Mech. And Thermal Properties of Ceramics (3 UOC)
MA1S2314  Glass-Based Ceramics (3 UOC)
MA1S3574  Polymer Engineering 2 (3 UOC)
MA1S5424  Modelling in Materials Engineering 2 (3 UOC)
NANO3420  Fabrication of Nanostructured Devices (3 UOC)

General Education Requirements

Students in this program must also satisfy the General Education requirements. This is 12 UOC, usually taken in second and third year studies.
For further information, please refer to the General Education section in this Handbook.

**Academic Rules**

Please refer to Program Structure and the School of Materials Science & Engineering for the academic requirements relating to this program.

**Industrial Experience Requirement**

All students are required to have gained at least 12 weeks of approved industrial experience before graduation and to have submitted satisfactory reports on such work. Industrial experience is usually obtained during a long vacation at the end of stages 2 and 3.

**Professional Recognition**

The Institution of Engineers Australia recognises the degree of BE in any of the 4 undergraduate plans as meeting the examination requirements for admission to graduate and corporate membership. Similarly, substantial or complete recognition is accorded to the BE degree programs by overseas engineering institutions.

Graduates in Ceramic Engineering are also eligible for membership of the Institute of Ceramics of Great Britain, the Royal Australian Chemical Institute and the National Institute of Ceramic Engineers USA.

### 3030 Ceramics

**Bachelor of Science (Technology) BSc(Tech)**

**Typical Duration**

6 years part-time

**Minimum UOC for Award**

144 units of credit

**Typical UOC per Session**

18 units of credit

**Program Description**

*Please note: This program is currently under review. For confirmation of program details, please contact the School of Materials Science.*

Program 3030 is designed for students who are employed in the ceramics industry. It extends over six part-time years of study. The courses in Stages 3, 4, 5 and 6 normally are available only at daytime classes and one day or more of release from industry per week may be required.

The program leads to the Bachelor of Science (Technology) award. It covers the same courses as the first three years of the corresponding full-time BE program 3135. The first four years of study correspond to the first two years of program 3135. Stages 5 and 6 are the same as the third year of the 3135 program ceramic engineering plan.

Students are required to complete an approved program of industrial training of not less than twelve months prior to the award of the degree. Industrial training normally should be completed concurrently with attendance of the program, but with approval of the Head of School may be completed after completion of the prescribed course of study.

**Program Objectives and Learning Outcomes**

On completion of this program, students will have attained a sound knowledge base in the field of Ceramics.

**Program Structure**

**Stage 1**

<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>MATH1131</td>
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<td>Mathematics 1B</td>
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<td>PHYS1121</td>
<td>Physics 1A</td>
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<td>PHYS1221</td>
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**Stage 2**

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<td>Fundamentals of Chemistry 1B</td>
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<td>Materials Science 1</td>
</tr>
<tr>
<td>MATS1021</td>
<td>Computing in Materials Science</td>
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<tr>
<td>MECH0130</td>
<td>Engineering Drawing &amp; Solid Modelling</td>
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<td>MECH0440</td>
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<td>Materials Engineering 1A</td>
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<td>MATS3002</td>
<td>Microstructure Analysis</td>
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<tr>
<td>MATS1142</td>
<td>Crystallography and X-Ray Diffraction</td>
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<td>MATS1262</td>
<td>Mechanical Properties of Materials</td>
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**Stage 5**

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<tr>
<td>MATS1013</td>
<td>Diffusion and Kinetics</td>
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<tr>
<td>MATS1112</td>
<td>Phase Equilibria</td>
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<tr>
<td>MATS2013</td>
<td>Ceramic Materials</td>
</tr>
<tr>
<td>MA1J3443</td>
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<tr>
<td>Professional Electives (9 UOC)*</td>
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**Stage 6**

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<td>Materials Processing</td>
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<td>Professional Electives (9 UOC)*</td>
<td>General Education (3 UOC)</td>
</tr>
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*Professional electives as listed for program 3135 Ceramic Engineering plan

**General Education Requirements**

Students in this program must satisfy the University's General Education requirements. For further information, please refer to the General Education section in this Handbook.

**Academic Rules**

Please refer to Program Structure and contact the School of Materials Science & Engineering for the Academic Requirements relating to this program.

### 3130 Metallurgy

**Bachelor of Science (Technology) BSc(Tech)**

**Typical Duration**

6 years part-time

**Minimum UOC for Award**

144 units of credit

**Typical UOC per Session**

18 units of credit

**Program Description**

*Please note: This program is currently under review. For confirmation of program requirements and availability, please contact the School of Materials Science.*

Program 3130 is designed for students who are employed in the metallurgical industry. The program extends over six part-time years of study. The courses in Stages 3, 4, 5 and 6 normally are available only at daytime classes and one day or more of release from industry per week may be required.

Students are required to complete an approved program of industrial training of not less than twelve months prior to the award of the degree. Industrial training normally should be completed concurrently with attendance of the program, but with approval of the Head of School may be completed after completion of the prescribed course of study.

**Program Structure**

**Stage 1**

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**Stage 2**

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### 3138 Materials Science and Engineering/Master of Biomedical Engineering

#### Bachelor of Engineering Master of Biomedical Engineering BE MBiomedE

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<td>BIOM9010</td>
<td>Biomedical Engineering Practice (3 UOC)</td>
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<td>Fundamentals of Chemistry 1A (6 UOC)</td>
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<td>CHEM1021</td>
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<td>Computer Engineering (3 UOC)</td>
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<td>MATS1111</td>
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<tr>
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<td>Crystallography and X-Ray Diffraction (6 UOC)</td>
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<td>MATS1262</td>
<td>Mechanical Properties of Materials (3 UOC)</td>
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<td>MATS1013</td>
<td>Industrial Experience (6 UOC)</td>
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<td>MATS2013</td>
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<tr>
<td>MATSG13138</td>
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</table>

**Total UOC:** 240

**Academic rules:**

Students in this program must satisfy the University's General Education requirements. For further information, please refer to the General Education section in this Handbook.

**Area of study:**

Students can change their selection of study plans up to the end of Session 1 of the third year. Courses pertaining to the MBiomedE component of the program are done in each of the 5 stages of the program.

Note: ‘Year 1, 2, 3’ etc represents Stage 1, 2, 3 etc of the program, as it would be taken in a normal course of full-time study.

**Stage 1 all plans:**

<table>
<thead>
<tr>
<th>Course Code</th>
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<td>Fundamentals of Chemistry 1A</td>
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<td>MATS1262</td>
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**Stage 2 all plans:**

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<td>MATH1049</td>
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<td>MATH2059</td>
<td>Mathematics for Materials Science B</td>
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**Stage 3 all plans:**

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<td>Crystallography and X-Ray Diffraction</td>
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**Stage 4 all plans:**

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**Stage 5 all plans:**

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<td>Phase Equilibria</td>
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<td>MA1S3443</td>
<td>Polymer Science and Engineering</td>
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<td>MATSG13138</td>
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**Stage 6 all plans:**

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<td>Microstructure Analysis</td>
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**Professional Electives:**

Students can choose from a selection of professional electives. Please refer to Program Structure and contact the School of Materials Science & Engineering for the academic requirements relating to this program.
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<td>Materials Engineering 1A</td>
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**Stage 3**

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<td>Materials and Design 1</td>
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<td>MAIS1354</td>
<td>Design Project</td>
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<td>MATS1464</td>
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<td>General Education Courses</td>
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**Elective Components**

The following components have particular objectives, but specific topics are chosen by students for study and research.

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<th>Course Title</th>
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**Stage 5**

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<td>BIOM9410</td>
<td>Regulatory Requirements of Biomedical Technology</td>
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<tr>
<td>BIOM9913</td>
<td>Project Report</td>
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</tr>
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</table>

**Elective Components**

The following course has particular objectives, but specific topics are chosen by students for study and research.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATS1244</td>
<td>Materials Industry Management A</td>
<td>6 UOC</td>
</tr>
</tbody>
</table>

**General Education Requirements**

Students in this program must also satisfy the General Education requirements. For further information, please refer to the General Education section in this Handbook.

**Academic Rules**

Please refer to Program Structure and contact the School of Materials Science & Engineering for the academic requirements relating to this program.

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### 3617 Nanotechnology

**Bachelor of Science BSc**

**Typical Duration**

4 years

**Minimum UOC for Award**

192 units of credit

**Typical UOC per Session**

24 units of credit

**Program Description**

This program in Nanotechnology offers a comprehensive education in the emerging field, which represents an important development in the evolution of scientific understanding, with profound implications for the new economy.

Nanotechnology provides the potential to create new manufacturing sectors from our ability to observe, characterise and manipulate the atomic and molecular structure of materials which form the basis of the bio-, communications, information and environmental technologies.

This program will lead to the award of a Bachelor of Science in Nanotechnology over four years of full-time study, with Honours for students who perform with merit. At present, the principal entry point into this degree will be at first year level. Students will normally be expected to complete each stage before proceeding to the next stage. A total of 192 units of credit must be completed for the award of this degree.

**Program Objectives and Learning Outcomes**

On completion of this program, students will have attained a comprehensive knowledge base in the field of nanotechnology.

**Program Structure**

**Stage 1**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOS1201</td>
<td>Molecules, Cells and Genes</td>
<td>6 UOC</td>
</tr>
<tr>
<td>MAIS9520</td>
<td>Engineering Materials</td>
<td>3 UOC</td>
</tr>
<tr>
<td>NANO31001</td>
<td>Nanotechnology 1</td>
<td>3 UOC</td>
</tr>
<tr>
<td>AND one of the following courses:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CHEM1011</td>
<td>Fundamentals of Chemistry 1A</td>
<td>6 UOC</td>
</tr>
<tr>
<td>CHEM1031</td>
<td>Higher Chemistry 1C</td>
<td>6 UOC</td>
</tr>
<tr>
<td>AND one of the following courses:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CHEM1021</td>
<td>Fundamentals of Chemistry 1B</td>
<td>6 UOC</td>
</tr>
<tr>
<td>CHEM1041</td>
<td>Higher Chemistry 1D</td>
<td>6 UOC</td>
</tr>
<tr>
<td>AND one of the following courses:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MATH1131</td>
<td>Mathematics 1A</td>
<td>6 UOC</td>
</tr>
<tr>
<td>MATH1141</td>
<td>Higher Mathematics 1A</td>
<td>6 UOC</td>
</tr>
<tr>
<td>AND one of the following courses:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MATH1231</td>
<td>Mathematics 1B</td>
<td>6 UOC</td>
</tr>
<tr>
<td>MATH1241</td>
<td>Higher Mathematics 1B</td>
<td>6 UOC</td>
</tr>
<tr>
<td>AND one of the following courses:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PHYS1121</td>
<td>Physics 1A</td>
<td>6 UOC</td>
</tr>
<tr>
<td>PHYS1131</td>
<td>Higher Physics 1A</td>
<td>6 UOC</td>
</tr>
<tr>
<td>AND one of the following courses:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PHYS1221</td>
<td>Physics 1B</td>
<td>6 UOC</td>
</tr>
<tr>
<td>PHYS1231</td>
<td>Higher Physics 1B</td>
<td>6 UOC</td>
</tr>
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</table>

**Stage 2**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM2828</td>
<td>Organic and Inorganic Chemistry for Nanotechnology</td>
<td>6 UOC</td>
</tr>
<tr>
<td>MATS1112</td>
<td>Phase Equilibria</td>
<td>3 UOC</td>
</tr>
<tr>
<td>MATS1142</td>
<td>Crystallography and X-Ray Diffraction</td>
<td>3 UOC</td>
</tr>
<tr>
<td>NANO2002</td>
<td>Nanotechnology 2</td>
<td>3 UOC</td>
</tr>
<tr>
<td>PHYS2020</td>
<td>Computational Physics</td>
<td>3 UOC</td>
</tr>
<tr>
<td>PHYS2030</td>
<td>Laboratory A</td>
<td>3 UOC</td>
</tr>
<tr>
<td>PHYS2040</td>
<td>Quantum Physics</td>
<td>3 UOC</td>
</tr>
<tr>
<td>PHYS2410</td>
<td>Biophysics 1</td>
<td>3 UOC</td>
</tr>
<tr>
<td>PHYS3130</td>
<td>Physics of Solid State Devices</td>
<td>3 UOC</td>
</tr>
<tr>
<td>General Education</td>
<td></td>
<td>6 UOC</td>
</tr>
<tr>
<td>AND one of the following courses:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BIOC2201</td>
<td>Principles of Molecular Biology (Advanced)</td>
<td>6 UOC</td>
</tr>
<tr>
<td>BIOC2291</td>
<td>Fundamentals of Molecular Biology</td>
<td>6 UOC</td>
</tr>
</tbody>
</table>

**Stage 3**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOC3121</td>
<td>Molecular Biology of Nucleic Acids</td>
<td>6 UOC</td>
</tr>
<tr>
<td>NANO3003</td>
<td>Nanotechnology 3</td>
<td>3 UOC</td>
</tr>
<tr>
<td>NANO3410</td>
<td>Chemistry of Surfaces</td>
<td>3 UOC</td>
</tr>
<tr>
<td>NANO3420</td>
<td>Fabrication of Nanostructured Devices</td>
<td>3 UOC</td>
</tr>
<tr>
<td>PHYS3080</td>
<td>Solid State Physics</td>
<td>3 UOC</td>
</tr>
<tr>
<td>General Education</td>
<td></td>
<td>6 UOC</td>
</tr>
<tr>
<td>PLUS electives totalling 24 UOC</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Recommended electives** are as follows:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOC3111</td>
<td>Molecular Biology of Proteins</td>
<td>6 UOC</td>
</tr>
<tr>
<td>CHEM3011</td>
<td>Physical Chemistry</td>
<td>6 UOC</td>
</tr>
<tr>
<td>CHEM3041</td>
<td>Analytical Chemistry</td>
<td>6 UOC</td>
</tr>
<tr>
<td>LHEM3101</td>
<td>Project Laboratory in Chemistry</td>
<td>6 UOC</td>
</tr>
<tr>
<td>MATS1002</td>
<td>Microstructure Analysis</td>
<td>3 UOC</td>
</tr>
<tr>
<td>MAIS1013</td>
<td>Diffusion and Kinetics</td>
<td>3 UOC</td>
</tr>
<tr>
<td>MATS1262</td>
<td>Mechanical Properties of Materials</td>
<td>6 UOC</td>
</tr>
</tbody>
</table>
3952 Bachelor of Optometry Bachelor of Science

BOptom BSc

Typical Duration
4 years

Minimum UOC for Award
192 units of credit

Typical UOC per Session
24 units of credit

Program Description
Optometry combines the theoretical discipline of vision science with the clinical art of primary eye care. Vision science includes the optics of lenses, the physiology of the eye, the psychophysics of vision and the neuroscience of the brain. Optometry includes the diagnosis and management of ocular disease, the dispensing of spectacles and contact lenses, the management of people with special needs (children, low vision), sports vision and vision in the workplace.

The School of Optometry and Vision Science offers a five-year full-time combined BOptom BSc program. Graduates of this program will be able to register as an optometrist in Australia. The degree is also recognised in New Zealand and in most parts of Asia. Job opportunities in this field are excellent and are expected to remain excellent given the high visual demands in the modern computer-based workplace, and the aging population in Australia.

An innovative feature of this program is its alternate entry mechanism. Local students who do not achieve the cut-off UAI or equivalent for direct entry into the Optometry program can apply for one of approximately 25 transfer positions. Students wishing to apply for transfer into the BOptom BSc (3952) program will 1) be completing at the end of the year Stage 1 of the Bachelor of Science (3970) Vision Science study plan (including recommended courses), 2) have completed the UMAT exam held in July during Stage 1 of their BSc program and 3) should achieve a minimum performance level of Distinction (75%) in both Stage 1 Vision Science courses (VISN1211 and VISN1231). Students meeting these requirements will be ranked using an algorithm that includes their UAI or equivalent, their WAM achieved at the end of Stage 1 of their BSc (3970) Vision Science study plan and their UMAT result. To be competitive for transfer selection students would need an entry UAI or equivalent of at least 90.

Program Objectives and Learning Outcomes
This program aims to provide a strong knowledge base in the field of optometry.

Program Structure
Stage 2

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>UOC</th>
</tr>
</thead>
<tbody>
<tr>
<td>OPTM2101</td>
<td>Ocular and Visual Science 2A</td>
<td>(6 UOC)</td>
</tr>
<tr>
<td>OPTM2102</td>
<td>Clinical Optometry 2A</td>
<td>(6 UOC)</td>
</tr>
</tbody>
</table>

General Education Requirements
Students in this program must satisfy the University’s General Education requirements. For further information, please refer to the General Education section in this Handbook.

Academic Rules
Please refer to Program Structure and contact the School of Optometry for the academic requirements relating to this program.
Program Objectives and Learning Outcomes

The program aims to provide a strong knowledge base and clinical competence in the field of optometry and vision science.

Program Structure

<table>
<thead>
<tr>
<th>Stage</th>
<th>Course Code</th>
<th>Course Title</th>
<th>UOC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage 1</td>
<td>BIOS1201</td>
<td>Molecules, Cells and Genes</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>CHEM1031</td>
<td>Higher Chemistry 1C</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>CHEM1829</td>
<td>Biological Chemistry for Optometry</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>MA1111</td>
<td>Mathematics 1A</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>PHYS1121</td>
<td>Physics 1A</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>VISION111</td>
<td>Vision Science 1</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>VISION211</td>
<td>Optics 1</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Elective – choose one of the following</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>BIOS1101</td>
<td>Evolutionary and Functional Biology</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>PSYC1011</td>
<td>Psychology 1B</td>
<td>6</td>
</tr>
<tr>
<td>Stage 2</td>
<td>OPTM2111</td>
<td>Optometry 2A</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>OPTM2211</td>
<td>Optometry 2B</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>PHPH2101</td>
<td>Physiology 1A</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>PHPH2201</td>
<td>Physiology 1B</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>VISION211</td>
<td>Vision Science 2A</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>VISION2131</td>
<td>Optics and the Eye</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>VISION221</td>
<td>Vision Science 2B</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>VISION231</td>
<td>Introduction to Ocular Disease</td>
<td>6</td>
</tr>
<tr>
<td>Stage 3</td>
<td>OPTM3111</td>
<td>Optometry 3A</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>OPTM3131</td>
<td>Ocular Disease 3A</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>OPTM3211</td>
<td>Optometry 3B</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>OPTM3231</td>
<td>Ocular Disease 3B</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>PHPH3301</td>
<td>Pharmacology for Optometry</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>VISION3111</td>
<td>Vision Science 3A</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>VISION3211</td>
<td>Vision Science 3B</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>General Education courses</td>
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<td>6</td>
</tr>
<tr>
<td>Stage 4</td>
<td>BESC2004</td>
<td>Data analysis for Optometry</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>MEDM8001</td>
<td>Principles of Medicine for Optometry Students</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>OPTM4110</td>
<td>Optometry 4A</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>OPTM4131</td>
<td>Clinical Optometry 4A</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>OPTM4151</td>
<td>Ocular Therapeutics 4A</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>OPTM4170</td>
<td>Professional Optometry 4A</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>OPTM4211</td>
<td>Optometry 4B</td>
<td>6</td>
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<tr>
<td></td>
<td>UPM4251</td>
<td>Clinical Optometry 4B</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>OPTM4251</td>
<td>Ocular Therapeutics 4B</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>OPTM4270</td>
<td>Professional Optometry 4B</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>PSYC3516</td>
<td>Psychology for Optometry</td>
<td>3</td>
</tr>
<tr>
<td>Stage 5</td>
<td>OPTM5111</td>
<td>Clinical Optometry 5A</td>
<td>6</td>
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<tr>
<td></td>
<td>OPTM5131</td>
<td>Specialist Clinical Optometry 5A</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>OPTM5151</td>
<td>Clinical Ocular Therapeutics 5A</td>
<td>6</td>
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<tr>
<td></td>
<td>OPTM5171</td>
<td>Research Project 5A</td>
<td>6</td>
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<tr>
<td></td>
<td>OPTM5211</td>
<td>Clinical Optometry 5B</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>OPTM5231</td>
<td>Specialist Clinical Optometry 5B</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>OPTM5251</td>
<td>Clinical Ocular Therapeutics 5B</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>OPTM5271</td>
<td>Research Project 5B</td>
<td>6</td>
</tr>
</tbody>
</table>

General Education Requirements

6 units of credit to be completed in Stage 3

Academic Rules

1. The program is a five-year full-time combined program leading to the award of the two degrees of Bachelor of Optometry and Bachelor of Science (BOptom BSc).
2. The five years of the program include at least 111 units of credit in the Science program (3970) and a minimum of 240 units of credit in total.
3. The 111 Science program units of credit must include 48 Level 1 units of credit.
4. The degrees of Bachelor of Optometry and Bachelor of Science are not awarded until the completion of the full five-year program.
5. There will be a testamur for each degree in the combined program.

Program Description

Psychology is a discipline of both scientific research and applied practice. As a science, psychology is concerned with the study of behaviour and its underlying mental and neural processes. Topics of study include learning, memory, cognition, perception, motivation, life-span development, personality, social interactions, and abnormal psychology. Psychology has many areas of application, especially in clinical, correctional, counselling, educational, and organisational settings. In addition, people with training in psychology pursue careers in academic research, health research, developmental disabilities and rehabilitation, ergonomics, occupational health and safety, personnel selection, training, and management; vocational guidance, and marketing.

Program Objectives and Learning Outcomes

The four-stage full-time program leads to the degree of Bachelor of Psychology. The degree is designed to provide the student with (1) a sound understanding of psychological theory, research skills, and psychological techniques, (2) psychology elective studies in areas of individual interest, (3) supporting studies in science disciplines, and (4) the opportunity to study courses in other faculties including Arts and Social Sciences, and Commerce and Economics.

Program Structure

<table>
<thead>
<tr>
<th>Stage 1</th>
<th>Course Code</th>
<th>Course Title</th>
<th>UOC</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PSYC1001</td>
<td>Psychology 1A</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>PSYC1011</td>
<td>Psychology 1B</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>PSYC1021</td>
<td>Introduction to Psychological Applications</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Courses from Science schools</td>
<td></td>
<td>(12 UOC)</td>
</tr>
<tr>
<td></td>
<td>18 elective units of credit selected from Arts and Social Sciences, Commerce and Economics, Science or other approved faculty.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stage 2</td>
<td>PSYC2001</td>
<td>Research Methods 2</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>PSYC2061</td>
<td>Social and Developmental Psychology</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>PSYC2071</td>
<td>Perception and Cognition</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>PSYC2081</td>
<td>Learning and Physiological Psychology</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>PSYC2101</td>
<td>Assessment and Personality</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>12 Level II units of credit following on from one of the Level 1 non-psychology courses</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>General Education</td>
<td></td>
<td>(6 UOC)</td>
</tr>
</tbody>
</table>
Stage 3
PSYC3001 Research Methods 3A (6 UOC)
PSYC3011 Research Methods 3B (6 UOC)
General Education (6 UOC)
PLUS ONE course from EACH of the following 3 elective groups and two other Level III Psychology courses:*

Advanced Perceptual/Cognitive
PSYC3151 Cognition and Skill (6 UOC)
PSYC3211 Cognitive Science (6 UOC)
PSYC3221 Vision and Brain (6 UOC)
PSYC3311 The Psychology of Language (6 UOC)
PSYC3321 Cognitive Development (6 UOC)

Advanced Biological
PSYC3051 Physiological Psychology (6 UOC)
PSYC3241 Psychobiology of Memory and Motivation (6 UOC)

Advanced Social
PSYC3121 Social Psychology (6 UOC)
PSYC3271 Personality and Individual Differences (6 UOC)
PSYC3281 Interpersonal Behaviour (6 UOC)

Stage 4
PSYC4053 Psychology 4A (24 UOC)
PSYC4063 Psychology 4B (24 UOC)

*Note: Not all level III Psychology elective courses are necessarily offered each year.

General Education Requirements
Students in this program must satisfy the University’s General Education requirements. For further information, please refer to the General Education section in this Handbook.

Academic Rules
In order to graduate students must satisfy requirements for the award by passing all courses specified for the degree.

The final grading for the degree is based on performance in all Psychology courses excluding PSYC1001, PSYC1011 and PSYC1021 taken over the four stages. The degree may be awarded at either Pass level or with Honours.

Study Load
This is a four-stage full-time program. In any one year students must enrol in the full load specified for a particular stage. Only in exceptional circumstances will students be allowed to enrol in a reduced program for a stage, and this requires the permission of the Head of School of Psychology.

Academic Standing
Students will be required to maintain a high level of performance for progression. Any student who fails to achieve an average of 65 percent or higher in psychology courses taken in any stage (based on the first attempt result for each course) will be deemed to be failing below that level of performance. This will be drawn to the attention of the student and they may be interviewed by the Head of School (or nominee) to discuss the reasons for poor performance. This interview may lead to a recommendation to undertake special studies to assist learning. Students whose performance remains below the required level at the end of Stage 2 or 3, or remains on poor academic standing, may be required to transfer to the Bachelor of Science or another degree and/or to show cause why such transfer should not be required.

Registration as a Psychologist
In order to become a member of the professional body, the Australian Psychological Society (APS), and for registration as a psychologist in New South Wales, students first need a university bachelor degree which includes four years of approved training in psychology. The BPychol degree provides four years of approved training in psychology. Students must also follow this by completing an accredited 5th and 6th year academic degree such as one of the Master of Psychology Degrees (Clinical, Forensic, Organisational) or a combined Doctor of Philosophy/ Master of Psychology Degree as offered by this University. An alternative of two years of supervised experience in professional practice may be undertaken for registration as a psychologist in NSW.
Note: For the award of the Diploma in Innovation Management, students must complete all courses in the study plan. Students that take BIOT3071 and BIOT3091 courses as part of their BSc program must complete Innovation in Practice courses at a sufficient UOC level to meet the total 36 UOC requirement for the award of the Diploma.

Academic Rules
Please contact the Faculty of Science for information.

Combined Degree Programs

Faculty of Arts & Social Sciences and the Faculty of Science

3930 Science/Arts

Bachelor of Science Bachelor of Arts BSc BA

Typical Duration
4 years

Minimum UOC for Award
192 units of credit

Typical UOC per Session
24 units of credit

Program Description
This combined degree program, the Bachelor of Science Bachelor of Arts, enables students to complete a major sequence from those available in Science and in the Faculty of Arts and Social Sciences.

Note: Majors in Philosophy and History & Philosophy of Science may not be taken as part of the Science component. The typical duration of this program is four years full-time.

For admission to the program, students must satisfy the entry requirements to Science as well as to the Faculty of Arts and Social Sciences. This degree program is administered by the Faculty of Science.

Program Objectives and Learning Outcomes
Please refer to the program objectives as listed for the Bachelor of Science program 3970 and the Bachelor of Arts program 3400.

Program Structure

Program Requirements
This program requires the successful completion of 192 units of credit in an approved sequence of study.

Students are required to undertake courses totalling 84 units of credit from both the Science and the Arts components of this combined degree. The remaining 24 units of credit may be from either area. In addition students must complete an approved major sequence of at least 42 units of credit. Students should enrol in at least 24 Level 1 units of credit and no more than 36 Level 1 units of credit in both the Science and the Arts components of the program. No more than 12 units of credit can be taken in any one school or department, for the arts component and 18 UOC in any school for the science component.

Selecting Majors
For information on available Science majors, please refer to the program entry 3970 Bachelor of Science and Table A in this Handbook or contact the Science Student Centre on campus.

For information on available Arts majors, please refer to the program entry 3400 Bachelor of Arts in the Arts and Social Sciences section in this Handbook or contact the Faculty of Arts and Social Sciences Office on Campus.

Academic Rules
For program rules and requirements, please refer to the Program Structure section above.

Note: Students seeking to complete the Science component of a combined degree would normally be expected to complete a minimum of 84 units of credit in Science courses at Levels I–III, including a major as specified for program 3970. It may be difficult to undertake some plans as part of combined degree structures due to timetable constraints. Students may not enrol in the Honours Year until they have satisfied all requirements for both the Science and Arts components of the degree.

3931 Advanced Science/Arts

Bachelor of Science Bachelor of Arts BSc BA

Typical Duration
5 years

Minimum UOC for Award
240 units of credit

Typical UOC per Session
24 units of credit

Program Description
The combined Advanced Science/Arts program enables students to complete a study plan in Advanced Science, in addition to a major sequence in the Faculty of Arts and Social Sciences. The duration of the degree program is normally five years full-time.

For admission to this program, students must satisfy the entry requirements to Advanced Science as well as to the Faculty of Arts and Social Sciences. This degree program is administered by the Faculty of Science.

Program Objectives and Learning Outcomes
On completion of this program, students will have attained a sound knowledge base in both their Advanced Science and Arts specialisations.

Program Structure
The total units of credit required for this program is 240. Students are required to undertake 96 units of credit for the Advanced Science component of this degree program and 84 units of credit for the Arts component, including an approved Arts major sequence of 42 units of credit. The remaining 12 units of credit may be from either area. A further 48 units of credit constitutes the Stage 4 Honours sequence of the Advanced Science study plan.

Students should enrol in at least 24 Level 1 units of credit and no more than 36 Level 1 units of credit in both the Advanced Science and the Arts component of the program. No more than 12 units of credit can be taken in any one school or department in the Arts component of the program and 18 units of credit from any one school in the Science component.

Selecting Advanced Science Study Plans and Arts Majors
For information on available Advanced Science study plans, please refer to the ‘Plan Rules and Information’ section following in this Handbook or contact the Science Student Centre on campus.

For information on available Arts majors, please refer to the program entry 3400 Bachelor of Arts in the Faculty of Arts and Social Sciences section in this Handbook or contact the Faculty of Arts and Social Sciences Office on Campus.

Academic Rules
Please refer to Program Structure above.

Note: Students seeking to complete the Advanced Science component of this combined degree program would normally be expected to complete the full Stage 4 Honours sequence for the study plan in which they are enrolled. In practice, it may be difficult to undertake some study plans as part of combined degree structures and students may be restricted in the number of Advanced Science courses that they can undertake. Where these are insufficient to allow the student to complete the recommended study plan, students are advised to consult the relevant Head of School.

3935 Science/Social Science

Bachelor of Science Bachelor of Social Science BSc BSocSc

Typical Duration
4 years

Minimum UOC for Award
192 units of credit

Typical UOC per Session
24 units of credit
Program Description
This combined degree program, the Bachelor of Science Bachelor of Social Science, enables students to complete a major sequence from those available in Science and a specialisation in Social Science within the Faculty of Arts and Social Sciences.

The typical duration of this program is 4 years full-time.

For admission to the program, students must satisfy the entry requirements to Science as well as to the Faculty of Arts and Social Sciences.

This degree program is administered by Faculty of Science.

Program Objectives and Learning Outcomes
Please refer to the program objectives as listed for the Bachelor of Science (BSc) program 3970 and the Bachelor of Social Science (BSoSc) program 3420.

Program Structure
Program Requirements
This program requires the successful completion of 192 units of credit in an approved sequence of study.

In addition to the minimum requirements of the BSc program (84 units of credit), students must complete a major as listed in Table A in the ‘Plan Rules and Information’ section of this Handbook as well as a minimum of 84 units of credit in the Faculty of Arts and Social Sciences.

This includes the Social Science core program of 48 units of credit.

Social Science Core Program (48 UOC)

SLSP1000 Social Science and Policy (6 UOC)

SLSP1002 Introduction to Policy Analysis (6 UOC)

SLSP1001 Research and Information Management (6 UOC)

SLSP2000 Political Economy and the State (6 UOC)

SLSP2001 Applied Social Research 1 (6 UOC)

SLSP2002 Policy Analysis Case Studies (6 UOC)

SLSP3000 Social Theory and Policy Analysis (6 UOC)

SLSP3001 Applied Social Research 2 (6 UOC)

SLSP3002 Social Science and Policy Project (6 UOC)

An additional 36 units of credit from an approved sequence in a particular Social Science discipline.

Note: Students may complete a major (42 units of credit) in a Social Science discipline by completing an additional elective course as part of the remaining 24 units of credit required for this combined degree program.

Selecting Science and Social Science Majors
For information on available Science majors, please refer to Table A in the ‘Plan Rules and Information’ section of this Handbook or contact the Science Student Centre on campus.

For information on available Social Science majors, please refer to the program entry for 3420 Bachelor of Social Science in the Arts and Social Sciences section in this Handbook or contact the Faculty of Arts and Social Sciences Office on campus.

Academic Rules
For program rules and requirements, please refer to the Program Structure section above.

Note: Students seeking to complete the Science component of a combined degree would normally be expected to complete a minimum of 84 units of credit in Science courses at Levels I–III, including a major as specified for program 3970. It may be difficult to undertake some plans as part of combined degree structures due to timetable constraints.

Students may not enrol in the Honours Year until they have satisfied all requirements for both the Science and Social Science components of the degree.

3936 Advanced Science/Social Science
Bachelor of Science Bachelor of Social Science BSc BSoSc

Typical Duration
5 years

Minimum UOC for Award
240 units of credit

Typical UOC per Session
24 units of credit

Program Description
The combined Advanced Science/Social Science program enables students to complete a Study Plan in Advanced Science, in addition to a program of study in Social Science offered by the Faculty of Arts and Social Sciences.

The duration of this combined degree program is normally five years full-time.

For admission to this program, students must satisfy the entry requirements to Advanced Science as well as to the Faculty of Arts and Social Sciences.

This degree is administered by the Faculty of Science.

Program Objectives and Learning Outcomes
On completion of this program, students will have attained a sound knowledge base in both their Advanced Science specialisation and Social Science.

Program Structure
The total units of credit required for this program is 240.

Students are required to undertake 96 units of credit for the Advanced Science component of this degree program and 84 units of credit for the Social Science component which includes the Social Science core program of 48 units of credit:

Social Science Core Program

One of the following courses:

SLSP1000 Social Science and Policy (6 UOC)

SLSP1001 Research and Information Management (6 UOC)

SLSP2000 Political Economy and the State (6 UOC)

SLSP2001 Applied Social Research 1 (6 UOC)

SLSP2002 Policy Analysis Case Studies (6 UOC)

SLSP3000 Social Theory and Policy Analysis (6 UOC)

SLSP3001 Applied Social Research 2 (6 UOC)

SLSP3002 Social Science and Policy Project (6 UOC)

An additional 36 units of credit from an approved sequence in a particular Social Science discipline.

Note: Students may complete a major (42 UOC) in a Social Science discipline by completing an additional elective course as part of the remaining 24 units of credit required for this combined degree program.
3932 Bachelor of Environmental Science Bachelor of Arts
BEnvSc BA

Typical Duration
5 years

Minimum UOC for Award
240 units of credit

Typical UOC per Session
24 units of credit

Program Description
The combined degree requires a minimum of five years to complete. To satisfy requirements for Environmental Science, a student must complete the coursework in the ENVS core and a discipline specialisation, as well as a 24 units of credit independent research project. Refer to Environmental Science Program 3988 for further details on core courses and specialisations.

Students must complete a minimum of 84 units of credit in courses offered by the Faculty of Arts and Social Sciences, including an approved major sequence of 42 units of credit. Students should enrol in at least 24 Level 1 units of credit and no more than 36 Level 1 units of credit within the Arts component of the program. Of these, no more than 12 units of credit can be taken in any one school or department.

This degree is administered by the Faculty of Science.

Program Structure
Selecting Environmental Science Specialisations and Arts Majors
For information on available specialisations within Environmental Science as well as required core coursework, please refer to the program entry for 3988 Bachelor of Environmental Science or contact the Science Student Centre.

For information on available Arts majors, please refer to the program entry 3400 Bachelor of Arts in the Faculty of Arts and Social Sciences section in this Handbook or contact the Faculty of Arts and Social Sciences Office on campus.

Academic Rules
Please refer to Program Structure or contact the Faculty of Science for the academic requirements relating to this program.

Approved Majors from Table A (Majors)*

<table>
<thead>
<tr>
<th>NSW Department of Education Teaching Discipline</th>
<th>Biology</th>
<th>Chemistry</th>
<th>Physics</th>
<th>Earth and Environmental Science</th>
<th>Mathematics</th>
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<tbody>
<tr>
<td>Table A Major</td>
<td>Biochemistry</td>
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<td>Mathematics</td>
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<td></td>
<td>Biological Anthropology</td>
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<td>Bio. Sciences</td>
<td>Physical</td>
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<td>Biological Science</td>
<td>Toxicology</td>
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<td>Ecology#</td>
<td>Oceanography</td>
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<td>Biotechnology</td>
<td></td>
<td></td>
<td>Environmental &amp; Earth Sciences</td>
<td>Physical</td>
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<td></td>
<td>Ecology</td>
<td></td>
<td></td>
<td>Geology</td>
<td>Oceanography/ Meteorology</td>
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<td></td>
<td>Genetics</td>
<td></td>
<td></td>
<td>Physical Geography</td>
<td>Spatial Information Systems</td>
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<td>Marine Biology</td>
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<td>Marine Geology</td>
<td>Systems</td>
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<td></td>
<td>Medical Microbiology &amp; Immunology</td>
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<td>Physical</td>
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<td>Molecular Biology</td>
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<td>Pharmacology</td>
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<td>Statistics</td>
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</table>

*List not exhaustive but representative of our knowledge-to-date. Students are advised to seek advice from the program authority to ensure that their major and Science courses meet the requirements for the BScBEd degree and are recognised as teaching disciplines by DET.

#Some disciplines are recognised as multiple teaching disciplines by DET.
courses in the third year (18 UOC) which include one theory elective, introductory teaching methods and teaching experience; and 42 UOC in fourth year, which include educational theory, practice teaching, teaching method, and professional courses.

vi) At least 84 UOC from Science schools.

vii) A maximum total of 10 Level 1 courses (60 UOC).

viii) A total of 192 UOC. Provided all requirements for Science and Education are met, students may complete the balance by choosing courses from the Majors and Schools identified in Tables A and B.

Note:
(a) Upper level Physics and Chemistry courses require completion of at least 12 units of credit of first year Mathematics. Some level three physics courses require a further 6 UOC of level II Mathematics.
(b) For entry to Honours (fourth year) in one of the science disciplines, at least 24 UOC need to be taken at Level III in the discipline, and approval needs to be obtained from the head of the relevant science school.
B) Students wishing to become Mathematics teachers, or graduate in Mathematics, will be required to:

i) Complete 60 UOC in Mathematics. These Mathematics courses must be chosen so as to fulfill the requirements for a Mathematics major in the science degree program 3970, and include the courses MATH3560 ‘History of Mathematics’ and MATH3570 ‘Foundations of Calculus’.

ii) Complete at least 6 UOC of computing courses, which can be taken from a variety of different schools in the university.

iii) Complete 78 UOC in Education. The normal pattern is two courses in the first year (12 UOC), one course in second year (6 UOC), and two courses (teaching method (6 UOC) and practice teaching (6 UOC)) in third year, and 48 UOC in fourth year, which include educational theory, practice teaching, teaching method, and professional courses.

iv) A total of 192 UOC. Provided all requirements for Mathematics and Education are met, students may complete the balance by choosing courses from the Majors and Schools identified in Tables A and B.

Note:
(a) All prospective Mathematics teachers need to do the BScBEd combined degree. They can no longer (from 2000) do the BABEd degree.
(b) In stage 4, there is the opportunity to do Computer Studies Method if 24 UOC of computing have been completed.

Academic Rules
Please refer to Program Structure for the Academic Requirements relating to this program. Please refer to the School of Education for information on required courses and program structure for each teaching discipline.

Faculty of Commerce and Economics and the Faculty of Science

3529 Bachelor of Commerce Bachelor of Science BCom BSc

For details of the combined Science and Commerce Programs, please refer to the Faculty of Commerce and Economics section of this Handbook.

Faculty of Engineering and the Faculty of Science

Bachelor of Engineering Bachelor of Science BE BSc

For details of the combined Science and Engineering programs, please refer to the appropriate schools in the Faculty of Engineering section of this Handbook.

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<td>3655</td>
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</table>

3631 Science/Software Engineering 3746 Science/Surveying and Spatial Information Systems 3641 Science/Telecommunications

School of Law and the Faculty of Science

4770 Bachelor of Science Bachelor of Laws BSc LLB

For details of the combined Science and Laws program, refer to the Faculty of Law section of this Handbook.

Plan Rules and Information

Table A

Major Plans for the Bachelor of Science (3970) program and Combined BSc Programs

How to Read this Table

New Students

When you have decided which major(s) you want to study, you should enrol in the courses listed for Stage 1. In some majors there is only a small number of specified Stage 1 courses and you should choose additional courses to enrol in, such that you have a full program (24 units of credit per session). These additional courses (electives) may come from any available Level I courses from the subject areas within Table A or Table B.

Students who are unsure which major to choose may enrol in an ‘undeclared plan’. The purpose of an undeclared plan is to cover a combination of Level I courses to enable a student to enter a variety of majors. Students are advised to choose a major before commencing Stage 2.

Continuing Students

Students who have completed Stage 1 should select specified courses listed for their major(s) in Stage 2 and Stage 3. Note that these are the minimum requirements for majors and students may take additional courses in the same area provided they also complete a minor and General Education requirements.

Notes:

1. Some of the courses listed in the later stages of a major may have prerequisites in an earlier stage or corequisites to be taken at the same time. It is important to check the course descriptions found in the rear of this Handbook for details.

2. Courses listed for Stage 1 are recommended courses. It is important to note that many of these courses may be required as prerequisites for courses required for later stages.

3. Mathematics Courses:

(a) Many courses in Mathematics are offered at two levels. The higher level courses cater for students with greater mathematical ability and/or a higher level of prior knowledge. Courses listed in Table A are all at the ordinary level. Students with suitable qualifications are encouraged to enrol in the corresponding higher level courses which are listed in the rear of this Handbook (see MATH11#### courses). In cases where there is a higher course, students should note that the proportion of Distinction and High Distinction grades is lower in the corresponding ordinary level course.

(b) MATH2060 may be omitted from the Mathematics major if the professional education requirement is being met in the other discipline of a double major or double degree.

(c) Students majoring in Mathematics are strongly recommended to take MATH2301 or an equivalent course in practical numerical computing.

4. Chemistry at Level I is offered at two levels. The higher level courses cater for students with greater chemical ability and/or a higher level of prior knowledge. Students with the required background are strongly encouraged to enrol in the higher level courses (CHEM1301 Higher Chemistry 1C and CHEM1041 Higher Chemistry 1D).

5. Students are advised that Mathematics or Physics courses totalling 6 units of credit are recommended for all programs.

6. BIOC2191 and BIOC2291 may be substituted for BIOC2101 and BIOC2201 respectively (but only with the permission of the Head of School). A minimum grade of Credit (65%) in BIOC2191 and BIOC2291 will normally be required for entry into Level III Biochemistry courses.

7. Students wishing to do Honours will need to consult with the appropriate school at the end of Stage 2 of their program.
<table>
<thead>
<tr>
<th>Major Contacts</th>
<th>Stage 1</th>
<th>Stage 2</th>
<th>Stage 3</th>
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</thead>
<tbody>
<tr>
<td><strong>Anatomy</strong></td>
<td>BIOS1101, BIOS1201 Plus 6 of Level I Chemistry</td>
<td>ANAT2111 Plus 12 UOC from: ANAT2241, ANAT2341, ANAT2601, ANAT2611</td>
<td>18 UOC from: ANAT3121 ANAT3131, ANAT3141, ANAT3231, ANAT3411, ANAT3421 Plus 6 UOC from: i) Level III Anatomy not already taken, or ii) Level III Biochemistry, Biological Science, Microbiology, Pathology or Physiology</td>
</tr>
<tr>
<td>Dr B Freeman</td>
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<tr>
<td><strong>Biochemistry</strong></td>
<td>BIOS1101, BIOS1201 CHEM1011 or CHEM1031 CHEM1021 or CHEM1041 Plus at least 6 UOC from: MATH1031, MATH1041</td>
<td>BIOC2101, BIOC2201 Plus 6 UOC from: BIOS2021 or BIOS2621, CHEM2021, CHEM2041, MICR2011</td>
<td>A total of 24 UOC: 12 or 18 UOC from: BIOC3111, BIOC3261, BIOC3271 Plus 0 - 12 UOC from: BIOC3121, BIOC3281 Plus 0 or 6 UOC from: ANAT3231, BIOT3061, CHEM3021, CHEM3041, MICR3041, PHPH3211, PHPH3221</td>
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<tr>
<td>BABS Student Office</td>
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<tr>
<td><strong>Biological Anatomical Anthropology</strong></td>
<td>BIOS1101, BIOS1201 Level 1 Chemistry is required for ANAT2111 and Level II Biochemistry and Physiology courses (check individual course prerequisites)</td>
<td>ANAT2601, ANAT2611 Plus ANAT2511* or ANAT2111 Plus 6 UOC from Level II Biological Science, Biochemistry, Pathology** or Physiology *A Credit grade is required in ANAT2511 for Level III Anatomy courses **Note that ANAT2241 may be required for Level II Pathology</td>
<td>ANAT3601 Plus 12 UOC from Level III Anatomy (ANAT3131 and ANAT3141 recommended) Plus a further 6 UOC from Level III Biological Science, Biochemistry, Pathology or Physiology</td>
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<tr>
<td>Dr D Curnoe</td>
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<tr>
<td><strong>Biological Science</strong></td>
<td>BIOS1201, BIOS1101, CHEM1011, MATH1041 Also recommended: BIOS1301</td>
<td>BIOS2011, BIOS2021 (or BIOS2621), BEES2041, Plus 6 UOC from: BIOS2031, BIOS2051, BIOS2061</td>
<td>24 UOC from Level III Biological Science courses.</td>
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<td>BEEES Student Office</td>
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<tr>
<td><strong>Biomechanics</strong></td>
<td>12 UOC from Level I Mathematics Recommended: MATH1131, MATH1231 Also recommended: PHYS1111</td>
<td>ANAT2511, SESC2451 Also recommended: PHYS1121.</td>
<td>A total of 30 UOC: BIOM9541, SESC3451 Plus 6-18 UOC from: ANAT3131, SESC3101, BIOM9561, SESC4420 Plus 0-12 UOC from: PHPH2101, PHPH2201, PHPH2410</td>
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<tr>
<td>Dr A McIntosh</td>
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<tr>
<td><strong>Biotechnology</strong></td>
<td>BIOS1201, CHEM1011, CHEM1021, MATH1031, MATH1041, BIOS1101 or BIOT1011</td>
<td>BIOC2101, BIOC2201, MICR2201 Also recommended: BIOS2021 or BIOS2621, MICR2011</td>
<td>A total of 24 UOC: BIOT3011, BIOT3021, Plus 6-12 UOC from: BIOT3061, BIOT3081 Plus a further 0-6 UOC from: BIOT3111, BIOT3121, BIOT3271, BIOT3281, MICR3051, MICR3071, MICR3041 or MICR3641, MICR3021 or MICR3621</td>
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<td>BABS Student Office</td>
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<tr>
<td>Major</td>
<td>Contacts</td>
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</tbody>
</table>
| Chemistry                          | Dr G Moran                        | CHEM1011 or CHEM1031  
CHEM1021 or CHEM1041  
12 UOC from Level I  
Mathematics,  
6 UOC from Level I Physics | 18 UOC from: CHEM2011, CHEM2021, CHEM2031 or CHEM2839, CHEM2041  
Plus a further 6 UOC from Level II/III Chemistry (taken in either Stage 2 or Stage 3) | 18 UOC from Level III Chemistry of which 12 UOC must be from: CHEM3011, CHEM3021, CHEM3031, CHEM3041 |
| Ecology                            | BEES Student Office               | BIOS1101, BIOS1201, GEOS1701, MATH1041  
Also recommended: BIOS1301 | BEES2041, BIOS2011  
Plus 6 UOC from: BIOS2031, BIOS2051, BIOS2061, GEOS2071, GEOS2711, GEOS2821 | 24 UOC from: BIOS3011, BIOS3061, BIOS3071, BIOS3081, BIOS3111, BIOS3601, BIOS3161, GEOS3761, GEOH3911 |
| Environmental Earth Science       | BEES Student Office               | GEOS1701, BIOS1101, GEOS1111, GEOS1211  
Also recommended: BIOS1301 | BEES2041, GEOS2721  
Plus 6 units to credit from Level II GEOS courses | GEOH3911, GEOS3281  
Plus 12 UOC from Level III GEOS courses |
| Food Science and Nutrition         | Prof G Fleet                      | BIOS1201, CHEM1011, CHEM1021, FOOD1120, FOOD1130, MATH1041  
Also recommended: MATH1031, PHYS1111 | BIOC2181, FOOD3230, FOOD3220  
Also recommended: BIOC2291, CHEM2921, FOOD1230, MICR2201, PHPH2101, PHPH2201 | FOOD1370, FOOD3440  
Plus 12 UOC from: FOOD1390, FOOD2330, FOOD2340, FOOD2350  
Also recommended: CHEM3811 |
| Genetics                           | BABS Student Office               | BIOS1101, BIOS1201, CHEM1011 or CHEM1031  
CHEM1021 or CHEM1041  
MATH1031, MATH1041 | BIOS2021 or BIOS2621  
Plus 12 UOC from: BIOC2101, BIOC2201, BEES2041*, MICR2011  
(*BEES2041 or an approved COMP or MATH course). | A total of 24 UOC: BIOC3151, BIOC3291  
Plus 6 or 12 UOC from: BIOC3121, MICR3021  
Plus 0 or 6 UOC from: BIO3071, BIOT3061 |
| Geography (Human)                  | BEES Student Office               | GEOH1601, GEOS1701, SLSPI001 or MATH1041 | SLSP2001, GEOH2001  
Plus 12 UOC from Level II GEOH courses | GEOH3101 or GEOH3111  
Plus 18 UOC from Level III GEOH courses |
| Geography (Physical)               | BEES Student Office               | GEOH1601, GEOS1701, MATH1041  
Also recommended: BIOS1301 | 24 Level II UOC: BEES2041  
Plus GEOS2711 &/or GEOS2721  
Plus further UOC from Level II GEOS | Choose 24 UOC from: GEOS3731, GEOS3761, GEOS3811, GEOS3821, GEOS4721, GEOH3911, GEOH3921 |
| Geology                            | BEES Student Office               | GEOS1111, GEOS1211 | BEES2041, GEOS2171, GEOS2181  
Plus 6 UOC from: GEOS2071, GEOS2291, GEOS2721 | GEOS3131, GEOS3141  
Plus 12 UOC from Level III GEOS courses |
| History and Philosophy of Science  | Dr A Corones                      | Up to 12 UOC from: HPSC1100, HPSC1200, HPSC1400, HPSC1500 | 24 UOC from Level II History and Philosophy of Science, including at least 12 UOC from: HPSC2100, HPSC2150, HPSC2200, HPSC2300, HPSC2400, HPSC2500, HPSC2550 | 18 UOC from Level III History and Philosophy of Science |
| Marine Science (Marine Biology)    | BEES Student Office               | BIOS1101, BIOS1201  
Also recommended: MATH1041 | MSCI2001, MSCI6200, BIOS2031, MICR2201 | MSCI3001, BIOS3081, BIOS3091, MICR3071 |
| Marine Science (Marine Geology)    | BEES Student Office               | GEOS1111, GEOS1211 | MSCI2001, MSCI6200, GEOS2181, GEOS2721 | MSCI3001, GEOS3731  
Plus 6 UOC from: GEOS3141, GEOS3281  
Plus 6 UOC from Level III GEOS courses. |
<table>
<thead>
<tr>
<th>Major Contacts</th>
<th>Stage 1</th>
<th>Stage 2</th>
<th>Stage 3</th>
</tr>
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<tbody>
<tr>
<td>Marine Science (Physical Oceanography) School of Mathematics</td>
<td>MATH1131 or MATH1141, MATH1231 or MATH1241, PHYS1121, PHYS1221</td>
<td>MSCI2001, MATH2011, MATH2240, MATH2120, MATH2301</td>
<td>MSCI3001, MATH3121, MATH3241, MATH3261</td>
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<tr>
<td>Materials Science Dr O Standard</td>
<td>MATH1131, MATH1231, PHYS1121, PHYS1221</td>
<td>MATS1172, MATS1262, MATS1002, MATS1112, MATS1142, MATS1282</td>
<td>21 UOC from Level III MATS courses including: MATS1013, MATS1223, MATS2013, MATS3443, MATS4013</td>
</tr>
<tr>
<td>Mathematics (See Note 3 above) School of Mathematics</td>
<td>MATH1131, MATH1231, MATH1081</td>
<td>MATH2011, MATH2060, MATH2120, MATH2501, MATH2520, MATH2801</td>
<td>18 UOC from Level III Mathematics</td>
</tr>
<tr>
<td>Medical Microbiology and Immunology BABS Student Office</td>
<td>CHEM1011, CHEM1021, BIOS1101, BIOS1201</td>
<td>MICR2201, MICR2011, Plus 6 UOC from: ANAT2111, ANAT2200, BIOC2101 or BIOC2181, BIOC2201</td>
<td>A total of 24 UOC: At least 18 UOC from: MICR3041 or MICR3641, MICR3051, MICR3061, MICR3081. Plus 0 - 6 UOC from: MICR3031, MICR3021 or MICR3621, PHPH3121, PHPH3151 or PHPH3351, BIOC3261, BIOC3271, BIOC3291, PATH3205, PATH3206, PHPH3251</td>
</tr>
<tr>
<td>Microbiology BABS Student Office</td>
<td>CHEM1011, CHEM1021, BIOS1101, BIOS1201</td>
<td>MICR2201, MICR2011, Plus 6 UOC from: BIOC2021 or BIOC2621, BIOC2201</td>
<td>MICR3021 or MICR3621</td>
</tr>
<tr>
<td>Molecular Biology BABS Student Office</td>
<td>BIOS1101, BIOS1201, CHEM1011 or CHEM1031, CHEM1021 or CHEM1041</td>
<td>MICR2201, MICR2011 or MICR2611, BIOC2101, BIOC2201, BIOC2021 or BIOC2621, BIOC2291, CHEM2021, CHEM2041</td>
<td>MICR3021 or MICR3621, BIOC3121 or BIOC3621, BIOC3281</td>
</tr>
<tr>
<td>Pharmacology Dr. T Binder</td>
<td>6 UOC from Level 1 Biology (BIOS1201 preferred) Plus 12 UOC from Level 1 Chemistry, Plus 6 UOC from Level 1 Mathematics (MATH1041 excluded)</td>
<td>PHPH2011 (also compulsory for Minor), PHPH2101, PHPH2201 Plus 12 UOC from BIOC2101 or BIOC2181, BIOC2201 or BIOC2291, CHEM2021, CHEM2041</td>
<td>PHPH3251 (also compulsory for Minor), PHPH3101</td>
</tr>
<tr>
<td>Philosophy Dr M Michael</td>
<td>6 UOC from Level 1 Philosophy</td>
<td>18 UOC from PHIL2100 courses and above</td>
<td>24 UOC from Level II/III Philosophy</td>
</tr>
<tr>
<td>Major Contacts</td>
<td>Stage 1</td>
<td>Stage 2</td>
<td>Stage 3</td>
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<tr>
<td><strong>Physical Oceanography/Meteorology</strong>&lt;br&gt;School of Mathematics</td>
<td>MATH1131, MATH1231, PHYS1121, PHYS1221, MATH1081</td>
<td>MATH2011, MATH2060, MATH2120, MATH2240, MATH2301, PHYS2810&lt;br&gt;Plus 3 UOC from Mathematics or Physics</td>
<td>MATH3121, MATH3241, MATH3261</td>
</tr>
<tr>
<td><strong>Physics</strong>&lt;br&gt;Ms S Hagan&lt;br&gt;A/Prof G Morriss</td>
<td>MATH1131, MATH1231, PHYS1121, PHYS1221</td>
<td>PHYS2050, PHYS2060, PHYS2040, PHYS2030&lt;br&gt;Plus 12 UOC from Level II or Level III Physics.&lt;br&gt;Also recommended: MATH2011, MATH2120</td>
<td>18 UOC from Level III Physics.</td>
</tr>
<tr>
<td><strong>Physiology</strong>&lt;br&gt;Dr L Ulman</td>
<td>6 UOC from Level I Biology (BIOS1201 preferred)&lt;br&gt;Plus 6 UOC from Level I Chemistry&lt;br&gt;Plus 6 UOC from Level I Mathematics (MATH1041 excluded).</td>
<td>PHPH2101, PHPH2201, Highly recommended: BIOC2101 and BIOC2201 or BIOC2181 and BIOC2291</td>
<td>A total of 24 UOC:&lt;br&gt;At least 18 from:&lt;br&gt;PHPH3121, PHPH3131, HPH3211, PHPH3221&lt;br&gt;Plus 0 – 6 from:&lt;br&gt;PHPH3101, PHPH3251, BIOC3261, BIOC3271, BIOC3111, BIOC3121, MICR3041, MICR3051, PATH3205, PATH3206, PATH3207 or any Level III Anatomy course.</td>
</tr>
<tr>
<td><strong>Psychology</strong>&lt;br&gt;Mr T Clulow&lt;br&gt;Dr M Gleitzman</td>
<td>PSYC1001, PSYC1011</td>
<td>PSYC2001&lt;br&gt;Plus 18 UOC from: PSYC2061, PSYC2071, PSYC2081, PSYC2101.</td>
<td>PSYC3001&lt;br&gt;Plus 18 UOC from Level III Psychology courses (from at least two elective groups)</td>
</tr>
<tr>
<td><strong>Safety Science</strong>&lt;br&gt;Dr A Green</td>
<td>SESC1001&lt;br&gt;Plus 12 UOC from Level I Mathematics.</td>
<td>ANAT2151, MATH2839*&lt;br&gt;SESC2091, MGMT2721.&lt;br&gt;* MATH2839 or other approved statistics course</td>
<td>SESC3101, SESC3541, SESC3601, SESC4310&lt;br&gt;Plus additional Level II or III SESC courses to total 42 UOC.</td>
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<tr>
<td><strong>Spatial Information Systems</strong>&lt;br&gt;BEES Student Office</td>
<td>GEOS1211, GEOS170, MATH1041&lt;br&gt;Also recommended: BIOS1101, BIOS1301</td>
<td>BEES2041, GEOS2811, GEOS2821</td>
<td>GEOS3811, GEOS3821&lt;br&gt;Plus 12 UOC from Level III GEOS courses</td>
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<tr>
<td><strong>Statistics</strong>&lt;br&gt;Publications</td>
<td>MATH1131, MATH1231, MATH1081.</td>
<td>MATH2060, MATH2501, MATH2011 or MATH2510, MATH2801, MATH2810, MATH2831.</td>
<td>MATH3801, MATH3811, MATH3821</td>
</tr>
<tr>
<td><strong>Toxicology</strong>&lt;br&gt;A/Prof C Winder</td>
<td>BIOS1201, BIOS1101, CHEM1011, CHEM1021, MATH1031, MATH1041, SESC1001</td>
<td>BIOC2181 or BIOC2101, BIOC2291 or BIOC2201, CHEM2021, SESC2091, PHPH2011&lt;br&gt;Recommended: BIOS2021, further Level II CHEM, PHPH2101, PHPH2201.</td>
<td>CHEM3901, SESC4820, SESC4850&lt;br&gt;Recommended: PHPH3251, PHPH3101, SESC3101, BIOC3261, BIOC3121, further Level III CHEM</td>
</tr>
<tr>
<td><strong>Vision Science</strong>&lt;br&gt;Dr Peter Herse</td>
<td>VISN1211, VISN1231&lt;br&gt;Also recommended: BIOS1101, BIOS1201, CHEM1031, CHEM1829, MATH1131, PHYS1121, PSYC1011</td>
<td>24 UOC from: VISN2111, VISN2131, VISN2211, VISN2231, PSYC2071</td>
<td>18 UOC from: VISN3111, VISN3131, VISN3211, PSYCH3221</td>
</tr>
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</table>
Table B: Minors Offered in the Bachelor of Science Program (3970)

<table>
<thead>
<tr>
<th>Minor</th>
<th>Stage 1</th>
<th>Stage 2</th>
<th>Stage 3</th>
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<tbody>
<tr>
<td><strong>Please note:</strong> In addition to the Minors listed below, 24 units of credit taken at Level II or III in any Major listed in Table A will also satisfy the requirements of a Minor.</td>
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<td>Australian Studies</td>
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<td>Chinese Studies</td>
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<td>Cognitive Studies</td>
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<td>Development Studies</td>
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<td>Education</td>
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<tr>
<td>English</td>
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<td>Environmental Studies</td>
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<td>European Studies</td>
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<td>Film</td>
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<td>French</td>
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<tr>
<td>German Studies</td>
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<tr>
<td>Greek (Modern)</td>
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<tr>
<td>History</td>
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<tr>
<td>History and Philosophy of Science</td>
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<tr>
<td>Indonesian Studies</td>
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<td>Japanese Studies</td>
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<td>Jewish Studies</td>
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<td>Korean Studies</td>
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<tr>
<td>Linguistics</td>
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<tr>
<td>Media, Culture and Technology</td>
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<tr>
<td>Music</td>
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<tr>
<td>Philosophy</td>
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<tr>
<td>Political Economy</td>
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<tr>
<td>Politics and International Relations</td>
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<tr>
<td>Policy Studies</td>
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<tr>
<td>Sociology and Anthropology</td>
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<tr>
<td>Spanish and Latin</td>
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<tr>
<td>American Studies</td>
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<tr>
<td>Theatre Studies</td>
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<tr>
<td>Women’s and Gender Studies</td>
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<tr>
<td><strong>Accounting</strong></td>
<td>ACCT1501, ACCT1511</td>
<td>24 Level II or III UOC in Accounting courses.</td>
<td></td>
</tr>
<tr>
<td><strong>Aviation</strong></td>
<td>AVIA1321, AVIA1900, AVIA1850</td>
<td>24 UOC from: AVIA2110, AVIA2200, AVIA1700, AVIA2400, AVIA2500, AVIA2700, AVIA2800, AVIA3101, AVIA3400, AVIA3710,</td>
<td></td>
</tr>
<tr>
<td><strong>Biomechanics</strong></td>
<td>12 UOC of Level 1 Maths</td>
<td>SESC2451, ANAT2511</td>
<td>BIOM9510, SESC3451</td>
</tr>
<tr>
<td><strong>Biological Anthropology</strong></td>
<td>BIOS1101</td>
<td>18 UOC from: ANAT2610, ANAT2611, ANAT3601, ANAT3611</td>
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<td></td>
<td>Plus 6 UOC from any other Level II or III course in Anatomy or Biological Anthropology</td>
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<td></td>
<td></td>
<td>or 6 UOC from courses in Biological Science, Geology/Geography or Social Anthropology listed under “Biological Anthropology” in Table A.</td>
<td></td>
</tr>
<tr>
<td><strong>Botany</strong></td>
<td>BIOS1101, BIOS1201, also recommended: BIOS1301</td>
<td>BIOS2011, BIOS2051</td>
<td>BIOS3061, MICR3071</td>
</tr>
<tr>
<td><strong>Business Economics</strong></td>
<td>ECON1101, ECON1102</td>
<td>24 Level II or III UOC in Business Economics courses.</td>
<td></td>
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<tr>
<td><strong>Business Law and Taxation</strong></td>
<td></td>
<td>24 Level II or III UOC in Business Law and Taxation</td>
<td></td>
</tr>
<tr>
<td><strong>Business Statistics</strong></td>
<td>ECON1101, ECON1102</td>
<td>24 Level II or III UOC in Business Statistics courses.</td>
<td></td>
</tr>
<tr>
<td>Minor</td>
<td>Stage 1</td>
<td>Stage 2</td>
<td>Stage 3</td>
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</tr>
<tr>
<td>Chemical Engineering and Industrial Chemistry</td>
<td>To be advised</td>
<td>24 Level II or III UOC in Chemical Engineering or Industrial Chemistry courses</td>
<td></td>
</tr>
<tr>
<td>Civil Engineering</td>
<td>CVEN1023, CVEN1026, CVEN1024</td>
<td>CVEN2023 Plus 21 UOC from: CVEN0646, CVEN0656, CVEN2026, CVEN2125, CVEN2126, CVEN2322, CVEN2525, CVEN3126, CVEN3224, CVEN3438, CVEN3448, CVEN3525, CVEN4533, CVEN4722, INDC4120, CEIC0050.</td>
<td></td>
</tr>
<tr>
<td>Computing</td>
<td>COMP1011</td>
<td>COMP2811, COMP2011</td>
<td>COMP2121, COMP2041</td>
</tr>
<tr>
<td>Ecology</td>
<td>BIOS1101, BIOS1201 Also recommended: BIOS1301</td>
<td>GEOS2711 and/or BIOS2011 May include 6 UOC from BIOS2031, BIOS2051, BIOS2061, GEOS2071 for a total 12 UOC of Level 2 courses</td>
<td>BIOS3111 Plus 6 UOC from: BIOS3071, BIOS3081, BIOS3091, GEOS3761</td>
</tr>
<tr>
<td>Economic History</td>
<td></td>
<td>24 Level II or III UOC in Economic History courses</td>
<td></td>
</tr>
<tr>
<td>Electrical Engineering &amp; Telecommunications</td>
<td>ELEC1011</td>
<td>ELEC2031, ELEC2032</td>
<td>18 UOC from one of the following groups: Group one: Choose three from these courses - ELEC3004, ELEC3014, ELEC3041, ELEC3006, ELEC3016 Group two: TELE3013, TELE4352, TELE3018</td>
</tr>
<tr>
<td>Finance</td>
<td></td>
<td>24 Level II or III UOC in Finance courses</td>
<td></td>
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<tr>
<td>Human Resource Management</td>
<td></td>
<td>24 Level II or III UOC in Human Resource Management courses</td>
<td></td>
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<tr>
<td>Industrial Relations</td>
<td></td>
<td>24 Level II or III UOC in Industrial Relations courses</td>
<td></td>
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<tr>
<td>Information Systems</td>
<td></td>
<td>24 Level II or III UOC in Information Systems courses</td>
<td></td>
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<tr>
<td>International Business</td>
<td></td>
<td>24 Level II or III UOC in International Business courses</td>
<td></td>
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<tr>
<td>Marketing</td>
<td></td>
<td>24 Level II or III UOC in Marketing courses</td>
<td></td>
</tr>
<tr>
<td>Mechanical and Manufacturing Engineering</td>
<td></td>
<td>MECH2611, MECH2711, MECH2612, MECH2712</td>
<td>MECH3601, MECH3602 or an alternative sequence of 24 UOC at Level II or III with the approval of the Head of School</td>
</tr>
<tr>
<td>Pathology</td>
<td></td>
<td>PATH2201</td>
<td>PATH3205, PATH3206, PATH3207</td>
</tr>
<tr>
<td>Pharmacology</td>
<td></td>
<td>PHPH2011, PHPH3251</td>
<td>Plus 12 UOC from any Level II or III Physiology, Pharmacology, Biochemistry, Chemistry</td>
</tr>
<tr>
<td>Planning</td>
<td>PLAN1241, PLAN1042</td>
<td>24 UOC from Level II and III PLAN courses</td>
<td></td>
</tr>
<tr>
<td>Remote Sensing</td>
<td></td>
<td>GEOS2811, GEOS2821</td>
<td>GEOS3811, GEOS3821</td>
</tr>
<tr>
<td>Science Communication</td>
<td></td>
<td>SCOM1021 (or SCOM2014)</td>
<td>SCOM 2014, SCOM2021 Plus 12 Level II or III UOC in SCOM electives (e.g. Internship, HPSC, PSYC, MARK) Refer to the Science Communication Office for appropriate selection.</td>
</tr>
<tr>
<td>Surveying and Spatial Information Systems</td>
<td></td>
<td>One of GMAT0411, GMAT0442, GMAT0443</td>
<td>24 Level II or III UOC in Surveying and Spatial Information Systems courses</td>
</tr>
<tr>
<td>Zoology</td>
<td>BIOS1101, BIOS1201 Also recommended: BIOS1301</td>
<td>BIOS2031, BIOS2061</td>
<td>12 UOC from: BIOS3011, BIOS3021, BIOS3081, BIOS3111</td>
</tr>
</tbody>
</table>
Study Plans in Advanced Science

Anatomy

Anatomy is the study of the structure of the human body. The word ‘anatomy’ is derived from the Greek, and means ‘cutting up’ or ‘dissection’. However, anatomy today is much more than the descriptive study of the dissected body, although dissected specimens are still used for research and instruction. The study of anatomy now embraces separate but strongly related disciplines. Gross Anatomy deals with the description of form, arrangement and function of the bones, joints, muscles and internal organs, together with their blood and nerve supply. Histology deals with the microscopic structure of tissues and cells. Embryology is concerned with the normal development of the embryo and fetus from conception to birth and with the mechanisms of development and malformations. Neuroanatomy deals with the internal organisation and functions of the brain and spinal cord. Biological Anthropology involves applying biological principles and approaches to the study of humans and non-human primates. In all courses in anatomy, strong emphasis is given to the functional significance of the structures in health and in disease. Advanced anatomy courses may include affiliation with a research project and a project evaluation report and, in some courses, an assessable dissection program.

A major in Anatomy may be combined with elective courses in Biochemistry, Physiology, Microbiology, Pathology or Psychology.

Anatomy

Stage 1
BIOS1101, BIOS1201
CHEM1011 or CHEM1031
CHEM1021 or CHEM1041
Choose at least 6 units of credit from Level 1 Mathematics courses.
Elective courses totalling 12 units of credit
LIFE1001
One General Education course totalling 3 units of credit.

Stage 2
Level II Anatomy courses totalling at least 18 units of credit from:
ANAT2111, ANAT2210, ANAT2310, ANAT2601, ANAT2611, ANAT2241, ANAT2141,
Elective courses totalling 24 units of credit.
Recommended: Biological Science, Biochemistry, Physiology, Microbiology, Pharmacology, Microbiology, Pathology, Psychology, Life1001
One General Education course totalling 3 units of credit.

Stage 3
Level III Anatomy courses totalling at least 18 units of credit from:
ANAT3121, ANAT3131, ANAT3141, ANAT3231, ANAT3411,
ANAT3421, ANAT3601, ANAT3611
General Education courses totalling 6 units of credit
Further level III courses from Biological Science, Biochemistry, Microbiology, Pathology, Physiology, Pharmacology to give a total of 48 units of credit.
Students proposing to proceed to Stage 4 (Honours) must complete Level III courses totalling 36 units of credit.

Stage 4 (Honours)
ANAT4508

Biochemistry*

The Biochemistry plan is closely allied to the Genetics plan and the Molecular Biology plan (see later) all of which are concerned with understanding life processes at the level of molecular structure, function and interaction. The Biochemistry plan therefore provides a knowledge base and a broad range of specialised techniques, which are relevant to all biology. The major impact of this discipline is largely at the molecular level and is ideal for those students whose interests are in understanding and appreciating biological processes at the molecular rather than the descriptive level. Integration of these molecular approaches at the cellular, tissue and whole organism level is an increasingly important part of biochemistry. This discipline is also the foundation of medical science and is playing an increasingly important role in many aspects of modern medicine. The Biochemistry plan (see below) provides opportunities to combine biochemistry with other related discipline areas through careful choice of elective courses in Stages 2 and 3 of the plan.

Biochemistry*

Stage 1
BIOS1101, BIOS1201
CHEM1011 or CHEM1031
CHEM1021 or CHEM1041
Choose at least 6 units of credit from:
MATH1031, MATH1041**
Elective courses totalling 12 units of credit
(Recommended: Physics)
LIFE1001
One General Education course totalling 3 units of credit

Stage 2
BIOC2101* and BIOC2201*
LIFE2001
Choose 6 units of credit from:
BIOS2021 or BIOS2621, CHEM2021, CHEM2041, MIRC2011
Elective courses totalling 24 units of credit
One General Education course totalling 3 units of credit

Stage 3
Choose 12 or 18 units of credit from:
BIOL3111, BIOL3261, BIOL3271
Choose 0 – 12 units of credit from:
BIOL3121, BIOL3281
Choose 0 – 6 units of credit from:
ANAT3231, BIOC3301, BIOT3061, CHEM3021, CHEM3041, MIRC3041, MIRC3641, PHPP3211, PHPP3221
Elective courses totalling 18 units of credit
General Education courses totalling 6 units of credit

Stage 4 (Honours)
BIOC4318
*At least two of the Stage 2 and two of the Stage 3 courses contributing to the major in Biochemistry must be taken at the advanced level.
**Other higher level study plan Mathematics courses may be substituted.

Biological Science

Biological Science encompasses all aspects of plants and animals including their relationship to each other and to the environment. The areas of study leading to the award of a science degree in Biological Science include cell biology, plant and animal physiology, ecology, genetics, taxonomy, marine biology and evolutionary studies. These studies are particularly relevant in the fields of agriculture, forestry, wildlife management, conservation and related environmental sciences. Within Advanced Science there are two plans available: Biological Science and Ecology.

Biological Science

Staff Contact: Associate Professor I Suthers

Stage 1
BIOS1101, BIOS1201, BIOS1301
CHEM1011
MATH1041
Elective courses totalling 12 units of credit
LIFE1001
One General Education course totalling 3 units of credit

Stage 2
BIOS2011, BIOS2621, BEES2041, LIFE2001
Choose 6 units of credit from:
BIOS2031, BIOS2051, BIOS2061
One General Education course totalling 3 units of credit
Elective courses totalling 18 units of credit
(Recommended: BIOS2031, BIOS2051 and BIOS2061)

Stage 3
Level III Biological Science courses totalling 36 units of credit, including advanced courses where available.
General Education courses totalling 6 units of credit
Elective courses totalling 6 units of credit

Stage 4 (Honours)
Required course material comprises:
BEES4521 Literature Review
and
24 UOC project courses from the list below:
BIOS4514 Biological Science Honours B
BIOS4515 Biological Science Honours B
Some aspects of biotechnology are traditional, having been used for centuries. The first makers of bread, cheese and fermented beverages over six thousand years ago were applying biotechnological principles in processing these goods. Without understanding the processes they were operating, they were in fact making use of catalysis mediated by microbial cells. Such processes are still in use today and scientific advances now allow for much greater control of the processes with resultant improvements in quality and economics of production. The number of such biotechnological processes has also expanded and enzymes and/or microorganisms are used in the production of a wide range of fermented foods (such as cheese, wine, beer, soy sauce, sauerkraut, yoghurt, tofu, kefir) and in the production of flavouring, colouring and sweetening agents.

Bioprocesses are also used in the extraction of minerals from low-grade ores, and modified and novel bioprocesses are being developed for the treatment of waste and degradation of recalcitrant molecules, an area of vital importance in our increasingly polluted planet. The future for expansion in all the above areas is immense and an ability to cope with the problems of the 21st century will be heavily dependent on these advances.

**Biotechnology**

**Stage 1**

- BIOT1011, BIOS1201
- CHEM1011, CHEM1021
- LIFH1001
- One General Education course totalling 3 units of credit
- Elective courses totalling 12 units of credit

**Stage 2**

- BIOS2011, BEE2041
- LIFH2001
- Choose 6 units of credit from: BIOS2031, BIOS2051, BIOS2061
- One General Education course totalling 3 units of credit
- Elective courses totalling 24 units of credit

**Stage 3**

- Choose courses totalling 36 units of credit from: BIOS3061, BIOS3011, BIOS3061, BIOS3071, BIOS3081, BIOS3091, BIOS3111, BIOS3671, BIOS3681
- Where ordinary and advanced options exist for the same course students are advised to take the advanced option.
- Elective courses totalling 6 units of credit
- General Education courses totalling 6 units of credit

**Stage 4 (Honours)**

- Entry requires the completion of Stages 1–3 of the Advance Science plan in Ecology or Biological Science.
- Required course material comprises:
  - BEE3421 Literature Review
  - 24 UOC project courses from the list below:
    - BIOS4544 Ecology Honours B
    - BIOS4545 Ecology Honours B
    - BIOS4546 Ecology Honours B
    - BIOS4548 Ecology Honours B
  - and
  - 12 UOC Biology courses at Stage 3 (not completed previously) or other Science courses approved by the Honours Coordinator.

**Biotechnology**

Biotechnology can be defined as the use of various biological processes to make products and perform services. The essential feature of biotechnology therefore is the use of biological processes based on living cells and biochemical macromolecules such as proteins, DNA and RNA in a rapidly expanding range of activities of benefit to mankind. As such, biotechnology makes practical use of the recent scientific advances in areas such as molecular genetics.

The development of recombinant-DNA (r-DNA) technology has resulted in the ability to produce large quantities of any potentially useful product. Based on this technology, a new generation of biopharmaceuticals, including hormones, vaccines, anti-hypertensive and anti-inflammatory agents, are being developed which have the potential to revolutionise medicine. Microorganisms and viruses are being modified for use in controlling plant and animal diseases and pests. Diagnostic kits are being developed for use in forensic science and in product identification and quality control. In addition, genetic improvements in agriculture, plants and animals are becoming a reality, as is the control of inborn genetic disorders in humans.
Stage 1
CHEM1031, CHEM1041*
MATH1131 or MAI1H131 or MAI1H141
MATH1231 or MAI1H214 or MAI1H141
Choose 6 units of credit from level 1 Physics
One course from: CHEM1000, PHYS1000, MATH1000, LIFE1001
One General Education course totalling 3 units of credit
Elective courses totalling 12 units of credit

Stage 2
CHEM2011, CHEM2021, CHEM2031, CHEM2041
One course from: CHEM1000, PHYS1000, MATH1000, LIFE1001, LIFE2001
Elective courses totalling 12 units of credit
General Education courses totalling 9 units of credit

Stage 3
CHEM3011, CHEM3021, CHEM3031, CHEM3041
Choose further Level III chemistry courses totalling 12 units of credit
Elective courses totalling 12 units of credit

Stage 4 (Honours)
CHEM4003
*Students without the assumed knowledge for these courses may substitute CHEM1011 and CHEM1021

Medical Chemistry
This program combines a strong knowledge of synthetic and analytical chemistry and aspects of biochemistry or pharmacology. The program is designed to produce graduates whose background in both chemical and biological areas is appropriate to the requirements of employers in Australia.

Stage 1
CHEM1031, CHEM1041*
BIOS1101, BIOS1201
MATH1031 or MAI1H131 or MAI1H141
MAI1H141 or MAI1H214 or MAI1H141
One course from: CHEM1000, PHYS1000, MATH1000, LIFE1001
One General Education course totalling 3 units of credit
Elective courses totalling 6 units of credit

Stage 2**
CHEM2011, CHEM2021, CHEM2031, CHEM2041
BIOC2101 or BIOC2181
Choose further specialisation in either physiology, pharmacology, biochemistry, molecular biology
BIOC2201 or BIOC2291
Plus elective courses totalling 6 units of credit
or
PHYS2102 and PHYS2201
One course from: CHEM1000, PHYS1000, MATH1000, LIFE1001, LIFE2001
One General Education course totalling 3 units of credit

Stage 3
CHEM3021, CHEM3041
Further specialisation in either physiology, pharmacology, biochemistry, molecular biology, as follows:
12UOC from Level III Physiology or Level III Pharmacology according to choice of Level II prerequisites
or
Courses totalling 12 units of credit from Level III biochemistry and MICR3041
Elective courses totalling 18 units of credit
General Education courses totalling 6 units of credit

Stage 4
CHEM4003
Joint supervision of Honours projects between the School of Chemical Sciences and either the Department of Physiology & Pharmacology or the School of Biotechnology & Biomolecular Sciences is strongly encouraged.
*Students without the assumed knowledge for these courses may substitute CHEM1011 and CHEM1021
** CHEM2839 may be substituted for CHEM2031.

Food Science and Technology
Food Science and Technology involves the understanding of basic sciences and the application of this knowledge to foods from the point of production, through handling, processing, preservation, distribution and marketing, up to consumption and utilization by consumers. It is concerned with food processes, food commodities, food composition and food quality (including sensory properties, safety and nutritional value).

The study of Food Science and Technology integrates many scientific disciplines. Its bases are in chemistry, physics, biochemistry and microbiology. Its borders merge with those of agriculture, engineering, human nutrition, public health, commerce, psychology and law. Biotechnology has a role of increasing importance in food science and technology.

The food scientist and food technologist are concerned with food supplies and requirements, community wants and needs, and equitable distribution of foods to ensure human nutritional needs are met.

New knowledge is acquired in the laboratory, the pilot plant and the community, and then applied to the development of safe, nutritious and palatable foods, beverages and food ingredients by optimisation of processes and equipment. Foods are studied in terms of their basic constituents and structures and the changes they undergo when subjected to handling, processing and distribution.

The food scientist and food technologist are equally concerned with the development and selection of raw materials from agricultural, horticultural, animal and marine sources.

A safe, adequate, palatable and nutritious food supply is essential to human health. The food and beverage industry is of major economic importance and is the largest sector of manufacturing industry in Australia. Internationally, food production, processing and service are among the largest and most stable industries. The challenges are to increase the availability, variety, quality and quantity of foods economically and in line with the needs of the world population. Australian industry has a major role to play in supplying high quality foods to overseas markets and there is a national and international demand for professionally trained people prepared to accept responsibility for the quality and safety of food.

These programs provide basic preparation for food science and technology careers in the food industry, the public sector, education, research, the food service industry, public health, management and marketing. Graduates may also find careers in health and environmental sciences, management of food resources and food wastes, and communication, and in areas such as dietetics after further training.

Undergraduate training in the Food Science and Technology plan is administered through the Science Student Centre. The BSc program is three stages for a Pass degree during which students can study aspects of food science and technology in combination with other courses in a relevant discipline, preferably biochemistry, microbiology, biotechnology or chemistry. The fourth Honours Stage of the BSc program involves an extensive research project.

Food Science and Technology
Stage 1
BIOS1201
CHEM1031, CHEM1041*
FOOD1130 or BIOS1101**
MATH1031, MATH1041
or
MATH1131, MATH1141
and one of MATH1231, MATH1241
LIFE1001
One General Education course totalling 3 units of credit

Stage 2
BIOC2101 or BIOC2181
BIOC2201 or BIOC2291
CHEM2921
LIFE2001
MICR2201
General Education courses totalling 9 units of credit
Elective courses totalling 12 units of credit
(Recommended: FOOD1230, FOOD2320, FOOD3220)

Stage 3
FOOD1360, FOOD1370, FOOD1390
Elective courses totalling 30 units of credit
(Recommended: FOOD1380, FOOD1490, FOOD2330, FOOD2340, FOOD2350, FOOD2480, FOOD3440, FOOD4450)
Genetics
The Genetics plan is broadly based and offers a general introduction to the discipline during the first two years of study. The plan allows students in Stage 3 to diversify into the more specialised areas of genetics, including molecular genetics, human genetics, plant and microbial molecular biology, conservation biology, etc. The flexibility of this plan therefore allows students the scope to combine genetics with a number of other courses offered by the different schools within the Faculty of Science so that Stage 4 (Honours) may be completed in any of these schools provided that suitable Genetics Honours projects are offered.

Genetics*
Stage 1
B IOS1101, BIOS1201
CHEM1011 or CHEM1031
CHEM1021 or CHEM1041
Choose at least 6 units of credit from:
MAIH1031, MAIH1041
Elective courses totalling 12 units of credit
(Recommended: Physics)
LIFE1001
One General Education course totalling 3 units of credit

Stage 2
B IOS2621
LIFE2001
Choose 12 units of credit from:
B IOS2101, B IOS2201, B EE52041, M ICRI011
Elective courses totalling 24 units of credit
One General Education course totalling 3 units of credit

Note: B EE52041 may be replaced with MATH2841 or another MATH or COMP course as approved by the study plan coordinators

Stage 3
B IOS3291, B IOS3151
Choose 6 or 12 units of credit from:
B IOS3121 or B IOS3621, M ICRI3021 or M ICRI3621
Choose 0 or 6 units of credit from:
B IOS3301, B IOS3071, B IOT3061
Elective courses totalling 18 units of credit
General Education courses totalling 6 units of credit

Stage 4 (Honours)
B IOS4103

*At least two of the Stage 2 and two of the Stage 3 courses contributing to the Genetics Study Plan must be taken at the advanced level.

**Other higher Level I Mathematics courses may be substituted.

Geoscience
The School of Biological, Earth and Environmental Sciences offers the following study plan within Advanced Science.

Geoscience
Stage 1
G EOS1701, G EOS1111, G EOS1211
MATH1041
CHEM1011 and PHYS1111
Elective courses totalling 6 UOC
3 UOC from Table X
3 UOC General Education courses

Stage 2
B EE52041
24 UOC from Level II GEOS courses
12 UOC of elective courses
3 UOC from Table X
3 UOC General Education courses

Stage 3
36 UOC from Level III GEOS courses
6 UOC elective courses
6 UOC General Education courses

Stage 4
B EE5 Honours program in Geology or Physical Geography
B EE5411 Professional Skills
and either
24 UOC project from GEOL4204, 4205, 4206, 4207 plus elective courses totalling 18 UOC from B EE5421, Level III Courses in Geology (GEOS) or other science courses at Levels II to IV (not completed previously) and approved by the Honours coordinator.
or
24 UOC from GEOS4418, 4417, 4416, 4415 plus elective courses totalling 8 UOC from B EE5421, Level III courses in Physical Geography (GEOS) or other science courses at Levels II to IV (not completed previously) and approved by the Honours coordinator.

* Please refer to the program entry for 3972 Advanced Science under Program Rules and Information.

Marine and Coastal Studies
The Marine and Coastal Studies Study Plan allows specialisation in selected areas of marine science, yet also includes adequate exposure to other pertinent disciplines.

Marine and Coastal Studies
Stage 1
B IOS1101, BIOS1201
GEOS1111, GEOS1211
MAIH1041
LIFE1001, MATH1000
Elective courses totalling 12 units of credit
(Recommended: BIOS1301 MATH1031, GEOH1601, GEOS1701, CHEM1011, PHYS1201)

Stage 2
MSC2001, M SCI6200
B IOS2031, GEOS2721
General Education courses totalling 6 units of credit
Elective courses totalling 18 units of credit
(Recommended: BIOS2011, B IOS22041, GEOS2711, GEOS2811, GEOS2821, GEOS2281, GEOS2291, M ICRI2201)

Stage 3
MSC3001, GEOS3731
B IOS3681, B IOS3091
General Education courses totalling 6 units of credit
Elective courses totalling 18 units of credit
(Recommended: BIOS3671, BIOS3111, GEOS3761, GEOS3811, GEOH3911, GEOH3921, GEOS3281, M ICRI3071)

Stage 4 (Honours)
MSC4003 (Full-Time)
M SCI4009 (Part-Time)

Materials Science
The School of Materials Science and Engineering offer the following Study Plan.

Materials Science
Stage 1
MATS1111, MATS1021
M ECH0440
CHEM1011, CHEM1021
MATH1131 or MATH1141
MATH1231 or MATH1241
PHYS1121, PHYS1221
One course from: MATH1000, PHYS1000, CHEM1000, LIFE1001

Stage 2
MATS1172, MATS1282, MATS1242, MATS1262
MATH2049, MATH2059
CHEM2011 and CHEM2021 or CHEM2031
PHYS2030
General Education courses totalling 6 units of credit

Stage 3
MATS1013, MATS1112, MATS1414
MATS2013, MATS3443, MATS4013
PHYS3020 and PHYS3080, PHYS3310
One course from: CHEM1000, PHYS1000, MATH1000, LIFE1001, LIFE2001
Elective courses totalling 12 units of credit General Education courses totalling 6 units of credit

**Stage 4**
MATS4444

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**Mathematics**

The School is divided into Departments of Pure Mathematics, Applied Mathematics, and Statistics. It offers an Advanced Science Study Plan in each of these areas and also plans in Physical Oceanography/Meteorology, in Mathematics and Computer Science (in conjunction with the School of Computer Science) and in Mathematics and Finance (in conjunction with the Faculty of Commerce). There is also a plan in “Advanced Mathematics” that allows for more flexibility in choice of courses. Entry into this plan is by invitation only.

**Note:** In all Advanced Science Study Plans in Mathematics, all courses are at the higher level where that is available. Any student wishing to take these higher courses at the ordinary level will need to make a formal application to vary their program.

In all these plans, except Mathematics and Finance, Stage 4 is a special Honours year. For entry to the Honours year, students will normally be required to have a Credit average in their Level III Mathematics courses. They will also need to have permission from the Head of the appropriate Department or from the Head of School. In order to receive this permission, students will normally be expected to have included a significant number of higher level courses among the courses they study in the earlier stages of the plan. To ensure that they will be eligible for entry to the Honours year, students should discuss their choice of Level III courses with the Head of the appropriate Department.

The Mathematics and Finance plan is a four-year plan in which Honours may be awarded on the basis of a weighted average of all courses studied in the plan.

Pure Mathematics is the study of the essential structures of mathematics. Work by pure mathematicians underpins most of the technological advances of this century. Pure Mathematics is concerned with problems and techniques which transcend specific applications. Research, focussing on the development of existing theories or the creation of new ones, may be driven by applications or by the internal demands of the discipline. Pure Mathematics courses provide the insights and understanding required by those using mathematics, leading to mastery of the fundamental processes of mathematical science and the capacity for innovative applications in any area.

Applied Mathematics concerns the development of mathematics and models for understanding scientific phenomena, for the solution of technical and applied problems, and for use in the social, economic, and management sciences. Courses are designed to provide basic mathematical and computational skills needed for a wide range of applications, to develop the capability to construct, analyse and interpret mathematical models, and to encourage enthusiasm for the role of the mathematician in a variety of contexts.

Statistics is the science and art of using factual material for modelling and inference. Its mathematical foundations are in the theory of probability, and it deals with how to estimate and make decisions using knowledge which is uncertain or observational material which is subject to error. There is a rich interplay of ideas between the theory of statistics and fields such as engineering, medicine and biological and behavioural sciences where statistical problems constantly arise.

**Choosing electives**

The following information is provided to assist students in choosing their elective courses. Students who intend to proceed to Stage 4 (Honours) should consult with the relevant department in the School of Mathematics before making a final choice of Level III courses.

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**Pure Mathematics**

Pure Mathematics courses relevant to the mathematical aspects of Computer Science are MATH2400 in Stage 2, and MATH3411 and MATH3421 in Stage 3.

Pure Mathematics courses relevant to mathematics teaching are MATH3511, MATH3521, MATH3531, MATH3560 and MATH3570 in Stage 3, or their higher equivalents.

Pure Mathematics courses relevant to the applications of mathematics in physics or engineering are MATH3531, MATH3541 and MATH3570 in Stage 3, or their higher equivalents.

**Applied Mathematics**

It is recommended that students in the Applied Mathematics plan should include the following among their electives.

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**Applied Mathematics**

Stage 1
MATH1141
MATH1241
MATH1000
MATH10B1

Courses totalling 6 units of credit from Science schools other than Mathematics

Elective courses totalling 18 units of credit

One General Education course totalling 3 units of credit

**Stage 2**

MATH2600
MATH2111
MATH2130
MATH2601
MATH2620
MATH2901
MATH2301

Elective courses totalling 9 units of credit

One course from: PHYS1000, CHEM1000, LIFE1001, LIFE2001

One General Education course totalling 3 units of credit

**Stage 3**

Level III Applied Mathematics courses totalling 24 units of credit

Further Mathematics courses totalling 12 units of credit

Elective courses totalling 6 units of credit

General Education courses totalling 6 units of credit

**Stage 4 (Honours)**

MATH4103 or MAH4104

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**Mathematics and Computer Science**

Stage 1

COMP1011, COMP1021
MATH1141
MATH1241

MATH1000, MATH10B1, MATH2400

Elective courses totalling 9 units of credit

One General Education course totalling 3 units of credit

**Stage 2**

MATH2111
MATH2601

COMP2011, COMP2121, COMP2041

Further Level II Mathematics courses totalling 6 units of credit.

Level III Computer Science courses totalling 6 units of credit

One course from: PHYS1000, CHEM1000, LIFE1001, LIFE2001

One General Education course totalling 3 units of credit

**Stage 3**

MATH3301 or MAH3310
MATH3411

Further Level III Mathematics courses totalling 6 units of credit

Level III or IV Computer Science courses totalling 18 units of credit

Plus either

Further level III Mathematics courses totalling 6 units of credit (if proceeding to MATH4003)

**or**

Further level III or IV Computer Science courses totalling 6 units of credit (if proceeding to Honours Computer Science

General Education courses totalling 6 units of credit

**Stage 4 (Honours)**

MATH4003 or Honours Computer Science
Statistics

Stage 1
MATH1141
MATH1241
MATH1000
MATH1081
Courses totalling 6 units of credit from Science Schools other than Mathematics
Elective courses totalling 18 units of credit
One General Education course totalling 3 units of credit

Stage 2
MAH2060
MAH2111
MAH2130
MAH2601
MAH2620
MAH2901
MAH2910
MAH2931
Elective courses totalling 6 units of credit
One course from: PHYS1000, CHEM1000, LIFE1001, LIFE2001
One General Education course totalling 3 units of credit

Stage 3
MAH3901
MAH3911
MAH3821
Level III Statistics courses totalling 6 units of credit
Further Mathematics courses totalling 12 units of credit
Elective courses totalling 6 units of credit
General Education courses totalling 6 units of credit

Stage 4 (Honours)
MAH4903 or MAH4904

Mathematics and Finance

Stage 1
ACL1101
COMPI091
ECON101, ECON102
MAH1000
MAH1151
MAH1251
FINS1612
One General Education course totalling 3 units of credit

Stage 2
MAH2111
MAH2130
MAH2601
MAH2901
MAH2911
ACCT1111
FINS1613
One course from: PHYS1000, CHEM1000, LIFE1001, LIFE2001
One General Education course totalling 3 units of credit

Stage 3
MAH3121, MAH3241
MAH3261
MAH3301
MSC3001
Elective courses totalling 12 units of credit
General Education courses totalling 6 units of credit

Stage 4 (Honours)
MAH4103 or MAH4104

Pure Mathematics

Stage 1
MAH1141
MAH1241
MAH1000
MAH1081
Courses totalling 6 units of credit from Science Schools other than Mathematics
Elective courses totalling 18 units of credit
One General Education course totalling 3 units of credit

Stage 2
MAH2060
MAH2111
MAH2130
MAH2601
MAH2620
MAH2901
Further Level II Mathematics courses totalling 6 units of credit.
Elective courses totalling 9 units of credit
One course from: PHYS1000, CHEM1000, LIFE1001, LIFE2001
One General Education course totalling 3 units of credit

Stage 3
MAH3121, MAH3241
MAH3261
MAH3301
MSC3001
Elective courses totalling 12 units of credit
General Education courses totalling 6 units of credit

Stage 4 (Honours)
MAH4603 or MAH4604

Advanced Mathematics

This study plan is only available by invitation from the Head of School of Mathematics. Normally students would not be invited unless they have a UAI of at least 98 and a mark of at least 97 in HSC Maths Extension 2 or have Mathematical Olympiad experience. Students in later years may also be invited to join this plan if their WAM exceeds 85 and their Maths WAM exceeds 90. Enrolment in the plan is also subject to approval by the Associate Dean (Academic) of the Faculty of Science. Students are able to approach the Head of School of Mathematics if they are interested in being invited to join the plan.
Students will need to maintain a very high level of achievement (normally a WAM in excess of 80 and Maths WAM in excess of 85) to stay in this plan. If a student is not able to continue in the plan for any reason, then they will be transferred to another suitable plan in Advanced Science or major in Science with a variation of program to that plan or major if necessary so that they are not disadvantaged by having taken the Advanced Mathematics Plan.

The selection of Advanced Mathematics options and electives in the student's program of study will be made by the student in consultation with their academic mentor. The choice of electives can be made to suit a student's interests and may include a mix of Mathematics Courses and courses from other Schools. The final details require approval of the Head of School of Mathematics and the Associate Dean (Academic) of the Faculty of Science. The outline below is the normal program of study, but may be varied to suit the particular student.

### Stage 1

MATH1141 or MATH1151
MATH1241 or MATH1251
MATH1000
3 UOC of General Education
Electives totalling 30 UOC

### Stage 2

Advanced Mathematics courses totalling at least 15 UOC
MATH2060
One of PHYS1000, CHEM1000, GEOS1000, LIFE 1001, LIFE2001
3 UOC of General Education
Electives totalling 24 UOC

### Stage 3

Advanced Mathematics courses totalling at least 24 UOC
Electives totalling 18 UOC
6 UOC of General Education

### Stage 4

Mathematics Honours Year

**Medical Physics**

*Please note: This plan is not available to commencing students in 2006*

Honours may be awarded. The basis is a suitably weighted performance over the last three stages of this four-year Advanced Science program.

### Medical Physics

**Stage 2**

BIOC2101
MAH2111, MAH2120
One course from: CHEM1000, PHYS1000, MATH1000, LIFE1001, LIFE1002
PHYS2010, PHYS2020, PHYS2030, PHYS2040, PHYS2050, PHYS2060, PHYS2410, PHYS2630
General Education courses totalling 6 units of credit

**Stage 3**

PHPH2111
PHYS1601, PHYS3110, PHYS3120, PHYS3410
One course from: CHEM1000, PHYS1000, MATH1000, LIFE1001, LIFE2001
General Education courses totalling 6 units of credit

Plus electives chosen to make a total of 48 units of credit. Those in the supplementary table below are especially recommended.

**Stage 4**

PHYS3020, PHYS3030 or PHYS3230, PHYS4411, PHYS4413
SESC4140
Plus electives to make a total of 48 units of credit. Those in the supplementary table below are especially recommended.

### Supplementary Table

- ANAT2511 or ANA12111,
- PHYS2601, PHYS3010, PHYS3030, PHYS3060, PHYS3210,
- PHYS3310, PHYS3610, PHYS3630, PHYS3710, PHYS3720,
- PHYS3770, PHYS3780

### Microbiology and Immunology

Microbiology is the scientific study of the smallest forms of life namely, bacteria, viruses, archaea, fungi and protozoa. These fascinating organisms impact on our lives in many ways. On the negative side, they cause disease in humans, animals and plants and spoil our food. However, microorganisms are also of great benefit. Indeed, microorganisms are the key participants for the turnover of nutrients and elements and are the main producers of carbon and biomass. They turn the biological wheels on this globe and are responsible for sustainability of life. They also contribute significantly to modern medicine in areas such as blood transfusion, organ transplantation, treatments of allergic reactions and development of vaccines, and immunity to disease. In cell biology, Immunology has advanced our understanding of differentiation, cell cooperation and the triggering of proliferation and differentiation by cell surface receptors. Both Microbiology and Immunology also provide an excellent training in the scientific method and scientific communication. We aim to provide an undergraduate training that serves as a starting point for many careers within our disciplines and beyond. An energetic Honours program provides experience of scientific research and aims to further develop a wide range of skills.

**Microbiology**

*Stage 1*

BIOS1101, BIOS1201
CHEM1011, CHEM1021
MATH1041
Elective courses totalling 12 units of credit
LIFE1001
One General Education course totalling 3 units of credit

*Stage 2*

MICR2201, MICR2011
LIFE2001
Choose 6 units of credit from:
MICR3221, BIOS2621 or BIOS2622
Elective courses totalling 24 units of credit
One General Education course totalling 3 units of credit

*Stage 3*

MICR3611, MICR3021 or MICR3621, MICR3071
Choose 6 units of credit from:
MICR3031, MICR3061, MICR3081, BIOT3081, BIOS3071,
BIOT3011, CHEM9001, GEOS9011, FOOD2490
Elective courses totalling 18 units of credit
General Education courses totalling 6 units of credit

*Stage 4 (Honours)*

MICR4015 or MICR4013

*At least two of the Stage 2 and two of the Stage 3 courses contributing to the Medical Microbiology and Immunology Study Plan must be taken at the advanced level.*
Molecular Biology

Recent advances in molecular biology, especially the continuing development of recombinant DNA technology, have revolutionised our understanding of the structure, function and regulation of individual genes. These advances have opened up the exciting field of molecular biology, one of the most rapid growth areas in biology. This marriage of Biochemistry, Microbiology, Cell Biology and Genetics provides an exciting new approach for the study of all living organisms, including the human. Molecular Biology therefore represents fundamental components of biological and medical science and they will have increasingly important roles to play in many aspects of modern medicine, genetics, evolutionary biology, bioinformatics, biotechnology and genomics.

Molecular Biology*

Stage 1
 BIOIS1101, BIOS1201
 CHEM1011 or CHEM1031
 CHEM1021 or CHEM1041
 Choose 6 units of credit from:
 MATH1031**, MATH1041**
 Elective courses totalling 12 units of credit
 (Recommended: Physics)
 LIFE1001
 One General Education course totalling 3 units of credit

Stage 2
 BIOC2101*, BIOC2201*
 BIOJ2521 or BIOJ2621*
 MICR2201, MICR2301
 LIFE2001
 Elective courses totalling 12 units of credit
 One General Education course totalling 3 units of credit

Stage 3
 BIOC3121 or BIOC3621*, BIOC3281, MICR3011 or MICR3621*
 Choose 6 units of credit from:
 BIOC3111, BIOC3271, BIOC3301, BIOT3061, MICR3011
 Elective courses totalling 18 units of credit
 General Education courses totalling 6 units of credit

Stage 4 (Honours)
 BIOC4428 or MICR4103 or BIOJ4073
 *At least two of the Stage 2 and two of the Stage 3 courses contributing to the Molecular Biology study plan must be taken at the advanced level.
 **Other higher level Mathematics courses may be substituted.

Neuroscience

This Study Plan introduces students to the biological and behavioural aspects of the nervous system. The program is based around the neuroscience courses offered by the Departments of Anatomy, Physiology and Pharmacology, and School of Psychology.

Neuroscience

Stage 1
 BIOIS1101, BIOS1201
 CHEM1011, CHEM1021
 PSYC1001, PSYC1101
 Choose 6 units of credit from the Level I Mathematics options
 LIFE1001
 One General Education course totalling 3 units of credit

Stage 2
 ANAT2511 or ANAT2521*
 BIOC2101 and BIOC2201, or
 BIOJ2521 and BIOJ2621*
 PHHP2101, PHHP2201
 PSYC2071, PSYC2081
 LIFE2001
 One General Education course totalling 3 units of credit
 *A Credit grade is required in ANAT2511 to enrol in Level 3 Anatomy courses.

Stage 3
 ANAT3411, ANAT3421
 PHHP3121, PHHP3131
 Level III Psychology courses totalling 12 units of credit with one course selected from Advanced Perceptual/Cognitive (PSYC3151, PSYC3211, PSYC3221, PSYC3311, PSYC3321) and one course from Advanced Biological (PSYC3051, PSYC3241, PSYC3251).

An additional course totalling 6 units of credit at Level II or III to complete 48 units of credit. This course might be chosen from those offered by the School in which Honours study is contemplated. In the case of Psychology, this course must be PSYC3001.

General Education courses totalling 6 units of credit.

Stage 4

Subject to satisfactory progress throughout the course (normally a Credit average), students may proceed to the Honours Stage. Before the commencement of Stage 2 students should consult with the appropriate schools and the Neuroscience program coordinating committee consisting of representatives from the Departments of Anatomy, Physiology and Pharmacology and School of Psychology, about the courses required for a particular Honours program. Students should also note general guidelines for Advanced Science Stage 4.

Physics

The Majors offered by the School of Physics reflect the importance of Physics in science and technology at both the fundamental and at the applied levels.

Physics

Stage 1
 MATH1131 or MATH1141*
 MATH1231 or MATH1241*
 PHYS1131
 PHYS1231 or PHYS1241
 Elective courses totalling 18 units of credit
 One course from: PHYS1000, CHEM1000, MATH1000, LIFE1001
 One General Education course totalling 3 units of credit

Stage 2
 MATH2011, MATH2120, MATH2520*
 PHYS2010, PHYS2020, PHYS2030, PHYS2040, PHYS2050, PHYS2060, PHYS2630
 Elective courses totalling 18 units of credit
 One course from: CHEM1000, PHYS1000, MATH1000, LIFE1001, SITE1001
 Elective courses totalling 9 units of credit***
 One General Education course totalling 3 units of credit

Stage 3
 PHYS3010 or PHYS3210, PHYS3220, PHYS3300 or PHYS3230, PHYS3500***, PHYS3600***, PHYS3800
 Two of PHYS3040, PHYS3070, PHYS3110, PHYS3120
 Level III elective courses totalling 18 units of credit****
 General Education courses totalling 6 units of credit

Stage 4 (Honours)

Choose one of PHYS4103, BSSM4013

*Students are encouraged to select Higher Level Mathematics courses where applicable.
 **Appropriate Level I electives include COMP1001, PHYSI1601, CHEM1011 and CHEM1021.
 ***Students interested in Biophysics may replace PHYS3050 or (PHYS3060) with PHYS3410 provided CHEM1011, CHEM1021, BIOS101 and BIOS1201 are completed in Stage 1 and BIOC2101 and BIOC2201 are taken in Stage 2.
 ****Excluded PHYS2170 and PHYS2520. For students specialising in Theoretical Physics, additional mathematics courses are specified. In Stage 2 students should include MATH2501 (or MATH2601) and in Stage 3 MATH3121 and Theoretical Physics courses.

Physics and Astronomy

This Study Plan provides the basic physics essential for a career in astronomy. It will not prevent specialisation in some other field of physics if students' interests change during their studies. There is astronomy content in each stage of the plan. There are special lectures and projects in PHYSI124. The other astronomy courses are PHYS2160 and PHYS3160 or PHYS3170, and lecture course and projects in the Honours stage.

Stage 1
 MATH1131 or MATH1141*
 MATH1231 or MATH1241*
 PHYS1131
 PHYS1231 or PHYS1241
 Elective courses totalling 18 units of credit
 One course from: PHYS1000, CHEM1000, MATH1000, LIFE1001
 One General Education course totalling 3 units of credit
Stage 2
MATH2011, MATH2120, MATH2520*, PHYS2010, PHYS2020, PHYS2030, PHYS2040, PHYS2050, PHYS2060, PHYS2160, PHYS2630
One course from: CHEM1000, PHYS1000, MATH1000, LIFE1001, LIFE2001
Elective courses totalling 6 units of credit****
One General Education course totalling 3 units of credit

Stage 3
PHYS3010 or PHYS3210, PHYS3120 or PHYS3220
PHYS3050, PHYS3060, PHYS3080, PHYS3160 or PHYS3170
Two of PHYS3040, PHYS3070, PHYS3110, PHYS3120
Level III elective courses totalling 15 units of credit****
General Education courses totalling 6 units of credit

Stage 4 (Honours)
PHYS4103
*Students are encouraged to select Higher Level Mathematics courses where applicable.
**Appropriate Level I electives include COMP1001, PHYS1601, CHEM1011 and CHEM1201.
****Excluded PHYS2170 and PHYS2520.

Physics and Computing
This Study Plan provides a strong background in physics together with the computing skills necessary to fully utilise computers in research and industrial laboratories.

Stage 1
COMP1011, COMP1201
MATH1131 or MATH1141
MATH1231 or MATH1241
PHYS1131, PHYS1231 or PHYS1241, PHYS1601,
One course from: PHYS1000, CHEM1000, MATH1000, LIFE1001
One General Education course totalling 3 units of credit

Stage 2
COMP2011, COMP2121
MATH2011, MATH2120, MATH2520
PHYS2020, PHYS2030, PHYS2040, PHYS2050, PHYS2060, PHYS2630
One course from: CHEM1000, PHYS1000, MATH1000, LIFE1001, LIFE2001
One General Education course totalling 3 units of credit

Stage 3
PHYS2010, PHYS3010 or PHYS3210, PHYS3120 or PHYS3220
PHYS3050, PHYS3060, PHYS3080
Further Level III Physics courses totalling 15 units of credit
Further Level III Computer Science courses or PHYS2601 totalling 12 units of credit
General Education courses totalling 6 units of credit

Stage 4 (Honours)
PHYS4103

Engineering Physics
This Study Plan is not available to commencing students.
This Study Plan combines a thorough knowledge of experimental physics, electronics, computing and instrumentation, optoelectronics and communications with elements of engineering practice and management. It is designed to produce graduates with skills and knowledge appropriate to the requirements of Australian industry. An industrial project of one session's duration with an industrial sponsor is included in Stage 4.

The program prepares graduates for membership of the Institution of Engineers, Australia, within two years of initial employment in an engineering field. Graduates will be accepted for membership of the Australian Institute of Physics.
Honours may be awarded. The basis is a suitably weighted performance over the last three Stages.

Stage 2
ELEC2011, MATH2120, MATH2520
PHYS2010, PHYS2020, PHYS2030, PHYS2040, PHYS2050,
PHYS2060, PHYS2601, PHYS3770 or PHYS3780
One course from: CHEM1000, PHYS1000, MATH1000, LIFE1001, LIFE2001
One General Education course totalling 3 units of credit

Stage 3
ELEC3004, ELEC3016
MATH2839 or MATH2859
PHYS3020, PHYS3060, PHYS3080, PHYS3310, PHYS3610, PHYS3630, PHYS3710
COMP3221 or COMP4311 or COMP9316
General Education courses totalling 6 units of credit

Stage 4
COMP3331 or COMP4011
ELEC4010
PHYS3010 or PHYS3210, PHYS3030 or PHYS3220, PHYS3040,
PHYS3110, PHYS3720, PHYS4764

Physiology and Pharmacology
Physiology, the study of the processes and mechanisms which serve and control the various functions of the body, begins at Level II.
Students majoring in Physiology should note the prerequisites for Level III Physiology. There are four Level III Physiology courses, each six units of credit:

PHHP3121 Membrane and Cellular Physiology
PHHP3131 Neurophysiology
PHHP3221 Cardiorespiratory and Exercise Physiology
PHHP3231 Endocrine, Reproductive and Developmental Physiology

For a major in Physiology, students must complete at least three of these courses (18 units of credit) together with at least 6 units of credit from allied disciplines specified in the study plan below.

Students majoring in Pharmacology should note that there are prerequisites for Level III Pharmacology. There are two Level III Pharmacology courses, each six units of credit:

PHHP3151 Pharmacology and Toxicology
PHHP3251 Clinical and Experimental Pharmacology

For a major in Pharmacology, students must complete both of these courses (12 units of credit) together with at least 12 units of credit from allied disciplines specified in the study plan below.

Note should also be taken of the prerequisites and corequisites for the courses taken with Physiology and Pharmacology courses.

Physiology
Stage 1
6 units of credit of Level 1 Biology (BIOS1201 preferred)
6 units of credit of Level 1 Chemistry
6 units of credit of Level 1 Maths (MATH1041 excluded)
Elective courses totalling 24 units of credit
LIFE1001
One General Education course totalling 3 units of credit

Stage 2
PHPH2101, PHPH2201
LIFE2001
Elective courses totalling 30 units of credit
BIOC2101 and BIOC2201, or BIOC2181 and BIOC2291 are highly recommended
One General Education course totalling 3 units of credit

Stage 3
Choose 18 or 24 units of credit from:
PHHP3121, PHHP3131, PHHP3221, PHHP3311
If you choose only 18 UOC from the above, choose a further 6 UOC from the following:
PHHP3101, BIOC3251, BIOC3261, BIOC3271, BIOC3311, BIOC3321, MIRC3041, MIRC3051, PATH3205, MIRC3051, PATH3207, or any Level III Anatomy course.
Elective courses totalling 18 units of credit
General Education courses totalling 6 units of credit

Stage 4 (Honours)
PHHP4218

Subject to satisfactory progress throughout the program (normally a Credit average), students may proceed to the Honours stage. Students should consult with the Department of Physiology and Pharmacology, and note general guidelines for Advanced Science Stage 4.
Pharmacology
Stage 1
6 UOC of Level 1 Biology (BIOS1201 preferred)
12 UOC of Level 1 Chemistry
6 UOC of Level 1 Mathematics (excluding MATH1041)
Elective courses totalling 18 UOC
LIFE1001
One General Education course totalling 3 UOC
Stage 2
PHPH2011, PHPH2101, PHPH2201
12 UOC from BIOC2101 or BIOC2181, BIOC2201 or BIOC2291, CHEM2021, CHEM2041
LIFE2001
Elective courses totalling 12 UOC
One General Education course totalling 3 UOC
Stage 3
LIFE 2001
PSYC2001, PSYC2061, PSYC2071, PSYC2081 and PSYC2101
Elective courses totalling 12 UOC
One General Education course totalling 3 UOC
Stage 4 (Honours)
LIFE 2001
PSYC4053 and PSYC4063

Psychology
Stage 1
LIFE1001
PSYC1001 and PSYC1011
Level I courses from Science Schools totalling 12 units of credit
Elective courses totalling 18 units of credit*
One General Education course totalling 3 units of credit
Stage 2
LIFE 2001
PSYC2001, PSYC2061, PSYC2071, PSYC2081 and PSYC2101
Elective courses totalling 12 units of credit*
One General Education course totalling 3 units of credit
Stage 3
PSYC3001 and PSYC3011
Four Level III Psychology electives+
Elective courses totalling 6 units of credit*
General Education courses totalling 6 units of credit
Stage 4 (Honours)
PSYC4053 and PSYC4063

+Level III Psychology electives must include one course from at least two of the following three elective groups:
Advanced Perceptual/Cognitive – PSYC3151, PSYC3211, PSYC3223, PSYC3311, PSYC3321
Advanced Biological – PSYC3051, PSYC3241, PSYC3251, PSYC3261
Advanced Social – PSYC3121, PSYC3271, PSYC3281

Note: Not all level III Psychology elective courses are necessarily offered in each year

*Suitable electives include courses from areas such as: Anatomy, Biological Science, Mathematics, Physiology, History and Philosophy of Science, and Philosophy.
**Undergraduate Course Descriptions**

**ACCT1501**  
Accounting and Financial Management 1A  
School of Accounting  
UOC6  HPW3  

This is the first course in a sequence of courses dealing with the profession and practice of accounting. It illustrates the analysis and design of a financial accounting system which processes financial data and produces financial reports geared to the information needs of interested parties. It introduces students to the design of accounting systems based on entry book-keeping and incorporating other internal controls; also, to the problems of accounting for cash, debtors, inventories and property plant and equipment. It also provides a critical introduction to the ideas underlying accounting practice and to issues associated with the uses and limitations of traditional financial reports.

**ACCT1511**  
Accounting and Financial Management 1B  
School of Accounting  
UOC6  HPW3  

Prerequisite: ACCT1501  

This is the second course in a sequence of accounting courses and includes financial accounting topics such as an examination of the regulatory environment of financial reporting; the definition and recognition of assets, liabilities, revenues and expenses; and accounting for corporations. Aspects of managerial and investor decision-making are covered including financial statement and cash flow analysis, and examination of cost/volume/profit relationships in a single product firms, and short term budgeting.

**ACCT2522**  
Management Accounting: Process Improvement and Innovation  
School of Accounting  
UOC6  HPW3  

Prerequisite: ACCT1511; Excluded: ACCT2532.  

This course examines management accounting, directed towards the effective use of organisational resources. Organisations create value through the use of resources, and can enhance such value by focusing and reconfiguring their internal processes in various ways; that is, by changing the ways in which they conduct business and perform work. It is argued that, in world class organisations, the management of time, flexibility, quality, integration, variability and interdependencies is critical to sustained value generation. This course explains how management accounting supports such value generation, within changing organisational processes.

**ACCT2542**  
Corporate Financial Reporting and Analysis  
School of Accounting  
UOC6  HPW3  

Prerequisite: ACCT1511; Excluded: ACCT2552.  

This intermediate financial accounting course is intended for students who will be involved in the preparation or use of corporate financial reports whether as accountants, financial executives, auditors, financial analysts, actuaries or legal advisors. This course builds on the foundation laid in ACCT1501 and ACCT1511 and covers financial reporting on, and analysis of, more complex business transactions, events and structures. Topics include tax effect accounting and the preparation of consolidated financial statements as well as accounting for specific industries, such as insurance and superannuation.

**ACCT3563**  
Issues in Financial Reporting and Analysis  
School of Accounting  
UOC6  HPW3  

Prerequisite: ACCT2542 or ACCT2552; Excluded: ACCT3573.  

This is the final course in financial accounting. Building on the foundation laid in ACCT2542, it covers more advanced topics including accrual-based analysis and analysis in respect of associates, joint ventures, foreign currency transactions, offshore operations, diversified operations and derivative financial instruments. The course also covers topical issues related to the scope and quality of financial reports. Examples of such topics from past years include environmental reporting, ethical reporting dilemmas, and the information that should be reported on cultural and heritage assets.

**ACCT3573**  
Issues in Financial Reporting and Analysis (Honours)  
School of Accounting  
UOC6  HPW3.5  

Prerequisite: ACCT2552 or ACCT2542; Excluded: ACCT3563.  

The content of this course includes that of ACCT3563 Issues in Financial Reporting and Analysis as well as additional and more advanced work in financial reporting and accounting theory.

**ACCT3583**  
Stakeholder Value Management (Honours)  
School of Accounting  
UOC6  HPW3  

Prerequisite: ACCT2522 or ACCT2532; Excluded: ACCT3593.  

Subject to availability - consult school timetable.  

This course is concerned with the ways in which tangible and intangible resources are combined and leveraged in order to deliver stakeholder value in contemporary organisational contexts. The ways in which these resources are managed affects the ability of organisations to deliver value to various stakeholders, such as shareholders, customers, employees, suppliers, the community and the natural environment, both in the short and long-terms. A strategic challenge for organisations is to achieve a balance between these different forms of stakeholder value in the present and the future. This course examines the ways in which a set of practices that bears the label of ‘management accounting’ constrains and enables processes of stakeholder value management. The course will draw upon a variety of readings and cases to explore these issues.

**ACCT3585**  
E-Business: Strategy & Processes  
School of Accounting  
UOC6  HPW3  

Prerequisite: ACCT2522 or ACCT2532.  

Organisations engaging in electronic forms of business are seeking to create and sustain value by radically altering conventional business models whilst focusing and reconfiguring their internal processes. Emergent electronic business models such as information, brokerage, electronic auction, virtual community, third party market place (or portal) and value chain integrator, are challenging the conventional ways by which business is conducted and work is performed. It is argued that, for such organisations, the strategic management of time, cost, flexibility, quality and integration is critical to sustain value generation. This course will build on existing second and third year courses in accounting. It has the following aims. First, it seeks to highlight and evaluate the new business strategies and models adopted by e-Businesses. Second, it seeks to explore how these models have differential effects on business processes. Third, it examines the implications of reorienting existing organisational structures, processes and culture to e-Business strategy. Fourth, it discusses the relevance of new performance metrics (shareholder value analysis, economic value added, etc) in the management of intangible assets. The course draws upon research, professional literatures and case studies to explore the issue of creating value through electronic forms of business.

**ACCT3593**  
Stakeholder Value Management (Honours)  
School of Accounting  
UOC6  HPW3.5  

Prerequisite: ACCT2522 or ACCT2532; Excluded: ACCT3583.  

The content of this course includes that of ACCT3583 Stakeholder Value Management, as well as more advanced work dealing with theoretical and research issues in management accounting.

**ACCT3601**  
Global Financial Reporting and Analysis  
School of Accounting  
UOC6  HPW3  

Prerequisite: ACCT2542 or ACCT2552.  

With the increasing globalisation of business and capital markets, there is a more extensive use of cross-border financial information. This course considers the key issues in international financial reporting and analysis. Topics include: the types of differences in national financial reporting practices; the reasons for the differences; the progress of the International Accounting Standards Board in reducing the diversity; foreign exchange risk and foreign currency accounting issues; reporting and disclosure in developed countries including the USA, Japan and the members of the European Union; the role of accounting in developing countries and Eastern Europe; financial reporting in emerging capital markets including...
those in the Asia-Pacific region; and analysis of country-specific financial statements in the cultural, business and legal context of each country. Numerical examples and cases are used to highlight important concepts and issues.

ACCT13610
Financial Statement Analysis
School of Accounting
UOC6 HPW3
Prerequisite: ACCT2542 or ACCT2552, FINS1613
This course is about the analysis of financial information arising primarily from the financial reports of entities. Fundamental analysis techniques are examined in detail with particular emphasis on the application of these techniques in equity (share) valuation decisions. Some attention is also given to credit assessment and debt valuation decisions. The techniques are applied in cases and projects involving listed companies. Topics considered include fundamental ratio analysis using reported and ‘off-balance sheet’ information, an analysis of accrual accounting and cash flows, the analysis of profitability, growth and valuation generation in a firm, determining the quality of financial reports, forecasting earnings and cash flows, pro-forma analysis for strategy and planning, analysis of risk, and a comparison of alternative valuation models.

ACCT3708
Auditing and Assurance Services
School of Accounting
UOC6 HPW3
Prerequisite: ACCT2542 or ACCT2552 or approval from the School;
Excluded: ACCT3718.
This course examines the practice of auditing and the underlying concepts, auditors' responsibilities and the audit environment. Although the focus of attention is on audits carried out under the provisions of the Corporations Law, reference is also made to other forms of audit. The course is intended to provide an overview of the audit process as it exists in Australia. Both CIS and computer-assisted audit techniques are an integral part of this course.

ACCT3718
Auditing and Assurance Services (Honours)
School of Accounting
UOC6 HPW3.5
Excluded: ACCT3708.
Prerequisite: ACCT2542 or ACCT2552 or approval from the School;
The content of this course includes that of ACCT3708 Auditing and Assurance Services, as well as introducing students to major research areas in current auditing research, critically examining research methods used and considering possible future developments in audit theory and research. Topics covered may include demand and supply of the audit function, audit fee research, behavioural audit research and audit expertise studies.

ACCT4794
Thesis (Accounting)
School of Accounting
UOC24
Prerequisite: Admission to BCom Degree at Honours level majoring in Accounting.

ACCT4809
Current Developments in Auditing Research
School of Accounting
UOC6 HPW3
Prerequisite: Admission to BCom Degree at Honours level majoring in Accounting.
An examination of current areas of research in auditing and substantive studies in each area. The following topics will be considered: theory about auditing; overview of audit research; nature of audit work; agency theory; the existence of the audit function; human information processing in auditing; audit teams and the review process; experience and expertise; independence; audit fees and other service fees; effect of the audit report; and future developments in audit theory and research.

ACCT4851
Current Developments in Accounting Research - Financial
School of Accounting
UOC6 HPW3
Prerequisite: Admission to BCom Degree at Honours level majoring in Accounting.
Review of alternative approaches to the development of theories in external reporting. Explication and evaluation of substantive theories and associated research studies. Examination of research findings related to the accounting and reporting environment, agency cost and financial contracting, the properties of reported accounting numbers, predictive value of accounting information, the use of information in capital markets, and the use of accounting reports by individual decision makers.

ACCT4852
Current Developments in Accounting Research - Managerial
School of Accounting
UOC6 HPW3
Prerequisite: Admission to BCom Degree at Honours level majoring in Accounting.
The aim of this course is to equip students with a comprehensive understanding of contemporary management accounting research, which emanates from different philosophical perspectives and employs different theories and research methods. Research is divided into two broad streams: work that seeks (a) to explain and design, and (b) to understand and interpret the practice of management accounting in organisational societies. Topics covered include design approaches using behavioural decision theory, contingency theory, institutional theory, and others and interpretive approaches using symbolic interactionism and theories of culture. There is also brief coverage of national differences in management accounting practice and of critical analyses of the development and operation of management accounting systems.

ACCT4897
Seminar in Research Methodology
School of Accounting
UOC6 HPW3
Prerequisite: Admission to BCom Degree at Honours level majoring in Accounting.
To assist BCom Hons students in completion of research project requirement. May consist of an examinable readings program defined to meet the needs of a particular student or a formal program undertaken by a group of students whose research projects are in a common area.

ACCT8691
Industrial Training 1
School of Accounting
UOC12

ACCT8692
Industrial Training 2
School of Accounting
UOC18

ACCT8693
Industrial Training 3
School of Accounting
UOC18

ACCT8694
Business Internship (Type A)
School of Accounting
UOC6
Excluded: ACCT8695
Type A Interns enrol for 18 week session including the examination period. Placement attendance is an average 2 days per week. In addition to academic requirements students are required to complete a norm of 180-200 hours on work placement. The internship is considered to be equal to one course.
Note: Available only to Study Abroad students.

ACCT8695
Business Internship (Type C)
School of Accounting
UOC12
Excluded: ACCT8696
Type C Interns Enrolment is for 18 week session including the examination period. Placement attendance is an average 3 days per week. In addition to academic requirements students are required to complete a norm of 220-240 hours on work placement.
Note: Available only to Study Abroad students.
ACCT9003
Introduction to Accounting Principles
School of Accounting
UOC6 HPW2
Excluded: ACCT1501, ACCT9001, ACCT9002, ACCT9062
This course will provide students with a basic understanding of the key financial statements and how transactions they are likely to be involved with will affect those financial statements. Students will learn about some of the internal controls and why they exist in organisations. They will learn to analyse financial statements and make decisions using those statements. The basics of management accounting will be introduced including cost behaviour, cost-volume-profit analysis, costing and budgeting.

ACTL1001
Actuarial Studies and Commerce
Actuarial Studies Unit
UOC6 HPW3
This course is designed to provide an introduction to actuarial studies. It covers the basic principles underlying the actuarial analysis and management of insurance, superannuation and other financial contracts. It also aims to demonstrate the importance of statistics, mathematics, demography, economics, accounting, finance, business law and computing to actuarial studies.

ACTL2001
Financial Mathematics
Actuarial Studies Unit
UOC6 HPW3
Prerequisite: ECON1202 or MATH1131 or MATH1141 or MATH1151
This course develops the financial mathematics required for the analysis of financial and insurance transactions. Topics covered include: mathematics of compound interest; discounted cash flow techniques; valuation of cash flows of simple insurance contracts; analysis and valuation of annuities, bonds, loans and other securities; yield curves and immunisation; introduction to stochastic interest rate models and actuarial applications.

ACTL2002
Probability and Statistics for Actuaries
Actuarial Studies Unit
UOC6 HPW3
Prerequisite: ECON1203 or MAIH1231 or MAIH1241 or MAIH1251
This course covers probability and statistics topics relevant to actuarial studies. Topics covered include probability generating functions, moment generating functions, marginal and conditional distributions, independence and convolution, conditional expectation and compound distributions, sampling distributions, estimation methods, hypothesis tests, regression, analysis of variance. Examples relevant to actuarial studies are used to illustrate the application of the topics covered.

ACTL2003
Stochastic Models for Actuarial Applications
Actuarial Studies Unit
UOC6 HPW3
Prerequisite: ACTL2002 or MATH2801, MATH2831 or MATH2901, MATH2931
This course provides an introduction to the stochastic models used by actuaries to model both liabilities and assets and illustrates their applications in actuarial work. Topics covered include the terminology of stochastic processes; main features of a Markov chain and application to experience rating; Markov process models and application to survival, sickness and marriage models; simple time series models including random walk and auto-regressive models and their application to investment variables; properties of Brownian motion and applications to investment variables; methods for simulation of a stochastic process. Students will be required to implement models using spreadsheets and programs in a numerical computer package.

ACTL2100
Industrial Training 1 (Co-op)
Actuarial Studies Unit
UOC6
Prerequisite: ACTL1001
Students consider the practical application of the fundamental principles of actuarial studies in an industry environment.

ACTL3001
Actuarial Statistics
Actuarial Studies Unit
UOC6 HPW3
Prerequisite: ACTL1001, ACTL2003
This course covers survival models, their estimation and application to mortality and other decrements. Specific topics include: the concept of a survival model and actuarial notation; estimation of lifetime distributions; multiple state models; maximum likelihood estimation of transition intensities; construction of multiple decrement tables; the binomial model of mortality and its estimation; models with transition intensities depending on age and duration; the census approximation and formulae; statistical comparison of crude rates with standard table; graduation of crude estimates and tests of fidelity and smoothness; analysis of mortality/morbidity and the main forms of selection; models for projection of populations. The analysis of data using a numerical computer package will form a part of the course assessment.

ACTL3002
Life Insurance and Superannuation Models
Actuarial Studies Unit
UOC6 HPW3
Prerequisite: ACCT1501, ACCT9003
This course covers the actuarial mathematics and models for use in the analysis and actuarial management of life insurance and superannuation contracts. Topics covered include: the main forms of life insurance and annuity contracts, disability and long term care contracts and superannuation fund benefits; actuarial notation and the life table; moments of the value of the benefit payments; Thiele's differential equation for policy values; stochastic modelling of claims and benefit payments; gross premiums, net premiums, policy values and reserves; allowing for expenses and inflation; use of discounted emerging costs and profit tests; asset shares in life insurance; termination and alteration values; cost of guarantees; joint life functions; valuation of disability insurance contracts.

ACTL3003
Insurance Risk Models
Actuarial Studies Unit
UOC6 HPW3
Prerequisite: ACTL1001, ACTL2003
This course covers the actuarial mathematics, statistics and models used in non-life insurance actuarial practice. Topics covered include: basic concepts of decision theory and Bayesian statistics; loss distributions and reinsurance, risk models including compound Poisson; estimation of aggregate claims distribution; probability of ruin; premium rating and credibility; experience rating systems; claims reserving for loss run-off data and generalised linear models.

ACTL3004
Financial Economics for Insurance and Superannuation
Actuarial Studies Unit
UOC6 HPW3
Prerequisite: ACTL2001
The aim of this course is to introduce the mathematical and economic models of financial economics and highlight their application to asset-liability management for insurance, superannuation and funds management. Topics covered include: risk and utility; risk measures; mean variance models; factor models; asset liability models using portfolio selection models; equilibrium and arbitrage-free valuation; valuation of derivatives; term structure models; actuarial stochastic investment models and their application. The topics will be illustrated with applications to the valuation and risk management of insurance and superannuation contracts especially those with embedded options and financial guarantees.

ACCL3005
Superannuation and Retirement Benefits
Actuarial Studies Unit
UOC6 HPW3
Prerequisite: ECON1101, ECON1203
This course provides a comprehensive analysis of superannuation and retirement benefits, primarily in Australia. Topics include: alternative superannuation arrangements, taxation and regulation of superannuation, risk management and investment strategies for superannuation, design of retirement benefits, the retirement decision, policy developments and controversies and international comparisons.
ACTL3100
Industrial Training 2 (Co-op)
Actuarial Studies Unit
UOC15
Prerequisite: ACTL2100

Students study, in depth, the application of actuarial principles in an industry environment.

ACTL4000
Thesis (Actuarial Studies)
Actuarial Studies Unit
UOC.24
Prerequisite: Admission to BCom Hons in Actuarial Studies

Honours students complete a thesis under the direction of a supervisor. The thesis requires the reporting of research in an approved topic area in actuarial studies including a literature review, analysis of a research problem along with presentation of research methods and data analysis.

ACTL4001
Actuarial Theory and Practice A
Actuarial Studies Unit
UOC6   HPW3
Prerequisite: Admission to BCom Hons in Actuarial Studies

This course develops the theory and practice underlying the actuarial management of risk-based and other products offered by financial institutions. The course draws examples from actuarial practice and discusses implications for life insurance, general insurance, superannuation, asset-liability management and other areas where actuaries are involved in product design, pricing, reserving, investment and surplus management. The course emphasises recent developments in actuarial theory. This course, along with ACTL4002, corresponds to the Part II courses of the professional examinations of The Institute of Actuaries of Australia.

ACTL4002
Actuarial Theory & Practice B
Actuarial Studies Unit
UOC.6   HPW3
Prerequisite: Admission to BCom Hons in Actuarial Studies

This course, along with ACTL4001 Actuarial Theory and Practice A, develops the theory and practice underlying the actuarial management of risk-based and other products offered by financial institutions. The course draws examples from actuarial practice and discusses implications for life insurance, general insurance, superannuation, asset-liability management and other areas where actuaries are involved in product design, pricing, reserving, investment and surplus management. The course emphasises recent developments in actuarial theory. This course, along with ACTL4001, corresponds to the Part II courses of the professional examinations of The Institute of Actuaries of Australia.

ACTL4003
Research Topics in Actuarial Studies
Actuarial Studies Unit
UOC6   HPW3
Prerequisite: Admission to BCom Hons in Actuarial Studies

This course is an advanced course in actuarial science covering selected topics in the areas of actuarial modelling in insurance risk, life insurance, superannuation and financial economics. The course will involve the study and discussion of current research papers and advanced texts of interest to research students. As part of the course, students will learn to develop a research topic, apply the methodology of scientific research and gain exposure to the presentation of research in actuarial journals.

ACTL4004
Thesis (Actuarial Studies) (Part Time)
Actuarial Studies Unit
UOC24   HPW3
Prerequisite: Admission to BCom Hons in Actuarial Studies

Honours students complete a thesis under the direction of a supervisor. The thesis requires the reporting of research in an approved topic area in actuarial studies including a literature review, analysis of a research problem along with presentation of research methods and data analysis.

ACTL4100
Industrial Training 3 (Co-op)
Actuarial Studies Unit
UOC15
Prerequisite: ACTL3100

Students study, in depth, the application of actuarial principles in an industry environment.

AERO3101
Aerospace Design 1A
School of Mechanical and Manufacturing Engineering
UOC3   HPW3
Corequisite: AERO3620

Aerospace vehicle types, characteristics, size and performance. The special constraints imposed in the design of an aerospace vehicle. Aerospace regulations and materials; quality control. Introduction to computer design techniques. Design of typical thin wall structures; struts; joints and fasteners. ESDU data sheets and resource material. Design work in selected areas and reports.

AERO3102
Aerospace Design 1B
School of Mechanical and Manufacturing Engineering
UOC3   HPW3
Prerequisite: MECH2412

Aerospace applications of plane frames and space structures. Open and closed section thin walled beams. Stresses due to torsion and shear in multicell tubes. Wing and fuselage structures, ribs and bulkheads. Deflections. Structural instability, buckling of perfect and imperfect columns, bending and buckling of thin flat plates. Introduction to composite materials, sandwich panels.

AERO3400
Analysis of Aerospace Structures 1
School of Mechanical and Manufacturing Engineering
UOC3   HPW3
Prerequisite: AERO3101, Corequisite: AERO3400

Inviscid conservation relations. Potential flow source, sink, doublet and point vertex; superposition with uniform flow. Airfoil formation and Kutta condition. Two dimensional incompressible flows around thin airfoils. Incompressible flow about wings of finite span. Experimental techniques. Introduction to propulsion systems; history, types, basic thrust, efficiency equations, propellers, rotors and fans.

AERO3610
Aerodynamics and Propulsion
School of Mechanical and Manufacturing Engineering
UOC6   HPW6
Prerequisite: MECH2612, MECH2712

Vehicle loads; thrust inertia, atmospheric flight (manoeuvre and gusts, wings fuselage, empennage and controls. Material fatigue and degradation; safe life and fail safe design. Weight and balance, centre of gravity; applied forces and moments; static and dynamic equilibrium, vehicle trim. Landing gear. Vehicle systems. Interaction of production engineering and maintenance requirements. Design work in selected areas and reports.
Project teams are formed to carry out the initial design of an aerospace vehicle within a simulated industrial environment. Work involves current design and analysis tools and use of experimental data. A lecture program supports this work. A satisfactory grade in this course is provisional pending successful completion of AERO4102.

AERO4102
Aerospace Design 2B
School of Mechanical and Manufacturing Engineering
UOC3 HPW3
Prerequisite: AERO4101

Building on work in AERO4102, project teams complete their initial design study, produce a group report and an individual portfolio, and present their findings.

AERO4401
Analysis of Aerospace Structures 2A
School of Mechanical and Manufacturing Engineering
UOC3 HPW3
Prerequisite: AERO3400, MECH3400 Excluded: AERO9415, MECH9410, NAVL4401

Finite element analysis of aerospace structures, including modelling, resource requirements and accuracy. Applications from linear and non-linear elasticity using commercial finite element programs.

AERO4402
Analysis of Aerospace Structures 2B
School of Mechanical and Manufacturing Engineering
UOC3 HPW3
Prerequisite: AERO4401 Excluded: MECH4410, MECH9410

Introduction to the dynamic response of aerospace structures. Aeroelasticity including control reversal, divergence and flutter. Analysis of bonded and bolted joints. Fracture mechanics and fatigue including residual strength of cracked components, crack growth, arrest and damage tolerance. Thermal stresses.

AERO4610
Advanced Aerodynamics and Propulsion
School of Mechanical and Manufacturing Engineering
UOC6 HPW6
Prerequisite: AK03610


AERO4620
Aerospace Vehicle Dynamics and Avionics
School of Mechanical and Manufacturing Engineering
UOC6 HPW6
Prerequisite: AERO3620

Space dynamics; exo-atmospheric vehicles, three body problem, orbit selection and prediction, tracking, maneuvering and rendezvous. Dynamics of space launchers; single stage and multi stage rockets, optimization and control. Dynamic stability and control of atmospheric and exo-atmospheric vehicles; dynamic response to the mission. Avionics and advanced aircraft systems; flight control; computer-aided vehicle management.

ANAT1510
Introductory Histology for Health and Exercise Science
School of Medical Sciences
UOC3 HPW3
Prerequisite: BIOS1201

This course will provide an introduction to the histology of basic tissue, bones, joints, muscle tissue, nervous tissue, circulatory, respiratory and urinary systems. Other topics covered include early development, growth and aging, and human evolution.

ANAT2111
Introductory Anatomy
School of Medical Sciences
UOC6 HPW6
Prerequisites: BIOS1201, BIOS1101 or PHPH1501 or HESC1501. Excluded ANAT2511, ANAT2151

Note: From S1 2007 ANAT2111 will also require 6UOC of Level 1 Chemistry.

Introduction to gross anatomy of the whole body, based on a study of dissected specimens. General topographical and systematic anatomy: musculoskeletal, cardiovascular, respiratory, gastrointestinal, genitourinary and nervous systems. This course is designed for students who wish to proceed to Level III studies, or a major, in Anatomy.

Note: Enrolment in this course may be subject to quota restrictions. Such restrictions will only apply to students taking this course as an elective.

ANAT2151
Introductory Functional Anatomy
School of Medical Sciences
UOC3 HPW3

Overview of basic human anatomy and physiology with an emphasis on structures and systems which are most vulnerable to chemical and physical trauma under industrial conditions, such as the eye, ear, and skin. Other systems studied include the musculoskeletal system, central and peripheral nervous systems, circulatory, respiratory, gastrointestinal, endocrine, and urogenital systems. Offered as a distance education course.

ANAT2241
Histology: Basic and Systematic
School of Medical Sciences
UOC6 HPW6
Prerequisite: BIOS1101, BIOS1201. Excluded ANAT1510, ANAT2200, ANAT2210, ANAT2511

The first half of this course provides an overview of the structure of mammalian cells and their organization into tissues. Topics include the use of the light microscope, the preparation of tissues and morphological examination of epithelium, glands, connective tissue (e.g., cartilage, bone, and blood), muscular, and nervous tissues. An emphasis will be placed on the recognition of cell types and the correlation of structure and function. The second half of the course deals with a histological examination of the major body systems namely cardiovascular, respiratory, lymphatic, integumentary, digestive, endocrine, urinary, reproductive, and special senses. Emphasis will be placed on integrating structure of a system with function. This whole course provides an excellent basis for the future study of pathological disorders.

ANAT2341
Embryology: Early and Systematic Development
School of Medical Sciences
UOC6 HPW6
Prerequisite: ANAT2241, Excluded ANAT2300, ANAT2310

The first half of this course introduces the morphological and molecular mechanisms of segmentation and patterning responsible for organizing the body plan in the embryo. Topics will include the molecular, genetic and cellular approaches to the study of human embryology using four main vertebrate systems: frog, fish, chick and mouse. The second half of this course will cover human fetal development through to birth, including the developmental anatomy of the organ systems. The course will examine the common principles and differences that underlie normal and abnormal development of vertebrates: specifically, the roles of cell differentiation, proliferation and migration, target recognition, interaction in the nervous system, axial polarity, cell adhesion, cell fate and signalling. Emerging technologies such as genomic analysis and the use of transgenic and dysfunctional mouse mutants in research will be covered.

ANAT2511
Fundamentals of Anatomy
School of Medical Sciences
UOC6 HPW6
Excluded: ANAT2111, ANAT2151, ANAT2200, ANAT2241

This course provides an introduction to the fundamental principles of human structure. It includes an introduction to the histology of basic tissues; an overview of the functional anatomy of the major body systems; human development, growth and aging; human evolution; body imaging. This course is designed for students who do not plan to major in Anatomy. Students who achieve a credit level pass or better can use this course as a prerequisite for ANAT3411 Neuroanatomy or ANAT3121 Visceral Anatomy.

ANAT2601
Biological Anthropology A: The Primates
School of Medical Sciences
UOC6 HPW4
Prerequisite: BIOS1101, BIOS1201, Excluded ANAT2600
This course introduces the study of primates within comparative, functional and evolutionary frameworks drawing heavily on evidence from anatomy. It details distinguishing anatomical features of the Order Primates. Primate diversity is considered through various approaches: by studying adaptations in anatomy and behaviour between and within major primate groups and their relationship to ecological variables, biological classifications and reconstructed evolutionary relationships, and the record for primate evolution via the complementary lenses of evolutionary biology, palaeontology and genetics. The place of humans within the order primates is an important topic. Aspects of primate ecology are considered.

ANAT2611
Biological Anthropology B: Human Evolution
School of Medical Sciences
UOC6    HPW4
Prerequisite BIOS1101, BIOS1201, Excluded ANAT2600
This course introduces the field of palaeoanthropology. It examines evidence for our early ape ancestors, the emergence of the human lineage, earliest hominins, australopithocene diversity, and genus Homo up to the emergence of modern humans (a topic covered in detail in ANAT3601). It draws heavily on evidence from anatomy, especially from the human fossil record, in considering major adaptations of the human lineage and evidence for anatomical change. The multidisciplinary nature of modern palaeoanthropology is examined in recognition of the complex nature of the evidence for our biological origins.

ANAT3121
Visceral Anatomy
School of Medical Sciences
UOC6    HPW6
Prerequisite: ANAT2111 or a minimum of a credit in ANAT2511.
Extends on the teachings of ANAT2111 and ANAT2511 and compliments the other level III anatomy courses (ANAT3131, ANAT3411 and ANAT3411) by providing detailed information regarding the viscera and associated musculoskeletal structure of the head, neck, thorax, abdomen and pelvis. The course aims at providing students with sound knowledge of the structure and, to a lesser degree, the function of the respiratory, cardiovascular, gastrointestinal, urinary, reproductive, lymphatic and autonomic nervous systems. Lectures focus on the structure and function of the viscera as well as clinical cases and surface anatomy, while the laboratory classes involve the study of wet and plastinated prosected specimens, cross-sectional images and radiographs. Assessment consists of two practical exams, an essay assignment and a theory exam and this course can be used towards obtaining a major in Anatomy and/or Physiology.

ANAT3131
Functional Anatomy 1
School of Medical Sciences
UOC6    HPW4
Prerequisite: ANAT2111; Excluded: ANAT2151
Functional anatomy of the musculoskeletal system in the head, neck and upper limb, includes biomechanics of connective tissue; in particular bone, cartilage and tendon. Laboratory classes involve study of prosected specimens, X-rays and surface anatomy.

ANAT3141
Functional Anatomy 2
School of Medical Sciences
UOC6    HPW4
Prerequisite: ANAT3131
Functional anatomy of the musculoskeletal system in the trunk and lower limb. Includes functional aspects of muscle and a discussion of the mechanics and energetics of walking and running. Laboratory classes involve study of prosected specimens, X-rays and surface anatomy.

ANAT3231
Cell Biology
School of Medical Sciences
UOC6    HPW4
Prerequisite: ANAT2200 or ANAT2241
Cell Biology has broad applications to medical and basic science research. This course studies both cellular structure and cell functions. Also covered are the current and developing cell biology research techniques.

ANAT3411
Neuroanatomy
School of Medical Sciences
UOC6    HPW6
Prerequisite: ANAT2111 or a minimum of a credit in ANAT2511.
Provides an overview of the anatomical organisation of the central nervous system. Topics covered include: cytoarchitecture of brain and spinal cord; functional anatomy of sensory and motor systems and higher cerebral functions such as language and emotions; blood supply of the central nervous system; cerebrospinal fluid and meninges.

ANAT3421
Neuroscience Research Seminars
School of Medical Sciences
UOC6    HPW3
Prerequisite: ANAT3411 or PHPH3131
Focuses on selected areas of interest in contemporary neuroscience research. Includes: brain development and axon guidance, pain pathways, spinal cord injury, central control of cardiovascular function, cortical processing of visual information and bionic eyes, drug addiction, control of appetite and the neuropathology of degenerative disorders. The course is organised in seminar format with discussion of original research papers. It is ideal for students considering doing Honours as it provides a background to current research problems and the opportunity to undertake a small project.

ANAT3601
Biological Anthropology C: Modern Humans
School of Medical Sciences
UOC6    HPW4
Prerequisite: ANAT2601 or ANAT2611. Excluded ANAT2610
This course covers biological aspects of modern humans from origins to challenges faced by present and future populations. Study commences with a detailed examination of the evolution of modern humans building on evidence introduced in ANAT2611. Global colonisation lead to new stresses and biological challenges for humans: these challenges and human biological responses to them are considered. A major focus is understanding physical (anatomical and biochemical) variation among recent and contemporary humans, the forms its takes and its causes. Other topics include human sexual dimorphism, growth, development, ageing and physique, and their relationship to function, disease and behaviour. The possible future course of human evolution is explored. This course draws heavily on evidence from anatomy.

ANAT4508
Anatomy 4
School of Medical Sciences
UOC24
An Honours program consisting of the preparation of a research thesis and participation in School seminars.

ARCH1102
Architectural Design Workshop 1
Architecture Program
UOC8    HPW6
Exploration of the implications of precedents for design practice. Focus on the development of integrated design strategies and approaches responding to human needs, the natural environment and technical aspects of architecture. There will be emphasis on the development of foundational knowledge and skills of research, critical analysis, conceptualisation, speculation and communication. Development and application of basic design principles. Critical reflections on students own design approaches and strategies. Detailed consideration of architectural elements, components, construction assemblies and environmental systems. Design of small-scale spaces and buildings, with simple programmatic requirements, to a basic level of integration. Predominantly individual work supported by peer-group activities. A series of studio-based design projects and assignments will be defined within tight programmatic limits, and researched across selected aspects of the History and Theory, Technology and Communication streams to maximise possibilities of integration.

ARCH1121
Architectural History and Theory 1
Architecture Program
UOC4    HPW3
A general introduction emphasizing major thresholds in Western architectural history, with brief cross-cultural explorations of Asian architectural history. The key issues examined will include: geometrical and iconographic order, the status and role of architectural designers and writers, methods of representation and reproduction involved in constructing and propagating architectural ideas, and 20th-century architecture in the context of developments in the visual arts generally. Assignments include exercises in writing short analytical texts and in typographic design.

**ARCH1122 Architectural History and Theory 2**
Architecture Program
UOC4 HPW3
A series of close examinations of key buildings and writings in 20th-century architecture of Western Europe, North America, Australia and Japan. A substantial proportion of the selected buildings will be small and medium-scale projects. They will be examined in terms of key concepts and issues, including: plan libre and raumplan, designing in section, public and private, architecture and the city, architecture and landscape, and cross-cultural interaction. Assignments include exercises in writing short analytical texts and in freehand drawing and typographic design.

**ARCH1142 Communications 1**
Architecture Program
UOC4 HPW3
This is a foundation course in developing capabilities in a broad range of architectural manual graphic communication skills, particularly architectural drawing and model making. Students are introduced to the various architectural drawing conventions, to freehand architectural drawing styles and media and to creative drawing as a means of analyzing and exploring architectural and design ideas. The course also teaches model making as a means of exploring the 3D resolution of spatial concepts and theories, and verbal skills through in-class presentations that teach the ability to intelligently talk about architectural ideas. Assessment is a mixture of exams, assignments and continuous assessment with a particular stress on in-class participation. Marks are based on each student's engagement with the problems, the development of specific skills, their creative engagement with the course content and willingness to push their envelope of knowledge. Project tasks are designed to be relevant to, complement and parallel other subject areas taught in first year, and to integrate the manual skills necessary to develop and communicate architectural ideas and designs intelligently, clearly and creatively.

**ARCH1171 Architectural Technologies 1**
Architecture Program
UOC9 HPW5
Specialists in environment, structures and construction describe the basic concepts of their fields. An introduction to concepts of social responsibility, environmental accountability and ecological sustainability. Implications for the urban/built and natural environments. Fundamentals of building physics, as they relate to the concepts of comfort and environmental control. Foundation is basically quantitative but assumes only basic numerical skills. Introduction to statics, kinematics, and tectonics. Material and environmental aspects of design. Introduction to building material science; sustainable resource management and life cycle energy assessment.

**ARCH1172 Architectural Technologies 2**
Architecture Program
UOC8 HPW5
Environment: Thermal comfort and building climatology: perception and comfort; the body's responses; biomechanical classification and traditional buildings. Solar geometry and control of sunlight. The building envelope: thermal performance; principles of heat transfer; solar radiation effects; absorptivity, reflectivity, conduction, thermal gradients; condensation and thermal insulation; degree day concept and prediction of heating requirements. Structures: Analysis of structural precedents in relation to human need and design practice. Outline of key structural behaviour concepts: loading - including load transfer, forces at supports and connections; resistance to loads - including stability, strength and stiffness; stress - including axial, shear, bending and deformation. Focus on basic linear structural elements and systems - including cable and arch, strut and column, beam, truss, frame. Concept and techniques of modelling, predicting and incorporating structural behaviour in design. Basic structural modelling techniques and problem solving tools - physical, graphical, numerical, computer-assisted. Introduction to basic statics, properties and strength of materials. Introduction to basic building physics. Implications for structural, constructional and environmental issues in design. Construction: Introduction to masonry and timber in design and construction with an emphasis on small to medium scale buildings. The basic physical properties, manufacturing processes, use and performance of masonry and timber. An introduction to construction documentation standards. Lecture material will be supported through associated projects in the Design Workshop program.

**ARCH1201 Architectural Design Workshop 2**
Architecture Program
UOC8 HPW6
Exploration of theoretical, tectonic and technological factors influencing design thinking and practice. An emphasis on critical and strategic skills of research and architectural speculation, directed to the development of useful implications for design practice. Detailed design of small to medium-scale spaces and architectural elements, components and construction assemblies, to a moderate level of integration. Individual and collaborative group-based work. A series of studio-based design projects and assignments will be defined within tight programmatic limits, and resourced across selected aspects of the Theory, Technology and Communications streams to maximise possibilities of integration. See ARCH1221, ARCH1271, ARCH1241.

**ARCH1202 Architectural Design Workshop 3**
Architecture Program
UOC8 HPW6
Prerequisite: BENV1101, ARCH1102; Corequisite: ARCH1222, ARCH1272, BENV1242.
Critical research and elaboration of strategic architectural design approaches responding to behavioural, technological and environmental issues. A focus on the implications of design contexts and environmental sustainability for the development of ethical and sustainable design practices and outcomes. Detailed design of medium-scale buildings, with simple programmatic requirements, to a moderate level of integration. Consideration and incorporation of construction assemblies and integrated environmental systems of medium complexity. Individual and collaborative group-based work. A series of studio-based design projects and assignments will be defined within tight thematic and technological limits, and resourced across selected aspects of the Theory, Technology and Communications streams to maximise possibilities of integration.

**ARCH1221 Architectural History and Theory 3**
Architecture Program
UOC4 HPW3
History: Nineteenth-Century architecture and the present. By interpreting certain nineteenth- and early twentieth-century issues and debates, this Module makes it possible to clarify and question contemporary beliefs and achievements, such as technological progress, imperial expansion and the division of labour (which has prevented the exploration of more substantial relationships between the human body and architecture). Lectures will also look to history to reconsider issues which demand contemporary attention, including ornament, decorum, anthropomorphism, empathy and memory. Rather than presenting a survey of nineteenth-century architecture, each lecture will focus on a single issue and explore it through the works of particular architects and writers. The relevance to our current debates will be spelt out. Material is presented as one- and/or two-hour lectures supplemented with readings and analyses of selected texts in architectural history and architectural theory.

**ARCH1222 Architectural History and Theory 4**
Architecture Program
UOC3 HPW2
Prerequisite: BENV1101, ARCH1221, ARCH1102, ARCH1222; Corequisite: ARCH1202.
An introduction to the architecture of Asia with primary focus on India, China and Japan. Aspects of indigenous traditions as well as developments in the 20th century will be examined. Some attention will be given to materials relating to other countries of the region. The approach of the course is thematic. A range of key concepts, significant buildings and cities will be studied; for instance: the role of geometry, the rise of the modern profession of architecture, cross-cultural exchanges, colonialism, conservation and regionalism.

ARCH1241 Communications 2
Architecture Program
UOC3 HPW3
Prerequisite: ARCH1142, BENV1101.

Through the application of basic drawing, compositional, modelling and rendering practices developed in Communication One, students will extend their ability in techniques of architectural representation. Opportunities will be provided for students to develop skills in model making, using materials such as cardboard, plastics and wood and in rendering techniques, using a selection of media. Students will be encouraged to explore different compositional modeling and media techniques and critique the implications of their application. Students will develop basic capabilities in professional drawing production and will be required to demonstrate their understanding of architectural drawing conventions and their application in rendering and presentation techniques. A series of well-defined group and individual projects will provide opportunities for students, in tutorial settings, to demonstrate their extended skill and technique development as well as their ability to critique different modes of architectural representation. Integral to the assessment process is the requirement that students provide written evaluation and feedback about their own and their peers completed tasks.

ARCH1271 Architectural Technologies 3
Architecture Program
UOC6 HPW4
Prerequisite: ARCH1171.


ARCH1272 Architectural Technologies 4
Architecture Program
UOC4 HPW3
Prerequisite: ARCH1172.


ARCH1282 Research Practice
Architecture Program
UOC3 HPW2

A core course which introduces students to basic empirical and interpretive research methods, and referencing requirements. Classes are by lecture and seminar. Assignments are designed to lead students through both theoretical and research in-the-field processes. Critical evaluations of the appropriateness of methodologies used and the value/meaningfulness of conclusions drawn are expected. This course is a prerequisite for Investigation Workshop (final year).

ARCH1301 Architectural Design Studio 1
Architecture Program
UOC8 HPW6
Prerequisite: ARCH1201, ARCH1202; Corequisite: ARCH1321, ARCH1371, BENV1341.

Exploration of the implications of theoretical, historical, technological and environmental factors influencing design thinking, practices, outcomes and modes of representation. An emphasis on the integration of critical research, visualisation, modelling and the development of appropriate design strategies. Detailed design of medium-scale buildings, and medium to large-scale architectural spaces, to an intermediate level of integration. Consideration and incorporation of selected components, construction assemblies and integrated environmental systems of increasing complexity. Predominantly collaborative group-based work.

ARCH1302 Architectural Design Studio 2
Architecture Program
UOC9 HPW6
Prerequisite: ARCH1301.

Exploration of architectural design strategies responding to socio-cultural, tectonic, technological and environmental issues. Incorporation of legal and procedural parameters and constraints such as statutory planning and building codes. Detailed design of medium-scale buildings, with complex site and programmatic requirements, to an intermediate level of integration. Design of complex medium to large-scale architectural spaces, components, construction assemblies and integrated environmental systems. Predominantly individual work articulated in relation to collaborative group-based objectives. A selection of a series of studio-based design projects and assignments will be defined within tight theoretical, pragmatic and technological limits, and sourced across relevant stream areas to maximise possibilities of integration. Students may apply to carry out exchange studies with universities which have an agreement with UNSW. Any application should be made to the university and is at the discretion of the Head of Program (Architecture).

ARCH1321 Architectural History and Theory 5
Architecture Program
UOC3 HPW2
Prerequisite: ARCH1222, ARCH1202; Corequisite: ARCH1301.

Module 1: Theory: Design and human behaviour. This Module provides an understanding of behaviour-environment theory and its relevance to environmental design and raises questions concerning contemporary values and understandings in architecture. Lectures are presented on elementary behavioural theory, behaviour settings, personal space, territoriality, crowding, privacy, way-finding, place and place-making (genius loci), all of which are examined for their impact on architecture and planning. Aesthetic and functionalist ideas in architecture are cross-related with contemporary notions of meaning, community, identity and poesy. Major architectural ideas and design approaches are subjected to scrutiny in light of behaviour-environment research techniques and findings. Material is presented as two-hour lectures supplemented with readings and analyses of selected texts in sociology, psychology, anthropology, environment-behaviour research and architectural theory.

Module 2: Theory: Urban theory and practice. This Module deals with architecture and the city, especially as it relates to the nature of the design task. The objective is to bring students attention to our current understanding of urban design and the various roles architects have in shaping the city. Explicit in this analysis will be a redefinition of functionalism in architectural and urban design. Implicit in all designs, if not explicit, is some positive construct of the people imagined as users or participants in the work designed. Questions arise about the adequacy of our definitions and people-constructs, about the degree to which the facts can assist our projections for the future, and on whether our modelling and imaging of life is sufficiently real. Critically evaluating the models we use enhances our creativity because it opens up possibilities that generally fall beyond the scope of our thoughts. Material is presented as two-hour lectures and supplemented by readings in urban theory, town-planning, architectural theory, and environment research.

ARCH1371 Architectural Technologies 5
Architecture Program
UOC4 HPW3
Prerequisite: ARCH1171, ARCH1172, ARCH1271.

ARCH1381
Professional Practice 1
Architecture Program
UOC3  HPW2

ARCH1382
Practicum
Architecture Program
UOC3  HPW2
This course is concerned with student preparation of a professional portfolio and the development of capabilities necessary for professional practice employment and academic study overseas. Topics in this component include writing letters of application, preparing resumes, interview and oral presentation techniques, working in teams, developing an understanding of your capabilities and strengths, practice ethics, working in cross cultural environments, negotiating, workplace issues and personal management skills. Students will receive instruction in documenting practice placement diaries and journals. A series of guest lectures and workshop activities will complement the assessable task, which is to complete a well-presented portfolio of student work. The second component of the course is concerned with an introduction to law and ethics relevant to architectural practice - including the architect-client agreement; agency and employment law; appointment of and liaison with consultants; professional codes of conduct; the Architects Act; land use controls; the Building Code of Australia; Local Government Act; Environmental Planning and Assessment Act and the Heritage Act.

ARCH1398
Research Project 1
Architecture Program
UOC6
Prerequisite: ARCH1282.
Introductory project on a topic area selected by the student in accordance with his or her field of specialization. This project provides the opportunity to practice research methods, planning, organising and conducting and documenting study in the chosen field. The topic must be approved by the Program Coordinator and the research supervised by an appropriate member of staff.

ARCH1399
Research Project 2
Architecture Program
UOC9
Prerequisite: ARCH1398.
Advanced project on a topic area selected by the student in accordance with his or her field of specialization. This project represents the culmination and integration of knowledge and skill gained in the student's field of specialization, and should include social, environmental and ethical aspects. The research project report is to be presented in a thesis format and be supervised by an appropriate member of staff.

ARCH1401
Architectural Design Studio 3
Architecture Program
UOC9  HPW6
Prerequisite: ARCH1301, ARCH1302.
The design of medium to large-scale buildings and/or developments, with complex site and programmatic requirements, to a high level of integration. Emphasis on advanced integration of social, pragmatic, technological, urban and environmental aspects. Elaboration and management of implied conflicting issues and needs - including site constraints, planning controls and building regulations, cultural, behavioural, functional and technical issues. Conservation and heritage values pertaining to adaptive re-use. Individual and group work, articulated in relation to collaborative group-based objectives. A range of studio project options will be offered each session, each with a different focus. Projects will be further defined and resourced by each student through elective specializations selected from a range of advanced electives offered in the History and Theory, Communications and Technology Streams. Students may apply to carry out exchange studies with universities which have an agreement with the University of New South Wales. Any application should be made to the university and is at the discretion of the Head of Program (Architecture) UNSW.

ARCH1402
Architectural Design Studio 4
Architecture Program
UOC9  HPW6
Prerequisite: ARCH1301, ARCH1302, ARCH1401.
The design of medium to large-scale buildings and/or developments, with complex site and programmatic requirements, to a high level of integration. Emphasis on theoretical, technological and environmental aspects of the project. Elaboration and management of implied conflicting issues - including theoretical, technological and representational aspects. Individual and group work, articulated in relation to collaborative group-based objectives.

A range of studio project options will be offered each session, each with a different focus. Projects will be further defined and resourced by each student through elective specializations selected from a range of advanced electives offered in the History and Theory, Communications and Technology Streams. Students may apply to carry out exchange studies with universities which have an agreement with the University of New South Wales. Any application should be made to the university and is at the discretion of the Head of Program (Architecture) UNSW.

ARCH1470
Building Services 1 & 2
Architecture Program
UOC6  HPW4
Prerequisite: ARCH1271, ARCH1272, ARCH1371.
Sources and distribution of water, wastes and energy supplies, application of electrical power, hydraulics, vertical transport, fire protection in buildings, security, telecommunications. Air conditioning, heating and ventilating of buildings. Equipment selection and space allocations for these services. Students will be able to undertake preliminary selection and sizing of systems, and to translate them into space and planning requirements for complex buildings. Assignments include tutorial projects and/or field investigations, and open book examination. The course requires students to have WebCT access.

ARCH1498
Honours Project 1
Architecture Program
UOC24  HPW0
Prerequisite: ARCH1399.
This project represents a major research-based investigation into a subject related to the student’s area of specialization. It should represent an original contribution to work in that area which demonstrates a high level of scholarship and an understanding of good research methods. It can appropriately be seen as stage one of a two-part project linked to the second honours project, but must be complete in and of itself. The work is to be closely supervised by a member of the academic staff. On rare occasions, permission may be sought from the Program Coordinators to have this project supervised by someone outside the University, but there must always be an internal co-supervisor in that event. The intended topic must be lodged as a fully-worked research proposal, and must be approved by the Program Coordinator prior to its commencement. The submitted work must be properly bound and will be assessed internally by at least two readers.

Note: Students must seek approval from Program Coordinator to enrol in this course.

ARCH1499
Honours Project 2
Architecture Program
UOC24  HPW0
Prerequisite: ARCH1498.
This project represents a major research-based investigation into a subject related to the student's area of specialization. It should represent an original contribution to work in that area which demonstrates a high level of scholarship and an understanding of good research methods. It can appropriately be seen as stage two of a two-part project linked to the first honours project, but must be complete in and of itself. The work is to be closely supervised by a member of the academic staff. On rare occasions, permission may be sought from the Program Coordinator to have this project supervised by someone outside the University, but there must always be an internal co-supervisor in that event. The intended topic must be lodged as a fully-worked research proposal, and must be approved by the Program Coordinator prior to its commencement. The submitted work must be properly bound and will be assessed internally by at least two readers.

Note: Students must seek approval from Program Coordinator to enrol in this course.

ARCH1501
Investigation Workshop
Architecture Program
UOC9
Prerequisite: ARCH1282, ARCH1302, ARCH1371, ARCH1401, ARCH1-402, ARCH1583.

Critical research, exploration and speculation, leading to the detailed definition of a proposal for an individual design project. An emphasis on the ethical and political dimensions of architectural practice as a public act. A focus on the integration of theoretical, socio-cultural, programmatic, technological and professional issues. Individual submissions developed within a collaborative and supportive peer-group environment. Proposals will be initiated, researched and elaborated by each student through elective specializations selected from a range of advanced electives offered in the History and Theory, Technology and Communications streams. Preparation of an investigative study and detailed conceptual and functional design brief, articulating the parameters, values, objectives, components and implications of the project. Communication of the proposal through seminars, concept drawings/models and investigatory reports.

ARCH1502
Graduation Project
Architecture Program
UOC9
Prerequisite: ARCH1371, ARCH1501, ARCH1583.

Design development of the project defined in Investigation Workshop. Further elaboration of the project framework, content, criteria and parameters through elective specialization. Detailed resolution and presentation of the design to an advanced level of integration across all dimensions of the project: theoretical, historical, ethical, technological, environmental and professional. Individual submissions developed within a collaborative and supportive peer-group environment. Presentation of the project to peers, eminent critics and practitioners through various seminars, forums, and a high profile end of session graduate exhibition.

ARCH1582
Professional Practice 2
Architecture Program
UOC6  HPW4
Prerequisite: ARCH1371

Legal implications of architectural practice. Liabilities of architects. The architect/client agreement. Types of building contract and methods of building procurement. Tendering and negotiating. Contract administration procedures. Professional defensive measures and crisis management. Introduction to management theory. The structure and organization of an architectural office. Aspects of company and partnership law and insurance. Business principles and management procedures relevant to an architectural practice. The course will examine the production of architecture as a social event, it will analyse a series of explanations of the relationships between society and space and will look at both Asian and Western cultures as examples. The focus of this analysis will include issues such as: the role of economics and politics, urban administration, cultural difference, social theory etc., to architecture. This will be carried out by examining questions such as what is the relationship between architecture and urban politics? What part does architecture play in the political economy of cities? How does architecture as a commodity reflect commodity producing society as a whole? What basic social theories inform what we might call a social theory of architectural production? How do investors, developers, industrialists and others view architecture and building? What is the administrative environment for the production of architecture? (Government policy at national, regional and local levels, development planning, planning legislation, structure and local plans etc). How does architecture relate to the reproduction of culture — what theories of cultural production exist, and how do they interface with urban politics? What part does architecture play in the sustainability of cities and urban environments as a whole?

ARCH1583
Work Experience
Architecture Program
UOC24
Prerequisite: BENV1101, ARCH11102.

This course provides an opportunity for students to gain off-campus experience in the discipline and profession of Architecture. Each student is required to undertake twenty four weeks of activity with the minimum single period of approved activity being eight weeks. The preferred activity is to work under the supervision of a registered Chartered Architect for the twenty four week period. This period of activity must be undertaken outside the formal academic session. Students undertaking this activity during the academic session shall not be enrolled in any other courses. This course must be completed before commencing ARCH1501-Investigation Workshop. For students to achieve a satisfactory assessment they must provide documented evidence of undertaking the preferred activity. Students have two options in providing evidence. Firstly, by using the accepted form of log-book provided by the Architects Accreditation Council of Australia or other professional bodies. Secondly, submitting a signed letter from their supervising registered Chartered Architect outlining the dates and period of time they were employed, their responsibilities and the activities/projects they have been engaged in. On completion of the course requirements students are required to submit the selected documentation to the Faculty Student Centre. Where students wish to undertake other activities such as an architectural study tour, employment on construction projects or other related architectural activity, a proposal must be submitted to the course authority for approval. Students are required to document these activities in accordance with guidelines issued by the Head of Program. The Faculty reserves the right to disallow any activities as meeting the requirements for this course, for which prior approval has not been sought and obtained in writing.

ARTS2000
Arts and Social Sciences Internship
School of Social Science and Policy
UOC6  HPW3
Prerequisite: 36 units of credit

This practical workplace experience is accompanied by a reading program. The reading component examines different approaches to the study of organisations, their structures, functions and policies, and links these issues to the internship experience.

Note: Students must have achieved a credit level or better average across the courses in their degree.

ARTS3001
Censorship and Responsibility in the Performing Arts, Film, Literature and Media
School of English
UOC6  HPW3
Prerequisite: 48 units of credit; Excluded: THFI2020

Investigates ethical issues in the production and reception of cultural works, including live performance, film and television programs, literature, popular music, advertising and the internet. Particular topics to be addressed include the moral responsibilities of production companies and media organisations, and the function and impact of regulation and legislation.

Note: Offered jointly by the Schools of English and Media, Film and Theatre.

ARTS3002
Making Histories and Historians: Ethics, Scholarship and Public Roles
School of History
UOC6  HPW3
Prerequisite: 48 units of credit

Introduces students to the social role, impact and responsibilities of historians. Seminars deal in a practical way with professional ethics; scholarly standards concerning bias, interpretation and plagiarism; the impact on these standards of new ideas of postmodernism; new methods and evidence in history and the ethical dilemmas these methods and
procedures may raise; the use and abuse of history in public discourse and in education.

Note: Offered jointly by the School of History and the School of History and Philosophy of Science.

AKIS3005
Arts and Social Sciences Graduates in the Workplace: Ethical and Social Responsibility
School of Social Work
UOC6 HPW3
Prerequisite: 48 units of credit

Arts and Social Sciences graduates are employed in an enormous range of capacities throughout the workforce, where they are routinely called upon to exercise their ethical and social responsibilities. Combines orientational lectures from Faculty academic staff with presentations by graduates who discuss the nature and consequences of their university education, and issues of ethical and social responsibility from the perspective of their own workplace experience. Weekly seminars allow students to pursue in depth the issues raised by graduates’ presentations and to relate these issues to the purposes and consequences of their educational experience at UNSW.

Note: Offered by the School of Social Work.

ARTS3006
Corruption and Integrity in Public Life
School of Politics and International Relations
UOC6 HPW3
Prerequisite: 48 units of credit

Debates over corruption and integrity in public life are intense, with the actions of public officials, government bodies and citizens coming under increasing scrutiny. Addresses debates about how individuals and institutions should behave in public life, drawing on a range of ethical perspectives and case studies from different countries. Issues include at least some of the following: conflicts of interest; the limits of serving the public; lying and honesty; bribery and gifts; sex and sleaze; partiality and impartiality; the responsibilities of government to non-citizens (war, overseas aid, immigration, etc.); the role of culture in defining corruption and ethics; whistle-blowing; civil disobedience; limiting corruption and promoting integrity through codes of conduct, watchdog bodies and constitutional engineering.

Note: Offered by the School of Politics and International Relations.

ARTS3007
East Asian Values and Identities
Department of Chinese & Indonesian Studies
UOC6 HPW3
Prerequisite: 48 units of credit

Introduces the recent stages in a discussion of values, which has accompanied East Asian awareness of an identity crisis for well over a century. This discussion has produced a new notion of East Asian business and work ethics and contributed to the formation of a new complex and controversial East Asian identity. The Confucian focus on self-discipline, family coherence, hierarchical order and social status will be contrasted with the traditional focus on health, preservation of life and energy, individual identity and integrity, and personal spontaneity. Analysis will be from an East Asian perspective.

Note: Offered jointly by the School of Modern Language Studies, the School of Philosophy and the School of Politics and International Relations.

ARTS3010
Feminist Thought and Action
School of Sociology and Anthropology
UOC6 HPW3
Prerequisite: 48 units of credit; Excluded: GENT1206

Addresses both general concerns and principles of Australian feminism and their application to a sample of specific issues involving personal and public life. Sets current feminist demands within the social context of past failures and achievements. Feminist questions provide the opportunity to examine the basis of conventional ethics and social responsibility. The feminist influence on academic discourse is also examined. Changes in subject content and tools of analysis will be explored. Students will be encouraged to examine their own educational experiences from a feminist perspective in order to extend their critical analysis skills.

Note: Offered by the School of Sociology and Anthropology.
substitution and income effects, tax incidence and efficiency costs of taxation.

**ATAX0004**  
Framework of Commercial Law  
Board of Studies in Taxation  
UOC6  
This course deals with the basic principles of contract law, agency, misleading and deceptive conduct, cheques and bills of exchange. The course is a building block in the understanding of basic concepts of the enforceability of promises; it deals with the basic principles of misrepresentation, illegality and termination of contracts, and provides an introduction to statutory and equitable remedies applicable where contractual obligations have been broken.

**AIA00005**  
Accounting 1  
Board of Studies in Taxation  
UOC6  
This is the first course in a sequence of courses dealing with the profession and the practice of accounting and the literature associated with it. Students will be introduced to: the design of accounting information systems (classifications and chart of accounts, cash or accrual systems, concept and measurement selection, continuous or periodic recording); systems of accounting record (the accounting equation, document flows, accounts and ledgers, the double-entry systems, journals and subsidiary ledgers internal and accounting control); recording merchandising operations (sales, purchases, returns, allowances, receipts, payments, inventory effects); accounting for receivables and payables; inventories; and accounting for non-current assets.

**AIA00006**  
Tax Administration  
Board of Studies in Taxation  
UOC6  
This course examines the operation of tax institutions in Australia’s mass decision making process. It includes self-assessment and decision making in the bureaucracy, statutory review in the AAT and courts, the basics of administrative law and the Ombudsman’s role. It deals with rulings, information collection powers, powers to collect tax owing and impose penalties. It includes taxpayer protections like the Charter of Taxpayer Rights and Freedom of Information. The course emphasises a coherent, critical understanding of the decision making system and its practical administration.

**AIA00008**  
Principles of Capital Gains Taxation  
Board of Studies in Taxation  
UOC6  
Prerequisite: ATAX0001  
This course deals with Australia’s capital gains tax regime. The course begins with a study of the theory behind taxing capital gains and its place in the income tax base. This is followed by an examination of the background leading to the introduction of Australia’s first system for taxing capital gains and why that system was altered to our present system. The main features of the current legislation are then examined in detail, including its structure, main concepts and principal operative provisions. The course concludes with a look at the main concessions and exemptions available to individuals and small business.

**AIA00009**  
Law of Companies, Trusts and Partnerships  
Board of Studies in Taxation  
UOC6  
Prerequisite: ATAX0001  
This course deals with the law relating to these particular entities, with an emphasis on the principles that are important to their operation and organisation. In company law, the course covers such issues as legal personality, share and capital structure, company debt, directors’ duties, the enforceability of contracts with a company, insolvency and winding up. Trust law deals with the nature of a trust, the obligations and duties of trustees and the nature of a beneficiary’s interest in a trust, while partnership law covers the nature of a partnership and the rights and obligations of partners.

**ATAX0010**  
Accounting 2  
Board of Studies in Taxation  
UOC6  
Prerequisite: ATAX0005  
This course is complementary to ATAX0005 Accounting 1, and completes the preparation of the financial reports using the Australian regulatory requirements. It examines the shareholders’ equity and liability section of the statement of financial position and the preparation of the statement of cash flows. Against this background, students prepare and analyse the general purpose financial reports prepared for the external users and examine the information and reports prepared for management decision making.

**ATAX0011**  
Macroeconomics, Government and the Economy  
Board of Studies in Taxation  
UOC6  
Macroeconomics is the study of the entire economy and typically deals with policy issues of unemployment, business cycle, inflation/deflation, current account deficit, foreign debt and government deficits. These areas of study have been greatly influenced by the Keynesian revolution in the 1930s and subsequent developments in macroeconomic thought. This course provides students with an introduction to macroeconomic concepts and theory, with particular reference to the current macroeconomic issues and the role of the government in the Australian economy. In particular, it concentrates on the interaction of the taxing and spending of government with the wider economy.

**ATAX0013**  
Taxation of Companies, Trusts and Partnerships  
Board of Studies in Taxation  
UOC6  
Prerequisite: ATAX0009  
This course deals with the taxation of companies, partnerships and trusts, the key structures for business and investment in Australia. This comparative treatment emphasises a coherent understanding of the tax structures and a critical appreciation of the reasons for them. The course deals with practical problems arising from concepts of legal personality (or the lack of it), dual tax at the entity and member level, including the various distribution rules and operation of company franking mechanisms. The course also considers the divergences between the taxation of different structures, and the practical consequences of these divergences. Students should have completed or be enrolled in ATAX0009 The Law of Companies, Trusts and Partnerships.

**ATAX0014**  
Tax Policy Framework  
Board of Studies in Taxation  
UOC6  
Prerequisite: ATAX0003  
This course is an introduction to tax policy making in Australia. The emphasis is on economic models. It covers relevant aspects of public finance and welfare economics. It examines choices between the public and private provision of goods, issues of fiscal federalism, constitutional constraints on the division of taxing powers and an evaluation of modes of decision making. A critical understanding of major issues is injected. This covers the justification for the public sector, the financing of the public sector, mainly by taxation, the consequences for the economy at the micro and macro levels arising from taxation and some specific tax reform issues.

**AIA00015**  
Intermediate Financial Accounting  
Board of Studies in Taxation  
UOC6  
Prerequisite: ATAX0005, ATAX0010  
This course is concerned with external financial reporting and, in particular, the accounting and reporting practices of listed companies. It is an issues based course where more complicated business transactions and events are considered, as well as accounting problems in certain specific areas. The regulatory requirements for preparation of a set of company financial statements together with the continuous disclosure requirements and voluntary disclosures made by companies are examined. Alternative accounting practices and issues, and the choice of technique by different preparers of accounts are also examined. Emphasis is placed on the understanding of the theory of accounting and its development.
ATA00016
Critical Perspectives and Ethics
Board of Studies in Taxation
UOC6
Prerequisite: ATAX0001
This course requires students to evaluate critically key aspects of Australia's tax system especially relating to tax evasion and avoidance. It asks students to evaluate the ethical behaviour of participants in the tax system. It ensures that students understand the ethical rules of Australia's leading professional accounting and legal bodies. It explores legal controls on professional actions and civil liability. It reviews why rules are obeyed and explores whether formal sanctions at the legal or professional level lead to ethical conduct. It concludes with an in-depth analysis of Australia's specific and general anti-avoidance provisions.

ATA00017
Tax Accounting Systems
Board of Studies in Taxation
UOC6
Prerequisite: ATAX0001, ATAX0005
The primary focus of the course is upon issues of timing. Earlier courses have concerned themselves with the question of what constitutes taxable income. Tax Accounting Systems moves the analysis to issues that are concerned with when. When should income be brought to account? When are deductions to be taken? In other words, the emphasis shifts to the basic question of how we achieve a fair reflection of the gain for a particular period. This course is intended to provide a practical analysis of the area of tax accounting in its broadest sense, and therefore also covers trading stock, depreciation and the Simplified Tax System.

ATA00018
Tax Litigation
Board of Studies in Taxation
UOC6
Prerequisite: ATAX0001, ATAX0006
This course introduces the principles of civil procedure and evidence for taxation dispute resolution. It covers the commencement of proceedings, pre-trial procedures, the course of the trial, and the rules of evidence, in the particular context of Federal Court and Administrative Appeals Tribunal proceedings. This course also includes a skills component called Moot Court and Oral Communication. Students are required to present formal oral argument on a typical tax problem before a judicial style Tribunal. Student assessment is formal, based upon presentation and participation.

ATA00020
Introduction to Australian International Taxation
Board of Studies in Taxation
UOC6
Prerequisite: ATAX0001, ATAX0009
This course is designed to provide a broad overview and understanding of the most important elements of Australian tax law as it affects international transactions. It includes analysis of: Australian residency for tax purposes; Australian source rules; the taxation of residents in respect of their foreign sourced income (including an overview of controlled foreign companies legislation); the taxation of non-residents in respect of their Australian sourced income; the operation of Australia's double tax agreements; and the competing policy factors inherent in the design of an international tax regime.

ATA00022
Goods and Services Tax: Design and Structure
Board of Studies in Taxation
UOC6
Prerequisite: ATAX0001
This course explores the conceptual and theoretical issues which have influenced how a GST/VAT finds implementation in practice around the world. Attention is given to how different goods and services are treated under the tax and how the tax is administered in practice. Issues such as the importance of planning by government and business for the successful operation of a GST and its compliance and administration costs are considered. Importantly, it explores conceptual issues arising during the transition from a tax like a Wholesale Sales Tax to a GST along with the management of the economic impact of introducing a GST.

ATA00023
Principles of Goods and Services Tax Law
Board of Studies in Taxation
UOC6
Prerequisite: ATAX0001
The course works through all aspects of the GST law and looks briefly at the underlying policy implications of each area of the law. The object of this course is to provide conceptual and analytical knowledge of GST appropriate for the practical requirements of business, legal and accounting advisers working with GST on a regular basis. The course explores complex legislative and policy structures so that we acquire expert knowledge of what the law is meant to do, what it actually does and where problems arise. Recommended prior knowledge: Completion of ATAX0022 Goods and Services Tax: Design and Structure.

ATA00053
Accounting for Complex Structures and Instruments
Board of Studies in Taxation
UOC6
Prerequisite: ATAX0015
This course is concerned with the accounting issues posed by complex financial transactions and organisational structures. It looks at the issues concerning the accounting for various extended entities, such as corporate groups, associated entities and joint venture arrangements. Other relevant accounting and reporting issues for large corporations are addressed such as segment reporting. Finally, complex issues such as accounting and reporting requirements for foreign currency transactions, off-shore operations, and financial instruments are addressed. Careful treatment of these issues is essential to fairly determine the income and financial position of particular business entities.

ATA00055
Taxation of Property Transactions
Board of Studies in Taxation
UOC6
Prerequisite: ATAX0008, ATAX0023
Property transactions are one of the most common and significant dealings within most tax bases. This course examines all income tax, CGT, GST, land tax and stamp duty consequences of acquiring, holding, developing, building on, leasing, disposing of or otherwise dealing with land and buildings, including investment options such as property trusts and their structuring. Income tax considerations dealt with include property sale or development, financing, income recognition, rent, home offices, lease incentives and deductions. CGT, GST, land tax and stamp duty as applied to freehold, leasehold, residential and commercial property are considered, including their many special rules and concessions.

ATA00057
Business Finance
Board of Studies in Taxation
UOC6
Prerequisite: ATAX0003, ATAX0010, ATAX0058
Business Finance is an introductory course in financial management designed to meet the professional requirements of Australian accounting bodies and other objectives. It stresses the modern fundamentals of corporate financial decision making with special reference to investment, financing and dividend distribution decisions. Specific topics to be covered include: financial mathematics, security valuation, techniques for capital investment decisions, financial decision making under uncertainty, corporate capital structure, cost of capital, and dividend decision and policy. As students undertaking this course already will have acquired substantial tax knowledge, the course allows a student to analyse the tax effects more deeply than a traditional undergraduate Business Finance course would dare. This tax analysis makes this a more practical than a normal introductory finance course. While the course can be taken as a terminating unit, its contents form the foundation for advanced studies in banking and finance such as funds management, international finance, banking, risk and insurance, electronic security trading, investment banking, electronic commerce, options and futures and derivatives. As the field of banking and finance is rapidly expanding, the foundation knowledge gained from this course opens up opportunities for further studies and/or employment in the domestic and global financial markets.

ATA00058
Quantitative Analysis
Board of Studies in Taxation
UOC6
Quantitative Analysis is an introductory course in mathematical and statistical concepts and techniques with applications in commerce and taxation. This course will train students in essential quantitative skills and show how these skills can be used in formulating and solving a wide variety of problems in economics, accountancy, finance and taxation. In this course the application of mathematical and statistical methods are more than mere illustrations; they constitute an integral part of the course material. Quantitative Analysis is intended to be as comprehensive and self-sufficient as practicable. It introduces and develops ideas and techniques from the basic principles, assuming very little knowledge on students’ part.

ATAX0059 Management Accounting
Board of Studies in Taxation
UOC6
Prerequisite: ATAX0010
Management accounting systems are designed to provide managers in all types of organisations with information to assist them in decision making, planning and control. This course addresses how management accounting provides information to meet the organisation’s and manager’s compliance, control and competitive support needs. The goals of this course are to acquaint students with the fundamentals of management accounting, and to permit students to analyse the impact of choices that are made in the design, implementation and operation of management accounting systems.

ATAX0060 Auditing and Assurance Services
Board of Studies in Taxation
UOC6
Prerequisite: ATAX0015
This course examines the practice of auditing and the concepts which underlie the practice within the assurance framework. Although a large part of the course does cover the financial report audit, the other forms of audit are discussed. The course is intended to provide an overview of the audit process as it exists in Australia. The aims of the course are to develop students’ understanding of the audit function; familiarise students with the professional, legal, commercial and regulatory constraints within which audits are carried out; and examine techniques used by auditors including risk analysis, evidence collection and evaluation, and audit reporting.

ATAX0605 Taxation of Trusts
Board of Studies in Taxation
UOC6
Prerequisite: 48 units of credit completed and a cumulative weighted average of at least 65
This course thoroughly explores issues relating to private trusts and describes those applicable to public trusts. It explains the nature of a trust and the differences between types of trust. It critically examines the taxation of income of a trust. Thereafter it considers taxation of capital gains derived in the context of trusts, and the potential application of the special and general anti-avoidance provisions to trusts where they are used for purposes of income-splitting or income-diversion. Finally, there is discussion of the reforms to the taxation of trusts and their implications.

ATAX0607 Taxation of Corporate Finance
Board of Studies in Taxation
UOC6
Prerequisite: 48 units of credit completed and a cumulative weighted average of at least 65
The course deals with the fundamental building blocks, both theoretical and technical legal, of taxation of corporate finance. It focuses on debt finance but also covers aspects of equity financing. It provides thorough grounding in basic concepts like the time value of money, the deductibility of interest, and the debt/equity distinction. The course deals in depth with temporal apportionment, with taxation of discounted and deferred interest securities and with leasing finance. It introduces hybrid instruments and derivatives, which are explored in more depth in ATAX0312/0412 Taxation of Structured Finance. This course complements ATAX0303/0403 Taxation of Corporations.

ATAX0610 Taxation of Superannuation
Board of Studies in Taxation
UOC6
Prerequisite: 48 units of credit completed and a cumulative weighted average of at least 65
The aim of this course is to provide students with a thorough understanding of the current taxation principles applicable to superannuation. There are taxation consequences involved in every aspect of superannuation. Thus, the course examines the taxation consequences for persons making contributions to superannuation funds. It then examines the taxation of superannuation funds themselves (both complying and non-complying funds) and, finally, it examines the taxation of benefits (both lump sums and pensions) paid by superannuation funds to their members. The course also examines the operation of the Superannuation Guarantee (Administration) Act 1992, which imposes a superannuation guarantee charge (a form of tax) on those employers who do not make the minimum superannuation contributions specified in that Act. Finally, the course provides an introduction to the provisions of the Superannuation Industry (Supervision) Act 1993.

ATAX0614 Selected Problems in Stamp Duty
Board of Studies in Taxation
UOC6
Prerequisite: 48 units of credit completed and a cumulative weighted average of at least 65
This course provides a general knowledge of Australian duty law, identifying the common themes and important areas of divergence across the various states. The course critically analyses the concepts behind duties in Australia, covering the main rules and problem areas. The course examines duty on transfers of dutiable property, leases, transfers, dutiable transactions and trusts. Although the course has broad focus, duty rules in New South Wales, Victoria, Western Australia and Queensland are specifically covered.

ATAX0615 Taxation of Industry and Technology
Board of Studies in Taxation
UOC6
Prerequisite: 48 units of credit completed and a cumulative weighted average of at least 65
The tax system is used to support industry through special incentives. Some target specific industries (primary production, mining and energy, films), some target sectors of the economy (small business), while others apply to industry generally (research and development, intellectual property). Modern modes of doing business, most notably the advent of ecommerce, also present problems in the traditional application of tax laws. This course covers special tax rules and incentives that apply to persons or entities operating in specific industries or sectors of the economy, including small business, as well as more general incentives to encourage inventiveness and increase competitiveness. Concentration is on productive sectors of the economy (as opposed to financial services) and extends to taxation of ecommerce. Coverage includes a critical analysis of why special rules exist and the desirability and effectiveness of using the tax system to achieve government industry policy.

ATAX0625 Taxation of Employee Remuneration
Board of Studies in Taxation
UOC6
Prerequisite: 48 units of credit completed and a cumulative weighted average of at least 65
This course provides a comprehensive coverage of the taxation issues relating to the taxation of employee remuneration. The course commences by examining the employer/employee relationship, contrasting it with the principal/independent contractor relationship. Fringe benefits tax and tax collection obligations imposed on employers, including under PAYG and the payroll tax system, are considered in detail. Employees’ obligations and employers’ rights under the superannuation guarantee system are examined, as are the rules on the deductibility of superannuation contributions and the taxation of payments made on termination of employment. The course concludes with an examination of the rationale and tax consequences of salary packaging, and the ATO’s response to arrangements aimed at avoiding tax on payments for services performed.
ATAX0626
Taxation and Investment Regulation in China
Board of Studies in Taxation
UOC6
Prerequisite: 48 units of credit completed and a cumulative weighted average of at least 65
This course provides comprehensive coverage of the tax system and investment regulation in China. Students completing the course will obtain a thorough working knowledge of the practical operation of China's tax and investment regulatory system in the context of common business, investment and employment activities.
Topics covered include: The enterprise and individual income tax, private enterprise regulation, foreign investment regulation, the value added tax, the business tax, Chinese business vehicles including companies, double taxation agreements, incentives and special zones.

ATAX9021
Fieldwork Research Project
Board of Studies in Taxation
UOC6
This course must be completed within the session for which the student enrols in that course and within two (2) calendar years of the end of the year in which the candidate completes the last program requirement for the Associate Diploma in Taxation other than ATAX0921 Fieldwork Research Project. (The Associate Diploma in Taxation is not available to students entering ATAX Programs in 2002 or later.)

ATSI1001
Introduction to Aboriginal People and Society
Nura Gili (Indigenous Programs)
UOC6 HPW3
Provides an historical and conceptual overview of Aboriginal people, cultures and societies in Australia. Introduces key concepts such as relationship to country, cultural identities, Indigenous knowledge systems, language, spirituality, ceremony, kinship, social and governance systems past and present and introduces Indigenous perspectives on debates on Australian history and culture as sites of contestation.

ATSI1002
Australia: Representations, Identities and Difference
Nura Gili (Indigenous Programs)
UOC6 HPW3
Excluded: AUST1001
A multidisciplinary study of Australian popular culture focusing on the nature of Australian identity. Examines film, television, newspapers, including fictional and non-fictional material (documentaries, biographies, autobiographies). Draws particularly but not exclusively on the way images of Aborigines and of Australian women (both black and white) have been created.

ATSI2001
Aboriginal Australia: The Pre-Colonial and Colonial Experience
Nura Gili (Indigenous Programs)
UOC6 HPW3
Prerequisite: 36 units of credit; Excluded: AUST2002, AUST2004, LEHNS4521, LEHNS5527
Examines pre-colonial and colonial Aboriginal Australia in areas such as social organisation, Indigenous knowledge and connections to country. The effects of European colonisation from policies of ‘protection’ through to those of ‘assimilation’ are explored. Also critically examines the legacy of colonisation and the continuing consequences of this history for contemporary society through the study of film, Indigenous languages, education and the archival record.
Note: The course is distinct from, but complementary to ATSI2002.

ATSI2002
Aboriginal Australia: The Post-Colonial Experience
Nura Gili (Indigenous Programs)
UOC6 HPW3
Prerequisite: 36 units of credit; Excluded: AUST2003, AUST2005, LEHNS4521, LEHNS5526
Examines political and social constructs of contemporary Aboriginal Australia and the processes which have shaped them. Contemporary issues which affect Indigenous Australians, such as health, education, racism, land rights and law will be examined. The structural position of Aboriginal people within Australian society will be contextualised within the theory that colonialism is an ongoing experience for Aboriginal Australians. Considers the implications for the future of Aboriginal self-determination and reconciliation in relation to contemporary government initiatives.
Note: The course is distinct from, but complementary to ATSI2001.

ATSI3001
Colonisation and Indigenous Identity Formation
Nura Gili (Indigenous Programs)
UOC6 HPW3
Prerequisite: 36 units of credit; Excluded: SOCA3208, SOCC3701
Investigates the formation of contemporary Indigenous identities in the context of the ongoing colonisation of Australia. Explores the interplay between culture and identity and analyses the various historic and academic constructions of Aboriginality. The history of imposed colonial notions of Aboriginal identity and their consequences for both Aboriginal people and non-Indigenous Australians are identified and examined. The use of contemporary media such as film, television, literature and art are examined as case studies in the analysis of contested identities.

ATSI3002
Indigenous Australia: Gendered Identities
Nura Gili (Indigenous Programs)
UOC6 HPW3
Prerequisite: 36 units of credit; Excluded: AUST2012, SOCA3209, SOCC3717
Encourages students to engage in a critical analysis of the way in which gender influences and structures the experiences of Aboriginal women and men in the past and the present. A wide range of issues involving gender roles will be covered including land, art, activism, feminism, violence, race, and literature. Particular attention will be paid to colonial constructs of gender roles within Aboriginal communities. Aboriginal women's and men's roles in subverting the colonisation of their identities will be explored.

ATSI3003
Cultural Heritage Management
Nura Gili (Indigenous Programs)
UOC6 HPW3
Prerequisite: 36 units of credit; Excluded: HPSG2881, SCTS3120
Over 40,000 years of human habitation has helped to shape Australia’s environment. Examines the policies and processes of managing both Aboriginal and non-Aboriginal (historical/European) ‘cultural heritage’. It will define the notion of ‘cultural heritage’ and examine to what extent the Australian environment may be defined as ‘natural’. Identities and examines the values attributed to cultural heritage items, sites and places by a variety of interest groups, and critically examines the legal, ethical and policy requirements which dictate management processes.

ATSI3004
Aboriginal People and Social Work
Nura Gili (Indigenous Programs)
UOC6 HPW3
Prerequisite: 36 units of credit; Excluded: SOCW2100
Examines the history and current legacy of colonisation and government policies for Indigenous Australians and their position in contemporary Australian society. Social movements and actions relevant to Indigenous Australians’ social experience will be discussed. Addresses in particular the skills social workers need to work with Indigenous clients and what role social work can play in progressing equity and social justice for Indigenous Australians.

ATSI3005
Whiteness Beyond Colour: Identity and Difference
Nura Gili (Indigenous Programs)
UOC6 HPW3
Prerequisite: 36 units of credit; Excluded: SOCA3210
Whiteness is generally assumed to be the norm in classifying difference. It is also assumed to be neutral. Delves into whiteness as a mode of identification and whether it can be assumed to be the norm as well as neutral. Topics include whiteness as Other, whiteness as a non-Indigenous identity, and whiteness in coloniser societies. Explorations of whiteness as a representation of oppression and as transformation will be addressed.

AUST1001
Australia: Representations, Identities and Difference
School of English
UOC6 HPW3
Excluded: ATSI1002
Note: The course is distinct from, but complementary to ATSI2001.

SI3004
The course is distinct from, but complementary to ATSI2001.

COURSE DESCRIPTIONS 367
A multidisciplinary study of Australian popular culture focusing on the nature of Australian identity. Examines film, television, newspapers, including fictional and non-fictional material (documentaries, biographies, autobiographies). Draws particularly but not exclusively on the way images of Aborigines and of Australian women (both black and white) have been created.

AUST1003
Paradise Lost? Australian Environmental History
School of History
UOC6  HPW3

How has the landscape shaped the definition of what it means to be Australian? Why was the bush so often seen as a place of the weird and the monstrous? Have white Australians learned from Aboriginal relationships with the natural environment? Looks at the climatic, cultural, political and economic forces which have shaped the Australian landscape from the period before known human settlement until the present, taking a dynamic approach to the relationship between humans and their environment. Draws on a broad range of disciplines, including literature, geography, history, politics, sociology and cultural studies.

AUST2004
Aboriginal Australia: The Pre-Colonial and Colonial Experience
School of English
UOC6  HPW3
Prerequisite: 36 units of credit; Excluded: ATSI2001, AUST2002, GEN54521, GEN55527

Examines pre-colonial and colonial Aboriginal Australia in areas such as social organisation, Indigenous knowledge and connections to country. The effects of European colonisation from policies of protection to those of assimilation are explored. Also critically examines the legacy of colonisation and the continuing consequences of this history for contemporary society through the study of film, Indigenous languages, education and the archival record.

Note: The course is distinct from, but complementary to AUST2005.

AUST2005
Aboriginal Australia: The Post-Colonial Experience
School of English
UOC6  HPW3
Prerequisite: 36 units of credit; Excluded: ATSI2002, AUST2003, GEN54521, GEN55526

Examines political and social constructs of contemporary Aboriginal Australia and the processes which have shaped them. Contemporary issues which affect Indigenous Australians, such as health, education, racism, land rights and law will be examined. The structural position of Aboriginal people within Australian society will be contextualised within the theory that colonialism is an ongoing experience for Aboriginal Australians. Considers the implications for the future of Aboriginal self-determination and reconciliation in relation to contemporary government initiatives.

Note: The course is distinct from, but complementary to AUST2004.

AUS12008
In the Firing Line: Australians go to War
School of History
UOC6  HPW3
Prerequisite: 36 units of credit; Excluded: HIST2078

Examines the importance of the experience of war in shaping Australia; its contribution to definitions of nationality, ethnicity, citizenship, masculinity and femininity; the extent to which it has defined and/or redirected Australia’s relationships with her allies from the colonial period to Vietnam. Focuses on the battle zones and looks at the way that participants understood and represented the experience of war, drawing on literature and film, personal letters and diaries, reminiscences and oral interviews as well as official records. Includes an optional field trip to the Australian War Memorial in Canberra.

AUST2009
Australian Urban Environments
School of English
UOC6  HPW4
Prerequisite: 36 units of credit; Excluded: ENVS2020, GEOG2641, GEOH2641

Examines human environments in Australia. Theoretical frameworks include political ecology, economic and poststructuralist geography. Begins by exploring ideologies of human-nature relations. Urban and natural landscapes, the built environment and planning principles are all considered as cultural constructions - as concepts linked to ideologies of human nature-nature relations. Considers environmental impacts of urbanisation, population growth and economic production that stem from different articulations of human-nature relations, and discusses forms of resistance, theories of environmental justice and participatory decision-making that seek to transform human-nature relations. Practical classes include field exercises and introductory Geographical Informations Systems (GIS) workshops.

AUST2010
Society and Environmental Process: Botany Bay
School of History and Philosophy of Science
UOC6  HPW3
Prerequisite: HPSC2500 or HPSC2550 or SCTS2118 or SCTS3106; Excluded: HPSC3500, SCTS3013, SCTS3020, SCTS3126

Interprets the concept of the social construction of the environment in the specific context of Botany Bay and its region. Environmental issues are identified and examined in the light of historical, sociological, economic and political developments at the regional, national and global levels. Prospects and processes for intervention.

In addition to other work, each student completes a substantial research project.

AUS12011
Australian Migration Issues
School of Sociology and Anthropology
UOC6  HPW3
Prerequisite: 36 units of credit; Excluded: SOCA3407, SOCI3614, GENT1209

An examination of racial, ethnic and social issues surrounding migration to Australia. Topics will be drawn from: an ecologically sustainable population; globalisation and international migration flows; brain drain to and from Australia; multiculturalism; criteria in determining migration policy; settlement issues; skilled migrants; refugees, international aid and social justice; identity, ethnicity and community.

AUST2012
Indigenous Australia: Gendered Identities
School of English
UOC6  HPW3
Prerequisite: 36 units of credit; Excluded: ATSI3002, SOCA3209, SOCC3717

Encourages students to engage in a critical analysis of the way in which gender influences and structures the experiences of Aboriginal women and men in the past and present. A wide range of issues involving gender roles will be covered including land, art, activism, feminism, violence, race and literature. Particular attention will be paid to colonial constructions of gender roles within Aboriginal communities. Aboriginal women’s and men’s roles in subverting the colonialisation of their identities will be explored.

AUST2014
Twentieth-century Australian Literature
School of English
UOC6  HPW3
Prerequisite: 36 units of credit; Excluded: ENGL2300, ENGL2520

An examination of some major post-colonial issues in Australian writing of the twentieth century.

AUST2015
Contemporary Australian Women Writers
School of English
UOC6  HPW3
Prerequisite: 36 units of credit; Excluded: ENGL2621, ENGL3401

Examines the particular concerns of a selection of contemporary Australian women novelists, poets and a short story writer. In the process asks whether women write from a different perspective, or have different concerns from their male counterparts in a culture that is generally considered to be male-dominated. Also considers the special question of women writing about the land.

AUS12017
Labour History
School of English
UOC6  HPW3
Prerequisite: 36 units of credit; Excluded: IROB2715
Focuses on the transformation of working life in nineteenth and twentieth century Australia and changes in management. Considers the origins and development of the Australian labour movement and laborism. Themes covered include the nature and purpose of historical inquiry and research methods; the origins and development of of labour markets and trade unions; the emergence of working class culture and consciousness; the influence of gender, race, ethnicity and locality on worker outlook and agency; worker political mobilisation and the rise of party politics; the role of the state in industrial relations; the impact of radical ideologies; immigrant and Aboriginal workers and the role of women in paid employment.

AUST2018
Australian Sport: History and Culture
School of History
UOC6 HPW3
Prerequisite: 36 units of credit; Excluded: HIST2041
Urbanisation transformed the shape of sport and popular culture and created an industry of mass entertainment. Explores how and why this transition took place in 19th-century Australia and England and what it all meant in personal, familial, regional and national terms. Topics include: historiography of sport and mass culture; the leisure revolution in 18th-century Britain; the rise of organised sport and mass culture in Australia; and the social and political implications of new leisure institutions.

AUST2019
A Commonwealth for a Continent: Australia 1901-1949
School of History
UOC6 HPW3
Prerequisite: 36 units of credit; Excluded: HIST2027
Major developments in Australian History in the period from Federation to the beginning of the Cold War. Themes include: Federation, White Australia policy, defence, foreign affairs, entertainment, federal-state relations, labour, World War I and its impact on society, women’s rights, the experience of the Great Depression, the impact of World War II, Aboriginal people, work and politics.

AUST2020
Australia since World War II
School of History
UOC6 HPW3
Prerequisite: 36 units of credit; Excluded: HIST2028
Major developments in Australian History since World War II. Topics include: immigration, religion, culture, government, education, comparative welfare history, external relations, women’s experiences, media studies, Aboriginal culture and politics, the impact of the Vietnam war, tough times and the 1980s, Australia and America, sporting culture and Olympism, television and the media, Australia and Asia, and the emergence of the new commercial and communication systems of ‘the Information Age’.

AUST2023
Regional Australia: Geographies of Uneven Development
School of English
UOC6 HPW4
Prerequisite: 36 units of credit; Excluded: GEOH3641
Key concepts and theories in regional economic geography. Theories of location and regional development, spatial interaction, uneven development, and structural change. Economic and regional problems in Australia. Field work, workshops and practical skills in regional and spatial analysis. Will be taught in Winter Session.

AUST2024
Power & Policy in Australian Politics
School of Politics and International Relations
UOC6 HPW3
Prerequisite: 36 units of credit; Excluded: POLS2008
Examines Australian public policies in the context of contemporary theories and techniques of policy analysis. Considers the problems of government administration and decision-making in the modern state. Examines the role of the state and the impact of economic rationalism and managerialism. Focuses on a range of policy issues and areas including: economic policy, social policy, Industrial relations and industry policy, the environment, Indigenous affairs, immigration and women’s policy. Encourages specialisation in specific policy areas, drawing on relevant analytical frameworks to produce policy briefs and case studies.

AUST2026
Music of Aboriginal Australians
School of Music and Music Education
UOC6 HPW3
Prerequisite: 36 units of credit; Excluded: GENT0501, all MUSC and MUSI courses
A study of traditional and contemporary Aboriginal music in its social, historical and cultural contexts.

AUST2027
Staging Australia
School of Media, Film and Theatre
UOC6 HPW3
Prerequisite: 36 units of credit; Excluded: FILM2002, MFT2201
Traces the emergence and significance of Australian screen cultures. Studies the development of the Australian film industry, including analysis of the economic, social and political factors and the myths which have shaped the industry. Studies the role of television in shaping the experience of modern Australia and its place in the world. Looks at a number of non-mainstream forms of audio-visual production in Australia.

AUST2028
Australian Cinema & Television
School of Media, Film and Theatre
UOC6 HPW3
Prerequisite: 36 units of credit; Excluded: FILM2002, MFT2201
Traces the emergence and significance of Australian screen cultures. Studies the development of the Australian film industry, including analysis of the economic, social and political factors and the myths which have shaped the industry. Studies the role of television in shaping the experience of modern Australia and its place in the world. Looks at a number of non-mainstream forms of audio-visual production in Australia.

AUST2029
Cities: Experiencing Sydney
School of Sociology and Anthropology
UOC6 HPW3
Prerequisite: 36 units of credit; Excluded: SOCA2106, SOCC2703
Focuses on experiences and representations of cities. It is concerned with how the city has become the archetypal site and sign of modernity, and with how spatiality is now central to how cities are lived and imagined. Looks at the city as the site of social transformation in the twentieth century and the tensions between order and disorder. Explores images of the city as the site of liberal and radical utopian dreams as well as the promise and disaster of cities. The changing landscapes of the city are investigated through examples such as streets, crowds, light/darkness, gardens, museums and shopping malls.

AUST2030
Approaches to Australian Art
School of English
UOC6 HPW3
Prerequisite: 36 units of credit; Excluded: SAHT1213, SAHT2214
Introduces some of the preoccupations of Australian Art in the years since colonisation. Issues include: the notion of the artist as a recorder in the 19th century and a tourist in the 20th; the search for a ‘Great’ Australian artist; national identity and art; links between art and commerce; the idea of ‘modern’ in an Australian context; and attempts to place Australian art in an international context.

AUST2031
Transport, Land Use & Environment
School of English
UOC6 HPW6
Prerequisite: 36 units of credit; Excluded: GEOG2071, GEOG3181, GEOG3671, GEOH3671
Introduction to the complex interactions between transport, land use and the environment in urban areas. Special focus on the long term environmental consequence of transport decisions. Introduction to the various methods used to analyse and predict the consequences of policy changes. Australian cities as case studies.

AUST2032
Environmental Impact Assessment
School of English
UOC6 HPW4
Prerequisite: 36 units of credit; Excluded: GEOG3911, GEOH3911

AUST3103
Urban Legends: The History of Sydney
School of History
UOC6 HPW3
Prerequisite: 36 units of credit; Excluded: AUST2022, HIST2100, HIST3103
Explores Sydney's dramatic transformation from a tiny preindustrial penal settlement to a sprawling city of over four million people by examining the interplay of natural, cultural and spatial histories in the broader context of urban history and historiography. Themes include Sydney's environment, Aboriginal, immigrant and gendered histories, 'slums' and suburbs, communities and sub-cultures, heritage and modernity, sex and food, the creation and impact of urban images.

AUST14500
Combined Australian Studies Honours (Research) Full-Time
School of English
UOC12 HPW2
Prerequisite: 48 units of credit in AUST approved courses with an average of 65%, including AUST2004 or AUST2005
Students must complete a seminar course chosen in consultation with the Coordinator of Australian Studies, a seminar in the students major discipline and a thesis of 15,000 to 20,000 words supervised jointly between the Australian Studies program and the chosen discipline.

AUST4550
Combined Australian Studies Honours (Research) Part-Time
School of English
UOC6 HPW2
Prerequisite: 48 units of credit in AUST approved courses with an average of 65%, including AUST2004 or AUST2005
Students must complete a seminar course chosen in consultation with the Coordinator of Australian Studies, a seminar in the student's major discipline and a thesis of 15,000 to 20,000 words supervised jointly between the Australian Studies program and the chosen discipline.

AVEN1310
Basic Mechanics
School of Mechanical and Manufacturing Engineering
UOC3 HPW2
The course explains the basic concepts in statics and strength of materials including Newton's Laws, SI system of units, two dimensional force systems, moments and couples, equilibrium in two dimensions, stress, strain, stiffness and flexibility, analysis of bars, bending stress and measurement of strain, material properties, theories of failure and composite materials.

AVEN1910
Introduction to Aircraft Engineering
School of Mechanical and Manufacturing Engineering
UOC3 HPW2
An explanation of how aircraft fly and how engineering technologies relate to the vehicle. Concepts and nomenclature relating to flight vehicles and the significance of aircraft configurations and flight systems.

AVEN2220
Aviation Engineering Experimentation 1
School of Mechanical and Manufacturing Engineering
UOC3 HPW2
Exposure to the practical skills associated with aircraft maintenance conducted at the Aeroskills Centre at Padstow College of TAFE. Introduction to a workshop environment and practices including health and safety aspects. Development of respect for the skills of aircraft maintenance craftsmen.

AVEN2910
Aviation Technologies 1
School of Mechanical and Manufacturing Engineering
UOC3 HPW2
Aviation Systems - Mass transfer, power transfer and information transfer fluid systems. Electrical power generation, management and distribution.

Environmental control systems, requirements and operation. Avionics - Avionics systems, classification and applications. Flight instruments and controls. Computer aided flight management.

AVEN2920
Aviation Technologies 2
School of Mechanical and Manufacturing Engineering
UOC3 HPW2
Aircraft Propulsion - Elements of internal -combustion (piston) engine cycles, performance and operations, piston engine fuel systems, performance augmentation and engine condition monitoring, elements of propellers, basic propeller thrust equations, variable pitch propellers. Aircraft Performance - Flight environment, aircraft classifications, operational requirements, range, accelerated and unaccelerated flight manoeuvring and flight envelopes, energy height, power and wing loading.

AVEN2930
Aviation Technologies 3
School of Mechanical and Manufacturing Engineering
UOC3 HPW2

AVEN3220
Aviation Engineering Experimentation 2
School of Mechanical and Manufacturing Engineering
UOC3 HPW2
A selection of experiments from airframe analysis, flight mechanics, aircraft propulsion, aircraft systems and aeronautics. Experiments will make use of the wind-tunnels, systems laboratories, engines laboratories and structural testing facilities in the Engineering Faculty.

AVEN3230
Aviation Systems and Avionics
School of Mechanical and Manufacturing Engineering
UOC3 HPW2

AVEN3420
Aircraft Maintenance
School of Mechanical and Manufacturing Engineering
UOC3 HPW2

AVEN3610
Aerodynamics, Stability and Control
School of Mechanical and Manufacturing Engineering
UOC3 HPW2

AVEN3710
Aircraft Propulsion
School of Mechanical and Manufacturing Engineering
UOC3 HPW2
AVIA1900
Aviation Economics
Department of Aviation
UOC3  HPW4
Excluded: PROF2001
This course provides an introduction to issues concerning management of an airport, including definitions of an airport's functions and facilities, describing the overall regulatory requirements, managing the airport as a business, managing the operations, both landside and airside, managing the development of an airport and consideration of community relations.

AVIA2003
Flying Training 2
Department of Aviation
UOC18  HPW12
Prerequisite: AVIA1002; Excluded: AVIA2000.
This course covers the use of quick access recorders for fleet performance monitoring, corporate structures for safety departments and accident/incident analysis. Safety auditing, emergency planning and in-flight security will be studied.

AVIA2110
Aviation Human Factors 2
Department of Aviation
UOC3  HPW2
Prerequisite: AVIA1100 or AVIA2110 or AVIA2003 Excluded: AVIA2100
The interrelationships between Captain and crew will be used to illustrate the principle of the hierarchy of command. Effective teamwork will be developed through negotiation of the principles of communications and effective decision management. This course will build on the principles illustrated in Aviation Human Factors 1.

AVIA2210
Aviation Human Factors 1
Department of Aviation
UOC3  HPW2
Excluded: AVIA2403
This course deals with the effective use of all resources in the aviation decision making process with focus on the mechanism of communication within the hierarchy of the cockpit and the cabin. Evaluation of communication will focus on the impact of modern technology, changes in methods of communication, and the reduction in crew numbers.

AVIA2400
Aviation Regulations 1
Department of Aviation
UOC3  HPW2
Excluded: AVIA2403
Aviation Regulations 1 introduces the Laws and regulations under which an aviation operation functions. Beginning with regulatory authority and source, this course develops an understanding and awareness of both the direct operational aspects of regulations and the commercial considerations that they demand. The emphasis is that of routine implications of the Civil Aviation Act, Civil Aviation regulations and orders.

AVIA2500
Airline Marketing
Department of Aviation
UOC3  HPW2
This course uses the classic approach to marketing management strategies but is mostly entirely focussed on how this is achieved in the industry. The approach is of a practical nature. The course studies airline market research, marketing strategy development, product development, pricing strategies and yield management, distribution and promotion strategies. The course encourages and emphasises current airline marketing behaviour as examples of the theory.

AVIA2700
Aviation Safety Management 1
Department of Aviation
UOC3  HPW2
Excluded: PROF2001
Topics covered include the use of quick access recorders for fleet performance monitoring, corporate structures for safety departments and accident/incident analysis. Safety auditing, emergency planning and in-flight security will be studied.
AVIA3004 Advanced Flying Training
Department of Aviation
UOC24 HPW16
Prerequisite: AVIA2003; Excluded: AVIA3000.

Ground training and associated theory for Stage 3 of the Bachelor of Aviation (Flying). Covering theory requirements for the issue of a Command Instrument Rating (CIR), Grade 3 Instructor Rating (QFI), an Air Transport Pilot Licence (ATPL), and multi-crew operations. This course encompasses ground training phases 9, 10, 11 and 12 as detailed in the UNSW Manual of Flight Training, and Civil Aviation Safety Authority’s ATPL syllabus (Aeroplane). Practical flight training for CIR and QFI is a highly recommended adjunct to this course; students may also select from options of airline entry training or advanced aircraft endorsement in place of the QFI rating.

Note: Restricted to Program 3980 Flying Stream.

AVIA3101 Airline Management
Department of Aviation
UOC6 HPW4
Prerequisite: AVIA1900, AVIA2003 or AVIA2400; Excluded: AVIA3002.

This course considers the main facets of corporate airline management, and begins with airline organisational practice, management’s visions and objective setting. It proceeds with the main corporate processes of business planning, schedule planning, fleet planning and external relationships such as outsourcing. Financial aspects and global alliance matters are introduced.

AVIA3201 Airline Resource Management
Department of Aviation
UOC6 HPW4
Prerequisite: AVIA3101; Excluded: AVIA3002.

This course follows AVIA3101 and introduces management of airline activities at an operational level. Issues include engineering and maintenance, crew planning and scheduling, airport planning for airlines, operations control issues, emergency procedure management, and freight and punctuality management.

AVIA3300 Air Traffic Management
Department of Aviation
UOC3 HPW2
Excluded: AVIA1150, AVIA1103

This course is concerned with the history, development and practical application of Air Traffic Services and their relationship to the commercial and regulatory aspects of commercial aviation. The topics are focussed on both operational and administrative structures within the industry. Emphasis is placed on the role of ATS from the perspective of a service provider. Topics include ATC history, structure, legal aspects and implications. Other significant aspects include communications, safety, noise abatement and the development of future systems.

AVIA3400 Aviation Regulations 2
Department of Aviation
UOC3 HPW2
Prerequisite: AVIA2400; Excluded: AVIA2413.

Aviation Regulations 2 builds on the fundamental concepts introduced in Aviation Regulations 1. The emphasis of this course is the legal ramification for pilots and operations managers imposed by the Civil Aviation Act and associated regulations. Specific case studies will form a large part of this course.

AVIA3600 Simulations Applications
Department of Aviation
UOC3 HPW2
Excluded: AVIA2603

This course addresses the broad application of simulation to the aviation industry. While the emphasis will be on aircraft simulations, aspects of operations systems simulations will also be covered. The perspective of this course will be that of end user application, particularly from management and training of human resource basis.

AVIA3710 Aviation Safety Management 2
Department of Aviation
UOC6 HPW4
Excluded: PROF3001, AVIA3700.

The course develops the knowledge of aviation safety, which has been gained by students in both Aviation Safety Management 1, and Aviation Human Factors lectures. It will emphasise the development of analytical research skills for the investigation of aviation safety occurrences and problems. The course will cover the development of research and report writing skills in the context of air transport safety, and contemporary aviation safety issues with specific reference to technical, human and organisational factors. Each student will be required to undertake a structured, supervised research project on an aviation safety issue to be agreed with the lecturer-in-charge.

AVIA3800 Management of Regional Airlines
Department of Aviation
UOC3 HPW2

A further development to AVIA2800, this course will provide students with the information pertinent to business and corporate operations with the regional airlines sectors of the industry. Aspects covered include requirements for low capacity airlines AOCs and current state and national requirements for such operations.

AVIA3851 Airport Management 2
Department of Aviation
UOC6 HPW4
Prerequisite: AVIA1850

This course follows AVIA1850 and provides an in-depth coverage of the key elements outlined in Airport Management 1. Issues include the regulatory environment, including licensing and obligations, an evaluation of various ownership models, the economics of running the airport as a business, including costs, revenues, subsidies and performance indicators, client relations and services, and general airport administration. Airside operations include practical operational requirements as well as necessary documentation. Other planning issues include managing terminal and landside operations, emergency and crisis management, infrastructure development, socio-economic impacts on the community, and environmental impacts.

AVIA4001 Aviation Honours - Full Time
Department of Aviation
UOC24

This course introduces students to major research areas through a course of advanced lectures and a major research thesis of 20,000 words. Through the taught component of this course, students will critically examine academic and industry developments within aviation with particular emphasis towards the chosen area of their thesis. The research thesis will examine an area of research significance as approved by the Head of Department.

AVIA4002 Aviation Honours - Part Time
Department of Aviation
UOC48

 Undertaken over two years, this course introduces students to major research areas through a course of advanced lectures and a major research thesis of 20,000 words. Through the taught component of this course, students will critically examine academic and industry developments within aviation with particular emphasis towards the chosen area of their thesis. The research thesis will examine an area of research significance as approved by the Head of School.
BEES0005  
**BEES Internship Study Abroad Program**  
School of Biological, Earth and Environmental Sciences  
UOC 6  
**Note:** Individually designed project course available only to overseas students.

BEES0006  
**Special Program in Biological, Earth and Environmental Sciences**  
- Undergraduate 6 units of credit  
School of Biological, Earth and Environmental Sciences  
UOC 6  
**Note:** Individually designed project course generally available only to overseas students.

BEES0007  
**Special Program in BEES 12uoc**  
School of Biological, Earth and Environmental Sciences  
UOC 12  
**Note:** Individually designed project courses generally available only to overseas students.

BEES2041  
**Data Analysis for Life and Earth Sciences**  
School of Biological, Earth and Environmental Sciences  
UOC 6 HPW 5  
Excluded: BIOS2041, SLS2001, GEOG2101, MATH2801, MATH2829, MAI12831, MAI1H2839, MAI1H2841, MAI1H2859, MAI1H2899, MATH2901, MATH2931, ECON2241  
Development of skills in applying statistics to biological, earth and spatial data; design and analysis of experiments in life and earth sciences; sampling strategies for estimating sample size; analysis of community and environment structure using multivariate statistics; simulation modelling in population biology, and statistical fitting of non-linear models to population growth data; correlation and both simple and multiple regression; improving statistical models using analysis of residuals; analysis of spatial data. Examples are drawn from ecological, geographical, earth, behavioural, genetic, microbial and immunological data. Practical work emphasises problem-solving and hands-on experience with EXCEL, MINITAB and other specialist software.  
Assumed Knowledge: MATH1041

BEES4511  
**Professional Skills**  
School of Biological, Earth and Environmental Sciences  
UOC 6 HPW 4  
The course provides training in skills needed for the Honours project and any subsequent degree as well as in outside employment. Principal topics covered include occupation health and safety, presentation skills (written, oral and audioserial including computer-aided presentations), professional ethics and issues of scientific fraud, database and library usage, information retrieval, overview of quantitative skills, as well as more specific research or professional skills which may be tailored to particular interest groups.  
**Note:** Available to students enrolled in an Honours program offered by the School of BEES, and other Honours students as approved by the Honours Coordinator.

BEES4521  
**Literature Review**  
School of Biological, Earth and Environmental Sciences  
UOC 6  
Literature research and its presentation in review format covering a defined disciplinary area in either biology, ecology, botany, zoology, physical geography, geology or environmental science. The course is taken in conjunction with an Honours research project in the School. The topic area is decided in consultation with an Honours supervisor and is related to the topic area of the research project.

Note: Available to students enrolled in an Honours program offered by the School of Biological, Earth and Environmental Sciences, and other Honours students as approved by the Honours Coordinator.

BENV1042  
**World Wide Web in Presentation and Communication**  
Architecture Program  
UOC 6 HPW 3  
Prerequisite: BENV1141.  
Introduction to the theory and practice of World Wide Web based multimedia and other computer technologies relating to the presentation of designs and/or other information. Assessment will be through the development of a series of Web pages.

BENV1043  
**Multimedia in Design Presentation**  
Architecture Program  
UOC 6 HPW 3  
This course explores the use of an industry-standard multimedia authoring tool to develop design presentations. Students will develop skills in the integration of media objects including: edited scanned images, rendered images (produced using CAD technology), line drawings, animations (produced using CAD), video (captured off VHS) and sound. Students will be expected to apply these skills in a preliminary learning task and then in the production of one major design presentation.

BENV1072  
**Design for Energy Efficiency**  
Architecture Program  
UOC 6 HPW 3  
This course develops an understanding of solar efficient architecture and builds on this to develop skills in energy performance simulation. House energy performance rating is fast becoming an essential requirement for building applications and this requires specific skills. It targets core areas of efficiency in space heating and cooling and lighting design. Material is presented as lectures and seminars, supplemented with readings.

BENV1073  
**Sustainable Design and Practice**  
Faculty of the Built Environment  
UOC 6 HPW 3  
Prerequisite: ARCH1371  
This course will assist in laying a basic foundation of knowledge for using ‘sustainable design’ assessment tools and rating schemes to inform the building design process. The course will also enable students to engage in self-directed studies such as research and continuing development of professional careers. The course will introduce the Australian rating schemes “GREENSTAR” and “BASIX” as sustainable design aids. By the end of the course the students will have become familiar with the use of these two Australian assessment tools in design.

BENV1074  
**Conceptual Structural Design**  
Architecture Program  
UOC 6 HPW 3  
Prerequisite: ARCH1371  
Conceptual structural design of wide-span single storey structures. Conceptual design process selectively applied to bridges, halls for assembly, industry, exhibition and sports. Emphasis on complex lightweight systems - including surface, spatial and hybrid structures with cables, membranes, grid shells and transparent enclosures. Integration of constructive and structural issues related to design, manufacture and building processes. Material is presented as lectures and seminars, supplemented with readings in architectural history and theory.

BENV1075  
**Structural Systems: Advanced**  
Architecture Program  
UOC 6 HPW 3  
Prerequisite: ARCH1371  
This course builds on prerequisite courses by considering in more detail the conception, analysis, design, and construction of more sophisticated structural systems, like shells and grid shells, space frames, cables, membranes, tall buildings and towers, prestressed structures, as well as more refined aspects of conventional material, systems and loading environments. It also considers the wider question of the role of structural
Engineering in architecture and its integration with other engineering disciplines, mainly through case studies. Material is presented as lectures and seminars, supplemented with readings in architectural history and theory.

**BENV1101**
Design Fundamentals: Studio 1
Faculty of the Built Environment
UOC8 HPW2
Introduction to design as fundamental to coherent thought and action in your discipline. Exploration of the influences on design thinking and practice, including the philosophical, historical, social and environmental precedent studies. Critical thinking and expression in different forms. Studio projects and assignments to develop skills and understanding of design elements and principles. Introduction to a basic vocabulary of representation techniques used by designers to facilitate the development and communication of design ideas including; colour, freehand drawing, sketching, painting, construction, mixed media, desktop publishing, photomontage techniques, technical drawing and drafting.

*Note:* BArch and BScArch students must take this course concurrently with ARCH1121, BENV1141 and ARCH1171.

**BENV1141**
Computers and Information Technology
Faculty of the Built Environment
UOC3 HPW3
An introduction to the technology of computing and information technology as it pertains to the disciplines of the built environment. The computer is presented as a tool for storing and manipulating information by means of application programs which model the real world needs and activities of professionals in these disciplines. Topics include basic operation of a computer, information handling, networks and communications, computer graphics, CAD technology and computational processes. Students engage in weekly hands-on computer exercises to provide knowledge and experience in the use of applications commonly used in their own discipline. Assessment is based on participation in the hands-on work, some written assignments and tests.

**BENV1242**
Computer-Aided Design
Faculty of the Built Environment
UOC3 HPW3
Pre-requisite: BENV1141 or SOLA1050 or INTA2141
An exploration of the variety of CAD and graphic tools available for modelling, understanding and presenting design proposals. This course has dual objectives to build skills and confidence in the operation of CAD and related graphic systems, while developing a deep understanding of the unique opportunities offered by computer-based modelling technologies. Applications explored include 2D and 3D CAD, simple visualisation, image editing and composition, and the crossovers possible between these various techniques. Conceptual modelling techniques and their relevance to the design disciplines will be discussed. Weekly one-hour lectures are supported by discipline-focused laboratory classes where students gain hands-on experience in the use of a variety graphic applications. Assessment is based on satisfactory participation and the completion of staged CAD-based tasks.

**BENV1341**
Design Modelling and Visualisation
Faculty of the Built Environment
UOC3 HPW3
An exploration of computer graphic techniques for visualising design proposals. Information can be found on the Internet Web Page: http://www.fbe.unsw.edu.au/courses/benv/1341/ The lectures cover the principles and techniques of 3D visualisation including lighting, reflection, transparency, surface shading, texture mapping and depth cues. Laboratory-based exercises explore these different techniques, along with a variety of presentation techniques such as rendered images, image editing, animation, Quicktime VR and VRML. Assessment is based on the earlier staged learning exercises and one major design presentation project.

**BENV1380**
Social Responsibility and Professional Ethics
Building Construction Management Program
UOC3 HPW2
Issues of social responsibility and professional ethics explored via the analysis of case studies, seminars, discussion and debate.

**BENV2101**
Adaptive Re-Use
Interior Architecture Program
UOC3 HPW2
An examination of the trend to find new uses for existing buildings rather than demolish and rebuild. Issues of conservation, preservation and heritage value of buildings; the role of other interested parties (media, community groups) in determining options for re-use. The course will address such issues as: surveying and assessing buildings for their suitability for adaptive re-use; measuring adaptive re-use in terms of environmentally sustainable design (ESD); assessing building forms and finding suitable compatible new functions; working within the Burra Charter; building conservation techniques; writing a "Heritage Conservation Report". Case studies selected from recent local examples of adaptive re-use. A design exercise involving adaptive re-use.

**BENV2106**
Landscape Design 9: Integrated Studio
Landscape Architecture Program
UOC6 HPW6
Prerequisite: LAND1302
Mixed studio groups are formed from different years and disciplines. The studio concentrates on significant current issues with an emphasis on design competitions. The studio runs for the first seven weeks of session only.

**BENV2107**
Landscape Design 10: Elective Studio
Landscape Architecture Program
UOC9 HPW6
Prerequisite: LAND1302 or ARCH1202 or IDES2162
Investigation of the relationship between design and contemporary landscape theory through a series of critical design projects at site planning scale. After the first half of the session, students in programs other than landscape architecture choose to complete this course by joining either LAND1201 or LAND1301.

**BENV2112**
Landscape Design for Well Being
Landscape Architecture Program
UOC6
This course will explore restorative and therapeutic landscapes for a variety of settings and client groups, eg hospitals, hospices and special care facilities. A design project for a specific site and client will be carried out following lectures and site visits with visiting practitioners.

**BENV2117**
Visual Resource Analysis & Management
Landscape Architecture Program
UOC3
Understanding the issues related to visual or scenic quality to develop a means to assign them value in the planning and design process. This elective course will be taught in an intensive five-day format combining lectures, discussions, presentations of case studies and site visits with practical exercises. Topics to be covered will include: the aesthetic experience of landscape, inventory and assessment of visual resources aesthetic consideration in the planning/design process, theoretical foundations in visual resource management and visualisation techniques.

**BENV2122**
Modelling Sustainable Design
Faculty of the Built Environment
UOC6 HPW3
The degree to which a building is ‘sustainable’ is the subject of much debate. This course contributes to understanding how to best approach issues of sustainability in architectural design. One approach is to set a range of agreed ecological indicators and to assess the design against these and other similar buildings. Conducting such an assessment is increasingly being demanded of architects by local, state and national regulatory authorities and clients prior to development approval and construction. Architects are required to provide an accurate and quantifiable assessment of the environmental credentials of their design proposals. This assessment should be inclusive of the aesthetic intentions of the design without resorting to generic ESD solutions. This course is concerned with exploring opportunities provided by the environmentally sustainable credentials of a design proposal to generate architectural ideas that inform design thinking and practices. This course will allow
students to assess a previous studio design proposal in terms of thermal performance, energy used in manufacturing of materials, the ability of the building to be self-sufficient for its resource requirements and waste reduction. Design assessment will be conducted using spreadsheets, the Ecotect simulation program, Airpak, Radiance and/or LC Aid, life cycle assessment software. Interaction between the design modifications made as a result of the assessment process and the original design will be explored and documented using CAD. Course material will be presented as lectures (in the computing lab) and on-line technical tutorials. Students are expected to undertake the tutorials independently so that allocated lab hours can be used effectively. There will be 3 assessment tasks requiring students to undertake individual and groupwork. This course is open to Architecture students who wish to explore the nexus between environmental sustainability and informed architectural design.

**BENV2125**

*Photovoltaics in the Built Environment*

Architecture Program

UOC6  HPW3

The use of PV as an integral part of a building structure is one of the fastest growing PV markets world-wide. This course will examine the architectural and engineering aspects of using PV as a building material. It will include building performance requisites, active and passive solar design principles, planning requirements, co-ordination between electrical and building trades, system maintenance and monitoring. In particular, the course will cover techniques for integration of PV in design (shape, size, orientation, colour), mechanical systems (especially multi-functional elements), electrical systems (grid connection and/or direct use) and building operation, control and maintenance. Students will receive practical experience through field trips and laboratory experiments. The course is run jointly with the Photovoltaics Research Centre.

**BENV2133**

*Design Collaboration using a Building Information Model*

Architecture Program

UOC6

This course provides a unique opportunity to participate in a multidisciplinary collaborative architectural design programme with students from a range of disciplines including architects, engineers, interior architects, builders, planners and landscape architects. The course will engage with three major learning contexts: the process of design resolution and refinement, commencing with a real concept design (a building that is at an advanced stage of design on a real site in Sydney) and working through a teamwork process to arrive at a set of well resolved design propositions; participation in a genuine collaborative design process, working as part of a multidisciplinary design team and gaining insights into the way other design professionals work; the use of a shared server-based building information model with a corresponding set of design simulation tools. An international expert in the development and use of shared building modelling technology will lead the studio, supported by a local design professional who will guide the design resolution process. Students work as part of a small multidisciplinary design team, each having equal input to the design process, but responsible for bringing to the table their own area of expertise. There will be regular reviews where guest critics will visit the studio with particular expertise to guide the deliberations of each team. The course is run in a studio format with weekly lectures and associated seminars, critique sessions and group workshops. Assessment is based on both individual and group projects, including a group design presentation at the end of the semester.

**BENV2201**

*Twentieth-century Australian Architecture*

Architecture Program

UOC3  HPW2

Detailed study of the theories and work of selected Australian architects. Issues of nationality and nationalism will be addressed as well as those of criticism in the architectural presses. Readings will be selected related to various twentieth century architects. They will include works of criticism as well as explanatory texts. One architect will be studied each week and readings will address one particular issue relevant to the architect's theoretical position. Material is presented as lectures or seminars.

**BENV2203**

*Introduction to 20th - century Japanese Architecture*

Architecture Program

UOC6  HPW3

The course examines a cross-section of significant movements and practitioners in contemporary Japanese architecture. Material is considered from the point of view of "interaction", and the cross-fertilization which takes place in a global setting. The intention of the course is to present this material from a Japanese critical perspective with an eye to gaining an understanding of different modes of cross-cultural encounter. The course offers an introduction to relevant and contemporary work, and promotes critical engagement with the implications of globalization and difference. Architects studied include Ando, Seijima, Yamamoto, Takasaki, Takamatsu and others. Material is presented as electronic seminars.

**BENV2204**

*Architecture and Consumer Society*

Architecture Program

UOC6  HPW3

In this course students will study the interaction between architecture and consumer society. The main focus will be on how the ethos of consumerism relates to the design of urban spaces, cities and the buildings within them. Consumerism will be examined not only in terms of shopping, but also as a way of relating to culture and cultural education. We will consider the explosion of "themed" environments over the last thirty years, from shopping malls to whole cities such as Las Vegas. Themed environments are usually designed to stimulate consumer spending by amalgamating spaces for retail activity with those of entertainment and amusement. By drawing on the work of cultural and architectural theorists, as well as site visits to places within Sydney, the subject will examine three types of consumer-oriented space: shopping malls, casinos and new 'interactive' museums. Students will be encouraged to develop critical attitudes toward the influences consumerism has on contemporary architecture. Material will be presented in lectures and seminars.

**BENV2205**

*Classical Architecture*

Architecture Program

UOC3  HPW2

Exploring the origins, vocabulary and grammar of the Classical Orders and their application in Greek and Roman architecture, in the Renaissance and the Baroque periods, through Academicism and Neo-Classicism to the resurgence of Classical ideals in the twentieth century. Material is presented in both lecture and seminar format.

**BENV2206**

*Theory of Form*

Architecture Program

UOC3  HPW2

The ontological basis and the antinomical qualities of form in the causal sense, reflected in nature, art and architecture. Practical investigation of the antinomical qualities of form with special emphasis on the brief and on the built fabric of contemporary architecture, and practical; attempts to identify shortcomings and develop corrective measures. Material is presented mainly as two-hour lectures and occasional tutorials comprising practical projects focusing on selected case studies.

**BENV2208**

*Spirit in Architecture*

Architecture Program

UOC3  HPW2

Spatial symbolism and intellectual intuition, principles, and methods of sacred architecture. Spiritual doctrine reflected in the layout of Judaico-Christian architecture with reference to the architecture of sacred traditions. Material is presented mainly as two-hour lectures with occasional tutorials comprising practical projects focusing on selected case studies.

**BENV2212**

*Architecture and Culture*

Architecture Program

UOC6  HPW3

Prerequisite: ARCH1221.

Many architects and architectural theorists today are engaged in a critical questioning of widely held yet inadequate beliefs and processes, including unrestrained progress, instrumental reason and social control. These driving social forces have brought about a devaluing of human work and nature that courts ecological disaster and a degrading of our physical environment. Architects may formulate a resistance through careful reflection on: the role of the human faculties of imagination and memory in design and construction; the significance of decorum, of public and private realms and of boundaries in our buildings and cities; and the limits of the architectural profession’s intrusion into all dimensions of life.
The course will focus on several cultural critics, both writers and architects, assessing the value and limitation of their contributions. Investigation will be guided by a vigorous tradition of thought (extending through the nineteenth century to the present) which has defined the word ‘culture’ as an idea of a whole way of life (and conflict) for individuals in a community. This is formulated as a challenge to the dominant values of society. Material is presented as two-hour lectures.

**BENV2213**
Critical Perspectives on Twentieth Century Art and Design Architecture Program

This course introduces some of the key interpretative strategies used in art history and cultural studies over the last hundred years, with an emphasis on contemporary cultural debates. The class will explore and question some of the central issues in contemporary art and design and how they have been created by the work of artists at the time they were made to the present. European, North American and Australian art and design will be reviewed through various filters such as modernism, postmodernism, internationalism, nationalism, regionalism, gender and identity. In visual and cultural studies there is no single correct interpretation of a particular artwork or movement. This course has been designed to enable you to become aware of the plurality of interpretations and to appreciate if not always to endorse or adopt the arguments for contesting interpretations of objects and events. Material is presented as two-hour lectures. Assessment will include individual and group work.

**BENV2214**
History, Theory and Interpretation: Art and Architecture Architecture Program

This course aims to deepen an understanding of basic theoretical concepts in the history of art and design; to gain familiarity with some key writings by artists, art historians and art critics; to develop strategies for evaluating theoretical arguments against appropriate visual works; and to develop competence and confidence in evaluating works of art/design and interpretive strategies developed for our understanding of them. Key concepts to be investigated include: style, connoisseurship, formalism, iconography, sociological perspectives, semiotics, gender, sexuality, cultural studies, modernity and post modernity. The course has been developed around a seminar structure which will encourage students to learn through looking, reading, thinking, and informed arguing. All students will be required to purchase a reader. Material is presented as a mix of lectures and occasional tutorials.

**BENV2216**
Interior Theory

Interior Architecture Program

A detailed exploration of the way we experience space. A study of how and to what extent this experience may be modified and determined by the application of spatial, surface and lighting devices. The psychological implications of a range of different ways of designing interior space. Language of line; balance, visual weight, placement of objects; focal points; scale, shape and proportion. A series of lectures and studies/projects using drawings and simple models.

**BENV2217**
Contemporary Interior Design

Interior Architecture Program

A review of the history of interior design concentrating upon the period since the second world war. The course will draw upon significant practitioners to highlight trends in design. Students will be asked to select case studies to research the theoretical basis for design. Aspects to be discussed include the evolving nature of the relationship between interior designers and other design fields. Relationship between interior architecture and the media.

**BENV2218**
The Vernacular Landscape

Landscape Architecture Program

This course critically examines everyday landscapes of the modern world, with an emphasis on the Australian vernacular landscape. Contemporary theories of place and landscape as text are reviewed. Students are introduced to the theory and practice of cultural landscape assessment and their skills in landscape documentation, critical analysis and essay writing are extended.

**BENV2219**
History of Australian Landscape Architecture

Landscape Architecture Program

The history of landscape architecture and garden art in Australia since European settlement is reviewed. Students develop a knowledge of planting design traditions in Australia. The history of plant introductions is analysed and the design qualities of Australian plants as the fundamental elements of landscape architectural expression in Australia. The inter-relationships between Australian landscape architecture, Australian architecture and the urban design of Australian cities are studied. Students are introduced to the theory and practice of heritage conservation for gardens, public parks and public spaces. Skills in historical, essay and report writing are extended.

**BENV2220**
The Culture of Nature

Landscape Architecture Program

This course traces the myriad perceptions of nature in the history of western civilization, and provides an understanding of the evolution of ecological thought. Readings and lectures explore the ways in which aspects of culture foster ideas about "Nature". Particular attention is given to representation of ideas toward Nature in the arts and the built environment. The intent is to provide students in landscape architecture and related disciplines with a framework for understanding and articulating the complex relationship between nature and culture, and a foundation for integrating this understanding into their own work as designers. Skills in critical thinking, essay writing and discussion are extended and evaluated. The course is based on a cross-disciplinary approach and considers a wide range of perspectives on the topic.

**BENV2221**
State of the Art: Contemporary Landscape Design

Landscape Architecture Program

To develop knowledge in depth of contemporary landscape design through a detailed review of current projects, built works and writings. Students will investigate and test current theories of design in landscape architecture, through the critical analysis of recent work. Current concerns in landscape design will be reviewed against the trajectory of twentieth century modernism. Skills in project review, critical thinking and critical writing are extended.

**BENV2222**
Architectural Studies 1

Architecture Program

An elective designed for students wishing to pursue an independent course of study in a field of architecture not falling within the domain of any existing elective. It requires the gathering of data, analysis of that material and reaching a conclusion. Descriptive summaries of published materials are not an acceptable alternative to a well argued critical essay. Students are required to present a detailed program of study for approval by the Head of Program by the Friday of the first week of the session in which it is intended to enrol in this elective. For special conditions consult the Head of Program. The work must be written in concise and clear English, apply a consistent and acceptable referencing system, include an up-to-date bibliography, include only relevant and properly referenced illustrations, and be word processed in A4 format. Submissions will normally be about 2,000 words and be submitted by Friday of Week 13.

**BENV2223**
Architectural Studies 2

Architecture Program

The intellectual and procedural requirements for this course are as described in BENV2222. The work must be written in concise and clear English, apply a consistent and acceptable referencing system, include an up-to-date bibliography, include only relevant and properly referenced illustrations, and be word processed in A4 format. Submissions will normally be about 3,500.

**BENV2224**
Architectural Studies 3

Architecture Program

UOC6
The intellectual and procedural requirements for this course are as described in BEN2222. The work must be written in concise, clear, and acceptable reference systems, include up-to-date bibliography, and properly referenced illustrations and text, and be word-processed in A4 format. Submissions will normally be about 7,500.

BENV2226
Chinese Gardens
Architecture Program
UOC6, HPW3

Introduction to the study of Chinese gardens focussing on key documents and some extant gardens. Lecture topics include: key notions of design, concepts of space/time, role of designers and visitors, movement and the experience of landscape, the relationship between pictorial space, garden design and literary tradition, and imaginary gardens. There are two key concerns: (1) cross-cultural relevance (what can the study of Chinese gardens offer to a cross-cultural dialogue in architecture and landscape architecture?) and (2) interdisciplinary perspective (how is the study of Chinese gardens related to recent work in some other fields such as geography, cultural studies, philosophy and the visual arts?). The main assignment is an exercise in spatial composition developed from a 17th-century Chinese handscroll.

BENV2228
20th Century Architecture : Modernity to Deconstruction
Architecture Program
UOC6, HPW3

This course is a study of key moments in twentieth-century architecture through the examination of selected buildings and the writings of architects. Among sources to be discussed are works by architects such as Le Corbusier, Mies van der Rohe, Walter Gropius, and cultural theorists and philosophers such as Theodor Adorno, Gaston Bachelard, and Gianni Vattimo. Material is presented as electronic seminars.

BENV2230
Principles and Philosophy of Design
Interior Architecture Program
UOC3, HPW2

The currently popular pseudo-elitist view of art and design is rejected in favour of the proposition that the artist is not a special kind of person but that every person is a special kind of artist. Design is not something which is practiced by the elite few who call themselves designers but by all of us all of the time. This course looks closely at the principles which underpin design in its broadest meaning and application, from the most simple, seemingly intuitive to the most complex of decision-making processes. These principles are studied with reference to the ‘perennial philosophy’ which may be found in all cultures and at all times and which has been particularly championed in our age by such writers as A.K. Coomaraswamy, Frithjof Berkel, MVRDV, Enric Miralles, Herzog and de Meuron, Kazuyo Sejima and Tadao Ando.

BENV2233
Architectural Images
Architecture Program
UOC6, HPW3

This elective takes as its subject the current fascination in architectural discourse and practice with the ‘image’. Each year the elective will focus on a different aspect of architecture’s engagement with the image. Previous topics have included: the relation of the discourse on the image to the discourse on ornament; urban advertising images and urban experience; journal publishing in architecture; the media of cross-cultural interaction in architecture; the interlinking of domesticity and urbanism in the representation of architecture. Students will engage with the techniques of presenting images graphically, as well as framing and resourcing critical discussions of topics through research and writing.

BENV2237
Thinking Through Drawings 2
Architecture Program
UOC6, HPW3

Prerequisite: ARCH1202 or (LAND1142, LAND1152).

This elective helps students develop a more focussed reading of architectural drawings and photographs through case studies from the 20th century. Emphasis is placed on reading in detail, reading for discrepancies, reading for temporal specifics, reading images in relation to what is written about them, reading for the students’ current design projects. The architects to be studied include: Rafael Moneo, Alvaro Siza and Peter Zumthor.

Note: Subject to approval

BENV2238
Modern Architecture in India & Middle East
Architecture Program
UOC6, HPW3

This course will explore the role and significance of ‘modern’ architecture in the making of nation states. Seminars and selected readings will explore topics such as: Spatial strategies for asserting nationhood such as maps, boundaries, government buildings, monuments, museums, domestic architecture, events in public space, stylistic hegemony, etc; cultural borrowings and architectural exchange between ‘East’ and ‘West’; and the tension and overlaps between the ideals of Internationalisation and the construction of a local identity. While the seminar’s focus on India and Bangladesh will situate the discussion within the politics of post-colonial independence, selected themes will be discussed as they relate to other sites of investigation including the birth of Israel and the post war re-construction in Lebanon.

BENV2239
Cultural Pluralism in Modern European Architecture
Architecture Program
UOC6, HPW3

This course promotes an understanding of 20th-century architecture in terms of cultural pluralism and questions the homogeneous nature of the “International Style”. It highlights the diversity in architectural debates and situates them in the context of different political agendas, multicultural histories and cultural traditions. The class will discuss the modernists’ increasing interest in the “Orient” and its impact on architectural production, as well as the search for modern architecture that could reflect “national” identity. Examples to be studied include Le Corbusier’s Journey to the East (a record of his travels from Vienna, Budapest, Belgrade to Istanbul and Athens), which demonstrates how Le Corbusier’s encounters of the “East” and Islam had a formative influence on some of his most famous works. The architectural and landscape designs of the Slovenian architect Joze Plecnik, including Prague Castle and the urban designs for the Slovenian capital Ljubljana, will show how his interest in the “roots of Western civilization” and Roman architecture suggested an alternative path in modernism. Architecture in the cities of Sarajevo, Vienna and Istanbul will also be studied. Assessment is based on a textual and visual study of a selected architectural, landscape or design project.
BENV2240
Domestic Architecture in Islam and the Poetics of Space
Architecture Program
UOC6 HPW3
This course investigates the domestic sphere in an Islamic context. Students will become familiar with the history, structure, and social use of residential forms in areas that are now a part of Arabia, North Africa and Egypt, Greater Syria, Iran, Iraq, Turkey and the Ottoman Balkans. They also will be introduced to the ways these spaces have been imagined and imagined in art, novels, memoirs, films, and scholarly texts. By considering residences as they are built and as they are described, students will learn both how architecture is historically specific and how it is invested with public and private meanings. Material is presented as electronic seminars.

BENV2241
The Culture of Materials
Architecture Program
UOC6 HPW3
This course looks at the relation between some of the common materials of building construction as they exist in different cultural regimes and ecologies-in particular, timber, steel, concrete and plastic. The course will then introduce a number of perspectives on these materials that show them to be constantly in the process of being given different meanings, values and applications by both different national and trans-national cultures.

The course will also examine topics such as: connections between design and materials, how the material world is viewed, making, cultural change, the past and the future. The last part of this course explores cultures of use and value. Although not employing a materials science approach, some technical detail will be presented.

Note: Subject to approval

BENV2244
Materials and Their Symbolism
Interior Architecture Program
UOC3 HPW3
Prerequisite: INTA2202 or equivalent Year 2 Design Studio; Excluded: INIA1311.
The role of material as medium and message in architecture. The symbolic language of materials. The relationship between material and idea in the works of significant designers and architects. Research project(s) investigating the sources, manufacture, properties, characteristics and uses of a wide variety of materials.

BENV2245
Colour and Light in Environmental Design
Interior Architecture Program
UOC6 HPW3
Prerequisite: INTA2102 or equivalent Year 1 Design Studio; Excluded: INTA1342.
A series of lectures and projects examining the history, practice and theories of colour and light. Practical experience to enable students to: precisely identify and exactly recreate any hue; develop an understanding of the subjective nature of colour vision; develop an understanding of the difference between the additive and subtractive systems of light-projected and physical colour.

BENV2247
Design Approaches in Italian Architectural History
Architecture Program
UOC6 HPW0
This course investigates the architectural and architectural/theoretical work of Italian theorists from Leon Battista Alberti to the early 1600 with reference to Vitruvius's writings and the work of Italian Architects from Sant'Elia to the present. Architects to be studied will include Francesco di Giorgio, Filarete, Palladio, Scamozzi, Piacentini, Terragni and Libera. The course will focus on the differences in approach to the various interpretations of ancient sources and to the many uses of the Roman architectural prototypes. The course will assist students to recognise how the interpretation of the ancient sources involves the relationship between the city's urban structure and the design process of the building.

BENV2250
Glass in 20th-century Architecture
Architecture Program
UOC6
This elective deals with the introduction of glass into architectural design as a modern material. The use of glass will be studied in experimental buildings by modern architects such as Mies van der Rohe, Le Corbusier and Pierre Chareau. The concepts of transparency, opacity, translucency and "light architecture" will offer students a useful vantage point to consider the re-emergence of glass in recent works of architects such as Rem Koolhaas, Herzog & de Meuron and Peter Zumthor. Assignments will include discussions on readings and short essays on some exemplary buildings. This course will be offered in electronic seminar format.

BENV2252
Chinese Architecture
Architecture Program
UOC6 HPW3
Introduction to studies of traditional Chinese architecture and city planning. The lectures cover a series of selected topics, such as the maturation and principles of the trabeated system of timber buildings, the patterning of spatial sequence, symbolism in the construction of buildings and cities, medieval urban transition, urban land use, and public space, each centred on a prominent architectural or urban feature that is representative of a specific historic period. Emphasis will be placed on treating the Chinese experience as an axiomatic part in world civilization, rather than as an exotic and mysterious heritage of the past. Such an emphasis implies two primary concerns: (1) cross-cultural dialogue in architectural and urban history, and (2) the relevance of the studies to contemporary issues in architectural design and city planning. Assessment is based on in-class discussion, a series of short literature reviews, and one major assignment.

BENV2302
Painting and Design: Hybridity
Architecture Program
UOC6 HPW2
This is a practical course in acrylic painting techniques in relationship to design and architecture. The course concentrates on color theory and the technical aspects of painting by working through a series of both 2D and 3D visual, spatial and design problems that attempt to awaken new avenues of design thinking by juxtaposing different painting techniques, styles, images and ways of thinking about visuality and aesthetics. This course aims to expand each student's visual consciousness through practical painting exercises allowing personal insights (on color, shape, form, surface or texture) to seep into their consciousness flowing in the slow-time of painting with the beat of the heart, and the integrated sensuality of hand and mind. This is a studio-based subject involving intensive, practical, hands-on exercises taught simultaneously with design theory requiring and developing lateral thinking and creativity.

BENV2303
Drawing and Design: Seeing, Thinking, Understanding
Architecture Program
UOC6 HPW3
This course involves investigation into the basic technical, aesthetic and conceptual aspects of drawing. The philosophy of the course is that drawing is a skill that is both visual and experiential, which evolves through practice - insights, associations and resonances - indicating each student's individual understanding of both the objective world and the world of their imagination. The course teaches basic drawing skills - how to see, think and respond through drawing to a variety of visual problems. This is a studio-based subject involving intensive, practical, hands-on exercises taught simultaneously with visual theory. Ultimately I seek to expand each student's visual vocabulary, aesthetic consciousness and creativity through an interwoven series of exercises based on important moments in 20th century architectural, design and visual history.

BENV2304
Colour Theory in Architecture and its Environments
Interior Architecture Program
UOL3 HPW2
This course aims to develop a practical knowledge of the theories of colour, its historic antecedents and possible future applications including investigations of light and colour as natural phenomena. A series of studio-based exercises, lectures and discussions create a basic understanding of the nature of personal colour perception and bias. Analysis of the relationships colours create with other colours and the nature of colours within their surrounding architectural and environmental context.

BENV2305
Graphic Design for Architects, Interior Architects, Landscape Architects and Industrial Designers
Interior Architecture Program
UOC6 HPW3
This elective is open to students in the Architecture, Interior Architecture, Landscape Architecture and Industrial Design Programs. The seamless integration of the products of graphic design into commercial and urban spaces, at both the intimate and public scales, is expected of architects and designers. This course aims to give students the skills to attempt a basic level of graphic design and to become familiar with the wide range of graphic techniques and materials available. At the end of the course the student should understand techniques for integrating graphic materials into buildings and be able to brief a graphic designer for the most complex of tasks. Material covered in the course would include the basics of typography, layout design and illustration. Techniques for printing, including those for incorporating images into a range of building materials would be introduced. In addition topics such as: digital reproduction technologies, digital and analogue colour systems, paper engineering and three-dimensional graphic representation would be included. Concepts of corporate imaging and marketing within the context of the retail/hospitality/corporate environment will be dealt with. Discussion in class will include topics such as Venturi's “Building as Duck”. Students will be expected to undertake a range of activities including exercises in preparing graphic material and the presentation of case studies of successful graphic packaging.

**BENV2309 Combined Exhibition**  
Architectural Program  
UOC3 HPW0  
Architecture as a discipline and profession is undertaken in the public realm of Communities. Exhibitions and presentations of architectural projects contribute to enhancing public debate about architecture. This course provides an opportunity for students to engage in the creation, planning, organisation, management and documentation of the Architecture Program Graduation Exhibition. Students will be required to liaise with Faculty, Program staff and students. Architectural profession and Industry. Enrolled students will be required to identify areas in which they can contribute. Assignment tasks will be negotiated with enrolled students.

**BENV2311 Digital Drawing Body Sculpture**  
Architectural Program  
UOC6 HPWU  
Life drawing is an ancient and powerful exercise in increasing our ability to perceive and communicate form. The course provides an opportunity for students to represent and explore the human body, examine concepts of form, structure, skin and cladding and the body's relationship to physical and virtual space. Students will explore digital methods of sculpting the human figure using quick computer modelling techniques as well as the more traditional techniques of drawing the clothed, partially clothed and unclothed human figure. The course involves group based drawing and computer lab sessions, and independent work. It is open to Faculty students who have successfully completed Year 2 of their program, enjoy drawing from life models, can work and learn independently and who enjoy working with others in the setting of the Studio and Lab.

**BENV2312 Architect-Making as an Interpretive Practice**  
Architectural Program  
UOC6  
This elective provides an opportunity for students to engage with physical model making as an interpretative, conceptual, design practice, one that mediates our understanding of spaces and places in the natural and urban landscape. It encourages students to persue a purposeful, considered, strategic approach to designing spaces that are informed by personal observation, experiences and reflections of place. Improving and extending student capability in the making and crafting of models is a key aspect of this course. Students will be required to undertake a range of investigations of a space in the landscape. Using a variety of materials, model making techniques and scales students will construct a series of models that are evocative of the particularities of that space, and its place in the landscape. In improving their model making skills and techniques students will investigate the potential relationships between material choice, site, representation and craft technique. Involving field and studio work this studio will focus on process development and encourages students to be observant and systematic in undertaking investigations, creative in exploring and experimenting with materials, assemblies and interpretive possibilities, reflective about their decision making, diligent and economic in their craft technique in the making of the models. Assessment in this course will be based on both process and product work. There will be two assessable tasks. An economic selection of materials and tools will be made available.

**BENV2313 Introduction to Architectural Photography**  
Architectural Program  
UOC6  
Prerequisite: ARCH1210 or ARCH1202  
This elective provides an opportunity for students to understand and practice basic principles and techniques of traditional and digital photography when applied to architectural photography. This will assist students in firstly, the photographic recording of artwork, models and building structures, secondly, presentation of those images as a portfolio of work and thirdly, inform their working relationship with professional photographers in the industry. The course involves lectures and workshops. Assessment in this course will be based on process and product work. There will be four assessable tasks. Three involve photographic work (artwork image, project model image and building image) and students will be required to maintain a process journal. Student work will be exhibited at the conclusion of this course.

**BENV2314 Photography, Society, and the Built Environment**  
Interior Architecture Program  
UOC3 HPW3  
This elective will give students an individual opportunity to use a camera as a visual research tool in the exploration of society and the built environment. The course involves theory and practice. A series of lectures covering different aspects of social documentary: a brief history of this genre, photojournalism, the photo-essay, street photography, oral history, the family album; and an introduction to some contemporary photographers detailing the urban environment through pattern or landscape. In Photography there is an intimate link between the image and the original. Light acting on and transforming emulsion still seems magical, or thousands of pixels transferred digitally to catch a moment in time is extraordinary. The ability to freeze frame movement in space, hold still light in time, document our communities today for tomorrow, record our visual reality is a powerful tool. With this power comes certain responsibility.

**BENV2318 Landscape Photography**  
Faculty of the Built Environment  
UOC3  
This course, offered as an intensive elective over two weeks, will introduce students to the potential for using photography as a tool for analysing, documenting and communicating about landscape. Course content will include: different applications of photography for landscape architecture; composition theory and how information is conveyed through a photography; use of light and contrast; principles of film-based and digital photography; and techniques for preparing photos for exhibition. Students must provide their own camera and cover the course associated with film developing and printing.

**BENV2402 Design Modelling - Time Based Visualisation**  
Architectural Program  
UOC6 HPW3  
Prerequisite: BENV2341 or BENV2001 or IDES3231.  
This elective will align design techniques with time based 3D digital environments. It will extend digital visualisation skills by introducing sequencing and storyboards into 3D digital environments. Computer Lab based exercises will cover 3D composition, time based form generation and narrative in digital 3D. Development of presentation techniques such as video editing, QuickTime VR and VRML will be included in the final presentation. Assessment will be based on earlier staged learning exercises and one major design presentation project.

**BENV2403 Information Technology in Design and Construction**  
Faculty of the Built Environment  
UOC3 HPW2  
Prerequisite: BENV1141.
This course introduces the issues, problems and solutions relating to the creation and distribution of information within the building industry. It includes topics such as: database systems; interaction with CAD system graphics databases; transmission of data; networking and communication technologies; shared technical databases; establishment of product information standards; conceptual modelling techniques; and design information systems. Assessment is by means of projects and student seminars.

**BENV2404**
**CAD Management for Architects**
Architecture Program  
UOC6   HPW3  
This course raises the issues relating to the implementation and management of CAD systems in architectural practices. Topics will include: CAD system selection and installation; cost issues (purchase, maintenance, upgrades); political implications within practices; software customization; resource management; office standards; and training. Assessment is by means of projects and student seminars.

**BENV2405**
**Computer Graphics Programming**
Architecture Program  
UOC6   HPW3  
Prerequisite: BENV1141.  
This course introduces the fundamentals of interactive computer graphics programming within the context of a typical architectural CAD system. Specifically, students will be introduced to the process of developing GDL scripts within ArchiCAD for the purpose of creating what in the industry have become known as ‘smart objects’. This is a process and technology that is being used increasingly in architectural practices where ArchiCAD is used to produce complex 3D component building models. Topics to be covered: concepts of building modelling with ArchiCAD; types of smart objects; parametric library objects; object intelligence; GDL scripting; program planning, design and debugging. Assessment will be project-based involving the development of GDL library parts with a range of complexity.

**BENV2406**
**Design and Computation**
Architecture Program  
UOC6   HPW2  
Prerequisite: BENV1141.  
This course is based on extensive reading and group discussion, exploring a range of theoretical approaches to the use of computation techniques in support of the act and processes of architectural design. Topics include: traditional approaches to architectural computing including space planning, facilities management, building performance analysis, information systems and operations research; knowledge-based systems and knowledge representation techniques; shape grammars; expert systems; and design information systems. Assessment is based on participation in discussion, the preparation of regular reports on readings and one major essay task.

**BENV2408**
**Building Information Systems**
Building Construction Management Program  
UOC6   HPW3  
The specification, development and use of computer based information systems in the management of building construction projects. Current networking and communication technologies; digital document formats and environments; information system lifecycle; relational database structures; shared information databases through project intranets; computer programs for cost management; and CAD product modelling standards for interoperability with other applications.

**BENV2409**
**Advanced Multimedia**
Architecture Program  
UOC6   HPW3  
Prerequisite: BENV1043  
Web Page: http://www.fbe.unsw.edu.au/courses/benv/2409/. This course explores a range of advanced multimedia concepts and issues. This will include creating interactive 3D environments, exporting information created on the fly, controlling video and animation, and programming. Students are expected to be adept at the material covered in the prerequisite course.

**BENV2410**
**Advanced Webpage Design**
Architecture Program  
UOC6   HPW3  
Prerequisite: BENV1042  
Web Page: http://www.fbe.unsw.edu.au/courses/benv/2410/. This course explores a range of issues and technologies relating to the creation and maintenance of websites. Topics will include: an analysis of web Search Engines; Cascading Style Sheets (CSS); Dynamic HTML (DHTML); and Active Server Pages (ASP). Students are expected to be adept at the material covered in the prerequisite course.

**BENV2412**
**Modelling Sustainable Design**
Faculty of the Built Environment  
UOC6  
Whether a building is truly ‘sustainable’ is almost impossible to define. It is possible, however, to determine a range of ecological impacts and to benchmark one building against another. Conducting such an assessment is increasingly being demanded of architects by regulatory authorities and clients prior to construction. Dwellings in NSW are subject to a minimum House Energy Rating assessment as condition of Council approval. Similarly, certain commercial buildings must provide an Energy Performance Report; and energy and environmental impacts must now be included in Statements of Environmental Effects for Development Approval. Architects must have the tools and skills to provide an accurate and quantifiable assessment of the environmental credentials of their designs. All this, and without compromising the aesthetic integrity of the building or resorting to textbook ESD solutions. As with all other constraints placed on architects, there exist myriad opportunities to use the environmentally sustainable aspects of the building as a generator of theoretical and aesthetic ideas. This course will allow students to assess previous study designs in terms of thermal performance, energy used in manufacturing of materials, the ability of the building to be self sufficient for its resource requirements, and waste reduction. This will be conducted using both spreadsheet and simulation tools. The design will then be modified to improve its environmental credentials. The interaction of these changes with the original design will be explored using CAD tools. This course will be based in the Computer Lab and students are required to have completed BENV242 or another CAD based subject. It is open to Architecture students who have successfully completed or been exempted from the first session of Year 3 and have confidence using spreadsheet software packages such as Excel in Microsoft Office. This course provides committed students an opportunity to explore the nexus between environmental sustainability and good design.

**BENV2414**
**Advanced Digital Graphic Communications**
Landscape Architecture Program  
UOC6  
This course will introduce students to digital media and its use as a mode of representation for design ideas. Digital media is becoming the most common form of design communication for landscape architects and other design professions. It is a representation method that can and should be used to inform designs and not only as a presentation tool. The course will educate students in the use and application of digital media. It will equip students with skills in digital photographic enhancement and composition of images that will help to communicate design ideas through graphic representation and montage. The course will be run in a predominately digital format.

**BENV2417**
**Digital Production and Design of Poster Presentations**
Architecture Program  
UOC3   HPW3  
This course provides an opportunity for students to develop capabilities in the use of image editing techniques for the production of A4 to A1 format poster presentations. The course also addresses graphic design and composition techniques and tactics, as well as the technical issues associated with colour printing of digitally generated presentation work. At the completion of the course students should be confident in using the tools of the software program, ‘photoshop’, be able to compose and design for digital production, effective image/text presentation posters and formats.
BENV2420
Building Modelling, Rendition and Presentation
Architecture Program
UOC6 HPW3
Prerequisite: BENV1242.
This course assumes a working knowledge of 3D object-based CAD modelling and the process of extracting and producing traditional orthogonal drawings directly from a 3D building model. This elective builds on that base knowledge to develop an understanding of the range of techniques and strategies of design documentation and representation that can flow from the use of a 3D building model. The emphasis of the course will be on the smooth movement of data between a range of software tools to achieve quality, precision and clarity in 2D paper-based presentation of design concepts. Lectures are used to discuss a range of communication strategies and the tools available to achieve those. Practical and explorative experience is achieved through a series of graded exercises culminating in a major project to demonstrate the level of knowledge and skill achieved.

BENV2603
Lightweight Structural Design
Architecture Program
UOC6 HPW3

BENV2604
Structural Systems: Basic
Architecture Program
UOC6 HPW3
Building upon a typical introductory structures course (such as Technology 1) this course deals in depths with basic systems such as arch, beam, cable, frame, truss, slab/plate, membrane, shell and several of their many variations. The course is a useful basis for further elective study in structures and for design and construction: The fundamental requirement for any architectural designer embarking upon the structural design of buildings and objects is a basic understanding of structural systems and their structural behaviour under load. Equipped with such understanding the student/designer gains the necessary confidence to distinguish between different structural possibilities for any particular design and choose the appropriate one. Subsequently she/he is able to approach structural material choice and structural detailing of connections on a sound basis of proven structural relevance. The teaching approach to this subject is predominantly visual with only limited numerics. Basic structural systems will be discussed by means of readily understood graphical diagrams and will be illustrated with cases of typical structural applications. Short exercises accompany the lectures with typical solutions presented in class. Student learning occurs during exercise completion combined with study of practical examples and the relevant literature, peer discussion and feedback from the lecturer. Assessment will be by student engagement in class as witnessed by timely and successful completion of exercises, active participation in discussion and by attendance.

BENV2701
Advanced Building Materials (Ceramics)
Architecture Program
UOC6 HPW3
Ceramic materials; the nature of cements, concrete, glass and similar products. Building products and techniques using these materials and their implications including construction, maintenance and deterioration. Examination of the environmental impacts and life cycle analyses of these materials. Industrial and site visits.

BENV2702
Advanced Building Materials (Organics)
Architecture Program
UOC6 HPW3
Organic materials; the nature of wood and synthetic polymers. Building products and techniques using these materials and their implications including construction, maintenance and deterioration. Examination of the environmental impacts and life cycle analyses of these materials. Industrial and site visits.

BENV2703
Advanced Building Materials (Metals)
Architecture Program
UOC6 HPW3
Metals, ferrous and non-ferrous, their nature and use. Building products and techniques using these materials and their implications including construction, maintenance and deterioration. Examination of the environmental impacts and life cycle analyses of these materials. Industrial and site visits.

BENV2704
Advanced Construction Systems
Architecture Program
UOC3 HPW2
A review of recent developments, current trends and possible future directions in building design, construction systems, detailing and documentation. Case studies, projects, seminars.

BENV2707
Advanced Landscape Engineering
Landscape Architecture Program
UOC3 HPW2
More complex landscape engineering problems are undertaken, particularly in relation to sustainable landscape engineering solutions, as well as projects that integrate, eg public art, constructed wetlands, specialty paving, water features, specialty lighting.

BENV2708
Interior Detailing
Interior Architecture Program
UOC6 HPW3
Prerequisite: INTA2202 or equivalent Year 2 Design Studio.
Design resolution at a fine scale highlighting issues of quality and the central role of detailing in achieving buildings and interiors which are original and coherent examples of good design. The practice and technology of detailing interiors seeking to enhance the designer's critical capacity when assessing options and extending their design vocabulary. The discipline of extending design concepts from the overall to the specific and planning strategies for detailing while at an early stage of the design process. Tutorials based upon recent examples of detailing will be supplemented by lectures dealing with techniques of documentation, structuring building contracts to support successful outcomes in building procurement. Lectures will cover material related to building methods and technologies: included will be detailing stainless steel, timber veneer, plastic laminates, timber joinery, specifying finishes such as polyurethane, epoxy, stains and coatings. The program will be centred about guest lecturers presenting examples of their work as case studies of successful detailing.

BENV2709
Construction 6 (Industrialisation and Technological Change)
Building Construction Management Program
UOC3 HPW3

BENV2710
International House Practice
Building Construction Management Program
UOC6 HPW2
Focuses on procurement and production processes relating to housing development. Factors of interest include: government housing policy, design, development approval process, land subdivision, property titling, construction, financing and marketing. Case studies are used to portray how these factors compete within a market system. Australian and overseas contexts are studied.

BENV2712
Technology for Tropical Architecture
Architecture Program
UOC6
Outline: To study tropical architecture in context. Those undertaking this elective will develop an understanding of influences on tropical architectural practice: including climatic, cultural, environmental and
sustainability issues. There will also be an opportunity to study historical contemporary tropical architecture. This elective is open to Architecture students. There will be a field trip cost attached to this course. Any student intending to take this course must contact Graham Bell prior to enrolling.

**BENV2713**

**Furniture Design 1**

*Interior Architecture Program*

UOC3  HPW3

Through a series of lectures, tutorials, demonstrations and practical design projects, this course addresses issues of design philosophy, ecology, scale, context, spatial relationships, materials, technologies and resources appropriate to the design of furniture and fittings - the decorative arts for interiors.

**BENV2714**

**Furniture Design 2**

*Interior Architecture Program*

UOC3  HPW3

A guided research-based course concerned with the design and manufacture of furniture and fittings for mainly commercial applications. A research project and practical design assignment will focus on specific case studies.

**BENV2715**

**Textiles in Interior Architecture**

*Interior Architecture Program*

UOC3  HPW3

Prerequisite: INTA2102 or equivalent Year 1 Design Studio. Excluded: INTA1312.

A study of textiles and fabrics and their applications in interior architecture. The course will examine in some detail origins, structures, properties and manufacturing processes dealing with fibres, yarns and materials: woven, non-woven and knitted materials. Patterning, including structural and non-structural ornamentation. Further treatments and applications of materials. Standards of use and durability. New directions, concepts and future implications.

**BENV2716**

**Design and Technology-Timber**

*Architecture Program*

UOC6  HPW3

Prerequisite: ARCH1371

This course aims to develop students appreciation and understanding of the potential of engineered timber and prefabrication in the context of a simple design accommodation brief. While resolving the design as a whole the emphasis will be on the resolution and documenting of the timber structure, construction and detailing of the project.

It is recommended that students speak with Peter Murray prior to enrolling.

**BENV2718**

**Construction Technology 4 (Industrialisation & Technological Change)**

*Building Construction Management Program*

UOC3  HPW2


**BENV2719**

**Housing Delivery Systems**

*Building Construction Management Program*

UOC3  HPW2

High, medium and low density housing development in terms of the entire procurement production process. Factors directly involved in the process and other issues that impact on it including government housing policy, regulatory instruments, the commercial and social environment, land subdivision, property titling, urban planning, construction, financing and marketing. Current practices and future trends in various countries. International approaches to housing procurement. Quality in housing.

**BENV2720**

**Introduction to Lighting and Acoustics**

*Architecture Program*

UOC4  HPW2

Lighting: Natural and artificial lighting. Quantitative and qualitative aspects of lighting design. Electric light sources, light control and prediction methods.

Acoustics: Acoustics and noise control: design of rooms, basic shape and volume, acceptable ambient levels. Acoustic performance: properties and behaviour of sound, sound transmission loss, external noise levels, structural borne and impact sound, reverberation times, selection of building envelope elements, selection of interior building materials and elements.

**BENV2721**

**Lightweight Tropical Construction Project**

*Architecture Program*

UOC6

Students will apply their understanding of construction and Occupational Health & Safety Issues in the construction on campus of Simon Scally’s Love Shack (Darwin). It is envisaged that under the leadership of a project manager the students will work in agreed teams to assemble and then construct the Love Shack. The construction will take some time and the timetable for which will be determined by the respective teams. It is envisaged therefore that the final erection will be in the last week of the mid year break.

The desired outcomes are: an application of construction knowledge, an understanding of the importance of team work in any project, appreciation of common building materials their jointing and fitting and the pleasure in the completion of a Love Shack which is for Sydney and client-based on Simon Scally’s in Darwin.

**BENV2722**

**Advanced Construction Systems**

*Architecture Program*

UOC6  HPW2

A review of recent developments, current trends and possible future directions in building design, construction systems, detailing and documentation. Case studies, projects, seminars.

**BENV2002**

**The Architect and the Law**

*Architecture Program*

UOC6  HPW2

This course will cover contract law, tort law, consumer protection law, professional practice and ethics, design law, construction law, valuation, financing, resource and land law, development and building control, dispute resolution and evidence and expert witness.

**BENV2004**

**Construction Planning and Management**

*Faculty of the Built Environment*

UOC3  HPW2


**BENV2005**

**Project Management and The Design Process**

*Faculty of the Built Environment*

UOC6  HPW3

The nature of projects. Definition of project phases. The impact of procurement process on project outcomes. Project risk analysis and project organizational design. Client needs determination and managing the design process. Scope management.

**BENV2006**

**Organisational Behaviour**

*Building Construction Management Program*

UOC3  HPW3


**BENV2007**

**Management 7 (Marketing)**

*Building Construction Management Program*

UOC3  HPW3
Marketing for builders and developers in the Australian and Pacific environment with particular emphasis on the marketing mix, the relationship between a marketing system and its environment, development of marketing, tactics and strategy, market segmentation and the buyer decision process. Listing, selling and the auction process.

**BENV2812**  
**Documentation Techniques for Major Buildings**  
Architecture Program  
UOC6  HPW2  
Students will learn what is involved in completing a comprehensive set of documents comprising Working Drawings, Details, Specification and Schedules required for tender and successful completion of the construction of major buildings. Students will also learn about construction design details and many aspects of the legal and technical implication in the documentation.

**BENV2813**  
**Construction Marketing**  
Building Construction Management Program  
UOC3  HPW2  
Marketing for builders and developers in the Australian and Pacific environment with particular emphasis on the marketing mix, the relationship between a marketing system and its environment, development of marketing, tactics and strategy, market segmentation and the buyer decision process. Listing, selling and the auction process. Market Research.

**BENV2814**  
**Property Law**  
Building Construction Management Program  
UOC6  HPW3  
Recognition of the significance of different land titles, tenures and interests in land; understand the construction and content of contracts, leases and other forms of agreement required for property dealings and use; develop a familiarity with public and private controls and restrictions on land use and development; appreciate the relationship between planning policies at all levels and the valuation process; a knowledge of the valuation review and determination processes of the Land and Environment Court and similar tribunals; appreciate the requirements for presentation of evidence as an expert witness; acquire a familiarity with major court cases, relevant to the valuer, which establish valuation principles; understand the major objectives of principal New South Wales Acts dealing with real estate or interests therein. Judicial valuation, legal precedent, land titles and rights.

**BENV2815**  
**Construction Management 4A (Project Management & Design Process)**  
Building Construction Management Program  
UOC6  HPW3  
The nature of projects. Definition of project phases. The impact of the procurement process on project outcomes. Project risk analysis and project organisational design. Client needs determination and managing the design process. Scope management.

**BENV2816**  
**Construction Organisational Behaviour**  
Building Construction Management Program  
UOC6  HPW3  
All management courses from years 1 - 3 of the BBCM.  
A study of the following topics from a construction industry perspective: Organisational design. Types of organisations and fitting organisational structure to the environment. Leadership. Reward processes. Expectancy theory. Organisational change.

**BENV2901**  
**City Planning Today**  
Planning and Urban Development  
UOC3  HPW2  
Excluded: Program 3360.  
The way our cities look and operate; their cultural and community life are all considered by town planners. The course deals with the fundamentals of urban planning, its language, its rules and regulations; its controversial nature and the way it operates in practice. It looks at how and why urban planning came into being: how the legal and administrative system works; how the political system operates; and how planners deal with issues - from designing the city to balancing the many conflicts which arise over development projects. Lectures are given by staff of the Faculty of the Built Environment as well as planning practitioners. This course will give you the skills, the understanding and the enthusiasm to play an active role in shaping your city.

**BENV2902**  
**The City: Sydney**  
Landscape Architecture Program  
UOC3  HPW2  
This course critically examines the pace, scale and dynamic transformation of Sydney at the beginning of the twenty-first century. The physical form of the city, its environmental qualities and social patterns will be examined in terms of the theoretical literature on the culture of cities and techniques of reading the urban landscape. The study of Sydney’s urban form and urban life will be based on a series of lectures, seminars and city walks.

**BENV2903**  
**Urban Design**  
Architecture Program  
UOC6  HPW3  
Design studies in the integration of buildings and groups of buildings in their urban context, and of spaces between buildings, accommodation of pedestrian and vehicular movement, micro-climate. Material is presented by students every week supported by instructor’s lectures with a final tutorial completing the course requirement.

**BENV2904**  
**Public Art**  
Architecture Program  
UOC6  HPW3  
This course examines recent Australian and overseas art that addresses ideas of place and context and that is situated in the public domain. Public art can be an individualistic exercise but more often it results from professional collaboration between artists, designers of the built environment, and the community. Art in public places provides opportunities for design professionals to grapple with historical, social, cultural, environmental and other issues in the creative process. Increasingly state and local governments are developing policies to encourage public art: in some overseas countries a fixed percentage of the costs of a public building must be spent on providing site/place-specific art. This elective has two Objectives: one is to examine aspects of the current theoretical discourse on public art, and to debate these ideas in student-led seminars; the other objective is to enable students to conduct research into local recent public art and to write a critical appraisal of a particular work. It is hoped that the research will be incorporated (and acknowledged) in a wider Department-based project on public art, architecture and urban design in Sydney. Material is presented as a mix of lectures and seminars.

**BENV2923**  
**Images of Sydney**  
Planning and Urban Development  
UOC6  HPW3  
This course explores how an understanding of cities and how they are appreciated by those who live in them can be communicated visually. ‘Images of Sydney’ encourages students to capture the flavour and variety of living in Sydney on film. The course includes lectures on aspects of urban design and social documentary photography. Participants, using disposable cameras, take images which are critiqued and reviewed by the class. Students compile course journals covering not only reflection on the student’s particular topic, but also photographic exhibitions visited, lectures attended, and relevant articles and books read during the semester. The major outcome is an end-of-session exhibition. Each student is responsible for presenting a collection of the photos they have taken with suitable captions and commentary conveying how the photographs help interpret the experience of the city.

**BENV2937**  
**Urban and Regional Design: Critique and Innovation**  
Planning and Urban Development  
UOC6  HPW3  
This course reviews the principles of urban design and guides students through urban design methodology via a series of small design projects. Teaching is through ‘enquiry by design’ whereby lectures, site visits and case studies assist students’ learning and development through the exploration of design projects of varying scales and contexts (e.g. town
centres, concept designs for specific sites, structure plans). Specific aims of the course include developing an awareness of the scope of urban design projects, an appreciation of the physical structure of places, an understanding of shaping built form, a familiarity with a range of building typologies, and an appreciation of current urban design issues and debates. Particular skills to be reviewed include site analysis methodology, establishing robust planning and design principles, mapping and spatial understanding, design review criteria and mechanisms of development control.

**BENV2938 Transport Planning**
Planning and Urban Development
UOC6 HPW3

This course aims to provide an introductory understanding of the role of transport planning as a planning tool that can be used to achieve positive planning outcomes in the urban built form. It provides an introduction to the theoretical, applied and policy aspects of transportation planning with special reference to public transport issues in Sydney. It covers introductory elements of transport planning and forecasting and their place in the planning process, specific elements of transport planning theory, and case studies through lectures, guest lectures and site visits. The course is underpinned by notions of transport-land use planning integration and sustainability.

**BENV2942 Rural Planning**
Planning and Urban Development
UOC6 HPW3

This course has been designed specifically to give students an appreciation of the issues associated with planning for rural areas, a vital component of land use management in Australia. Rural areas include the agricultural land, natural areas and urban settlements of regional Australia. It introduces students to a range of practical planning tools and instruments, including rural lands studies, rural strategies, Local Environmental Plans and Development Control Plans. Students will also learn about the various policy mechanisms used both in Australia and overseas. The course utilises field-based learning and usually involves a fieldtrip to a rural NSW location during which students undertake a rural planning exercise with practical application for a local council.

**BENV2943 Heritage Planning**
Planning and Urban Development
UOC6 HPW0
Prerequisite: PLAN3031.

This course for senior students provides an advanced overview of the theoretical, practical and policy aspects of issues concerning the conservation of environmental, heritage, both cultural and natural. The course deals with the objectives and purpose of heritage conservation, the definitions of heritage at international, national, state and local level: methods by which planners work to balance the demand for heritage conservation with the other needs of the urban and natural environment. The course deals with both the conceptual and pragmatic aspects of heritage conservation, dealing with heritage in an inclusive sense: biophysical, indigenous, cultural and built. The aim of the course is to ensure that built environment professionals have a full understanding of the theoretical, legislative and administrative aspects of the conservation of heritage.

**BENV2944 Auckland Planning Elective**
Planning and Urban Development
UOC6 HPW0
Prerequisite: PLAN1011 or permission of course authority

The general aim of this elective is to enhance the experience of students through exposure to new and different planning ideas, systems, planning projects and urban management processes. It will involve an intensive, guided field investigation of planning issues in Auckland with a major focus on approaches to growth management, heritage, sustainability and contemporary redevelopment and renewal projects. The elective will entail visits to or inputs from state agencies, local authorities, developers and planning consultants including the Auckland City Council and the Auckland Regional Council. Among specific sites to be studied would be the Auckland CBD, the Aqueduct Basin, Waitakere, Arataki and Waiheke Island.

**BENV2945 Planning Travel Elective**
Planning and Urban Development
UOC6 HPW4

The general aim of the elective is to enhance the experience of students in a small group context through exposure to new and different urban contexts, planning ideas, systems, planning projects and urban management processes. The course will involve an intensive, intensive guided field investigation of planning issues variously in international, interstate or non-metropolitan settlements with a focus on issues such as growth management, heritage, sustainability, urban design, transportation, strategic planning, and contemporary redevelopment and renewal projects. The elective will entail visits to or inputs from government agencies, local authorities, developers and planning consultants. Students will be required to pay costs of transport from and to Sydney, accommodation, meals, and incidental costs. Affordable motel or college-style accommodation would be negotiated. Students may also be engaged individually and collectively in a major research and/or design project, the preparation for which would commence in the session preceding the trip with additional post-trip research, writing and presentation. Courses would be run subject to resources and student demand.

**BENV2946 World Case Studies in Urban Design**
Architecture Program
UOC6 HPW3

This course looks at some diverse 20th century cities from an Urban Design perspective. It touches on the socio/political, economical and cultural influences of the built environment, the structure of physical components, strategic policies and recent historic influences. The focus is the fascination of urban design interventions and the ability to affect change as part of the dynamic process of cities. An urban design definition will be debated and the symbolic, memorable aspects of cities discussed. Students personal experience of their city locales will form a valuable contribution to the course.

**BENV2947 Land Economics & Valuation**
Building Construction Management Program
UOC6 HPW0
Prerequisite: 96 units of credit

The building process; market research; establishing the client’s needs; site selection and analysis; feasibility studies and financing methods. Introduction to valuation. Time value of money and equivalence. Methods and philosophies of determining market valuations. Valuation techniques; knowledge of efficient property management techniques; identification of a range of unusual property types which require specialised valuation skills and knowledge and the means of developing such skills and knowledge; knowledge to develop novel valuation techniques for application to specific property types; ability to determine the highest and best use for nominated property types; the application of inspection techniques for broad property types; competency in the use of property valuation and inspection aids; familiarity with resource materials and information sources required to undertake specific types of valuation.

**BENV2948 Property Management & Development**
Faculty of the Built Environment
UOC6 HPW3


**BENV6000 The Dean’s Honours Seminar**
Faculty of the Built Environment
UOC6 HPW2

The Seminar draws on advanced students from undergraduate programs to provide an interdisciplinary setting in which to investigate contemporary issues related to globalisation and development, and the built environment. The seminar will encourage, in particular, the study of policy and opportunities for change. To undertake this elective students must have been a member of the Dean’s List (or equivalent) in one or
more sessions prior to enrolment, and must be in Stage 3 or later of their degree program.

BINF1001
Bioinformatics 1
School of Computer Science and Engineering
UOC6  HPW5
Prerequisite: BINF1001, COMP1011 or COMP1711.

The course surveys the major areas of bioinformatics at an introductory level, exploring the history of bioinformatics in relation to advances in computing hardware and software; the biological problems currently being addressed using bioinformatics; and future applications of bioinformatics. Major topics include genomics; genome sequencing projects; proteomics; structural genomics; phylogeny; population biology; ecological modelling; medical informatics; and commercial applications of bioinformatics. The general nature of the data, computational problems and the approaches employed will be discussed in each case. Role of bioinformatics in the biotechnology industry. Structure of biotechnology industry stressing commercial, regulatory, and intellectual property areas. Diversity of industry sector and commercial case studies including biopharmaceuticals and gene therapy, use of transgenic plants and animals. Lectures are supplemented by practical exposure to public and commercial bioinformatics web sites.

Further Information: CSE class page www.bioinformatics.unsw.edu.au/course/

BINF2001
Bioinformatics 2
School of Computer Science and Engineering
UOC6  HPW6
Prerequisite: BINF1001

This course covers bioinformatics approaches that have become fundamental to genomic and post-genomic biology, with an emphasis on their evolutionary underpinnings. Topics include methods and algorithms for sequence analysis, classification and structure prediction; sequence, family and structure databases; genome project informatics; microarrays; pathways, networks and interactions. Practical work emphasises both use and development of software tools for bioinformatics analysis.

Further Information: CSE class page www.bioinformatics.unsw.edu.au/course/

BINF3001
Bioinformatics 3
School of Computer Science and Engineering
UOC6  HPW5
Prerequisite: BINF2001, COMP2041, COMP121 or COMP321; Excluded: BINF3801.

This course demonstrates the application of computational, mathematical and statistical methods to problems in modern life sciences, through examples in nucleotide and protein structure, function and expression. System design and software development environments for bioinformatics are also explored. Practical work involves implementation and use of the techniques discussed in the course.

Further Information: CSE class page www.bioinformatics.unsw.edu.au/course/

BINF4910
Thesis Part A
School of Computer Science and Engineering
UOC3  HPW5
Prerequisite: 126 units of credit, and enrolment in Bioinformatics program 3647, 3735, 3736, or 3715.

Thesis part A and B are done in the last two semesters of the Bioinformatics degree program. For full-time students, a nominal three hours per week in the first semester and fifteen hours per week in the second session are devoted to directed laboratory and research work on an approved course under guidance of members of the academic staff. Usually, the Thesis involves the design and construction of experimental apparatus and/or software, together with appropriate testing and evaluation. For Part A, students are required to present a satisfactory seminar. For Part B, a written thesis must be submitted by the Tuesday of the final week of semester.

Further Information: CSE class page www.cse.unsw.edu.au/thesis

BIN4911
Thesis Part B
School of Computer Science and Engineering
UOC12  HPW5
Prerequisite: BINF4910.

Thesis part A and B are done in the last two semesters of the Bioinformatics degree program. For full-time students, a nominal three hours per week in the first semester and fifteen hours per week in the second session are devoted to directed laboratory and research work on an approved course under guidance of members of the academic staff. Usually, the Thesis involves the design and construction of experimental apparatus and/or software, together with appropriate testing and evaluation. For Part A, students are required to present a satisfactory seminar. For Part B, a written thesis must be submitted by the Tuesday of the final week of semester.

Further Information: CSE class page www.cse.unsw.edu.au/thesis

BINF4920
Professional Issues and Ethics for Bioinformatics
School of Computer Science and Engineering
UOC3  HPW3
Prerequisite: Enrolment in Bioinformatics program 3647, 3715, 3755, 3736, 3737.

his course will develop a framework on which professional and ethical issues for Bioinformatics can be developed. Topics covered will include team and meeting skills, communication skills, interpersonal skills, software quality and process, in addition to ethics. The course will be delivered using lectures, class discussions, written assignments, reading lists, the Internet, presentations, and invited speakers.

Further Information: CSE class page www.bioinformatics.unsw.edu.au/course/

BIOC2101
Principles of Biochemistry (Advanced)
School of Biotechnology and Biomolecular Science
UOC6  HPW6
Prerequisite: BIOS1101 or BIOT1011, BIOS1201, CHEM1011 or CHEM1031, CHEM1021 or CHEM1041; Excluded: BIOC1221, BIOC1319, BIOC2181, GENB1002, GEN56012

Introduces modern biochemistry, covers fundamental aspects of the structure-function relationships of proteins and an overall coverage of intermediary metabolism. Major topics covered include: the nature and function of proteins and enzymes; the metabolic working of cells, tissues and organs; the interrelationships between the pathways of carbohydrate, lipid and amino acid metabolism; the vital role of hormones in metabolic regulation; the energy-trapping mechanisms of animals and plants; interesting variations on the central metabolic pathways in various life forms. Practical work to complement the lectures and to introduce the principles of biochemical analysis.

Note: Enrolment in this course may be subject to quota restrictions. Such restrictions will only apply to students taking this course as an elective part of their program.

BIOC2181
Fundamentals of Biochemistry
School of Biotechnology and Biomolecular Science
UOC6  HPW6
Prerequisite: BIOS1101 or BIOT1011, BIOS1201, CHEM1011 or CHEM1031, CHEM1021 or CHEM1041; Excluded: BIOC1221, BIOC1319, BIOC2181, GEN56012, GEN1002

Introduces modern biochemistry, covers fundamental aspects of the structure-function relationships of proteins and an overall coverage of intermediary metabolism. Major topics covered include: the nature and function of enzymes; the metabolic working of cells, tissues and organs; the interrelationships between the pathways of carbohydrate, lipid and amino acid metabolism; the vital roles of enzymes and hormones in catalysis and metabolic regulation; the energy-trapping mechanisms of animals and plants; interesting variations on the central metabolic pathways in various life forms. Practical work to complement the lectures and to introduce the principles of biochemical analysis. This course covers essentially the same material as in BIOC2101 Principles of Biochemistry (Advanced), but in less detail and with more emphasis on the function of organisms and less emphasis on some of the underlying chemical mechanisms.

Note: This course provides a comprehensive introduction to Biochemistry as an alternative to BIOC2101 for students who do not intend to proceed to Level III Biochemistry. It does not fulfill the prerequisite requirements for Level III Biochemistry but the Head of School may give approval for students with a grade of credit to enrol in Level III courses.
Practical work illustrates and complements the lectures and provides experience with DNA-DNA hybridisation as important tools of modern molecular biology.

Details analysis of gene structure and function including: structure and function of DNA and RNA; the replication and transcription of DNA; translation of the genetic code into an amino acid sequence during protein synthesis; regulation of gene expression; manipulation of DNA including fragmentation by restriction enzymes, cloning of DNA fragments into vectors, hybridisation analysis and principles of DNA sequencing; protein structure and function, protein engineering and site-directed mutagenesis; amplification of DNA by the polymerase chain reaction (PCR). Practical work to complement the lectures.

**Note:** Enrolment in this course may be subject to quota restrictions. Such restrictions only apply to students taking this course as an elective part of their program.

**BIOC2291 Fundamentals of Molecular Biology**

School of Biotechnology and Biomolecular Science

UOC6 HPW6

Prerequisite: BIOS1101 or BIOT1011, BIOS1201, CHEM1011 or CHEM1031, CHEM1021 or CHEM1041; Excluded: BIOC2291, GENB1001, GEN5601

Provides an introduction to modern molecular biology and covers the molecular mechanisms of gene expression and the fundamental aspects of recombinant DNA technology. The major topics covered include: The structure and function of DNA and RNA; the replication and transcription of DNA; translation of the genetic code into an amino acid sequence during protein synthesis; regulation of gene expression; manipulation of DNA including fragmentation by restriction enzymes, cloning of DNA fragments into vectors, hybridisation analysis and principles of DNA sequencing. Protein structure and function. Amplification of DNA by the polymerase chain reaction (PCR). Practical work to complement the lectures. This course covers essentially the same material as in BIOC2201 Principles of Molecular Biology (Advanced), but in less detail and with more emphasis on the general applications and less emphasis on some of the underlying mechanisms.

**Note:** This course provides a comprehensive introduction to Molecular Biology as an alternative to BIOC2201 for students who do not intend to proceed to Level III Biochemistry. It does not fulfill the prerequisite requirements for Level III Biochemistry but the Head of School may give approval for students with a grade of credit to enrol in Level III courses.

**BIOC3111 Molecular Biology of Proteins**

School of Biotechnology and Biomolecular Science

UOC6 HPW6

Prerequisite: BIOC2101 or LIFE2101, BIOC2201

Modern aspects of the structure function relationships of proteins including discussion of the latest techniques of protein characterisation. Topics include: separation and analytical procedures; determination of amino acid sequence data; the nature of protein and protein ligand interactions including aspects of substrate binding, enzyme kinetics and enzyme mechanisms; the molecular architecture of proteins from the standpoint of the relationships among primary, secondary, tertiary and quaternary structures; aspects of protein engineering. Practical work illustrates and complements the lectures and provides experience with modern techniques of protein molecular biology.

**BIOC3121 Molecular Biology of Nucleic Acids**

School of Biotechnology and Biomolecular Science

UOC6 HPW6

Prerequisite: BIOC2101 or LIFE2101, BIOC2201; Excluded: BIOS3621.

Detailed analysis of gene structure and function including: structure and properties of nucleic acids such as DNA and RNA; structure of chromatin; regulation of gene replication, transcription and translation; recombinant DNA technology, nucleic acid sequencing, DNA-DNA and DNA-RNA hybridisation as important tools of modern molecular biology. Practical work illustrates and complements the lectures and provides experience with contemporary molecular techniques.
Current concepts and theories in genetics concentrating on eukaryotes including humans; the generation of variation examined at the molecular level for fundamental genetic processes of mutation, recombination and repair; the evolution of the genome, maintenance of variation, the effects of mutations and their relevance to disease; use of comparative genomics to study genome evolution; genetics of cellular division process and developmental genetics; genetics of non-Mendelian characteristics - inheritance of mitochondrial types, imprinting, epigenetics; practical uses of genetics including the use of transposable elements; ecological genetics - natural and sexual selection, population structure; genetics of speciation, molecular evolution and phyleogenetics; perspectives on genetics, history and future. Computer exercises and discussion groups to complement the lectures and introduce controversial topics in genetics.

BIOC3301
Biochemistry Laboratory Project (Advanced)
School of Biotechnology and Biomolecular Science
UOC6
The course involves directed reading, laboratory work and use of World Wide Web resources. Students will work on a research project under the supervision of a member of the academic staff. It is designed to introduce students to research methodology, and to stimulate critical and lateral thinking in the context of problem solving. Enrolment in this course is by invitation and is based on academic performance. Interested students should contact the Head of School.

Note: This course is restricted to Advanced Science students enrolled in Biochemistry, Genetics or Molecular Biology Plans.

BIOC3621
Molecular Biology of Nucleic Acids (Advanced)
School of Biotechnology and Biomolecular Science
UOC6 HPV6
Prerequisite: BIOC2101, BIOC2201; Excluded: BIOC3121. Restricted to Advanced Science programs (3905, 3990, 3972, 3973, 3986, 3931, 3916).

This advanced course is designed to suit students who plan to pursue research careers in molecular biology or related disciplines. The syllabus is an enhanced version of that for BIOC3121 and comprises a detailed analysis of gene structure and function which includes: structure and properties of polynucleotides such as DNA and RNA; structure of chromatin; mechanisms and regulation of gene replication, transcription and translation, DNA repair and the molecular biology of cancer induction; recombinant DNA technology; nucleic acid sequencing, DNA-DNA and DNA-RNA hybridisations important tools of modern molecular biology; protein production using recombinant DNA system. Practical work provides extensive experience with contemporary molecular techniques; literature surveys and web-based research are also used to enhance the theoretical and practical aspects of the syllabus.

BIOC3671
Molecular Cell Biology (Advanced)
School of Biotechnology and Biomolecular Science
UOC6 HPV6
Prerequisite: BIOC2101, BIOC2201; Excluded: BIOC3271. Restricted to Advanced Science programs (3985, 3990, 3972, 3973, 3986, 3931, 3916).

A molecular approach to understanding the complex, dynamic interactions that comprise cellular function. Concepts drawn from biochemistry, genetics and molecular biology together with classical cell biology will be integrated to produce a contemporary interpretation of cellular life. Topics to be covered include the structure and function of the cell: membranes, organelles and cytoskeleton; communication within and between cells; the regulation of cell cycling and the differentiation of cells from single cell to whole organism. The theoretical coverage will be extended by the addition of self-paced exercises which will require the students to survey the latest developments in this area. Practical work illustrates and complements the lectures, provides extensive experience with contemporary molecular cell techniques and will be enhanced by the inclusion of leading-edge technologies. This advanced course is designed to suit students who plan to pursue research careers in molecular cell biology or related disciplines.

BIOC4103
Genetics 4 Honours Full-Time
School of Biotechnology and Biomolecular Science
UOC24

BIOC4109
Genetics Honours (PT)
School of Biotechnology and Biomolecular Science
UOC12

BIOC4318
Biochemistry 4 Honours Full-Time
School of Biotechnology and Biomolecular Science
UOC24
Advanced training in selected areas of biochemistry including a supervised research program that places emphasis on the use of specialised techniques relevant to the research area. A written thesis on the research is required. The Honours program includes a formal component of seminars, an essay and participation in discussion groups.

BIOC4428
Molecular Biology 4 Honours Full-Time
School of Biotechnology and Biomolecular Science
UOC24
Advanced training in selected areas of molecular biology including a supervised research program that places emphasis on the use of specialised techniques relevant to the research area. A written thesis on the research is required. The Honours program includes a formal component of seminars, an essay and participation in discussion groups.

BIOM1001
Professional Biomedical Studies
Graduate School of Biomedical Engineering
UOC3 HPV2
Provides an introduction to biomedical engineering; examines the range of professional engineering activities; highlights ethical considerations associated with clinical applications; and develops skill in oral, written and graphical communication.

BIOM2010
Biomedical Engineering Practice
Graduate School of Biomedical Engineering
UOC3 HPV2
Introduction to clinical situations in hospitals. Presentation of guest lectures by eminent people working in the field. Lecture topics include cardiology, neurology, orthopaedics, and rehabilitation.

BIOM5000
Thesis A
Graduate School of Biomedical Engineering
UOC6 HPV6
For BE(Mech)/MBiomedE students only. To be taken in the year of completing the BE(Mech)/MBiomedE degree course.

BIOM5002
Thesis Part B
Graduate School of Biomedical Engineering
UOC9
Thesis topic for BE(Mech)/MBiomedE students only.

BIOM5904
Thesis Part B (SENG)
Graduate School of Biomedical Engineering
UOC12 HPW12
Thesis for students enrolled in BE (SENG)/MBiomedE only.

BIOM5909
Thesis Part A (SENG)
Graduate School of Biomedical Engineering
UOC3
Thesis for students enrolled in BE (SENG)/MBiomedE only.

BIOM5910
Thesis Part A
Graduate School of Biomedical Engineering
UOC6 HPW8
Thesis topic for BE(Elec)/MBiomedE students only.
image reconstruction algorithms. Detailed examination of the four main Fundamentals of producing a medical image, image collection techniques, graduate school of biomedical engineering

BIOM9027 Medical Imaging
Graduate School of Biomedical Engineering
UOC6 HPW3

This is the second part of the research project when taken over two semesters, BIOM920 being the first part. Projects are undertaken at the graduate school of biomedical engineering or other relevant institutions towards the end of a student's program. Topics are chosen in collaboration with a supervisor from the Graduate School.

BIOM9027 Clinical Laboratory Science
Graduate School of Biomedical Engineering
UOC6 HPW3

This course outlines concepts underlying development of cell-based products and aims to give students a theoretical and practical understanding of the tools available for producing such "devices" as well as the biological, physical and chemical constraints of these systems. Specific topics that will be covered include introductory cell biology and biochemistry, cellular mechanics, mass transfer in cells and tissue, analysis of cell and tissue functions, regulatory requirements for biological products and tissue engineering applications. Laboratory classes will be used to allow students to gain some practical experience with cell and scaffold manipulations.

BIOM9040 Biocompatibility
Graduate School of Biomedical Engineering
UOC6 HPW3

This course outlines concepts underlying development of cell-based products and aims to give students a theoretical and practical understanding of the tools available for producing such "devices" as well as the biological, physical and chemical constraints of these systems. Specific topics that will be covered include introductory cell biology and biochemistry, cellular mechanics, mass transfer in cells and tissue, analysis of cell and tissue functions, regulatory requirements for biological products and tissue engineering applications. Laboratory classes will be used to allow students to gain some practical experience with cell and scaffold manipulations.

BIOM9040 Biocompatibility
Graduate School of Biomedical Engineering
UOC6 HPW3

This course outlines concepts underlying development of cell-based products and aims to give students a theoretical and practical understanding of the tools available for producing such "devices" as well as the biological, physical and chemical constraints of these systems. Specific topics that will be covered include introductory cell biology and biochemistry, cellular mechanics, mass transfer in cells and tissue, analysis of cell and tissue functions, regulatory requirements for biological products and tissue engineering applications. Laboratory classes will be used to allow students to gain some practical experience with cell and scaffold manipulations.
The technologies, tests and operation of a variety of clinical laboratory testing systems (biochemistry, haematology, immunology, histology). Engineering solutions to physiological problems, chemical and biochemical assays.

**BIOM9430**  
**Electromedical Standards**  
Graduate School of Biomedical Engineering  
UOC6  HPW3  
Basic effects of electricity on the human body, threshold of ventricular fibrillation, termination of leakage currents, statistical basis of experimental data used to define limits of leakage currents. Formation of safety standards for electromedical equipment. Mechanisms of approval of electromedical equipment. Certification schemes for electromedical equipment. National and international legal requirements.

**BIOM9432**  
**Chemistry and Physics of Synthetic and Biological Polymers**  
Graduate School of Biomedical Engineering  
UOC6  HPW3  
This course outlines the chemistry and physics of synthetic and natural polymers. It is an introductory level offering that covers polymerisation, synthesis of branched macromolecules and networks and polymer behaviour in solution and solid state. It also covers biological polymers. This includes synthesis and characterisation of biological polymers using proteins, polysaccharides and DNA as examples.

**BIOM9440**  
**Biomedical Practical Measurement**  
Graduate School of Biomedical Engineering  
UOC6  HPW3  
Hands-on practice in the use and testing of medical transducers and electromedical equipment in common use in hospitals and research laboratories to make measurements of biomedical variables of clinical significance.  
**Note:** Limited number of places - contact School Office.

**BIOM9450**  
**Clinical Information Systems**  
Graduate School of Biomedical Engineering  
UOC6  HPW3  
An introduction to medical informatics and information systems, evidence-based medicine and clinical decision support. Aspects of database design, normalisation and structured query language (SQL). A previous knowledge of Java is necessary.  
**Note:** Limited number of places - contact School Office.

**BIOM9501**  
**Computing for Biomedical Engineers**  
Graduate School of Biomedical Engineering  
UOC6  HPW3  
Algorithm design and documentation; programming in Java and in JBuilder; object oriented program design; event driven programming in a graphical environment.  
**Note:** Highly recommended for Strand B students. This course is for students with little or no computing experience or for those students who wish to learn about object oriented programming in a Windows environment.

**BIOM9510**  
**Introductory Biomechanics**  
Graduate School of Biomedical Engineering  
UOC6  HPW3  
The principles of the mechanics of solid bodies, force systems, kinematics and kinetics of rigid bodies, stress-strain relationships, stress analysis of simple elements application to musculoskeletal system.

**BIOM9541**  
**Mechanics of the Human Body**  
Graduate School of Biomedical Engineering  
UOC6  HPW2  
Statics and dynamics of the musculoskeletal system: mathematical modelling and computer simulation, analysis of pathological situations.  
Assumed Knowledge: BIOM9510 and ANAT2111.

**BIOM9551**  
**Biomechanics of Physical Rehabilitation**  
Graduate School of Biomedical Engineering  
UOC6  HPW2  
The application of biomechanics principles to the areas of performance testing and assessment, physical therapy, design of rehabilitation equipment, design of internal and external prostheses and orthoses.  
**Note:** This course is not offered on a regular basis.  
Assumed Knowledge: BIOM9541.

**BIOM9561**  
**Mechanical Properties of Biomaterials**  
Graduate School of Biomedical Engineering  
UOC6  HPW3  
The physical properties of materials having significance to biomedical engineering: human tissues; skin; soft tissues; bone; metals; polymers and ceramics. The effects of degradation and corrosion.

**BIOM9601**  
**Biomedical Applications of Microcomputers 1**  
Graduate School of Biomedical Engineering  
UOC6  HPW3  
Microcomputer architecture; physiological data acquisition systems; input/ output signals and devices; assembly language programming; interfacing to higher level languages; the numeric data coprocessor; interrupts; graphics; practical sessions on use of Debug, Assembler, familiarisation with interrupt vector table and I/O ports. Major assignment on specific biomedical application (e.g. bedside ECG monitor).  
**Note:** A reasonably advanced background in microprocessors is required. Entry to course is by interview.  
Assumed Knowledge: BIOM9040 and BIOM9050 or equivalents.

**BIOM9613**  
**Medical Instrumentation**  
Graduate School of Biomedical Engineering  
UOC6  
A critical comparative analysis of the theoretical physics and practical applications of medical transducers and electromedical equipment in common use in hospitals and research laboratories. How to choose a measurement device for a given situation.

**BIOM9621**  
**Biological Signal Analysis**  
Graduate School of Biomedical Engineering  
UOC6  HPW3  
Use of digital computers to extract information from biological signals. Signal processing using filtering, averaging, curve-fitting and related techniques, and analysis using model simulations, correlation, spectral analysis etc.  
**Note:** Basic electronics and mathematics background required.

**BIOM9701**  
**Dynamics of the Cardiovascular System**  
Graduate School of Biomedical Engineering  
UOC6  HPW3  
Structure of the heart; organisation of the mammalian vasculature; mechanical, electrical and metabolic aspects of cardiac pumping; the solid and fluid mechanics of blood vessels; rheology of blood.  
**Note:** Some mathematics background desirable.

**BIOM9913**  
**Project Report**  
Graduate School of Biomedical Engineering  
UOC12  
Projects are undertaken at the Graduate School or other relevant institutions towards the end of the program. Topics are chosen in collaboration with a supervisor from the Graduate School.

**BIOM9914**  
**Masters Project**  
Graduate School of Biomedical Engineering  
UOC12  
This is a 12 UOC one session research project replacing BIOM 9913. If you wish to do a 12 UOC project extending over two sessions, please enrol in BIOM 9020 and BIOM 9021.
Projects are undertaken at the Graduate School of Biomedical Engineering or other relevant institutions towards the end of a student's program. Topics are chosen in collaboration with a supervisor from the Graduate School.

**Note:** Course offered subject to approval.

**BIOS1101**

**Evolutionary and Functional Biology**

School of Biological, Earth and Environmental Sciences UOC6 HPW5

The course examines the evolutionary history of life on earth from origins to humans and the relationship between environment, adaptation and function. Animal (particularly human) and plant physiology are covered with an emphasis placed on adaptation in the Australian context.

**Note:** Laboratories commence in Week 1.

**BIOS1201**

**Molecules, Cells and Genes**

School of Biological, Earth and Environmental Sciences UOC6 HPW5

The course is concerned with the basic characteristics of all life. The chemistry of life is covered with emphasis on the ways in which living things construct and break down macromolecules. The way in which the genetic code controls these processes depends to a great extent on the structure and function of cell components, and cell biology is a major component of the course. The final topic is genetics - the way in which the genetic code is inherited and the ways in which it can be modified.

**Assumed knowledge:** HSC Exam Score: Physics 53-100, or Chemistry 53-100, or Earth and Environmental Science 53-100, or Biology 53-100.

**Notes:** Assumed knowledge for BIOS1201 is minimal. If you believe that your academic background is not appropriate, but would like to do Biology, please consult the Director. Laboratories commence in Week 1.

**BIOS1301**

**Ecology, sustainability and environmental science**

School of Biological, Earth and Environmental Sciences UOC6 HPW5

This course provides an introduction to ecology, sustainability and environmental science, introducing a range of biological topics and how scientists approach these topics to solve problems. The course develops student skills in critically assessing scientific information, routinely debated by the public and decision-makers. It provides a strong grounding in today's and tomorrow's environmental problems and the role of science in providing solutions.

**Assumed knowledge:** HSC Exam Scores: Biology 53-100; Chemistry 53-100; Earth and Environmental Sciences 53-100 or Physics 53-100 or 3 Unit Science 80-130, or 4 Unit Science 1-30.

**Note:** Costs may be incurred for fieldwork. Students should consult the School of Biological, Earth and Environmental Sciences (BEES) website for laboratory registration details.

**BIOS2011**

**Evolutionary and Physiological Ecology**

School of Biological, Earth and Environmental Sciences UOC6 HPW5

Introduction to functional relationships between living organisms and the environments in which they live. Emphasis on interactions within and between populations, ecological energetics, ecophysiology, and the theory of evolution by natural selection. Plants, animals and microbes are covered. Also serves as an introduction to the process of scientific enquiry.

**Assumed knowledge:** BIOS1101 and BIOS1201

**BIOS2021**

**Genetics**

School of Biological, Earth and Environmental Sciences UOC6 HPW5

Excluded: BIOS2621

Genome structure and life cycles in prokaryotes and eukaryotes: DNA, gene mapping, cytogenetics; genetic transmission, mutation, recombination; gene regulation, interaction and development; genetic variation and evolution of molecules, populations and species: mating, selection, migration, population size, mutation, environment; applications, including to humans and genetic engineering.

**Assumed knowledge:** BIOS1101 and BIOS1201 or CHEM1011

**BIOS2031**

**Biology of Invertebrates**

School of Biological, Earth and Environmental Sciences UOC6 HPW5

A study of invertebrate diversity emphasising their evolution, morphology, behaviour, and relationships to marine, freshwater and terrestrial environments. Invertebrate conservation and applied aspects of invertebrate biology are included. Practical work includes examining living and preserved specimens (including dissections) in the laboratory and the field, and techniques for invertebrate identification.

**Assumed knowledge:** BIOS1101 and BIOS1201.

**Note:** Enrolment in this course may be subject to quota restrictions. Such restrictions will only apply to students taking this course as an elective. There is a compulsory field camp during the mid session break and personal expenses will be incurred.

**BIOS2051**

**Flowering Plants**

School of Biological, Earth and Environmental Sciences UOC6 HPW5

Basic plant biology including cell structure, plant morphology and anatomy, water and sugar transport, seed structure and germination, plant growth and development, leaves and photosynthesis, roots, microorganisms and nutrition, evolution of land plants and plant taxonomy. A strong emphasis is placed on Australian native flora. Practical work includes light microscopy; plant anatomy and identification.

**Assumed knowledge:** BIOS1101 and BIOS1201

**BIOS2061**

**Vertebrate Zoology**

School of Biological, Earth and Environmental Sciences UOC6 HPW5

Australia has a high diversity of vertebrate species (e.g. platypus, tree frogs, parrots, snakes). This course examines the evolution, diversity and natural history of these animals with a special emphasis on how they cope with Australia's environment. It covers the evolutionary origins and relationships between the major Vertebrate groups and explores their diversity of form, function and behavior. There is a detailed investigation of birds and mammals, particularly their ecology, life history and emerging conservation issues. Practical work involves examining living and preserved specimens (including dissections) and several field trips around Sydney studying vertebrates in the wild.

**BIOS2621**

**Genetics (Advanced Level)**

School of Biological, Earth and Environmental Sciences UOC6 HPW6

Excluded: BIOS2621


**Assumed knowledge:** BIOS1101, BIOS1201, CHEM1011

**Note:** Available to students in 3972/3990 (Advanced Science, Life Sciences) and, subject to availability of places, to other high performing students.

**BIOS3011**

**Animal Behaviour**

School of Biological, Earth and Environmental Sciences UOC6 HPW5

Theory and practice in the biological study of animal behaviour: ethology and behavioural ecology. The observation and description of behaviour along with the development, function and evolution of behaviour in an ecological context are examined as important elements in the analysis of behaviour, particularly social behaviour. Topics include sensory control systems, foraging behaviour, communication, home range, territorial behaviour, aggression and dominance, sexual behaviour, mate choice, mating systems, play and social organisation. Examples are drawn from the Australian fauna and both field and laboratory work are included.
BIOS3021
Comparative Animal Physiology
School of Biological, Earth and Environmental Sciences
UOC6  HPW5
The physiology of invertebrates and vertebrates including the special features of Australian mammals. The topics examined include reproduction, hormones, nerves, blood, circulation, respiration and kidneys with emphasis on the control and integration of organ systems and body functions.
Assumed Knowledge: Animal systematics and morphology, with BIOS2031 and BIOS2061 recommended

BIOS3061
Plant Ecosystem Processes
School of Biological, Earth and Environmental Sciences
UOC6  HPW5
Assumed Knowledge: BIOS2051

BIOS3071
Conservation Biology and Biodiversity
School of Biological, Earth and Environmental Sciences
UOC6  HPW5
Excluded: BIOS3671
Applications of community biology, population ecology and genetics to management of environmental problems in nature and artificial ecosystems, including Australian examples; nature and importance of global diversity; management and design of programs for the conservation of species and ecosystems, including reserves, off-site conservation, and computer simulations.
Assumed knowledge: BIOS1101 and BIOS1201
Note: Field excursions are compulsory and will involve expense to individual students.

BIOS3081
Ocean Biology and Fisheries
School of Biological, Earth and Environmental Sciences
UOC6  HPW5
Excluded: BIOS3681
Marine pelagic and estuarine habitats. The practical application of theory to the ocean environment and its effect on the life of marine organisms. Emphasis is on the biology of phytoplankton, zooplankton and fish, together with the study of fisheries. Includes management, marine technology, computer simulations, conservation, other marine vertebrates, aquaculture and environmental concerns. Technical skills, taxonomy and sampling design.
Assumed knowledge: BIOS2031 and BEE2041
Note: A compulsory field trip will be held during the mid-session break, and will involve personal expense to individual students.

BIOS3091
Marine and Aquatic Ecology
School of Biological, Earth and Environmental Sciences
UOC6  HPW5
Ecology of marine and freshwater systems, emphasising benthic communities. Population and community dynamics of these systems. Evolution of life histories in the light of constraints of aquatic systems. Emphasis on experimental approaches to aquatic ecology. Special topics considered include chemical ecology, plant/herbivore ecology, and applied aspects of the topic such as mariculture. A section on the biology and taxonomy of marine algae (seaweeds) is included. Fieldwork is an important component of the course.
Assumed Knowledge: BIOS2011 or BEE2041

BIOS3111
Population and Community Ecology
School of Biological, Earth and Environmental Sciences
UOC6  HPW5
Excluded: BIOS3611
Factors regulating dynamics of interacting populations, renewable resource management, ecosystem stability, cycles and chaos, simulation modelling in ecology, niche theory, competition, habitat selection, community structure, species diversity, island biogeography, ecological gradients. Succession following disturbance (fire, mining, or logging). Practical work is essential and may involve a field component.
Assumed Knowledge: BIOS1101 and BIOS2011 and MATH1041 (or higher level of statistics)

BIOS3161
Life in Arid Lands
School of Biological, Earth and Environmental Sciences
UOC6  HPW5
Forty-four percent of Australia is desert and a further 37% is semi-arid grassland or shrub communities. These arid lands contribute much to our unique biodiversity. We examine the history of the formation of the Australian arid lands, their characteristics relative to other arid parts of the world, the evolutionary history of the flora and fauna, adaptations of plants and animals to arid environments, the major arid lands ecosystems and conservation of biodiversity. We apply biological knowledge to issues of land degradation, salinisation of soils, dryland farming, feral animal control and wildlife management for a sustainable future. A field trip to Western NSW is an essential part of the course and students will incur expenses.
Assumed knowledge: BIOS2051 and BIOS2031 or BIOS2061 or equivalent knowledge of the systematics and morphology of animals and plants.
Note: A compulsory field trip will be held during the mid-session break and personal expenses will be incurred.

BIOS3301
Population and Community Ecology for Environmental Engineers
School of Biological, Earth and Environmental Sciences
UOC3  HPW3
Factors regulating dynamics of interacting populations, renewable resource management, ecosystem stability, cycles and chaos, simulation modelling in ecology, niche theory, competition, habitat selection, community structure, species diversity. Plant and animal succession following disturbances such as fire, mining and logging. Rehabilitation and restoration procedures following disturbance. Appropriate tutorial topics.
Note: Restricted to Environmental Engineering Programs.

BIOS3601
Advanced Field Biology
School of Biological, Earth and Environmental Sciences
UOC6  HPW45
An advanced practical training in diversity, systematics, biology and identification of terrestrial animals and plants. The course is run principally as an intensive one (1) week course at Smiths Lake Field Station during the Easter break. Students will receive theoretical and practical training in current methods of trapping, collecting and identifying animals and plants, estimation of population size, biodiversity, the conduct of animal surveys, and data analyses. The course coverage will include both vertebrate and invertebrate animals and plants.
Assumed knowledge: BEE2041 and familiarity with principles of systematics
Note: Available to students in Advanced Science, with unfilled places available to students in Environmental Science, Biological Science and Ecology Majors with a credit average.

BIOS3671
Conservation Biology and Biodiversity (Advanced Level)
School of Biological, Earth and Environmental Sciences
UOC6  HPW6
Excluded: BIOS3071
Applications of community biology, population ecology and genetics to management of environmental problems in nature and artificial ecosystems, including Australian examples. Nature and importance of global diversity, management and design of programs for the conservation
of species and ecosystems, including reserves, off-site conservation, and computer simulations. Field excursions are compulsory and will involve expense to individual students. Current conservation issues will be addressed in small group projects.

Assumed knowledge: BIOS101 and BIOS1201

Note: Available to students in 3990 (Advanced Science, Life Sciences) and, subject to availability of places, to other high performing students.

BIOS3681
Ocean Biology and Fisheries (Advanced Level)
School of Biological, Earth and Environmental Sciences
UOC6 HPW6
Excluded: BIOS3181

Marine pelagic and estuarine habitats. The practical application of theory to the ocean environment and its effect on the life of marine organisms. Emphasis on the biology of phytoplankton, zooplankton and fish, together with the study of fisheries. Includes management, marine technology, computer simulations, conservation, other marine vertebrates, aquaculture and environmental concerns. Technical skills, taxonomy and sampling design. Personal expenses will be incurred. The Advanced Level has fewer laboratories, but includes a tutorial, use of specialised equipment, as well as a seminar series.

Assumed knowledge: BIOS2031, BEE2041

Note: Available to students in Advanced Science- Life Sciences and, subject to the availability of places, to students in BEnviroSci (Biological and Marine) and in 3970 (Biological Science, Ecology, and Biological Oceanography Majors with a credit average or better in BIOS courses). A compulsory field trip will be held during the mid-session break.

BIOS4514
Biological Science Honours B
School of Biological, Earth and Environmental Sciences
UOC24

A 24UOC research project in Biological Science, to be completed within a single session.

Note: Plus BIOS4511, BIOS4521 and 12UOC science courses at Stage 3 (that have not been completed previously), or other science courses approved by the Honours Coordinator. Entry requires the completion of Stages 1-3 of the Advanced Science Plan in Ecology or Biological Science, or a Major in Ecology or Biological Science with 36 Units of Credit in Stage 3 courses at a credit average or better.

BIOS4515
Biological Science Honours B
School of Biological, Earth and Environmental Sciences
UOC18

A 18UOC research project in Biological Science, to be taken in combination with BIOS4518, to total 24UOC over 2 sessions.

Note: Plus BIOS4511, BIOS4521 and 12UOC science courses at Stage 3 (that have not been completed previously), or other science courses approved by the Honours Coordinator. Entry requires the completion of Stages 1-3 of the Advanced Science Plan in Ecology or Biological Science, or a Major in Ecology or Biological Science with 36 Units of Credit in Stage 3 courses at a credit average or better.

BIOS4516
Biological Science Honours B
School of Biological, Earth and Environmental Sciences
UOC12

A 12UOC research project in Biological Science taken for two sessions to total 24UOC.

Note: Plus BIOS4511, BIOS4521 and 12UOC science courses at Stage 3 (that have not been completed previously), or other science courses approved by the Honours Coordinator. Entry requires the completion of Stages 1-3 of the Advanced Science Plan in Ecology or Biological Science, or a Major in Ecology or Biological Science with 36 Units of Credit in Stage 3 courses at a credit average or better.

BIOS4518
Biological Science Honours B
School of Biological, Earth and Environmental Sciences
UOC6

A 6UOC research project in Biological Science, taken in each of four sessions to total 24UOC, or completed in fewer sessions by combination with BIOS4515 or BIOS4516.

Note: Plus BIOS4511, BIOS4521 and 12UOC science courses at Stage 3 (that have not been completed previously), or other science courses approved by the Honours Coordinator. Entry requires the completion of Stages 1-3 of the Advanced Science Plan in Ecology or Biological Science, or a Major in Ecology or Biological Science with 36 Units of Credit in Stage 3 courses at a credit average or better.

BIOS4524
Botany Honours B
School of Biological, Earth and Environmental Sciences
UOC24

A 24UOC research project in Botany, to be completed within a single session.

Note: Plus BIOS4511, BIOS4521 and 12UOC science courses at Stage 3 (that have not been completed previously), or other science courses approved by the Honours Coordinator. Entry requires the completion of Stages 1-3 of the Advanced Science Plan in Ecology or Biological Science, or a Major in Ecology or Biological Science with 36 Units of Credit in Stage 3 courses at a credit average or better.

BIOS4525
Botany Honours B
School of Biological, Earth and Environmental Sciences
UOC18

A 18UOC research project in Botany, to be taken in combination with BIOS4528, to total 24UOC over 2 sessions.

Note: Plus BIOS4511, BIOS4521 and 12UOC science courses at Stage 3 (that have not been completed previously), or other science courses approved by the Honours Coordinator. Entry requires the completion of Stages 1-3 of the Advanced Science Plan in Ecology or Biological Science, or a Major in Ecology or Biological Science with 36 Units of Credit in Stage 3 courses at a credit average or better.

BIOS4526
Botany Honours B
School of Biological, Earth and Environmental Sciences
UOC12

A 12UOC research project in Botany taken over two sessions to total 24UOC.

Note: Plus BIOS4511, BIOS4521 and 12UOC science courses at Stage 3 (that have not been completed previously), or other science courses approved by the Honours Coordinator. Entry requires the completion of Stages 1-3 of the Advanced Science Plan in Ecology or Biological Science, or a Major in Ecology or Biological Science with 36 Units of Credit in Stage 3 courses at a credit average or better.

BIOS4528
Botany Honours B
School of Biological, Earth and Environmental Sciences
UOC6

A 6UOC research project in Botany taken in each of 4 sessions to total 24UOC, or completed in fewer sessions by combination with BIOS4525 or BIOS4526.

Note: Plus BIOS4511, BIOS4521 and 12UOC science courses at Stage 3 (that have not been completed previously), or other science courses approved by the Honours Coordinator. Entry requires the completion of Stages 1-3 of the Advanced Science Plan in Ecology or Biological Science, or a Major in Ecology or Biological Science with 36 Units of Credit in Stage 3 courses at a credit average or better.

BIOS4534
Zoology Honours B
School of Biological, Earth and Environmental Sciences
UOC24

A 24UOC research project in Zoology, to be completed within a single session.

Note: Plus BIOS4511, BIOS4521 and 12UOC science courses at Stage 3 (that have not been completed previously), or other science courses approved by the Honours Coordinator. Entry requires the completion of Stages 1-3 of the Advanced Science Plan in Ecology or Biological Science, or a Major in Ecology or Biological Science with 36 Units of Credit in Stage 3 courses at a credit average or better.

BIOS4535
Zoology Honours B
School of Biological, Earth and Environmental Sciences
UOC18
A 18UOC research project in Zoology, to be taken in combination with BIOS4538, to total 24UOC over 2 sessions.

**Note:** Plus BIOS4511, BIOS4521 and 12UOC science courses at Stage 3 (that have not been completed previously), or other science courses approved by the Honours Coordinator. Entry requires the completion of Stages 1-3 of the Advanced Science Plan in Ecology or Biological Science, or a Major in Ecology or Biological Science with 36 Units of Credit in Stage 3 courses at a credit average or better.

**BIOS4536**

**Zoology Honours B**

School of Biological, Earth and Environmental Sciences

UOC12

A 12UOC research project in Zoology taken for two sessions to total 24UOC.

**Note:** Plus BIOS4511, BIOS4521 and 12UOC science courses at Stage 3 (that have not been completed previously), or other science courses approved by the Honours Coordinator. Entry requires the completion of Stages 1-3 of the Advanced Science Plan in Ecology or Biological Science, or a Major in Ecology or Biological Science with 36 Units of Credit in Stage 3 courses at a credit average or better.

**BIOS4538**

**Zoology Honours B**

School of Biological, Earth and Environmental Sciences

UOC6

A 6UOC research project in Zoology taken in each of 4 sessions to total 24UOC, or completed in fewer sessions by combination with BIOS4535 or BIOS4536.

**Note:** Plus BIOS4511, BIOS4521 and 12UOC science courses at Stage 3 (that have not been completed previously), or other science courses approved by the Honours Coordinator. Entry requires the completion of Stages 1-3 of the Advanced Science Plan in Ecology or Biological Science, or a Major in Ecology or Biological Science with 36 Units of Credit in Stage 3 courses at a credit average or better.

**BIOS4544**

**Ecology Honours B**

School of Biological, Earth and Environmental Sciences

UOC24

A 24UOC research project in Ecology, to be completed within a single session.

**Note:** Plus BIOS4511, BIOS4521 and 12UOC science courses at Stage 3 (that have not been completed previously), or other science courses approved by the Honours Coordinator. Entry requires the completion of Stages 1-3 of the Advanced Science Plan in Ecology or Biological Science, or a Major in Ecology or Biological Science with 36 Units of Credit in Stage 3 courses at a credit average or better.

**BIOS4545**

**Ecology Honours B**

School of Biological, Earth and Environmental Sciences

UOC18

A 18UOC research project in Ecology, to be taken in combination with BIOS4548, to total 24UOC over 2 sessions.

**Note:** Plus BIOS4511, BIOS4521 and 12UOC science courses at Stage 3 (that have not been completed previously), or other science courses approved by the Honours Coordinator. Entry requires the completion of Stages 1-3 of the Advanced Science Plan in Ecology or Biological Science, or a Major in Ecology or Biological Science with 36 Units of Credit in Stage 3 courses at a credit average or better.

**BIOS4546**

**Ecology Honours B**

School of Biological, Earth and Environmental Sciences

UOC12

A 12UOC research project in Ecology, taken for two sessions to total 24UOC.

**Note:** Plus BIOS4511, BIOS4521 and 12UOC science courses at Stage 3 (that have not been completed previously), or other science courses approved by the Honours Coordinator. Entry requires the completion of Stages 1-3 of the Advanced Science Plan in Ecology or Biological Science, or a Major in Ecology or Biological Science with 36 Units of Credit in Stage 3 courses at a credit average or better.

**BIOS4548**

**Ecology Honours B**

School of Biological, Earth and Environmental Sciences

UOC6

A 6UOC research project in Ecology, taken in each of 4 sessions to total 24UOC, or completed in fewer sessions by combination with BIOS4545 or BIOS4546.

**Note:** Plus BIOS4511, BIOS4521 and 12UOC science courses at Stage 3 (that have not been completed previously), or other science courses approved by the Honours Coordinator. Entry requires the completion of Stages 1-3 of the Advanced Science Plan in Ecology or Biological Science, or a Major in Ecology or Biological Science with 36 Units of Credit in Stage 3 courses at a credit average or better.

**BIOT1011**

**Introductory Biotechnology**

School of Biotechnology and Biomolecular Science

UOC6   HPW5

This course provides an overview of the impact of biotechnology in the achievement of contemporary objectives in the field of medicine, plant and animal science, and in food, marine and environmental sciences, and draws comparisons with conventional technologies. The concepts of bioethics, patenting and other regulatory issues are also introduced.

The course is intended to cover the broad concept of biotechnology - its historical and contemporary relevance.

**BIOT3021**

**Biotechnology B**

School of Biotechnology and Biomolecular Science

UOC6   HPW6

Prerequisite: BIOTC2101 or LIFE2101, BIOTC2201; Excluded: BIOT3611.

The basic principles involved in the operation of microbial processes on an industrial scale. Includes: the isolation of commercially useful organisms; the selection, maintenance and improvement of microorganisms using conventional and recombinant genetics; the influence of physical and chemical factors on the microbial environment; the control of environmental factors; extremophile biotechnology; the effects of operational patterns on batch and continuous flow cultivation; air and media sterilisation; the harvesting, purification and standardisation of products; the principles involved in microbial processes for chemical, pharmaceutical and food production. The laboratory component includes manipulation of industrially important microorganisms and isolation of novel microorganisms. Industrial and other invited speakers will cover issues related to animal and plant transgenics; the human genome project and medicine; advances in food biotechnology; and commercialization issues.

**BIOT3011**

**Biotechnology A**

School of Biotechnology and Biomolecular Science

UOC6   HPW5

Prerequisite: BIOT3011 or BIOT3611; Excluded: BIOT3621.

Application of principles of biotechnology to the analysis and design of microbial processes of industrial relevance (ethanol, single cell protein, fermented foods and beverages, amino acids and vitamins, microbial polysaccharides, microbial enzymes, secondary metabolites including antibiotics, recombinant proteins, products of mammalian cell culture, waste treatment processes, microbial leaching and metal recovery from low grade minerals). Emphasis on quantitative approach: mass and heat balance calculations, kinetic and thermodynamic analysis, equipment selection and specification, process modelling and application of optimisation techniques. The economics of microbial processes are considered, as well as a series of case studies on the technical and economic feasibility of modern biotechnology-based processes. Patent and regulatory issues are also reviewed.

Laboratory experiments, tutorials and a small design project complement the lecture program.
production of recombinant biopharmaceuticals, the ability to produce human antibodies and recent developments in gene therapy have seen biopharmaceutical discovery and production become a major global focus of research activity. The course is designed to give students a detailed insight into techniques in biopharmaceutical discovery, isolation and characterization. The practical work includes production of a model recombinant biopharmaceutical by cell culture, including downstream processing and characterization using modern techniques. The course introduces important fundamental principles of biotechnology including fermentation and biocatalysis, protein synthesis and engineering and recombinant DNA technology. The applications of these principles are then explored in a series of lectures focusing on environmental biotechnology, drug recovery and production, plant biotechnology, biosources and the economics of bioprocesses. The course is designed to provide an understanding of the principles and applications of biotechnology both in its own and as alternatives to chemical synthesis.

**Note:** Restricted to programs 3055, 3100 and 3040.

**BIOT3010**

**Fundamentals of Biotechnology**

School of Biotechnology and Biomolecular Science

UOC3 HPW2

This course introduces important fundamental principles of biotechnology including fermentation and biocatalysis, protein synthesis and engineering and recombinant DNA technology. The applications of these principles are then explored in a series of lectures focusing on environmental biotechnology, drug recovery and production, plant biotechnology, biosources and the economics of bioprocesses. The course is designed to provide an understanding of the principles and applications of biotechnology both in its own and as alternatives to chemical synthesis.

**Note:** Restricted to programs 3055, 3100 and 3040.

**BIOT3071**

**Commercial Biotechnology**

School of Biotechnology and Biomolecular Science

UOC6 HPW4

Corequisite: BIOT4053 (for program 3052 only), or prerequisite 48UOC for other programs.

This course covers aspects important to the commercialisation of biotechnology and related industries and includes: the definition, generation and protection of intellectual property (IP); issue and protection of patents in Australia and overseas; trademarks and copyright; role of confidentiality in protecting non-patentable IP; licensing arrangements and trading in IP. Innovation Management, planning and management of R&D programs, preparation and assessment of business plans. Sources of funding for biotechnology R&D, both corporate and government, establishment of business ventures, joint ventures and strategic alliances. Regulatory and legislative aspects of genetically modified organisms (GMOs) and environmental considerations and concerns, policies in Australia, USA and Europe regarding their use in agricultural, food and pharmaceutical industries. Introduction to the concepts of good manufacturing practice (GMP) for therapeutic goods; regulatory procedures for biotechnology derived therapeutics, process validation. Marketing, licencing and business studies.

**BIOT3081**

**Environmental Biotechnology**

School of Biotechnology and Biomolecular Science

UOC6 HPW5

Prerequisite: 48 units of credit

This course discusses the commercial applications of bioprocesses to environmental problems. The principles of microbial sensing and adaption to extreme environments, as discussed in Environmental Microbiology (MICR3071), are expanded in the bioremediation of polluted environments and the recovery of important minerals and precious metals. Similar to the application of microorganisms in other key environmental areas of biodeterioration, biomineralogy, biosensors, biofuels, biodegradable plastics, waste and water treatment and biocontrol are also discussed in this course.

**BIOT3091**

**Professional Issues in Biotechnology**

School of Biotechnology and Biomolecular Science

UOC6 HPW4

Corequisite: BIOT4053 (for program 3052 only), or prerequisite 48UOC for other programs.

This course builds on the framework provided in BIOT3071, Commercial Biotechnology, in providing material necessary for the commercialisation of biotechnology products and training students in professional issues important for their careers. The grounding in IP provided in BIOT3071 will be augmented with material and case studies which cover the developments in IP relevant to the biotech industry. Planning and control of R&D projects, project management. Review of the Australian biotech industry including analysis of sources of capital and comparisons with the situation existing in the USA. Specific treatment of the regulatory approval process for biopharmaceuticals, with specific material on GMP and process validation for r-DNA derived therapeutics and gene therapy products. The practical/tutorial component in the course will involve the students in small group as well as individual assignments, where presentations will be made to the class. Assignments will cover such areas as drafting of provisional and PCT patent applications; business plans for biotech companies; case studies analysing specific companies and products; requirements for regulatory approval. The course will be carried out in association with staff and conjoint appointments in the School as well as visiting lecturers.
Advanced formal training in selected areas of biotechnology and participation in one of the School’s research projects. Students will be required to attend and participate in the Graduate Seminar program. In addition, students may be required to undertake a reading list and/or essay, at the discretion of the school.

**Note:** Restricted to program 3990/3972.

**BLDG1050**
**Structures 1**
Building Construction Management Program
UOC6  HPW4

An introduction to structural appreciation; external and internal forces; free body diagrams; static force equilibrium for statically determinate structures; member forces in pin-jointed trusses; beam section properties; bending moment, shear force and deflection diagrams for beams; beam stresses in bending and shear; design of steel beams for bending, shear and deflection. Case studies to illustrate how structures of various types support vertical and lateral loads.

**BLDG1121**
**Construction Science**
Building Construction Management Program
UOC6  HPW4

Properties of materials; plasticity, elasticity, density, porosity, hardness. Optical, electrical, thermal and acoustic properties. Deterioration. Properties and manufacture of building materials; wood, wood products, bricks, fibre cement, ceramics, plastics, sealants and mastics, stones. Concrete technology: cement, aggregates, water and admixtures; properties of fresh concrete; strength considerations; durability, shrinkage and creep; special concretes; nondestructive testing; mix design. Metals in buildings: structural ferrous alloys; corrosion and protection; welding; types of failure, brittle fracture, fatigue, creep; impact resistance; tensile properties; hardness; strain hardening. Fire: behaviour of building materials and structures.

**BLDG1211**
**Construction Technology 1A (Domestic Construction)**
Building Construction Management Program
UOC6  HPW4

Introduction to the use of drawing instruments. Basic architectural drafting skills. Functional requirements and methods of building single storey family dwellings: brick, brick veneer and timber frame; domestic joinery; staircase construction; finishes; plumbing, drainage and electrical services; methods of setting out and supervision, on site observation and a report on house construction.

**BLDG1212**
**Construction Technology 1B (Low Rise Residential)**
Building Construction Management Program
UOC6  HPW4
Prerequisite: BLDG1211.

Small multistorey buildings from the functional and construction operation viewpoints. Quality control and supervision. Basement, ground floor and upper floor construction; methods of roofing, waterproofing; joinery; internal finishes; minor construction plant, formwork. Construction drafting, onsite observation and report on home unit building.

**BLDG1260**
**Construction Management 1 (Management Principles)**
Building Construction Management Program
UOC6  HPW3

Library usage. Accessing information: reading, summarising, referencing, report writing and oral presentations. Organisation of and participation in meetings, seminars and lectures. Basic management principles, functions of management, scientific management, management objectives. Structure of the construction industry; benchmarking; total quality management; constructability; partnering and strategic alliance; re-engineering. Development process and statutory controls.

**BLDG1283**
**Construction Law 1A**
Building Construction Management Program
UOC3  HPW2

Law, including a brief outline of sources of law in New South Wales and the system of judicial precedent. General principles of law of contracts. Contractual rights and obligations. Court structures; Sale of goods; a general introduction to the law of bankruptcy. General principles of law of agency. Law of partnership.

**BLDG1282**
**Construction Law 1B**
Building Construction Management Program
UOC3  HPW2
Prerequisite: BLDG1281.

Commercial Law; Corporations; Trade Practices; Consumer Protection; Torts; Remedies; Succession; Local Government; Real Property; Administrative Law.

**BLDG1302**
**Construction Economics**
Building Construction Management Program
UOC6  HPW3

The economic structure and function of the building and construction industry, illustrated with examples. Macroeconomic policy and its impact on the building and construction industry. The role of the Australian economy in the world.

**BLDG2052**
**Structures 2**
Building Construction Management Program
UOC6  HPW4

Principles of structural design for strength, stability and serviceability; design of steel and concrete structures using limit state design; load transfer mechanisms and failure modes in beams and columns; design of beams and columns in steel; bolted joints and welded joints in steel frame; design of reinforced concrete beams and slabs for bending, shear and deflection; reinforcement in columns, footings and other elements; reinforcement detailing; concrete bond and anchorage; durability and concrete cover; case studies of structural failures.

**BLDG2101**
**Construction Technology 2A (Frame Buildings)**
Building Construction Management Program
UOC6  HPW4
Prerequisite: BLDG1211, BLDG1212.

Study of framed industrial buildings with emphasis on steel frames: framing systems including connection methods; roofing systems; cladding systems including precast concrete walling, metal and glass walling, masonry walling; flooring systems; building access and egress; fire requirements; environmental considerations; site establishment; on site observation and report on construction of industrial buildings.

**BLDG2212**
**Construction Technology 2B (Building Services)**
Building Construction Management Program
UOC6  HPW4
Prerequisite: BLDG2101, BLDG2121, BLDG1211.

Hydraulic services pertaining to small and medium size projects; hot and cold water reticulation; sewer and storm water drainage; sanitary plumbing, introduction to fire fighting equipment and services; regulatory authorities and requirements. Ventilation theory; ventilation systems and equipment; refrigeration theory; air-conditioning equipment; electrical equipment; telecommunications and security; lifts and escalators; detection and fire protection; garbage and incinerators.

**BLDG2280**
**Construction Management 2A (Occupational Psychology, Health and Safety)**
Building Construction Management Program
UOC6  HPW4
Prerequisite: BLDG1260.

Definition of Personnel Management and Human Resources Management. Stages in the development of human resources management. The leadership/management dialectic. Interpersonal skill development. Team building. Performance management and continuous improvement. Construction project management, concept and application. Role and functions of the project manager; management of all phases of construction projects. Construction strategy, planning and control. Project process management to reliably achieve the project goals; quality, waste, safety and progress management in design and construction including from a TQM perspective. Application of project management tools.

**BLDG2332**
**Measurement & Documentation**
Building Construction Management Program
UOC6 HPW4
Prerequisite: BLDG1212.
Quantity surveying; historical background; functions of the quantity surveyor; introduction to the Australian Standard Method of Measurement of Building Works, its importance and application; methods of recording dimensions, checking and correlating plans and specifications; principles of measurement and billing; Bill of Quantities format; elementary billing and measurement of basic trades including finishes, brickwork, woodworking, roofing, concrete and groundwork.

**BLDG2482**
**Computer Applications in Construction**
Building Construction Management Program
UOC3 HPW3
Prerequisite: BENV1141.
This course discusses computer applications for construction project management, and the creation and distribution of information within the building industry. It includes such topics as: networking and communication technologies; digital document formats and environments; spreadsheets; database systems; computer programs for project planning, cost estimating and cost management; shared project information databases; and CAD product modelling standards for interoperability with estimating and planning applications. This course involves practical use of spreadsheet, database, and project planning programs, with a focus on developing good skills with the Excel spreadsheet program.

**BLDG3101**
**Construction Technology 3A (Tall Buildings)**
Building Construction Management Program
UOC6 HPW5
Prerequisite: BLDG2212, BLDG2101, BLDG1212, BLDG1211
Functional requirements and building techniques of tall buildings; foundation systems; structural systems including structural steel construction and reinforced concrete construction; enclosure systems including metal and glass cladding; ceiling and partition systems; various methods and materials commonly used to solve functional demands; comparison of systems of construction and their interrelationship; material handling and management including selection of cranes, hoists, and concrete pumps; principles of fire protection in tall building; on site observation and report on tall building construction.

**BLDG3102**
**Construction Technology 3B (Techniques)**
Building Construction Management Program
UOC6 HPW5
Prerequisite: BLDG3101, BLDG2212, BLDG2101, BLDG1212, BLDG1211
Specialised construction techniques employed on major projects including: the selection of plant, equipment and various construction systems; excavation; shoring; ground anchorage; underpinning; piling; formwork; craneage; material handling. Pre-stressed and pre-cast concrete construction. Construction methods with minimal impact on the environment; Building Code of Australia and code requirements; integration and coordination of services; demolition; site establishment; advanced construction techniques; basic geological considerations for building foundations; on-site studies and report.

**BLDG3281**
**Construction Management 3A (Contracts)**
Building Construction Management Program
UOC6 HPW3
Prerequisite: BLDG1282.

**BLDG3284**
**Construction Management 3B (Planning & Control)**
Building Construction Management Program
UOC6 HPW3
Operation research techniques and their relevance to building, concept of planning and control, CPM, PERT, Line of Balance, Multi-activity Chart, computer applications of CPM. Principles and application of Work Study. Risk analysis, decision making process. An integrated project that draws together material covered in previous courses of the program. Simulation of construction conditions including technical, management, business and social aspects that have to be considered by the construction professional.

**BLDG3301**
**Advanced Measurement & Documentation**
Building Construction Management Program
UOC6 HPW4
Prerequisite: BLDG2332.
Advanced billing and measurement of substructure, structure and services and preliminaries in accordance with the Australian Standard Method of Measurement. Introduction to computerised measurement and billing. Introduction to elemental cost planning.

**BLDG3332**
**Construction Cost Estimating**
Building Construction Management Program
UOC6 HPW3
Prerequisite: BLDG2332.
Introduction to construction cost estimating including terminology, types of estimates and the tendering process. Analysis of material, plant and labour costs, and the estimation of selected unit rates; preliminaries, supplier and subcontract quotations, general and site overheads. Preliminary estimates. Preparation of contract variations.

**BLDG3402**
**Research Skills**
Building Construction Management Program
UOC3 HPW2
An introduction to research methods, analytical techniques and presentation. Theories and philosophies of science and research. Research topics; collecting, generating and evaluating information. Structuring the study and presenting results. Probability; sample spaces and probabilities; probability trees; distribution of random variables; expected value and decision analysis. Statistics: mean, mode, median, standard deviation and variance; normal and binomial distributions; linear regression.

**BLDG4275**
**Dispute Avoidance and Resolution**
Building Construction Management Program
UOC3 HPW2
Nature of claims, remedies, alternative dispute resolution, mediation, expert appraisal, litigation, moot arbitration.

**BLDG4285**
**Professional Practice & Procedure**
Building Construction Management Program
UOC6 HPW3
Professional Institutes: Roles, Codes of Conduct; Fee Scales; Professional Indemnity Insurance; The Consultant/Client Agreement; Contract Administration: Variation Orders, Interim Payments and Final Accounts; Tax Depreciation Schedules; Office Management.

**BLDG4304**
**Forecasting, Bidding & Cost Control**
Building Construction Management Program
UOC6 HPW3
Prerequisite: BLDG3301, BLDG3332.
Advanced estimating techniques, competitive tendering, contract cost adjustment; computer techniques applied to estimating. Practical exercises in the preparation of construction project tenders.
BLDG4305
Design Evaluation
Building Construction Management Program
UOC6  HPW3
Prerequisite: BLDG3301, BLDG3332.
Cost Modelling; Accuracy in estimating; Area Rate Estimates; Functional Area Estimates; Cost Planning; typical cost plan, cost planning techniques, cost planning measurement and pricing; Feasibility Studies; Value Management. Cost planning practical exercise.

BLDG4315
Business & Financial Control
Building Construction Management Program
UOC6  HPW3
Prerequisite: BLDG1302.
The business environment; business structures; taxation and depreciation; operating costs; economics of building plant and materials handling systems; financial control in the erection, management and demolition of buildings. Investment Analysis: demand for housing, demand for construction.

BLDG4492
Property Development and Valuation
Building Construction Management Program
UOC3  HPW3

BLDG4501
Thesis Foundation
Building Construction Management Program
UOC6
Prerequisite: BLDG4402.
This course is preparation for BLDG4502 Thesis and must be satisfactorily completed before enrolment in that course. Students are required to submit a developed thesis outline on an approved topic, including a full literature review and a justification of the proposed research methodology.

BLDG4502
Thesis
Building Construction Management Program
UOC1.2
Prerequisite: BLDG4501.
Using the thesis outline developed in BLDG4501 Thesis Foundation, the preparation of a thesis that exhibits the following properties: a clearly stated aim or purpose, a review of relevant literature, and the adoption of an appropriate research method demonstrating analysis and synthesis with a justifiable conclusion. The thesis to have a clear structure and development and to be properly referenced with suitable bibliography.

BLDG9998
Quantity Surveying Industry Program
Building Construction Management Program
UOC1.2
Students proposing to apply for membership in the A.I.Q.S., B.Q.S.M. or R.I.C.S. after graduation should enrol in this course rather than BLDG9999.
It must be completed before the start of the final year of the program. The Quantity Surveying Industry Program is to be taken as a six months continuous employment with a professional Quantity Surveying firm or with a firm or building company where Quantity Surveying activities are undertaken. Students should be under the direct supervision of a corporate member of the Australian Institute of Quantity Surveyors or, where this is not possible, under the guidance of a mentor appointed by the Institute. Submission requirements are a daily diary, report and a completed form from the employer.

BLDG9999
Building Industry Program
Building Construction Management Program
UOC1.2
Eighty days of approved building industry experience at any time to the start of the final year of the Program. Submission requirements are a weekly diary, report and a completed form from the employer.

CEIC0010
Mass Transfer and Material Balances
School of Chemical Engineering and Industrial Chemistry
UOC3  HPW3
Prerequisite: CHEM1011 or CHEM1301, CHEM1201 or CVEN1531

Note: Servicing Course ie. a course taught within courses offered by other Faculties.

CEIC0050
Atmospheric Process Chemistry
School of Chemical Engineering and Industrial Chemistry
UOC3  HPW3
Prerequisite: CHEM1011 or CHEM1301, CHEM1201 or CVEN1531

CEIC2011
Instrumental Analysis - Theory
School of Chemical Engineering and Industrial Chemistry
UOC3  HPW3

CEIC2012
Instrumental Analysis - Practical
School of Chemical Engineering and Industrial Chemistry
UOC3  HPW3
Prerequisite: CIEH.2011
Development of laboratory skills with a range of analytical instruments which includes: Selective ion electrode, polarography, potentiometric titrations, UV/Visible spectrophotometry, X-Ray Fluorescence and Diffraction, Gas and Ion chromatography.

CEIC2020
Introduction to Numerical Methods
School of Chemical Engineering and Industrial Chemistry
UOC3  HPW3
Prerequisite: CIEH.1020, MA1H1231 or MA1H1241, PHYS1169 or PHYS1111.
Computing for scientific and chemical engineering applications. Brief review of basic computer concepts. The Visual Basic language. Applications in chemical engineering and industrial chemistry such as the solution of heat transfer and chemical reaction problems.

CEIC2110
Material & Energy Balances
School of Chemical Engineering and Industrial Chemistry
UOC3  HPW3
Prerequisite: CIEIC1020
Solution strategies for material and energy balance problems. Material Balances: Component, elemental and differential material balances. Problems involving bypass, recycle, purge and chemical reaction. Energy Balances: Thermodynamic background: first law; general equation for open and closed systems; shaft work and enthalpy; reference states. Application of energy balances: enthalpy data including steam tables and psychrometric charts; heat capacity data; phase change; mixing;
heat of solution; enthalpy-concentration diagrams; heats of formation, combustion and reaction. Integrated material and energy balance problems.

**CEIC2120**

**Fluid Flow**
School of Chemical Engineering and Industrial Chemistry
UOC3 HPW3
Prerequisite: CEIC1020, PHYS1169 or PHYS1111.


**CEIC2130**

**Heat Transfer**
School of Chemical Engineering and Industrial Chemistry
UOC3 HPW3

Introduction to various modes and mechanisms of heat transfer. Physical origins and rate equations. Conductivity. Diffusional heat transfer based on shell balances approach for one-dimensional steady state and transient transfer with heat generation and chemical reactions. Composite walls, contact resistance and extended surfaces. Introduction to heat exchangers; log-mean temperature difference, effectiveness - NTU methods.

**CEIC3010**

**Reaction Engineering**
School of Chemical Engineering and Industrial Chemistry
UOC4 HPW3
Prerequisite: CEIC2110, (CHEN2061 OR INDC2040).


**CEIC3070**

**Process Control**
School of Chemical Engineering and Industrial Chemistry
UOC4 HPW4
Prerequisite: CEIC2101, (CHEN2061 OR INDC2040).

Concepts of process control, including: dynamic modelling of processes, linearization, Laplace transforms, transfer function, open loop response of first and higher order systems, approximation by first order plus dead time models, concept of control for process regulation and safety, feedback control, block diagrams, PID controllers and tuning methods, closed loop response, stability analysis, single input-single output control loop design, cascade control, feed forward control, control valve characteristics and sizing, as well as introduction to some advanced control concepts. Process control laboratory experiments.

**CEIC3110**

**Thermodynamics**
School of Chemical Engineering and Industrial Chemistry
UOC3 HPW3
Prerequisite: CEIC2110, (CHEN2061 OR INDC2040).


**CEIC4070**

**Laboratory Automation Science**
School of Chemical Engineering and Industrial Chemistry
UOC4 HPW4
Prerequisite: CEIC3070


**CEIC4095**

**Special Research Project Practice**
School of Chemical Engineering and Industrial Chemistry
UOC9
ENROLMENT REQUIRES SCHOOL APPROVAL

The experimental investigation of some aspect of an elected topic area in Chemical Engineering

**CEIC4096**

**Research Project Theory Extended**
School of Chemical Engineering and Industrial Chemistry
UOC6
ENROLMENT REQUIRES SCHOOL APPROVAL

The experimental investigation of some aspect of an elected topic area in Industrial Chemistry/Chemical Engineering.

**CEIC4101**

**Professional Electives Advanced**
School of Chemical Engineering and Industrial Chemistry
UOC3
Prerequisite: 132 units of credit

To be chosen from offerings in: CEIC6101 Advanced Reaction Engineering; CEIC6102 Advanced Process Control; CEIC6103 Advanced Particle and Separation Processes; CEIC6104 Advanced Polymers.

STUDENTS ENROL IN SUBJECT CEIC6*** NOT CEIC4101. Not all courses are run at any one time.

**CEIC4102**

**Professional Electives Extended**
School of Chemical Engineering and Industrial Chemistry
UOC3
Prerequisite: 132 units of credit

To be chosen from offerings in: CEIC6201 Minerals Engineering (Graduates may qualify for membership for of the Australian Institute of Mining and Metallurgy); CEIC6202 Biochemical Processing 1; CEIC6203 Environmental Management 2A; CEIC6204 Business Management in Chemical Engineering A; CEIC6205 Fuel & Energy 1 (Graduates may qualify for membership for of the Australian Institute of Energy).

STUDENTS ENROL IN SUBJECT CEIC6*** NOT CEIC4102. Not all courses are offered at any one time.

**CEIC4103**

**Professional Electives**
School of Chemical Engineering and Industrial Chemistry
UOC3
Prerequisite: 132 units of credit

To be chosen from offerings in: CEIC6201 Minerals Engineering (Graduates may qualify for membership for of the Australian Institute of Mining and Metallurgy); CEIC6202 Biochemical Processing 1; CEIC6203 Environmental Management 2A; CEIC6204 Business Management in Chemical Engineering A; CEIC6205 Fuel & Energy 1 (Graduates may qualify for membership of the Australian Institute of Energy).

STUDENTS ENROL IN SUBJECT CEIC6*** NOT CEIC4102. Not all courses are offered at any one time.

**CEIC4104**

**Professional Electives**
School of Chemical Engineering and Industrial Chemistry
UOC3
Prerequisite: 132 units of credit

To be chosen from offerings in: CEIC6201 Minerals Engineering (Graduates may qualify for membership for of the Australian Institute of Mining and Metallurgy); CEIC6202 Biochemical Processing 1; CEIC6203 Environmental Management 2A; CEIC6204 Business Management in Chemical Engineering A; CEIC6205 Fuel & Energy 1 (Graduates may qualify for membership of the Australian Institute of Energy).

STUDENTS
ENROL IN SUBJECT CEIC6*** NOT CEIC4102. Not all courses are offered at any one time.

CEIC4105
Professional Electives
School of Chemical Engineering and Industrial Chemistry
Prerequisite: 132 units of credit
To be chosen from offerings in: CEIC4101 Advanced Process Control; CEIC4104: Advanced Polymers; CEIC6206 Minerals Engineering - Practice; CEIC6207 Environmental Management 2B; CEIC6208 Business Management in Chemical Engineering B. Students ENROL IN SUBJECT CEIC6*** NOT CEIC4105. Not all subjects are offered at any one time.

CEIC4106
Professional Electives
School of Chemical Engineering and Industrial Chemistry
Prerequisite: 132 units of credit
To be chosen from offerings in: CEIC6206 Minerals Engineering - Practice; CEIC6209 Fuel & Energy 2; CEIC6210 Biochemical Processing 2; CEIC6207 Environmental Management 2B; CEIC6208 Business Management in Chemical Engineering B. Students ENROL IN SUBJECT CEIC6*** NOT CEIC4106. Not all courses are offered at any one time.

CEIC4110
Plant Management and Operation (3041 Program Students only)
School of Chemical Engineering and Industrial Chemistry
Prerequisite: CEIC3010
A series of lectures designed to introduce the students to appropriate management techniques. Topics will include: business strategies, leadership, total quality management, safety management. Sixty days of approved Industrial Training are part of the requirements for the satisfactory completion of this subject. The objectives of the Industrial training are (1) to develop an appreciation of the structure and operation of industrial organisations, (2) to understand the role of the engineer and engineering in industry, (3) to appreciate the importance of good communications and interpersonal skills and to develop these skills, and (4) to appreciate the ethical basis of engineering practice in industry. Students are required to submit to the school evidence from their employers of each period of training, confirming the work performed, together with a report (2000 words) which should summarise the technical work performed, and the extent to which the Industrial training objectives have been fulfilled. The course also includes SESCC310, an objective 5 course which covers social issues arising from future scientific and technological developments and the role that the professional scientist can play in influencing future directions. The subject is taught by a combination of group activities, case studies, projects and seminars. The subject will cover four major topical areas: professional ethics, environmental related issues, safety and liability and controls of future technology.

CEIC4130
Plant Operation (BE/MBio Med Program students only)
School of Chemical Engineering and Industrial Chemistry
Prerequisite: CEIC3010
Sixty days of approved Industrial Training are part of the requirements for the satisfactory completion of this subject. The objectives of the Industrial Training are (1) to develop an appreciation of the structure and operation of industrial organisations, (2) to understand the role of the engineer and engineering in industry, (3) to appreciate the importance of good communications and interpersonal skills and to develop these skills, and (4) to appreciate the ethical basis of engineering practice in industry. Students are required to submit to the school evidence from their employers of each period of training, confirming the work performed, together with a report (2000 words) which should summarise the technical work performed, and the extent to which the Industrial training objectives have been fulfilled. The course also includes SESCC310, an objective 5 course which covers social issues arising from future scientific and technological developments and the role that the professional scientist can play in influencing future directions. The subject is taught by a combination of group activities, case studies, projects and seminars. The subject will cover four major topical areas: professional ethics, environmental related issues, safety and liability and controls of future technology.

CEIC4200
Industrial Experience
School of Chemical Engineering and Industrial Chemistry
Prerequisite: CEIC3010
A series of lectures designed to introduce the students to appropriate management techniques. Topics will include: business strategies, leadership, total quality management, safety management. Sixty days of approved Industrial Training are part of the requirements for the satisfactory completion of this subject. The objectives of the Industrial training are (1) to develop an appreciation of the structure and operation of industrial organisations, (2) to understand the role of the engineer and engineering in industry, (3) to appreciate the importance of good communications and interpersonal skills and to develop these skills, and (4) to appreciate the ethical basis of engineering practice in industry. Students are required to submit to the school evidence from their employers of each period of training, confirming the work performed, together with a report (2000 words) which should summarise the technical work performed, and the extent to which the Industrial training objectives have been fulfilled. The course also includes SESCC310, an objective 5 course which covers social issues arising from future scientific and technological developments and the role that the professional scientist can play in influencing future directions. The subject is taught by a combination of group activities, case studies, projects and seminars. The subject will cover four major topical areas: professional ethics, environmental related issues, safety and liability and controls of future technology.

CEIC4201
Industrial Experience
School of Chemical Engineering and Industrial Chemistry
Prerequisite: CEIC3010
A series of lectures designed to introduce the students to appropriate management techniques. Topics will include: business strategies, leadership, total quality management, safety management. Sixty days of approved Industrial Training are part of the requirements for the satisfactory completion of this subject. The objectives of the Industrial training are (1) to develop an appreciation of the structure and operation of industrial organisations, (2) to understand the role of the engineer and engineering in industry, (3) to appreciate the importance of good communications and interpersonal skills and to develop these skills, and (4) to appreciate the ethical basis of engineering practice in industry. Students are required to submit to the school evidence from their employers of each period of training, confirming the work performed, together with a report (2000 words) which should summarise the technical work performed, and the extent to which the Industrial training objectives have been fulfilled. The course also includes SESCC310, an objective 5 course which covers social issues arising from future scientific and technological developments and the role that the professional scientist can play in influencing future directions. The subject is taught by a combination of group activities, case studies, projects and seminars. The subject will cover four major topical areas: professional ethics, environmental related issues, safety and liability and controls of future technology.

CEIC4210
Advanced Reaction Engineering
School of Chemical Engineering and Industrial Chemistry
Prerequisite: CEIC3010
A series of lectures designed to introduce the students to appropriate management techniques. Topics will include: business strategies, leadership, total quality management, safety management. Sixty days of approved Industrial Training are part of the requirements for the satisfactory completion of this subject. The objectives of the Industrial training are (1) to develop an appreciation of the structure and operation of industrial organisations, (2) to understand the role of the engineer and engineering in industry, (3) to appreciate the importance of good communications and interpersonal skills and to develop these skills, and (4) to appreciate the ethical basis of engineering practice in industry. Students are required to submit to the school evidence from their employers of each period of training, confirming the work performed, together with a report (2000 words) which should summarise the technical work performed, and the extent to which the Industrial training objectives have been fulfilled. The course also includes SESCC310, an objective 5 course which covers social issues arising from future scientific and technological developments and the role that the professional scientist can play in influencing future directions. The subject is taught by a combination of group activities, case studies, projects and seminars. The subject will cover four major topical areas: professional ethics, environmental related issues, safety and liability and controls of future technology.
This subject will focus on pharmaceutical processing for chemical engineering and industrial chemistry. The course is designed as an interactive discourse between students and lecturer. The students are actively engaged in judging current scientific research papers as well as developing new research strategies. If you are undertaking honours, Master’s or PhD research in the field of polymer science, this course is highly recommended.

CEIC6201
Minerals Engineering
School of Chemical Engineering and Industrial Chemistry
UOC3

Principles and applications of physical mineral processing, hydrometallurgy and electrometallurgy covering comminution, flotation, solid/liquid separation, dewatering, leaching, solvent extraction, purification and separation processes, electrowinning/refining and waste processing. Emphasis is placed on throughput and process calculations for the design of mineral processing plants.

CEIC6202
Biochemical Processing 1
School of Chemical Engineering and Industrial Chemistry
UOC3

CEIC6203
Environmental Management 2A
School of Chemical Engineering and Industrial Chemistry
UOC3

CEIC6204
Business Management in Chemical Engineering A
School of Chemical Engineering and Industrial Chemistry
UOC3

The aims of this course are to introduce issues which affect business decisions encountered by management in the chemical industry. Topics include domestic and export markets, market growth, the leading effect and product life cycles. The distinction between issues and problems using PVC and the chlorine debate is discussed. Factors affecting plant life: scale up, retrofitting, competing technologies etc. Environmental and compliance issues including green chemistry. The petrochemical industry and in particular the polymer manufacturing industry is used to illustrate the main areas. Industry speakers and site visits are used to maintain relevance and topicality.

CEIC6205
Fuel & Energy 1
School of Chemical Engineering and Industrial Chemistry
UOC3

Enrolment requires school approval
Current energy resources and alternatives for the future. Basic principles of fuel conversion processes: gasification, carbonisation, oil refining etc. Introduction to combustion of solid, liquid and gaseous (fossil) fuels.

CEIC6207
Environmental Management 2B
School of Chemical Engineering and Industrial Chemistry
UOC3

CEIC6208
Business Management in Chemical Engineering B
School of Chemical Engineering and Industrial Chemistry
UOC3

This course considers the skills required to manage world class manufacturing plants. Topics covered include; features of the world’s best manufacturing plants; manufacturing as an integral part of the business; human resource management; reliability management; quality management systems; risk management; information technology management; supply and stock management; customer service; and, benchmarking.

CEIC6210
Biochemical Processing 2
School of Chemical Engineering and Industrial Chemistry
UOC3

This subject will focus on pharmaceutical processing for chemical engineers and industrial chemists. Planned topics include an overview of the pharmaceutical industry, process engineering in the pharmaceutical industry, good manufacturing practices, pharmacokinetics, regulatory aspects, clinical trials, drug delivery systems/formulations, occupational health and safety aspects in the industry, and marketing. This course may be supplemented by site visits and industry speakers.

CEIC6211
Polymer Chemistry for Chem Eng
School of Chemical Engineering and Industrial Chemistry
UOC3

This subject is designed for chemical engineering students who wish to gain a general understanding of polymerization processes. Particular emphasis is given to free-radical (co)polymerization processes, their reactions, fundamental kinetics and industrial applications. The course will also address polymer characterization techniques ranging from chromatography to mass spectrometry. In addition, novel living methods of free-radical polymerization will be discussed. The material may be augmented with lab visits, demonstrations, and industry visits.

CHEM1000
Chemistry at the Cutting Edge
School of Chemistry
UOC3 HPW2

Just what are the big issues in contemporary chemistry? This course takes an investigative approach to thinking about some of the challenging issues and frontiers in chemistry such as molecular machines, the chemical basis of memory, green chemistry, smart materials and the chemical origins of life.

Note: Restricted to Advanced Science students.

CHEM1011
Fundamentals of Chemistry 1A
School of Chemistry
UOC6 HPW6
Excluded: CHEM1031


CHEM1021
Fundamentals of Chemistry 1B
School of Chemistry
UOC6 HPW6
Prerequisite: CHEM1011, Excluded: CHEM1041


CHEM1031
Higher Chemistry 1C
School of Chemistry
UOC6 HPW6
Excluded: CHEM1011

Atomic structure and periodicity. Structure and shapes of molecules. Chemical reactions, rates and mechanisms. Reactions of organic compounds. Includes advanced laboratory work. Assumed knowledge: Equivalent to a good standard in high school chemistry (HSC 2 unit chemistry [75 - 100] or equivalent)

CHEM1041
Higher Chemistry 1D
School of Chemistry
UOC6 HPW6
Prerequisite: CHEM1031, Excluded: CHEM1021


CHEM1819
Biological Chemistry for Optometry Students A
School of Chemistry
UOC6 HPW6
Assumed knowledge: A good knowledge of chemistry (corresponding to HSC 2U/nit chemistry 65-100)

Note: Restricted to program 3950.

CHEM1829

Biological Chemistry for Optometry Students B
School of Chemistry
UOC6 HPW6
Prerequisite: CHEM1819

Note: Restricted to program 3950.

CHEM1831

Chemistry for Health, Exercise and Medical Science
School of Chemistry
UOC6 HPW6
Excluded: CHEM1031, CHEM1011, CHEM1819.

Designed for students in Health and Exercise Science and related areas, this course covers the chemistry required to understand atomic and molecular structure, states of matter, thermodynamics, equilibrium chemistry in aqueous solution and introductory kinetics, the chemistry of organic compounds, stereochemistry, functional groups and their reactions especially amines, amides, acids and esters, redox chemistry of oxygen. Case studies and experiments relevant to health and exercise science are also included. The chemistry in the course will prepare students for the Level II Biochemistry and Anatomy components of their programs.
Assumed knowledge: A basic knowledge of Chemistry equivalent to the NSW Year 11 Chemistry syllabus. It is also recommended that BIOS1201 be taken concurrently.

CHEM2011

Physical Chemistry
School of Chemistry
UOC6 HPW6
Prerequisite: CHEM1011 or CHEM1031, CHEM1021 or CHEM1041, MATH1021 or MATH1031 or MATH1231 or MATH1241.


Note: Alternative courses are available to avoid timetable clashes. Please consult with the School.

CHEM2021

Organic Chemistry
School of Chemistry
UOC6 HPW6
Prerequisite: CHEM1011 or CHEM1031, CHEM1021 or CHEM1041
Applications of spectroscopy in structure elucidation. Reactive intermediates, addition and rearrangement reactions, carbonyl group chemistry. Chemistry of aromatic compounds.

CHEM2031

Inorganic Chemistry and Structure
School of Chemistry
UOC6 HPW6
Prerequisite: CHEM1011 or CHEM1031, CHEM1021 or CHEM1041; Excluded: CHEM2839, CHEM2828

Note: Alternative courses are available to avoid timetable clashes. Please consult with the School.

CHEM2041

Chemical and Spectroscopic Analysis
School of Chemistry
UOC6 HPW6
Prerequisite: CHEM1011 or CHEM1031, CHEM1021 or CHEM1041, MATH1021 or MATH1031 or MATH1231 or MATH1241
Principles and applications of chemical and analytical spectroscopy. Statistical treatment of data. Titrimetric and potentiometric analysis. Separation techniques.

CHEM2718

Physical Chemistry for Materials Science and Engineering
School of Chemistry
UOC6
Prerequisite: CHEM1011 or CHEM1031, CHEM1021 or CHEM1041, MATH1231 or MATH1241 or MATH1021; Excluded: CHEM2011, CHEM2818.


CHEM2828

Organic and Inorganic Chemistry for Nanotechnology
School of Chemistry
UOC6 HPW6
Prerequisite: CHEM1011 or CHEM1031, CHEM1021 or CHEM1041
Excluded: CHEM2021, CHEM2031, CHEM2839
Reactive intermediates, addition and rearrangement reactions, carbonyl group chemistry. Chemistry of aromatic compounds. Electronic and geometric structure of inorganic compounds. Coordination chemistry. Transition and non-transition metal chemistry

CHEM2839

Inorganic Chemistry
School of Chemistry
UOC6 HPW6
Prerequisite: CHEM1011 or CHEM1031, CHEM1021 or CHEM1041; Excluded: CHEM2021, CHEM2818
Electronic structure of atoms and molecules structure, energetics and banding in the solid state. Principles of coordination chemistry. Occurrence, preparation, properties and reactions of selected compounds of transition and main group elements.

CHEM2921

Food Chemistry 1
School of Chemistry
UOC6 HPW6
Prerequisite: CHEM1011 or CHEM1031, CHEM1021 or CHEM1041

CHEM3011

Physical Chemistry
School of Chemistry
UOC6 HPW6
Prerequisite: 6 units of credit in Level 1 Physics, CHEM2031 or CHEM2041.
Elements of symmetry and group theory appropriate to molecular structure and spectroscopy. Quantum chemistry; atomic and molecular spectroscopy - principles and applications.

CHEM3021

Organic Chemistry
School of Chemistry
UOC6 HPW6
Prerequisite: CHEM2021

CHEM3031

Inorganic Chemistry
School of Chemistry
UOC6 HPW6
Prerequisite: CHEM2031 or CHEM2839
This course provides students with an understanding of the structure and function of metal complexes, with a particular emphasis on recent developments and applications of these complexes in industry and...
research. The course has four major components: (a) Metal complexes – fundamental theory, structure, spectroscopy and magnetism (b) Mechanisms in inorganic reactions, (c) An introduction to organometallic chemistry and catalysis and (d) Bioinorganic chemistry – the reaction chemistry of metalloenzymes.

CHEM3041
Analytical Chemistry
School of Chemistry
UOC 6  HPW6
Prerequisite: CHEM3041

This course builds on students' existing background in analytical chemistry to develop both theory and practice relating to the latest analytical techniques used in industry and research. The course covers method development, method validation and measurement uncertainty; theory, operation, instrumentation and applications for the major techniques in instrumental analysis, including separation techniques, mass spectrometry, hyphenated chromatography-mass spectrometry techniques, elemental atomic spectroscopy and mass spectrometry and electroanalytical techniques. There is a strong emphasis on practical experience.

CHEM3101
Project Laboratory in Chemistry
School of Chemistry
UOC 6  HPW6
Prerequisite: CHEM3101 or CHEM3201 or CHEM3031 or CHEM3041

Group projects in instrumental and synthetic chemistry. Students choose two 7-week projects, one in each area. The course includes familiarisation with literature and database searching, project planning and risk assessment, preparation of oral and written project reports.

CHEM3201
Topics in Contemporary Chemistry A
School of Chemistry
UOC 6  HPW6
Prerequisite: CHEM3011 or CHEM3021 or CHEM3031 or CHEM3041

An interdisciplinary course emphasising the latest advances in chemistry. A diverse range of topics will be offered each year from which students will select four. Topics will vary depending on availability and interest. Indicative Topics: supramolecular chemistry and molecular recognition; synthetic strategies in organic chemistry; molecular modelling and drug design; organometallic chemistry; surface chemistry and analysis; solid-state chemistry; polymer structure and characterisation; introduction to chemometrics; mass spectrometry. Note: Re CHEM3201 and CHEM3202 Topics in Contemporary Chemistry: A wide range of topics will be offered each year (8 - 12 depending on availability and interest). Students can select 4 topics (6UOC) or 8 topics (12UOC).

CHEM3202
Topics in Contemporary Chemistry B
School of Chemistry
UOC 6  HPW6
Prerequisite: CHEM3011 or CHEM3021 or CHEM3031 or CHEM3041

An interdisciplinary course emphasising the latest advances in chemistry. A diverse range of topics will be offered each year from which students will select eight. Topics will vary depending on availability and interest. Indicative Topics: supramolecular chemistry and molecular recognition; synthetic strategies in organic chemistry; molecular modelling and drug design; organometallic chemistry; surface chemistry and analysis; solid-state chemistry; polymer structure and characterisation; introduction to chemometrics; mass spectrometry. Note: Re CHEM3201 and CHEM3202 Topics in Contemporary Chemistry: A wide range of topics will be offered each year (8 - 12 depending on availability and interest). Students can select 4 topics (6UOC) or 8 topics (12UOC).

CHEM3301
Chemistry in Biological Systems
School of Chemistry
UOC 6  HPW6
Prerequisite: CHEM3021

Covers: aspects of bioorganic, bioinorganic and bioanalytical chemistry including natural products chemistry, antibiotics and drugs, herbicides and pesticides; The occurrence, coordination and role of metals in biology, enzyme and immunoassays in chemical analysis, biosensors.

CHEM3311
Environmental Chemistry
School of Chemistry
UOC 6  HPW6
Prerequisite: CHEM3041

Selected topics in advanced environmental chemistry. Topics will be offered from a list including: heavy metals, detoxification mechanisms and inorganic speciation; sampling and strategies for environmental analytical chemistry; atmospheric chemistry and pollution mechanisms; case studies of organic pollutants and remediation mechanisms. The laboratory component includes environmental project work and an introduction to regulatory requirements.

CHEM3829
Organic Chemistry
School of Chemistry
UOC 6  HPW6
Prerequisite: CHEM3021

The spectrosopic identification of organic compounds, free radical chemistry and electroorganic processes, various aspects of the organic industrial processes such as industrial synthesis based on petrochemicals, and organometallic reactions of industrial interest. Selected topics from the dyestuff, pharmaceutical and agricultural industries.

CHEM4003
Advanced Chemistry 4 Honours
School of Chemistry
UOC 6

Designed for those with a higher level of preparedness in Chemistry. A multifaceted course that will give students a high level of basic research skills, especially in critical evaluation of data and communication of results, but with a specialised focus on Chemistry. Consists of a selection of lectures and seminars on advanced topics in Chemistry and a research project.

CHEM4004
Advanced Chemistry 4 Honours (Mid-Year Start)
School of Chemistry
UOC 6

Short theoretical or experimental research project, supervised by a member of academic staff. Project planning, literature review, project development, oral and written reporting.
Designed for those with a higher level of preparedness in Chemistry. A multilaceted course that will give students a high level of basic research skills, especially in critical evaluation of data and communication of results, but with a specialised focus on Chemistry. Consists of a selection of lectures and seminars on advanced topics in Chemistry and a research project.

**CHEM4005**  
**Chemical Sciences 4 (Honours)**  
School of Chemistry  
UOC24

**CHEN2050**  
**Chemical Engineering Laboratory 1**  
School of Chemical Engineering and Industrial Chemistry  
UOC3  
HPW3  
Prerequisite: CEIC1020

An introduction to laboratory work in chemical engineering including technical report writing, flow sheet preparation, information retrieving and data processing techniques. Experiments in this subject are designed to demonstrate principles of industrial processes. Industrial operations are also analysed via reports from literature or multimedia, including videos.

**CHEN2061**  
**Introduction to Process Chemistry 1**  
School of Chemical Engineering and Industrial Chemistry  
UOC6  
HPW6  
Prerequisite: CHEM1021 or CHEM1041


**CHEN2062**  
**Introduction to Process Chemistry 2**  
School of Chemical Engineering and Industrial Chemistry  
UOC3  
HPW3  
Prerequisite: CHEN2061.

An introduction to and survey of the organic and inorganic chemistry of industrially important products.

**CHEN2140**  
**Mass Transfer**  
School of Chemical Engineering and Industrial Chemistry  
UOC3  
HPW3

Introduction to various modes and mechanisms mass transfer. Physical origins and rate equations. Diffusivity. Diffusional mass transfer based on shell balances approach for one-dimensional steady state and transient transfer. Analogies between Heat and Mass Transfer Applications.

**CHEN3021**  
**Systems Modelling & Analysis**  
School of Chemical Engineering and Industrial Chemistry  
UOC3  
HPW2  
Prerequisite: CEIC2120, CEIC2110, CEIC2130, MATH2030

Mathematical tools used in the modelling and analysis of chemical, mineral, and environmental processes. Fundamental modelling of chemical, mineral, and environmental systems, based on physical laws, including modelling of lumped systems, discrete systems, multivariable systems, and distributed parameter processes. Application of mathematical analysis tools including: matrix and vector operators, solution of ordinary and partial differential equations, linearization methods, and functional analysis to the solution of problems in the chemical, mineral and environmental engineering fields. Statistical applications including parameter estimation, empirical modelling.

**CHEN3022**  
**Process Modelling & Optimisation**  
School of Chemical Engineering and Industrial Chemistry  
UOC3  
HPW3  
Prerequisite: CEIC2020, MATH2030

Techniques to solve models of chemical and mineral processes, and process optimisation with respect to financial and environmental objectives. The concepts of solution to process models covered include solution of single and multi-variable linear and nonlinear equations, numerical solution of ordinary differential equations, and parameter estimation from process data. The concepts of process optimisation covered include single and multi-dimensional nonlinear optimisation, linear programming, and dynamic programming. The methods are taught using examples of common applications of the presented concepts in the chemical and mineral processing industries.

**CHEN3031**  
**Advanced Transport Phenomena**  
School of Chemical Engineering and Industrial Chemistry  
UOC3  
HPW3  
Prerequisite: CEIC2120, CEIC2130, CHEN2140, MATH2030


**Note:** This course is an extension of material given in CEIC2120 Fluid Flow, CEIC2130 Heat Transfer and CHEN2140 Mass Transfer.

**CHEN3040**  
**Separation Processes 1**  
School of Chemical Engineering and Industrial Chemistry  
UOC4

**CHEN3050**  
**Particle Mechanics**  
School of Chemical Engineering and Industrial Chemistry  
UOC3

**CHEN3062**  
**Particles, Separation, Heat Exchangers and Pressure Vessels**  
School of Chemical Engineering and Industrial Chemistry  
UOC6


**CHEN3065**  
**Plant and Equipment Design**  
School of Chemical Engineering and Industrial Chemistry  
UOC4  
HPW4  
Prerequisite: CEIC2110, CEIC2130, MATH2030.

Procedures for the selection, design, specification, construction and representation of process equipment according to engineering standards and procedures: Heat exchanger networks. Absorption, distillation, liquid-liquid extraction and adsorption involving stagewise and differential

CHEN3086
Process Design & Economics
School of Chemical Engineering and Industrial Chemistry
UOC3 HPW3
Prerequisite: CEIC2110, CEIC2130, MATH2030

CHEN3088
Process Design & Safety
School of Chemical Engineering and Industrial Chemistry
UOC3 HPW3
Prerequisite: CEIC2110, CEIC2130, MATH2030.

CHEN3080
Chemical Engineering Practice 2
School of Chemical Engineering and Industrial Chemistry
UOC3 HPW3
Prerequisite: CEIC2110, CEIC2130, CHEN2050, CHEN2062, CHEN2140
An integrated chemical engineering laboratory incorporating experiments in fluid flow, heat/mass transfer, thermodynamics and kinetics, mineral processing and fuel technology. The objectives of the experiments are to demonstrate, reinforce and extend the principles of chemical engineering which are used in the investigation of chemical engineering problems and to develop an interest in experimentation and efficiency in writing technical reports and presenting technical seminars.

CHEN4031
Environmental Management 1
School of Chemical Engineering and Industrial Chemistry
UOC3 HPW3
This course deals with conventional and advanced separation processes for water and air pollution control, effluent treatment and waste minimisation in the Process Industries. Topic areas covered will be selected from: Gravity Separations, Filtration Processes, Sorption Processes, Extraction Processes, Membrane Technology, Biological Processes, Design, Control and Monitoring, Clean Production Technologies.
Management Issues: Sustainability, decision making, environmental management system (ISO14001), life cycle analysis, material and flux analysis.

CHEN4081
Design Project
School of Chemical Engineering and Industrial Chemistry
UOC8 HPW6
Prerequisite: 132 units of credit
The project covers the engineering of all or part of a process plant. It requires the application of material covered in the entire undergraduate Chemical Engineering Degree program. The minimum requirements of the project are specified by the relevant engineering institutions accreditation standards. The project includes: selection and evaluation of the process flow sheet; design of facilities for processing, transport and storage of materials within the plant; plant sizing; equipment selection and cost estimation including utility requirements; plant location and layout; evaluation of the economic viability of the plant; control scheme development; hazard and risk assessment; preparation of an environmental impact statement; preparation of a piping and instrumentation diagram. All aspects of the design are completed with regard to statutory requirements. Students develop skills in team work, interpersonal relationships, decision making and technical capabilities.

CHEN4091
Research Project Theory
School of Chemical Engineering and Industrial Chemistry
UOC3 HPW3
Prerequisite: 132 units of credit
The course requires that the student elect a topic in Chemical Engineering, undertake a literature survey on that topic and produce a report.

CHEN4092
Research Project Practice
School of Chemical Engineering and Industrial Chemistry
UOC12 HPW10
Prerequisite: CHEN4091
The experimental investigation of some aspect of an elected topic area in Chemical Engineering.

CHEN4093
Small Research Project Theory
School of Chemical Engineering and Industrial Chemistry
UOC4 HPW4
Prerequisite: 132 units of credit
The course requires that the student elect a topic in Chemical Engineering, undertake a literature survey on that topic and produce a report.

CHEN4094
Small Research Project Practice
School of Chemical Engineering and Industrial Chemistry
UOC8 HPW8
Prerequisite: CHEN4093
The experimental investigation of some aspect of an elected topic area in Chemical Engineering.

CHIN1006
Introductory Chinese 1 (Complete Beginners)
Department of Chinese & Indonesian Studies
UOC6 HPW6
Excluded: CHIN1000, CHIN1106, HSC Chinese, native speakers of Mandarin Chinese, GENT0436, GENT0437
This is an integrated Standard Modern Chinese language skills program for beginners without any knowledge of Chinese and for background (dialect) speakers with no previous character knowledge. Students are taught in different groups according to their language background. The program combines listening, speaking and reading. The emphasis is on the development of communicative language competence. It includes an introduction to Chinese culture and civilisation.

CHIN1007
Introductory Chinese 2
Department of Chinese & Indonesian Studies
UOC6 HPW6
Prerequisite: CHIN1006 or equivalent; Excluded: CHIN1000, CHIN1107, HSC Chinese, native speakers of Mandarin Chinese
Further consolidation and development of language skills acquired in CHIN1006.

CHIN2006
Intermediate Chinese Language 1
Department of Chinese & Indonesian Studies
UOC6 HPW5
Prerequisite: CHIN1000 or CHIN1007 or CHIN1107 or equivalent; Excluded: CHIN2000, CHIN2001, CHIN2005, CHIN2010, CHIN2105, CHIN2106
Designed for students who have acquired a basic level of spoken Chinese and a working knowledge of up to six hundred characters in their first year of study as well as for those students who enter the Chinese language program with an equivalent knowledge of Chinese characters. The language component combines thought provoking conversation topics with a communicative approach and consolidates writing skills. A cultural component and a component for background speakers complement the program.

Note: Excluded HSC Chinese. Students are grouped according to their language ability.
CHIN2007
Intermediate Chinese Language 2
Department of Chinese & Indonesian Studies
UOC6 HPW3
Prerequisite: CHIN2006 or CHIN2106 or equivalent; Excluded: CHIN2000, CHIN2001, CHIN2005, CHIN2010, CHIN2105, CHIN2107
A continuation of CHIN2006. The language component of 4 hours per week is complemented by the cultural component of 1 hour per week.
Note: Excluded HSC Chinese.

CHIN2210
Chinese English Translation
Department of Chinese & Indonesian Studies
UOC6 HPW3
Prerequisite: CHIN1100 or CHIN1207; Excluded: CHIN2100
Uses authentic texts to help students acquire advanced skills of translating from Chinese into English and vice versa. Techniques for analysing and rendering texts of different styles and degrees of complexity will also be examined.

CHIN2211
Interpreting between Chinese and English
Department of Chinese & Indonesian Studies
UOC6 HPW3
Prerequisite: CHIN1100 or CHIN1207; Excluded: CHIN3100
Specialises in two-way interpreting in various contexts including business, law, social welfare, health and public relations. The emphasis is on enhancing linguistic competence and cultural awareness while at the same time conveying professional knowledge and skills.

CHIN2220
Contemporary Chinese Literature
Department of Chinese & Indonesian Studies
UOC6 HPW3
Prerequisite: CHIN1100 or CHIN1207; Excluded: CHIN3020
Offers an overview of contemporary Chinese literature from 1949 to the present. Covers different genres such as short stories, prose and poetry as well as literary criticism.

CHIN2221
Classical Chinese Literature
Department of Chinese & Indonesian Studies
UOC6 HPW3
Prerequisite: CHIN1100 or CHIN1207
The ability to read classical Chinese or wenyan is essential for a thorough understanding of Chinese language, history and culture because, after all, the main corpus of literature on these topics is written in classical Chinese. Presents an overview of China’s literary tradition focusing, in particular, on literary techniques used in a variety of text types such as poetry, essays, fiction and drama.

CHIN2222
The Chinese Lyric Journey: Classical Poetry and Painting
Department of Chinese & Indonesian Studies
UOC6 HPW3
Prerequisite: CHIN1100 or CHIN1207 or CHIN3107
Examines the interrelationship between classical Chinese poetry and painting in a broad context of Chinese poetics and aesthetics from an interdisciplinary perspective. A comparative approach will also be adopted to explore the similarities and differences between Chinese and European aesthetics - such as Chinese literati artists and French impressionists - paying particular attention to the philosophical and cultural milieu of their times. In addition to theoretical writings, the class will read and analyse classical Chinese literary and artistic works which will be treated both as artistic creations and objects of aesthetic appreciation.

CHIN2301
Chinese Social and Cultural Change through Visual Art
Department of Chinese & Indonesian Studies
UOC6 HPW3
Prerequisite: 36 units of credit
Traces and analyses Chinese social and cultural change through visual art. In this course, art is considered a significant sociocultural text and is examined and analysed as such. While mainly following anthropological approaches, this study is, to a large extent, interdisciplinary. Development and transformation of visual art in China are examined with the aim of understanding social and cultural change in contemporary China. Students also gain a knowledge of relevant and current anthropological and cultural theories and their application to the study of Chinese culture and art.
Note: The course will be taught in English.

CHIN2302
Chinese Cinema
Department of Chinese & Indonesian Studies
UOC6 HPW3
Prerequisite: 36 units of credit; Excluded: GENT0421
Since the mid-1980s, films from China have received critical acclaim in many circles and substantial scholarly response, both from within and outside Chinese Studies. Analyses significant feature and documentary films from China, beginning with examples of the cinema of the 1930s and 1940s, and highlights from the cinema of the hard-line Communist period. Examines examples from the ideological thaw in the late 1970s, the New Wave films of the 1980s and several avant-garde films from the 1990s.

CHIN2303
Gender in Contemporary China
Department of Chinese & Indonesian Studies
UOC6 HPW3
Prerequisite: 36 units of credit
Aims at gaining insights into the situation of gender among China’s Han majority and its many ethnic minorities. Examines gender in various contexts such as politics, religion, economy, the arts, ethnicity, Westernisation and globalisation. Specific topics include ideology of gender relations, sexual division of labour, gender representation in theatre and visual arts, gendered roles in religious practices, marriage customs, and morality and sexuality. Students learn relevant cultural theory and its application to the study of gender in contemporary China. Study materials include relevant academic writings and multimedia sources.

CHIN2310
Along the Silk Road: Conquerors, Traders and Explorers
Department of Chinese & Indonesian Studies
UOC6 HPW3
Prerequisite: 36 units of credit; Excluded: GENT0420
Introduces students to the many cultural influences, which contributed to the formation of the ancient world along the ‘Silk Road’. The ‘Silk Road’ has been the link between the great civilisations of Europe and Asia. Travelled by conquerors, missionaries, traders and explorers, the ‘Silk Road’ carried ideas, religion, arts, technologies, cuisines and diseases, as well as silk and trade goods of all descriptions.

CHIN2313
Introduction to Chinese Performing Arts
Department of Chinese & Indonesian Studies
UOC6 HPW3
Prerequisite: 36 units of credit
Offers insights into various forms of Chinese performing arts and their origins, historical development, contemporary situation and interactions beyond China. Learning materials include relevant academic writings and multimedia sources. Students learn contemporary cultural theory through examining live cases of Chinese performing arts.

CHIN2314
Introduction to Chinese Musical Culture
Department of Chinese & Indonesian Studies
UOC6 HPW3
Prerequisite: 36 units of credit
A systematic introduction to traditional and contemporary Chinese musical culture. Students learn contemporary theories in ethnomusicology, anthropology and cultural studies and their application in Chinese studies and the study of musical culture. Study materials include relevant academic writings, multimedia sources, and live performance.

CHIN2400
China Imagined and Perceived
Department of Chinese & Indonesian Studies
UOC6 HPW3
Prerequisite: 36 units of credit
Through texts of literature, philosophy, literary and cultural criticism and theory, supplemented by films of both Chinese and Western origin, this course examines how the Chinese depict themselves and how they are imagined/portrayed by other cultures.
CHIN2500
Advanced Chinese Business Language
Department of Chinese & Indonesian Studies
UOCC HPW3
Prerequisite: UCHIN1207
Introduces students to the language requirements for business and management in China through project work on Chinese language management case studies. Discusses and analyses a number of case studies and students will do project work and prepare presentations based on these cases.

CHIN2501
Chinese Business Enterprise
Department of Chinese & Indonesian Studies
UOCC HPW3
Prerequisite: 48 units of credit; Excluded: IBUS2105, MGM2T2105

CHIN2502
Commercial Chinese
Department of Chinese & Indonesian Studies
UOCC HPW3
Prerequisite: UCHIN1207
Introduces students to the language requirements for foreign investment in China through project work on Sino-foreign joint venture enterprises and wholly owned foreign enterprises. We will study the application and approval process and the related forms and documents. Students will develop their own projects and prepare Chinese language documentation.

CHIN3004
Advanced Chinese (In-Country)
Department of Chinese & Indonesian Studies
UOCC HPW5
Prerequisite: CHIN2000 or CHIN2005 or CHIN2007 or CHIN2107 or equivalent; Excluded: CHIN1206, CHIN3000, CHIN3106
Designed to combine in-country cultural experience with intensive language training at an advanced level. This summer course develops students' communicative competence in a Chinese university setting. Aims to expand knowledge of Chinese characters and general language competence in a variety of areas. Prepares students to enter CHIN3006 at a higher level from where they can proceed to Professional Electives and Chinese Studies courses.

CHIN3006
Advanced Chinese 1
Department of Chinese & Indonesian Studies
UOCC HPW5
Prerequisite: CHIN2000 or CHIN2005 or CHIN2007 or CHIN2107 or equivalent; Excluded: CHIN1206, CHIN3000, CHIN3106
Aims to further develop students communicative competence in Chinese to a level at which they can discuss contemporary social, cultural and intellectual issues. A wide range of texts and authentic materials from Chinese media are studied. This course is open to native speakers who require remedial teaching before proceeding to the Professional Electives in Chinese language and the Chinese Studies courses.

CHIN3007
Advanced Chinese 2
Department of Chinese & Indonesian Studies
UOCC HPW5
Prerequisite: CHIN3006 or CHIN3106 or equivalent; Excluded: CHIN1207, CHIN3000, CHIN3107
Further consolidation and development of language skills acquired in CHIN3006.

CHIN3030
Professional Communication Skills in Chinese 1
Department of Chinese & Indonesian Studies
UOCC HPW3
Prerequisite: CHIN3007 or CHIN3107 or equivalent
Aims to provide students with Chinese communication skills at a level beyond Advanced Chinese Language, with particular focus on communication skills needed in professional settings, such as writing professional letters, reading newspaper editorials and technical documents, public speaking, and understanding topics of a more technical nature.

CHIN3031
Professional Communication Skills in Chinese 2
Department of Chinese & Indonesian Studies
UOCC HPW3
Prerequisite: CHIN3030 or equivalent
Further consolidation and development of professional communication skills acquired in CHIN3030.

CHIN3900
Advanced Chinese Studies
Department of Chinese & Indonesian Studies
UOCC HPW3
Prerequisite: 36 units of credit including 12 units of Chinese at credit level; Excluded: CHIN3301
Examines the major issues and questions that have informed research on China by classical sinologists and contemporary China scholars. Topics include Chinese Literature, Cultural and Gender Studies, Chinese Linguistics, Provincial Studies and Socio-economical issues. This is one of two courses designed primarily for intending Honours students who want to prepare themselves for the research work involved in an Honours degree in Chinese or Asian Studies.

CHIN3901
Research Methods in Chinese Studies
Department of Chinese & Indonesian Studies
UOCC HPW3
Prerequisite: 36 units of credit including 12 units of Chinese at credit level; Excluded: CHIN3301
Familiarises students with the research tools and methods available for research in Chinese Studies, including Chinese Literature, Cultural and Gender Studies, Chinese Linguistics, Provincial Studies and Socio-economical issues. This is one of two courses designed primarily for intending Honours students who want to prepare themselves for the research work involved in an Honours degree in Chinese or Asian Studies.

CHIN4000
Chinese Honours Research Full-Time
Department of Chinese & Indonesian Studies
UOCC HPW5
Prerequisite: 54 units of credit in Chinese Studies at an average of 70%, CHIN3900 or CHIN3300, CHIN3901 or CHIN3301
Students will complete two coursework components and write an Honours research thesis of between 15,000 and 20,000 words.
Note: Intending Honours students are recommended to contact the Head of Department at an early stage in their undergraduate studies to discuss their selection of courses and their proposal for the Honours research project.

CHIN4050
Chinese Honours Research Part-Time
Department of Chinese & Indonesian Studies
UOCC HPW5
Prerequisite: 54 units of credit in Chinese Studies at an average of 70%, CHIN3900 or CHIN3300, CHIN3901 or CHIN3301
Students will complete two coursework components and write an Honours research thesis of between 15,000 and 20,000 words.
Note: Intending Honours students are recommended to contact the Head of Department at an early stage in their undergraduate studies to discuss their selection of courses and their proposal for the Honours research project.

CHIN4500
Combined Chinese Honours Research Full-Time
Department of Chinese & Indonesian Studies
UOCC HPW2
Prerequisite: 48 units of credit in Chinese Studies at an average of 70%, CHIN3901 or CHIN3301
For Combined Honours, students are required to present a thesis and complete a coursework program as approved by the Heads of the two participating Schools/Departments.

Note: Combined Honours programs require coordination between the two schools/departments involved.

CHIN4550
Combined Chinese Honours Research Part-Time
Department of Chinese & Indonesian Studies
UOC6: HPW2
Prerequisite: 48 units of credit in Chinese Studies at an average of 70%, CHIN3901 or CHIN3301
For Combined Honours, students are required to present a thesis and complete a coursework program as approved by the Heads of the two participating Schools/Departments.

Note: Combined Honours programs require coordination between the two schools/departments involved.

C.OFA0201
Graphics, Global Communication and Society
College of Fine Arts
UOC6: HPW3
Online Elective Course
Graphics, Global Communication and Society (GGCS) concerns meaning-making in graphic design within global and national contexts, and complements theoretical and practical studies in art and design. During the last two decades of the 20th century, computers, digitisation and information technology have contributed to significant changes in graphic design. Parallel to these changes are the cultural, socio-economic and political perspectives on graphics and the representation of national experience. These profound changes affect the way knowledge is produced and consumed just as the invention of printing transformed the dissemination of information in Renaissance Europe. Although the digital revolution has transformed the roles, working methods, project management and production processes for designers and printers, the digitisation of text and pictures has also exerted a compelling influence on the aesthetics and designing of the graphic image in print and electronic media for a global audience.

Graphic design is a social activity in which the digital reconfiguration of the image engenders new forms of visual experiences. The course content addresses theoretical and methodological issues in the production and consumption of graphics, in particular cross-cultural significance in contemporary society, including form and function in global communication design; pictorial and narrative structures in visual communication; systems of icons and symbols as a global visual language, and the influence of technology on aesthetics and visual experience. This fully online course comprises a series of lectures, learning activities and assessment tasks delivered via the Internet using an engaging interface that specifically supports textual and visual communication. Your assessment tasks will include individual and team projects to encourage group participation and collaboration, complemented by regular tutor and peer student feedback to enhance your understanding and critical analysis of graphics within global and social contexts.

Excluded: GEND0201.

Note: This course is conducted via the Omnium system (omnium.edu.au). Students will receive log in instructions via their UNSW email account prior to the commencement of the course. For international students: This 6 unit of credit (UOC) online course can only be undertaken in addition to the minimum 18 UOC face-to-face requirement per session.

C.OFA0203
Collaboration & Visual Communication in Graphic Design
College of Fine Arts
UOC6: HPW3
Online Elective Course
The activity of designing has witnessed a definitive shift in attitude over the past decade. More and more designers, from a variety of disciplines, are choosing to adopt collaborative working approaches when undertaking commercial and experimental projects. Design theorists now acknowledge that designing is fundamentally a collaborative, interdisciplinary, geographically distributed and multimedia activity; thus supporting the notion of an evolution in contemporary design methodology. This significantly challenges the traditional paradigm of designing being a personal activity and contradicts opinion that collaboration hinders, rather than enhances, a designer’s thought process. The traditional design process, seen as an individual’s reflective dialogue with their work, no longer seems solely applicable in contemporary design practice.

This online course specifically recognises the emergence of ‘collaborative design’ in contemporary graphic and visual communication. It responds by utilising a specifically designed interface, allowing you to engage in peer collaboration, visual exchange and conceptual dialogue via the Internet. By working in small teams (where your fellow participants are often in different locations) you will take part in a unique and dynamic online design process. You will examine creative and conceptual approaches to graphic design by engaging in theoretical and visual research, abstraction of ideas and resolution of collective design proposals. Both individual and group assessment/feedback will be given throughout the course to enhance your experience of creative collaboration in graphic design.

Note: This course is conducted via the Omnium system (omnium.edu.au). Students will receive log in instructions via their UNSW email account prior to the commencement of the course. For international students: This 6 unit of credit (UOC) online course can only be undertaken in addition to the minimum 18 UOC face-to-face requirement per session.

C.OFA0207
Textile Design: Tradition & Contemporary Technology
College of Fine Arts
UOC6: HPW3
Online Elective Course
In 20 years time, will clothes be intelligent, self cleansing, or grown from a living layer of tissue? This fully online course will look at the exciting possibilities of the future of textile design in relationship to the body including wearable fabrics, clothing, extensions and accessories. Developments in textile technology are evolving at a rapid pace, with innovations that will allow you to reassess what textiles for the body can be. The course will look at textile design in relationship to both the surface and structure of a ‘fabric’.

The topics will look at the interdependence and relationship between traditional techniques and contemporary technology and how developments in both areas have revolutionised textiles. The course will also look at how these advancements are impacting how we dress today, the materials being used for clothing now, the future potential for wearable fabrics and what these may mean in the future. The course will explore these developments with reference to artists, designers and companies.
You will learn how to analyse the development of textile design from fundamental theoretical and historical viewpoints. You will also be able to identify how contemporary textile design for clothing and the body has been influenced by the interrelationship between traditional and technological processes. By experimenting with your own individual projects you will examine the influence of traditional processes on technology and how traditional techniques utilise new technology. Through collaborative projects you will explore the innovative potential of the characteristics and functions clothing may have in the future. You will learn how to appreciate the scope of textile design for the body.

Excluded: GENDO207.

Note: This course is conducted via the Omnium system (omnium.edu.au). Students will receive log in instructions via their UNSW email account prior to the commencement of the course. For international students: This 6 unit of credit (UOC) online course can only be undertaken in addition to the minimum 18 UOC face-to-face requirement per session.

COFA0208
Fashion in Contemporary Culture
College of Fine Arts
UOC6  HPW3

Online Elective Course
Why do high-heeled shoes feature in the television series Sex and the City? How are fashion, gender and sexuality linked? Why can women now wear a cheongsam dress and trainers? Fashion history and theory is one of the most rapidly developing areas of humanities research, drawing upon new theories of the body, social space, surfaces, ephemeralism and popular culture.

This course examines fashion as a vehicle of self-fashioning since the 1980s. It will present a variety of theoretical methods to interpret the fashion choices of post-modern society. You will study themes including fashion and identity politics; the ‘post-subculturalist’; fashion design and the street; gender and consumerism; cross-cultural dressing. You will examine topics including music and dress; dress and sexuality; vintage, retro and second-hand clothing; ‘anti-fashion’; ‘costume play’ and Japanese ‘cuteness’ (kawaii); and the spectacle of the contemporary fashion parade.

The course will include topics and collaborative assessment in which ‘net society’ plays a role. Your tasks may range from online diaries to role-plays as a fashion victim having to defend your stance.

Excluded: GENDO208, SAHT2227.

Note: This course is conducted via the Omnium system (omnium.edu.au). Students will receive log in instructions via their UNSW email account prior to the commencement of the course. For international students: This 6 unit of credit (UOC) online course can only be undertaken in addition to the minimum 18 UOC face-to-face requirement per session.

COFA0209
Cross Cultural Installation Art
College of Fine Arts
UOC6  HPW3

Online Elective Course
The course focuses on the increasing globalisation of contemporary art practice, in particular installation art, as an outcome of the outreach of international media, communications, migration, cultural commerce, international cultural events, cultural exchange and tourism.

It addresses the culturally diverse backgrounds of COFA’s, and UNSW’s, students as both a creative resource and entry point for concept based, intra subjective research in the studio.

The project work emphasises the creative application of students’ existing technical skills and aims to enhance the student’s ability to manipulate spatiality, imagery, objects and materials to create installed artworks. A high level of engagement with aesthetics is encouraged to amplify the students’ perceptual awareness of their artwork and everyday environment, along with reflection upon their subjective world. Through the analysis and critical interpretation of each other’s work and current exhibitions, an appreciation of contemporary installation art will be fostered.

The development of the artworks’ conceptual content in concert with methods to represent these individual ideas and insights is integral to the course’s curriculum.

A group studio theory project will increase the students’ knowledge of the field, and a thread of professional practice throughout the course will teach exhibition skills as a vocational attribute.

Excluded: GEND0209.

Note: This course is conducted via the Omnium system (omnium.edu.au). Students will receive log in instructions via their UNSW email account prior to the commencement of the course. For international students: This 6 unit of credit (UOC) online course can only be undertaken in addition to the minimum 18 UOC face-to-face requirement per session.

COFA0210
Spatial Branding
College of Fine Arts
UOC6  HPW3

Online Elective Course
It may seem obvious why a fashion boutique stamps a big logo on the front of its commercial premises, however, ask yourself: why do local councils label street signs in their municipality with a council emblem, or why do public parks nowadays have a logo designed to represent them?

Most environments we encounter on a daily basis have been designed to carry a specific visual identity or brand. Some of the more obvious examples include retail stores, shopping malls and themed parks. Today, however, even train stations, public parks and city districts are being visually branded.

The course Spatial Branding explores a range of commercial and non-commercial spaces. It examines how visual identity has been programmed into these spaces and how this affects the user-experience. Through these examples, the course aims to evaluate the practice of ‘spatial branding’, focusing on some of the relevant social, commercial and ethical issues. As part of the practical aspect of the course, students will learn how to create a spatial identity and apply it to a range of environments, after which students will be introduced to the fabrication process and learn how a tender is put together.

This course includes a series of online lectures, individual and group tasks and site visits (in your locality) that will provide you with insight needed to identify social and commercial implications arising from the practice of ‘spatial branding’.

Excluded: GENDO210, SDES3103, SDES3110.

Note: This course is conducted via the Omnium system (omnium.edu.au). Students will receive log in instructions via their UNSW email account prior to the commencement of the course. For international students: This 6 unit of credit (UOC) online course can only be undertaken in addition to the minimum 18 UOC face-to-face requirement per session.

COMD1001
Development Studies: The Emergence of Underdevelopment
Faculty of Arts and Social Sciences
UOC6  HPW3

Excluded: COMD1000

Introduces and analyses the emergence in the pre and post industrial world of notions of progress and development and relates them to the emergence of a modern world characterised by poverty, conflict, and socio-economic inequalities. Examines the transformation of the modern world via an analysis of different and often overlapping modes of production including hunter/gatherer, tributary (agrarian) and capitalist modes. Examines the emergence and characteristics of contemporary debates around issues of ‘development’, ‘imperialism’ and ‘globalisation’.

COMD1002
Development Studies: Poor World, Rich World
Faculty of Arts and Social Sciences
UOC6  HPW3

Excluded: COMD1000

Examines the characteristics and interpretation of the poor world/richest world divide. Traces the relationships between the rich world from 1945 to the present focusing on the international division of labour, militarism, the roles of finance capital, multinationals and the multilateral agencies, and the attempts of some societies to escape the ‘poverty trap’. Countries will be examined to see if they can serve as models, as well as development predictions about countries like Brazil, Russia, India and China will be examined. The role of women, minorities and issues such as the environment in development will be considered.

COMD2000
The Theory and Practice of Development
School of Social Science and Policy
UOC6  HPW3

Prerequisite: 36 units of credit; Excluded: GLST2104, INST2400, POLS2023, SISP2701
The theories developed to explain the different rate and pattern of economic and social development within and between countries and regions and the policy consequences of these explanations are analysed and compared. The theories covered include explanations for different rates of development internal and external to nation states based on social, market, technological and other factors. Significant cases studies of policy experience from Latin America and Asia, where a variety of economic and social policy approaches have been adopted are examined. The current status of debates about the nature of underdevelopment and its solutions is reviewed.

COMD2010
(Un)Making the Third World: History and Global Development B
Faculty of Arts and Social Sciences
UOC6 HPW3
Prerequisite: 36 units of credit; Excluded: GLST2101, HIST2040, HIST2060, SPAN2424, SPAN2428
Explores the history of dictatorship and democracy in the nineteenth and twentieth centuries from the vantage point of the early twenty-first century. In geographical terms, the focus is on Latin America with a particular focus on Argentina, Brazil, Chile, Peru, Mexico, Cuba, Guatemala and Colombia. The historical trajectories, current circumstances and future prospects of these nation-states will be examined in relation to themes such as authoritarianism, violence, terror, fear, democracy, liberty, freedom, nationalism, revolution, US hegemony, neo-liberalism and globalisation.

COMD2020
(Un)Making the Third World: History and Global Development A
Faculty of Arts and Social Sciences
UOC6 HPW3
Prerequisite: 36 units of credit; Excluded: GLST2102, HIST2061, INST2000, SPAN2429
Explores the history of underdevelopment and development in the nineteenth and twentieth centuries from the vantage point of the early twenty-first century. Themes include: colonialism, nationalism, decolonisation and post-colonial states; the history and politics of development in the Cold War and post-Cold War era; the state and economic development: the role of international organisations such as the World Bank and the IMF; and the question of globalisation. In geographical terms, the focus is on sub-Saharan Africa, especially the Democratic Republic of the Congo; the Middle East, especially Egypt; South Asia, especially India; Southeast Asia, especially Indonesia; and Northeast Asia, especially South Korea.

COMD2050
Sustainable Development, Globalisation & the Third World
Faculty of Arts and Social Sciences
UOC6 HPW3
Prerequisite: 36 units of credit; Excluded: HPSC2550, INST2401, SCTS3106
This course is about sustainable development along with the technological and social changes that are involved in achieving it, both at a national and global level. It is divided into three parts: (1) the historical causes of the present global environmental and economic crisis; (2) possible solutions to problems of food production, environmental degradation, industrialisation, energy use, and population growth; (3) ideas for a New World Economic Order and the economic and technological changes required to bridge the ever increasing gap between rich and poor nations.

COMD4000
Development Studies Honours (Research) Full-Time
School of Social Science and Policy
UOC24 HPW4
Prerequisite: 54 units of credit in COMD at 65% or better including 12 units of credit at the 3000 level and permission of the Coordinator of Development Studies
Honours (Research) students are required to prepare a thesis of between 15,000 - 20,000 words which must be submitted by a date specified by the Coordinator and to complete two fourth year seminar courses.

COMD4050
Development Studies Honours (Research) Part-Time
School of Social Science and Policy
UOC12 HPW2
Prerequisite: 54 units of credit in COMD at 65% or better including 12 units of credit at the 3000 level and permission of the Coordinator of Development Studies
Students are required to participate in two Honours research seminars, at least one taken in the first session of enrolment and complete a research thesis of between 15,000 and 20,000 words. The research seminars are to be selected with the permission of the Coordinator of Development Studies, and in consultation with the relevant program coordinator.

COMP1011
Computing 1A
School of Computer Science and Engineering
UOC6 HPW6
Defining problems. Reasoning about and solving problems using Logic, Abstraction, Specification, Algorithms and Data Structures. Exposure to a functional programming language (Haskell) for practical experience with these concepts. Introduction to software engineering and professional ethics. Lab: programming assignments.
Assumed knowledge: HSC Maths: 2 units (90-100), or 2 and 3 unit (100-150), or 3 and 4 unit (100-200).
Further Information
CSE class page www.cse.unsw.edu.au/~cs1011

COMP1021
Computing 1B
School of Computer Science and Engineering
UOC6 HPW6
Prerequisite: COMP1011 or COMP1711; Excluded: COMP1821, COMP1721.
The objective of this course is for students to develop proficiency in programming in a high level imperative language and to develop a background of relevant knowledge and skills on which to base further study of computing. Topics covered include: fundamental data structures and algorithms, program testing and debugging and the structure of computer systems. Practical experience of these topics is supplied by laboratory programming exercises and assignments.
Further Information: CSE class page www.cse.unsw.edu.au/~cs1021

COMP1081
Harnessing the Power of Information Technology
School of Computer Science and Engineering
UOC6 HPW5
Prerequisite: Enrolment in a non-CSE program
In the digital age, it is increasingly becoming essential to use, innovatively and effectively, current and emerging information technologies to meet challenges of the new “knowledge economy”. Topics include: history of IT, business and online applications, data and knowledge representation, coding and security, viruses, worms and other malware, programming principles and techniques. The course will examine latest information technology trends and outline new technologies on the horizon. Available to non-computing majors only.
Further Information: CSE class page www.cse.unsw.edu.au/~cs1081

COMP1091
Solving Problems with Software and Tools
School of Computer Science and Engineering
UOC6 HPW5.5
Prerequisite: Enrolment in a non-CSE program
Introduction to building applications and using software tools to solve computing problems. Emphasis is on acquisition of fundamental skills in procedural programming and scripting. Topics include: software design and development, C syntax and semantics, algorithms and programming techniques, data representation, image processing and analysis, interfacing to libraries; Linux tools; command scripts; reporting, data analysis and transformation using a scripting language.

Note/s: Assumed knowledge: COMP1001 or COMP1081; Excluded: COMP1011, COMP1711.

Further Information: CSE class page: www.cse.unsw.edu.au/~cs1091

COMP1711
Higher Computing 1A
School of Computer Science and Engineering
UOC6 HPW7
Excluded: COMP1011, COMP1811.
As for COMP1011 but in greater depth and at a faster pace. Additional non assessable extension material (just for interest). Assumes no prior computing background but must be enthusiastic.
Assumed Knowledge: There is no specific assumed knowledge. We suggest this course be taken by those with HSC Maths 2 and 3 units: (145-150), or 3 & 4 unit Maths (186-200), or UAI > 97.
Note/s: Enrolment requires School approval which is granted automatically on submitting consent form.

Further Information: CSE class page: www.cse.unsw.edu.au/~cs1711/consent-to-do-1711.html

COMP1721
Higher Computing 1B
School of Computer Science and Engineering
UOC6 HPW7
Prerequisite: a mark of at least 75 in COMP1011 or COMP1711; Excluded: COMP1821, COMP2821.
As for COMP1021 but in greater depth and breadth.

Further Information: CSE class page: www.cse.unsw.edu.au/~cs1721

COMP2011
Data Organisation
School of Computer Science and Engineering
UOC6 HPW5
Prerequisite: COMP1021 or COMP2811 or COMP1721
Data types and data structures; abstractions and representations; dictionaries, priority queues and graphs; Search trees, heaps. File Structures: storage device characteristics, keys, indexes, hashing. Memory management. Programming assignments, Mid and final session examinations.

Further Information: CSE class page: www.cse.unsw.edu.au/~cs2011

COMP2041
Software Construction: Techniques and Tools
School of Computer Science and Engineering
UOC6 HPW5
Prerequisite: COMP1021 or COMP1721 or COMP2811.

Further Information: CSE class page: www.cse.unsw.edu.au/~cs2041

COMP2091
Computing 2
School of Computer Science and Engineering
UOC6 HPW5.5
Prerequisite: COMP1091; Excluded: COMP2011, COMP2711

COMP2111
System Modelling and Design
School of Computer Science and Engineering
UOC6 HPW5
Prerequisite: COMP1021 or COMP1721; Corequisite: MATH11081; Excluded: COMP21110.
This course introduces rigorous and formal methods for modelling system behaviour. The course will use the B Method (B), which is a formal method founded on set theory and logic. B supports the modelling of abstract specifications and the refinement of abstract specifications through to concrete implementations. Consistency of formal development is verified by proof obligations and formal proof. A toolkit (the B-Toolkit or Atelier B) assists with all aspects of the process.
The course will cover: set theory, logic, abstract machines, specification, animation, refinement, implementation, proof obligations and proof.
The course will also explore the relationship between formal B models and UML, the informal or semi-formal modelling notation for Object-Oriented design. The course will use case-studies and assignments to develop competence. The methods developed in this course will be used in the SENG2010 and SENG2020 workshops.

Further Information: CSE class page: www.cse.unsw.edu.au/~cs2111

COMP2121
Microprocessors and Interfacing
School of Computer Science and Engineering
UOC6 HPW5
Prerequisite: COMP1021 or COMP1721 or COMP1091. Exclusions: ELEC2041, COMP2921, COMP3221, COMP2821.
Instruction Set Architecture (ISA), Floating point number representation, computer arithmetic, assembly and machine language programming, machine language fundamentals; addressing modes; instruction repertoire, assembly language programming methodology, interrupts and I/O interfacing (hardware and software), serial communication, timers, analog input and output, converting analog signals to digital signals (data acquisition), taking input from a variety of sensors and driving actuators, buses and memory system, low level device drivers.

Further Information: CSE class page: www.cse.unsw.edu.au/~cs2121

COMP2411
Logic and Logic Programming
School of Computer Science and Engineering
UOC6 HPW5
Introduction to logic for computer scientist; an elementary exposition of propositional logic and predicate logic from a computational point of view, including introduction to interpretations, models, proof procedures, soundness, and completeness. Automated deduction: clausal form logic and Horn clause logic, skolemisation, the Herbrand domain, unification, resolution and resolution strategies. Logic Programming: data representation, operational views of unification and backtracking, the notion of logical variable, reversibility, non-logical features, meta-programming, introduction to constraint logic programming and other paradigms. Lab: programming assignments in Prolog. Extensive practical work.

Further Information: CSE class page: www.cse.unsw.edu.au/~cs2411

COMP2711
Higher Data Organisation
School of Computer Science and Engineering
UOC6 HPW7
Prerequisite: COMP1721 or, a mark of at least 75 in COMP1021 or COMP2811; Excluded: COMP2011.
As for COMP2011 but in greater depth and breadth.

Further Information: CSE class page: www.cse.unsw.edu.au/~cs2711

COMP2811
Computing B
School of Computer Science and Engineering
UOC6 HPW6
Prerequisite: COMP1011 or COMP1711 or COMP1811; Excluded: COMP1021, COMP1721, COMP1821.
The objective of this course is for students to develop proficiency in programming in a high level imperative language and to develop a background of relevant knowledge and skills on which to base further study of computing. Topics covered include: fundamental data structures and algorithms, program testing and debugging and the structure of
This course will present rigorous and formal methods for the design and implementation phases of software system development. Also considered are testing and reuse of designs. As far as possible, software tools that can assist the process will be used. The material will be presented using case studies, and students will be required to undertake a project.

**Further Information:** CSE class page www.cse.unsw.edu.au/~cs3141

**COMP3151**

**Foundations of Concurrency**

School of Computer Science and Engineering

UOC6 HPW5

Prerequisite: COMP2011 or COMP2771; Excluded: COMP9151.


Practical work: programming assignments using the C-like language MDP.

**Further Information:** CSE class page www.cse.unsw.edu.au/~cs3151

**COMP3161**

**Concepts of Programming Languages**

School of Computer Science and Engineering

UOC6 HPW3

Prerequisite: COMP2011 or COMP2771

Programming language paradigms: imperative, object oriented, declarative (i.e., functional and logic). Theoretical foundations of programming languages: syntax, operational, axiomatic and denotational semantics. Implementation aspects of central language features, such as dynamic and strong typing, polymorphism, overloading and automatic memory management. Abstracting over programming languages and architectures: byte code approach, component software.

**Further Information:** CSE class page www.cse.unsw.edu.au/~cs3161

**COMP3211**

**Computer Architecture**

School of Computer Science and Engineering

UOC6 HPW5

Prerequisite: COMP2021 or COMP2222 or ELEC2041; Excluded: COMP9211.

Study the architecture & organisation of modern processors, and influences upon these, with emphasis on pipelined RISC machines; gain understanding of the design of the memory subsystem, I/O, and system level interconnect; become proficient in the use of tools such as VHDL and SimpleScalar for the description, simulation, and verification of architectural designs; complete a series of assignments leading to the design, implementation, validation and assessment of a RISC system. It is assumed students are familiar with combinational and sequential logic design principles and have some experience in the use of CAD tools to describe and simulate digital systems.

**Further Information:** CSE class page www.cse.unsw.edu.au/~cs3211

**COMP3222**

**Digital Circuits and Systems**

School of Computer Science and Engineering

UOC6 HPW5

Prerequisite: COMP2121 or COMP2821. Exclusions: COMP2021, ELEC1041, COMP1881.

This course aims to provide students with a knowledge of problem solving with digital systems (computer systems and digital circuits). The basic building blocks of combinational and sequential circuits are introduced to develop circuit solutions to problems and to understand and implement the design and operation of hardware models of digital and computer systems. HDLs will be used to describe circuits and state of the art computer aided design tools will be used to design complex systems.

**Further Information:** CSE class page www.cse.unsw.edu.au/~cs3222

**COMP3231**

**Operating Systems**

School of Computer Science and Engineering

UOC6 HPW5

Prerequisite: COMP2011 or COMP2771, COMP2121 or ELEC2041; Excluded: COMP3891, COMP9201, COMP9283.

Assumed Knowledge: C

Further Information: CSE class page www.cse.unsw.edu.au/~cs3231

COMP3241
School of Computer Science and Engineering
UoC6 HPW5
Prerequisite: COMP3231 or COMP92011 and, COMP3111 or COMP9008 or COMP2111 or COMP4001, or extended versions.


Further Information: CSE class page www.cse.unsw.edu.au/~cs3241

COMP3311
Database Systems
School of Computer Science and Engineering
UoC6 HPW5
Prerequisite: COMP2011 or COMP2711; Excluded: COMP3931, INF3608.


Further Information: CSE class page www.cse.unsw.edu.au/~cs3311

COMP3331
Computer Networks and Applications
School of Computer Science and Engineering
UoC6 HPW5
Prerequisite: COMP2011 or COMP2711 or MTRN3530; Excluded: COMP3931, COMP9833, COMP9391, TELE4352.

Networking technology overview. Protocol design and validation using the finite state automata in conjunction with time-lines. Overview of the IEEE802 network data link protocol standards. Addressing at the data link and network layers. Network layer services. Introduction to routing algorithms such as Distance Vector and Link State. Congestion control mechanisms. Internetworking issues in connecting networks. The Internet Protocol Suite overview. The Internet protocols IPv4 and IPv6. Address resolution using ARP and RARP. Transport layer: issues, transport protocols TCP and UDP. Application level protocols such as: File Transfer Protocol (FTP), Domain Name System (DNS) and Simple Mail Transfer Protocol (SMTP). There is a substantial network programming component in the assessable material.

Further Information: CSE class page www.cse.unsw.edu.au/~cs3331

COMP3411
Artificial Intelligence
School of Computer Science and Engineering
UoC6 HPW5
Prerequisite: COMP2011 or COMP2711; Excluded: COMP9414.


Further Information: CSE class page www.cse.unsw.edu.au/~cs3411

COMP3421
Computer Graphics
School of Computer Science and Engineering
UoC6 HPW5
Prerequisite: COMP2011 or COMP2711; Excluded: COMP9415.


Further Information: CSE class page www.cse.unsw.edu.au/~cs3421

COMP3431
Robotics Software Architecture
School of Computer Science and Engineering
UoC6 HPW6
Prerequisite: Overall WAM of 80 and, COMP2011 or COMP2711 or COMP9024 or, enrolment in MIT program 6864 or GradCert program 7344.

An introduction to Intelligent agent design. Picking actions using planning, learning or engineered control. Both practical and theoretical components. Practical component: Re-implement parts of a real agent architecture on a robot. Assignment based. Emphasis on engineering a working system. Theoretical component: Introduction to a variety of research agent architectures including classical planning and reinforcement learning. Lecture and lab based.

Further Information: CSE class page www.cse.unsw.edu.au/~cs3431

COMP3441
Cryptography and Distributed Systems Security
School of Computer Science and Engineering
UoC6 HPW5
Prerequisite: COMP2011 or COMP2711 and, MATH1081 or MATH1090 and, a mark of at least 65 in COMP3331 or 12uc of courses with a mark of 75 or better.

Topics chosen from: intrusion detection, prevention, and response, ciphers and crytanalysis, private key and public key systems, secure hash functions, cryptographic protocols, protocol analysis, digital signatures, public key infrastructures, authentication, key agreement, authorization, timestamping, trust management, social and legal issues, Java security model, digital cash, payment protocols, digital rights management, zero knowledge protocols, complexity theoretic foundations, quantum cryptography.

Assumed Knowledge: MATH1081 Discrete Mathematics.

Further Information: CSE class page www.cse.unsw.edu.au/~cs3441

COMP3511
Human Computer Interaction
School of Computer Science and Engineering
UoC6 HPW5
Prerequisite: COMP2011 or COMP2711; Excluded: COMP9511.

Provides an introduction to user-system interactions, both analysis and design. The approach is cognitive, focusing on matching user goals with computer technologies. Topics: the human information processing system, models of interaction, strategies for and process of design and evaluation. Project work is emphasised.

Further Information: CSE class page www.cse.unsw.edu.au/~cs3511

COMP3711
Software Project Management
School of Computer Science and Engineering
UoC6 HPW5
Prerequisite: Completion of stage 1 in Software Engineering programs, or completion of stage 2 in Bioinformatics or Computer Engineering programs. Excluded: COMP3710, COMP3720.

This course will provide students with the analytical and practical skills to plan, develop and improve the effectiveness of a project through hands-on team and project management. The purpose of the course is to provide fundamental insights and introduce project management tools and techniques that will be useful throughout an engineer's career.

Further Information: CSE class page www.cse.unsw.edu.au/~cs3711

COMP3821
Extended Algorithms & Programming Techniques
School of Computer Science and Engineering
UoC6 HPW5
Prerequisite: a mark of at least 70 in COMP2011 or COMP2711; Excluded: COMP3120, COMP3121, COMP9011, COMP9801.

As for COMP3121 but in greater depth.

Further Information: CSE class page www.cse.unsw.edu.au/~cs3821
COMP3891
Extended Operating Systems
School of Computer Science and Engineering
UOC6, HPW5
Prerequisite: a mark of at least 70 in COMP2011 or COMP2711 and, COMP2121 or ELEC2041; Excluded: COMP3231, COMP9201, COMP9283.
As for COMP3231 Operating Systems but in greater depth and breadth.
Assumed Knowledge: C
Further Information: CSE class page www.cse.unsw.edu.au/~cs3891

COMP3901
Special Project A
School of Computer Science and Engineering
UOC6
The student will complete a small research project under the supervision of a member of the academic staff of the School. The project will be assessed on the basis of a project written by the student.

COMP3902
Special Project B
School of Computer Science and Engineering
UOC12, HPW1
The student will complete a medium-sized research project under the supervision of a member of the academic staff of the School. The project will be assessed on the basis of project written by the student.

COMP3931
Extended Computer Networks and Applications
School of Computer Science and Engineering
UOC6, HPW5
Prerequisite: a mark of at least 70 in COMP2011 or COMP2711 or MTRN3530; Excluded: COMP9331, COMP9833, COMP3331, TELE4352.
As for COMP3331 Computer Networks and Applications but in greater depth and breadth.
Further Information: CSE class page www.cse.unsw.edu.au/~cs3931

COMP4001
Object-Oriented Software Development
School of Computer Science and Engineering
UOC6, HPW4
Prerequisite: COMP2011 or COMP2711
This course will cover object-oriented design and implementation methods for complex software systems. Topics covered include: object-oriented program design techniques, object-oriented programming in C++, software reuse and designing for reuse, design patterns and styles, object persistence and distribution. Examples from a wide range of application areas will be used at all stages to illustrate concepts and techniques.
Assumed Knowledge: Competency in C.
Further Information: CSE class page www.cse.unsw.edu.au/~cs4001

COMP4003
Industrial Software Development
School of Computer Science and Engineering
UOC6, HPW5
Prerequisite: COMP9024 or enrolment in MIT program 8684 or GradCert program 7344.
Introduction to development and distribution of large software systems. Use of industrial tools for maintaining the code base and for producing quality portable, deliverable code. Methods for producing systematic test suites. Additional topics include licensing issues, software configuration, and internationalisation.
Further Information: CSE class page www.cse.unsw.edu.au/~cs4003

COMP4121
Advanced and Parallel Algorithms
School of Computer Science and Engineering
UOC6, HPW4
Topics chosen from: Spatial, semi-structured and multi-dimensional data storage and manipulation techniques, non Von-Neumann techniques, advanced and parallel algorithmic techniques, algorithm engineering and problem solving practices; algorithms for matrices and systems of linear equations, approximation algorithms, FFT and convolution and their software and circuit implementations, iteration methods for the solution of operator equations.
Further Information: CSE class page www.cse.unsw.edu.au/~cs4121

COMP4132
Advanced Functional Programming
School of Computer Science and Engineering
UOC6, HPW3
Prerequisite: COMP3131 or COMP9102.
Note: Available to students in CSE programs only.
Programming techniques: combinator libraries, concurrency, monadic programming, graphics and multimedia applications. Implementation techniques: compilation by program transformation, optimisation techniques.
Parallel programming: FP approaches to high performance computing, distributed implementation.
This course will be taught in a seminar format, with students expected to give presentations based on readings of primary and secondary sources. In addition, each student needs to solve a medium sized programming assignment.
Further Information: CSE class page www.cse.unsw.edu.au/~cs4132

COMP4151
Algorithmic Verification
School of Computer Science and Engineering
UOC6, HPW4
Prerequisite: COMP3151 or COMP9151 or, enrolment in MIT program 8684 or GradCert program 7344, or permission from the lecturer in charge.
This course is an Advanced Topics in Concurrency occasional elective; a change of name is expected each year.
Topics will be chosen from: semantics models of concurrent and distributed systems (e.g. process algebra, event structures, Petri nets, Chu spaces), linear versus branching time, interleaving versus partial order semantics, true concurrency, semantic equivalences, modal and temporal logic for concurrent systems (proof theory and applicants), algorithmic verification (model checking, automata on infinite structures, synthesis), reasoning about knowledge in distributed systems.
Further Information: CSE class page www.cse.unsw.edu.au/~cs4151

COMP4161
Advanced Topics in Software Verification
School of Computer Science and Engineering
UOC6, HPW4
This course is about mechanical proof assistants, how they work, and what they can be used for. It presents specification and proof techniques used in industrial grade theorem provers, teaches the theoretical background to the techniques involved, and shows how to use a theorem prover to conduct formal proofs in practice. The courses is intended to bring third/fourth year and postgraduate students into contact with teh current research topics in the field of theorem proving and automated deduction and to teach them the necessary skills to successfully use industrial grade verification environments in modelling and verification.
Topics covered included: higher order logics, lambda calculus, term rewriting, data types and recursive functions, induction principles, calculational reasoning, mathematical proofs, decision procedures for a variety of logical domains, and proofs about programs.
Note: experience with (first-order) logic and functional programming is required.
Further Information: CSE class page www.cse.unsw.edu.au/~cs4161

COMP4211
Advanced Architectures and Algorithms
School of Computer Science and Engineering
UOC6, HPW3
Prerequisite: a mark of at least 70 in COMP3211 or COMP9211.
This course builds on an understanding of COMP3211/9211 Computer Architecture to allow advanced features of current general purpose and embedded processors to be appreciated. Related research themes in computer architecture such as multiple issue, instruction level parallelism, dataflow, multiprocessing and multithreading are exposed. The course develops research and presentation skills through readings, presentations, and project work.
Further Information: CSE class page www.cse.unsw.edu.au/~cs4211

COMP4411
Experimental Robotics
School of Computer Science and Engineering
UOC6 HPW5
Prerequisite: Overall WAM of 75 and, 12 units of credit from COMP3### courses or 12 units of credit from COMP4### courses, or enrolment in the postgraduate Autonomous Systems major.
Artificial Intelligence Concepts in Robotics. The approach is experimental, with hands-on experience with a small mobile robot kit. Topics covered will include a selection from: history and philosophy of robotics, hardware components and subsystems, sensors, measurements and perception, robotic architectures, multiple robot systems, localisation problem and solutions, robot learning, navigation and obstacle avoidance, robot planning, robot vision and vision processing.
Further Information: CSE class page www.cse.unsw.edu.au/~cs4411

COMP4412
Introduction to Modal Logic
School of Computer Science and Engineering
UOC6 HPW4
Prerequisite: COMP9101 or COMP3121 or COMP2411 or, enrolment in MIT program 8684 or GradCert program 7344, or permission from the lecturer in charge.
This course aims to introduce fourth year and beginning graduate students to modal logic. Modal logic is used widely in computer science to model a variety of systems including databases, communication protocols, software, multi-agency and knowledge systems. This course will address the basic axioms, techniques, model theory of modal logic and some representative applications. This course will be assessed on the basis of student presentations and assignments.
Syllabus: Standard modal axioms such as K, T, 4 and 5. Kripke's possible world semantics. Soundness and completeness. The canonical model theorem. Logics of belief and knowledge. Logics of time and computation. If time permits, filtrations and the finite model property.
Further Information: CSE class page www.cse.unsw.edu.au/~cs4412

COMP4415
First-order Logic
School of Computer Science and Engineering
UOC6 HPW4
Prerequisite: COMP9101 or COMP3121 or COMP2411 or, enrolment in MIT program 8684 or GradCert program 7344, or permission from the lecturer in charge.
This course is a presentation of the kind of logic useful for knowledge representation and reasoning. It begins with the elements of first-order logic using tableau methods and proceeds to soundness and completeness, and compactness. Using compactness it addresses issues like expressibility to show, for instance, why transitive closure is not first-order. The course concludes with an introduction to non-monotonic reasoning as a formalization of common sense reasoning.
Note/s: Permission of lecturer in charge is required.
Further Information: CSE class page www.cse.unsw.edu.au/~cs4415

COMP4416
Intelligent Agents
School of Computer Science and Engineering
UOC6 HPW3
Prerequisite: a mark of at least 65 in COMP3411 or COMP4941.
Agents are computational entities that act autonomously in a dynamically changing environment in order to achieve their goals. This course covers the foundations, engineering and applications of intelligent software agents, with an emphasis on theories and architectures for rational agents and on personal assistant applications. Topics include modelling intention, BDI (Belief, Desire, Intention) agent architectures, methodologies for engineering multi-agent systems, communication, coordination and negotiation in multi-agent systems, and applications of agents in electronic commerce and interface design.
This course will involve in-depth and intensive reading, and assume a high level of mathematical maturity and critical analysis. Assessment is by participation in class discussion and essay.
Further Information: CSE class page www.cse.unsw.edu.au/~cs4416

COMP4418
Knowledge Representation and Reasoning
School of Computer Science and Engineering
UOC6 HPW3
Prerequisite: COMP3411 or COMP9414 or COMP4415, and 6 units of credit in COMP3### or COMP4###.
Knowledge Representation and Reasoning (KRR) is at the core of Artificial Intelligence. It is concerned with the representation of knowledge in symbolic form and the use of this knowledge for reasoning. This course presents current trends and research issues in Knowledge Representation and Reasoning (KRR). It enables students interested in Artificial Intelligence to deepen their knowledge in this important area and gives them a solid background for doing their own work/research in this area. The topics covered in more detail are AI Logics, Probabilistic Reasoning, Constraints, and Game Theory.
Further Information: CSE class page www.cse.unsw.edu.au/~cs4418

COMP4431
Computer Game Programming Workshop
School of Computer Science and Engineering
UOC6 HPW2
Prerequisite: COMP3421.
This course is run in conjunction with SOMA3610 Digital Studio. Students will form teams containing programmers (this course), artists and designers (SOMA3610) to create a computer game. There will be invited lectures from the game industry, AI researchers, artists and designers from the College of Fine Arts (COFA) and computer graphics researchers.
Further Information: CSE class page www.cse.unsw.edu.au/~cs4431

COMP4904
Industrial Placement Program
School of Computer Science and Engineering
UOC0
Excluded: COMP4903, COMP4905.
COMP4904 is an optional 6-month industrial work experience, available to students in Computer Engineering, Software Engineering, Bioinformatics programs and for Computer Science students who have completed Year 2 (96 units of credit). COMP4904 satisfies the industrial training requirements for students in Computer Engineering, Software Engineering and Bioinformatics programs.
Students are required to submit to the School evidence from their employers confirming completion of the work experience and a report, typically 2000 words long, summarising the work done and the training received.
Further Information: CSE class page www.cse.unsw.edu.au/~cs4904

COMP4910
Thesis Part A
School of Computer Science and Engineering
UOC3 HPW7
Prerequisite: 126 units of credit, and enrolment in Computer Engineering or Computer Science programs 3645 or 3722 or 3726, 3715 or 3978 Honours
Thesis part A and B are done in the last two semesters of the BE degree program. For full-time students, a nominal three hours per week in the first semester and fifteen hours per week in the second semester are devoted to directed laboratory and research work on an approved course under guidance of members of the academic staff. Usually, the Thesis involves the design and construction of experimental apparatus and/or software, together with appropriate testing and evaluation. For Part A, students are required to present a satisfactory seminar. For Part B, a written thesis must be submitted by the Tuesday of the final week of the semester.
Further Information: CSE class page www.cse.unsw.edu.au/~thesis

COMP4911
Thesis Part B
School of Computer Science and Engineering
UOC13 HPW14
Prerequisite: COMP4910.
Thesis part A and B are done in the last two semesters of the BE degree program. For full-time students, a nominal three hours per week in the first semester and fifteen hours per week in the second semester are devoted to directed laboratory and research work on an approved course under guidance of members of the academic staff. Usually, the Thesis involves the design and construction of experimental apparatus and/or software,
together with appropriate testing and evaluation. For Part A, students are required to present a satisfactory seminar. For Part B, a written thesis must be submitted by the Tuesday of the final week of the semester. 

Further Information: CSE class page www.cse.unsw.edu.au/thesis

COMP9420
Professional Issues and Ethics
School of Computer Science and Engineering
UOC6 HPW4
Prerequisite: enrolment in Computer Engineering program 3645, 3715, 3722, 3726, 3728.

This course will develop a framework on which professional and ethical issues can be developed. Topics covered will include team and meeting skills, communication skills, interpersonal skills, software quality and process, in addition to ethics. The course will be delivered using lectures, class discussions, written assignments, reading lists, the Internet, presentations, and invited speakers.

Further Information: CSE class page www.cse.unsw.edu.au/~cs9420

COMP9018
Advanced Graphics
School of Computer Science and Engineering
UOC6
Prerequisite: a mark of at least 65 in COMP3421 or COMP9415.

Assumed knowledge: Experience with OpenGL and Java.

This course covers advanced topics in graphics and related technologies with a strong hands-on and interactive focus. Topics include: advanced features of OpenGL; 2D and 3D still, interactive and animated file formats; advanced modelling and animation techniques; detailed surface models; performance optimisation; radiosity; ray tracing and optimisations; Monte Carlo and multipass rendering; volumetric rendering; image based rendering; interactivity; collision detection and 3D graphics hardware design. Students will be given the opportunity to present seminars on research areas of interest to them, as well as experiment with 3D graphics software.

This course will be extremely interactive. You’ll be expected to be involved.

Further Information: CSE class page www.cse.unsw.edu.au/~cs9018

COMP9116
Software System Development Using the B-Method and B-Toolkit
School of Computer Science and Engineering
UOC6 HPW3
Prerequisite: COMP2111 or COMP3111 or COMP9008 or enrolment in MIT program 8684 or GradCert program 7344.

The B-Method is a rigorous mathematically based method for the development of reliable software. The method covers the complete software cycle from requirement s analysis through specification, design, implementation, testing, maintenance, and re-use. The B-Method is supported by the B-Toolkit: a collection of tools that provide for specification animation, proof obligation generation, theorem proving, configuration management, code generation, and documentation. The B-Method uses similar mathematical notation to Z, but does not use Z. Specifications are given in AMN (Abstract Machine Notation), which is a small abstract programming language. The B-Method is object based in the sense that systems of machines use a number of different forms of inheritance to control visibility and inherit operations. There is no dependence on a particular programming language, but the current code generator generates C.

This course will explore the use of the B-Method and the B-Toolkit. The topics covered will include: The Abstract Machine Notation; Machine Composition; Refinement; Implementation; The method of presentation will use case studies to present the method; laboratory exercises to use the tools; a major project to apply all aspects of the method, and use of the tools.

Further Information: CSE class page www.cse.unsw.edu.au/~cs9116

COMP9117
Architecture of Software Systems
School of Computer Science and Engineering
UOC6 HPW3
Prerequisite: an overall WAM of 65, and COMP3111 or COMP9008 or COMP3141, and COMP3131 or COMP9102 or SENG3202, or enrolment in MIT program 8684 or GradCert program 7344.

Principal architectural issues associated with the design and construction of large scale software systems. Study and evaluation of several well-known and frequently used architectural styles, patterns and frameworks.

Study of pipes and filters, layered systems, distributed object-oriented systems, component-based systems, etc. The course will also examine the practical applicability of architecture research, specifically its relationship to the work in software reuse and component interoperability of platforms such as J2EE, Microsoft, NET and CORBA. Case studies and exercises will be used to illustrate the architectural issues.

Note/s: This course is available to students in CSE programs only. There are a limited number of places.

Further Information: CSE class page www.cse.unsw.edu.au/~cs9117

COMP9242
Advanced Operating Systems
School of Computer Science and Engineering
UOC6 HPW4
Prerequisite: A mark of at least 75 in COMP9201 or COMP3231.

Covers operating systems design and implementation issues at an advanced level, focussing on specific issues such as performance and on current OS research areas. Topics selected from: Microkernels; user-level servers; performance; kernel implementation; device drivers; scheduling for real-time; effects and control of hardware caches; security and protection; persistent systems; security; dealing with large, sparse address spaces; experimental systems. A laboratory running a state-of-the-art microkernel system will be used to provide hands-on experience with low-level implementation of OS components.

Further Information: CSE class page www.cse.unsw.edu.au/~cs9242

COMP9243
Distributed Systems
School of Computer Science and Engineering
UOC6 HPW3
Prerequisite: COMP3231 or COMP9201, COMP3331 or COMP9331.

A detailed coverage of distributed systems, with a particular focus on operating systems issues: client-server paradigm, remote-procedure call as OS support for client-server; distributed shared memory, distributed memory coherency; distributed file systems; distributed process management, including load sharing and process migration; concurrency control; fault tolerance, recoverability and distributed transactions; naming; industry standards; case studies.

Further Information: CSE class page www.cse.unsw.edu.au/~cs9243

COMP9314
Next Generation Database Systems
School of Computer Science and Engineering
UOC6 HPW3
Prerequisite: COMP9311 or COMP3311 or INFS3608 or INFS5926 or INFS5992, and COMP9024 or COMP2011 or COMP2711, or enrolment in MIT program 8684 or GradCert program 7344.

Detailed examination of current developments and future trends in database, web, and e-commerce technologies. The emphasis will be on the following topics: modeling, querying, and integrating e-catalogs, integration frameworks for B2B EC applications, and web-based databases.

Further Information: CSE class page www.cse.unsw.edu.au/~cs9314

COMP9315
Database Systems Implementation
School of Computer Science and Engineering
UOC6 HPW3
Prerequisite: COMP9311 or COMP3311 or INFS3608 or INFS5926 or INFS5992, and COMP9024 or COMP2011 or COMP2711, or enrolment in MIT program 8684 or GradCert program 7344.

Detailed examination of techniques used in the implementation of relational, object-oriented and distributed database systems. Topics are drawn from: query optimisation, transaction management, advanced file access methods, database performance tuning.

Further Information: CSE class page www.cse.unsw.edu.au/~cs9315

COMP9318
Data Warehousing and Data Mining
School of Computer Science and Engineering
UOC6 HPW3
Prerequisite: COMP9311 or COMP3311 or INFS3608 or INFS5926 or INFS5992, and COMP9024 or COMP2011 or COMP2711, or enrolment in MIT program 8684 or GradCert program 7344.

Data Warehouse: (a) Data Model for Data Warehouses. (b) Implementing Data Warehouses: data extraction, cleansing, transformation and
loading, data cube computation, materialized view selection, OLAP query processing. Data Mining: (a) Fundamentals: data mining process and system architecture, relationship with data warehouse and OLAP systems, data pre-processing. (b) Mining Techniques and Application: association rules, mining spatial databases, mining multimedia databases, web mining, mining sequence and time-series data, text mining, etc. The lecture materials will be complemented by projects/assignments.

Further Information: CSE class page www.cse.unsw.edu.au/~cs9318

COMP9321
E-Commerce Systems Implementation Infrastructure
School of Computer Science and Engineering
UOC 6 HPw3
Prerequisite: COMP9021 or COMP1021 or COMP2011 or COMP2021; or enrolment in MIT program 8684 or GradCert program 7344. Corequisite: COMP9331 or COMP3331 or INF53608 or INF5926 or INF5992; or enrolment in MIT program 8684 or GradCert program 7344.

The goal of this course is to expose students to basic infrastructure for building web-based ecommerce applications. It discusses web application development techniques and enabling technologies including CGI scripts, remote method invocation, servlets, JSPs, Web access to databases, programmatic access to XML documents. The lecture materials will be complemented by several assignments and labs. Excluded: COMP9331 and COMP9031

Further Information: CSE class page www.cse.unsw.edu.au/~cs9321

COMP9322
E-Commerce Systems Engineering
School of Computer Science and Engineering
UOC 6 HPw3
Prerequisite: COMP9321 or COMP9301 or COMP9316, and COMP9024 or COMP2011, and COMP9331 or COMP3331 or INF53608 or INF5926 or INF5992; or enrolment in MIT program 8684 or GradCert program 7344.

This course covers principles, techniques, architectures, and enabling technologies for the development of the different components and layers of complex e-commerce systems (presentation and personalisation layer, business logic, message exchange). It discusses: (1) e-commerce transaction models, system architectures and functions, (2) enterprise applications development using 3GEE, (3) Web services and business process modelling, (4) security, transaction, payment protocols for enterprise applications, (5) e-catalogues, (6) inter-enterprise message exchange, and (6) personalization. The lecture materials will be complemented by several assignments and labs

Further Information: CSE class page www.cse.unsw.edu.au/~cs9322

COMP9323
E-Enterprise Project
School of Computer Science and Engineering
UOC 6 HPw3
Corequisite: COMP9352.

This course covers principles, techniques, architectures, and enabling technologies for the development of the different components and layers of complex e-commerce systems (presentation and personalisation layer, business logic, message exchange). In particular, it discusses (1) advanced XML technologies as data exchange/translation format, (2) a model-driven approach in Web application development, (3) business processes modelling and Web services, (4) business process automation with Web service standards, (5) security, transaction, payment protocols for enterprise applications, and (6) personalisation. The lecture materials will be complemented by several assignments and labs

Further Information: CSE class page www.cse.unsw.edu.au/~cs9323

COMP9332
Network Routing and Switching
School of Computer Science and Engineering
UOC 6 HPw3
Prerequisite: COMP3351 or COMP9351.

This course will focus on the routing and switching architectures, algorithms and protocols for packet switching networks, both connectionless and connection oriented networks (such as IP and ATM networks). Advanced Internet addressing: CIDR, VPN, NAT. In depth discussion of interior and exterior routing protocols, such as BGP, OSPF. IP over ATM solutions: such as LANE, Classical IP over ATM. IP switching and MPLS. Mobile IP. Internet Multicasting. Overview of emerging switching and routing technologies, such as optical routing and QoS routing. There is a substantial network programming component in the assessable material, for which C programming knowledge is assumed.

Further Information: CSE class page www.cse.unsw.edu.au/~cs9332

COMP9333
Advanced Computer Networks
School of Computer Science and Engineering
UOC 6 HPw3
Prerequisite: COMP3331 or COMP9331.

This course teaches the fundamentals and practical solutions to quality of service (Qos) based networks, with an emphasis on the next generation Internet architectures and protocols. Topics include: scheduling policies (fair queueing, priority queueing etc.), congestion avoidance/control schemes (RED, RIO etc), admission control, multimedia protocols (RTP, K1CP etc).

This course will also cover recent Qos related developments by IETF/IEEE such as: Intserv, Diffserv, RSVP, LAN. Qos. There will be hands on practical labs on network performance measurement and some network programming. The assessment of the course includes a substantial hands on project on building a network system in Linux/FreeBSD environment. C programming knowledge is assumed for labs and the project.

Further Information: CSE class page www.cse.unsw.edu.au/~cs9333

COMP9334
Capacity Planning of Computer Systems and Networks
School of Computer Science and Engineering
UOC 6 HPw3
Prerequisite: COMP9331 or COMP9331.

Techniques for performance evaluation of distributed systems. These techniques will then be applied to designing systems to have good performance, and to the analysis of future workloads and the system changes required to cope with them.

Further Information: CSE class page www.cse.unsw.edu.au/~cs9334

COMP9416
Knowledge Based Systems
School of Computer Science and Engineering
UOC 6 HPw3
Assumed knowledge: COMP9414 or COMP3411.

This course introduces students to the basic concepts in knowledge-based systems and provides practical experience through project work. The topics covered include: knowledge representation and problem solving; knowledge acquisition and machine learning; knowledge level modelling, expert systems lifecycles and expert system shells. A major component of this subject is a project in which students work in 3 teams to build expert systems that act as agents in a competitive simulation game.

Further Information: CSE class page www.cse.unsw.edu.au/~cs9416

COMP9417
Machine Learning and Data Mining
School of Computer Science and Engineering
UOC 6 HPw3
Prerequisite: COMP9024 or COMP2011 or COMP2711 or COMP2091 (or extended versions) or enrolment in MIT program 8684 or enrolment in GradCert program 7344.

Machine learning is the algorithmic approach to learning from data. This course covers the key techniques in data mining technology, gives their theoretical background and shows their application. Topics include: decision tree algorithms (such as C4.5), regression and model tree algorithms, neural network learning, rule learning (such as association rules), lazy learning, version spaces, evaluating the performance of machine learning algorithms, Bayesian learning and model selection, algorithm-independent learning, ensemble learning, kernel methods, unsupervised learning (such as clustering) and inductive logic programming (relational learning).

Further Information: CSE class page www.cse.unsw.edu.au/~cs9417

COMP9444
Neural Networks
School of Computer Science and Engineering
UOC 6 HPw3
Prerequisite: COMP2011 or COMP2711 or COMP9024, and 12uc COMP3### or COMP4### or COMP9### - excluding Group A, or enrolment in MIT program 8684 or GradCert program 7344.

Further Information: CSE class page www.cse.unsw.edu.au/~cs9444

COMP9515
Pattern Classification
School of Computer Science and Engineering
UOC 6 HPW3
Prerequisite: COMP9024 or COMP2011 or COMP2091 or (extended versions) or enrolment in MIT program 8684 or enrolment in GradCert program 7344.

The course has three basic aims: firstly to understand the role of pattern recognition in general, secondly to get familiar with pattern recognition techniques, and thirdly to obtain the ability to apply techniques to applications.

This course is an introduction to the subject of pattern recognition. We will cover theoretical foundations of classification and pattern recognition and discuss applications in character, speech, and other applications. A tentative list of topics includes: Bayesian decision theory, discriminate functions for normal class distributions, supervised learning, unsupervised learning and clustering, Structural and Syntactic pattern recognition, Edit distance, String matching, Statistical pattern recognition, and neural pattern recognition.

Assumed Knowledge for PG: MATH2859 or MATH2801 or MATH2901 or statistical course equivalent.

Further Information: CSE class page www.cse.unsw.edu.au/~cs9515

COMP9517
Computer Vision
School of Computer Science and Engineering
UOC 6 HPW3
Prerequisite: 12 units of credit from COMP3### or 12 units of credit from COMP### - excluding Group A.

Cameras and Radiometry, local shading models, ColourVision perception, representation, modelling, linear filters for smoothing, edge detection using convolucor, Fourier transform, scale and image pyramids, texture, segmentation by clustering, model fitting and probabilistic methods, tracking and Kalman filters, model-based vision, template matching using classifiers, recognition by relations, applications in robotics, medical imaging, satellite image analysis.

Further Information: CSE class page www.cse.unsw.edu.au/~cs9517

COMP9519
Multimedia Systems
School of Computer Science and Engineering
UOC 6 HPW4
Prerequisite: COMP2011 or COMP2071 or COMP9024, 12uc level 3 or level 4 (for undergrads), or enrolment in MIT program 8684 or GradCert program 7344.

Provides an introduction to multimedia computing and distributed multimedia systems. The subject includes multimedia and agent fundamentals; multimedia application, structures and organization; interactive multimedia software authoring basics; information management issues; and dynamic agent and distributed processing.

Further Information: CSE class page www.cse.unsw.edu.au/~cs9519

COMP9790
Principles of Global Navigation Satellite System (GNSS) Positioning
School of Computer Science and Engineering
UOC 6 HPW3
Prerequisite: 18 units of credit COMP3### or COMP### courses, or enrolment in MIT program 8684 or GradCert program 7344; Excluded: GMAT4900.

This course will introduce the student to reference coordinate systems and time systems, satellite orbital motion, signal propagation and satellite tracking observables. The principles of positioning using the current two Global Navigation Satellite Systems (GNSS) will be studied: the U.S. developed Global Positioning System (GPS) and Russia's Global Navigation Satellite System (GLONASS). The mathematical models for pseudo-range and carrier phase-based modes of positioning, for both single receiver (absolute) positioning and relative positioning implementations, will be developed. These principles will be illustrated using the Matlab GNSS toolkit, which allows the student to develop algorithms for real and simulated data processing. Land, marine and airborne positioning applications will be discussed.

Physical attendance at the lab class is optional. Students with own copies of Matlab need not attend, and may do exercises in their own time.

Further Information: See GMAT4900

COMP9791
Modern Navigation & Positioning Technologies
School of Computer Science and Engineering
UOC 6 HPW3
Prerequisite: 18 units of credit COMP3### or COMP### courses, or enrolment in MIT program 8684 or GradCert program 7344; Excluded: GMAT4910.

This course presents an overview of the various satellite-based and non-satellite navigation technologies and some of their applications. Various user receiver configurations, system augmentations and implementation issues will be analysed. These include: differential GPS schemes and services, real-time systems and their communication links, pseudo-range and carrier phase-based techniques, pseudolites, and other satellite-based positioning systems. In addition, the role of other sensors (such as gyros, accelerometers and inertial navigation systems - INS) and ancillary data can play in navigation will be discussed. Particular emphasis will be placed on the role such positioning technologies will play in Transport Telematics and for personal location, in relation to Location-Based Services, etc. Students will gain hands-on experience with a variety of navigation technology.

Further Information: See GMAT4910

COMP9844
Extended Neural Networks
School of Computer Science and Engineering
UOC 6 HPW3
Prerequisite: A mark of at least 70 in COMP2011 or COMP2711 or COMP9024 and (12uc COMP3 or COMP4 or COMP9 - excluding Group A) or enrolment in MIT program 8684 or GradCert program 7344.

As for COMP9444 but in greater depth and breadth.

Further Information: CSE class page www.cse.unsw.edu.au/~cs9844

CRIM1000
Criminal Law and Justice 1
School of Social Science and Policy
UOC 6 HPW4
Prerequisite: Enrolment in program 3422 Social Science (Criminology)

Introduces students to key processes of criminalisation, criminal law formation, established concepts of criminal law and the operation of criminal justice agencies. Considers forces and criteria behind criminalisation, and justifications for and against the use of criminal law as a mode of regulation. Examines key components of criminal law: conduct, circumstance and consequence, how these are operationalised in specific substantive areas of criminal law doctrine such as homicide and criminal defences. Particular attention will be paid to the criminal processes and the workings of the major criminal justice agencies such as the police, the DPP, defence lawyers, and the courts.

CRIM1001
Criminal Law and Justice 2
School of Social Science and Policy
UOC 6 HPW4
Prerequisite: CRIM1000

Emphasises the operationalisation of criminal justice through the workings of key agencies. Examines particular areas of substantive criminal law doctrine and practice such as assault and sexual assault, public order offences, property offences and drugs offences. Examines sentencing and penalty, including justifications for punishment, sentencing options, the rise of retributivism, victim participation, and penal practices. Fosters a reflexive approach to the operation of criminal law and the criminal process, including consideration of the limits of criminal law as a mode of regulation in the light of technological and policy changes, and the blurring boundaries between criminal and civil law.

CRIM2000
Criminological Theories
School of Social Science and Policy
UOC 6 HPW3
Prerequisite: CRIM1001
Examines the way in which crime is conceptualised in different theoretical traditions. Introduces students to the historical development of criminology and explores the interconnections between social and political context, criminological theory and crime control policy.

**CRIM2014 Policing**  
School of Social Science and Policy  
UOC 6  HPW3  
Prerequisite: CRIM1001; Excluded: LAWS2789, LAWX1789  
Focuses on policing as a set of social and legal practices and institutions as a resource and as a regulator. Policing is placed in its social and historical contexts by assessing conflicting interpretations of its history and of police public relations. Topics include: police uses of law, the relevance of law to policing, and the effectiveness of statutory and other rules in influencing and controlling police decisions and activities, drug policing, police culture, the policing of social divisions, police corruption and deviance, the policing of public order, fictional representations of policing, investigative methods, developments in community, private and international policing, and the limits and possibilities of police reform.

School of Social Science and Policy  
UOC 6  HPW3  
Prerequisite: CRIM1001  
Many governments and the United Nations now regard combating transnational organised crime as an important national and international security issue, requiring exceptional policing measures which often override standard criminal justice procedures and human rights norms. Examines how criminological theory can be applied to the complex and often contradictory relationship between crime, human rights and the state by providing an overview of the debates regarding transnational and state crime. Topics include: globalisation and crime; the war on drugs; the war on human smuggling/trafficking; the war on terror; the dispossession of indigenous communities; genocide; refugees; arbitrary detention and torture.

**CRIM3000 Researching Crime and Justice**  
School of Social Science and Policy  
UOC 6  HPW3  
Prerequisite: CRIM2000, SLS32001  
Examines the methodological, ethical and legal issues in relation to criminological research through a critical review of published research studies. Topics to be covered include: the availability and quality of official data, uses and abuses of criminal justice statistics, doing research on sensitive topics and vulnerable populations, problems of access, validity issues, ethical practice, political and legal issues.

**CRIM3010 Comparative Criminal Justice: From Investigation to Trial**  
School of Social Science and Policy  
UOC 6  HPW3  
Prerequisite: CRIM2000 and 30 units of credit at Upper Level  
Introduces the aims, objectives and practice of comparative law, and the strengths and limitations of such an inquiry by focusing on aspects of criminal trial practice in various jurisdictions. Critically evaluates our criminal trial process by focusing on a number of themes, including: Bill of Rights; understanding adversarialism and accusatorial justice; inquisitorial or adversarial; transplanting legal cultures; confessions and the right to silence; plea bargaining; jury decision-making and controlling prejudice; double jeopardy.

**CRIM4000 Criminology Honours (Research) F/T**  
School of Social Science and Policy  
UOC 4  HPW4  
Prerequisite: 48 units of credit in Criminology Core Program and 48 units of credit in Social Science Core Program and SLSP3911 at an average of at least 65% and permission from the Head of School  
Students are required to prepare a thesis of at least 15,000-20,000 words. Participation in prescribed seminars of at least four hours duration per week is also required.

**CVEN1021 Civil Engineering Practice 1A**  
School of Civil and Environmental Engineering  
UOC 4  HPW2  
Introduction to the structure, nature and scope of civil and environmental engineering. Topics include: history of engineering; engineering today; organisation of the profession; the engineer in society; environmental, social and legal considerations; civil and environmental engineering failures and engineering responsibilities; communication methods and skills; oral presentations; report writing, presentation and expectations; case studies of major projects.  
Assumed knowledge: 2 unit HSC English.

**CVEN1022 Civil Engineering Practice 1B**  
School of Civil and Environmental Engineering  
UOC 6  HPW4  
Following on from CVEN1021, this course introduces student to engineering and its place in society an demonstrates how the various engineering sub-disciplines are integrated in real-world civil engineering projects. The objective is to develop the students’ skills in critical thinking, communication, teamwork and research. Topics include: communication methods and skills; oral and written presentations; the conduct of meetings; problem solving; recycling; public participation, including the role of sustainability and the influence of engineering practice, the engineer and the law.  
Assumed knowledge: CVEN1021.

**CVEN1023 Statics**  
School of Civil and Environmental Engineering  
UOC 4  HPW3  
An introductory course in engineering mechanics dealing with conditions of equilibrium of structures and fluids. Topics include: two dimensional concurrent and non-concurrent force systems; resultant of forces; equilibrium of forces; distributed forces; centre of gravity; centroids; internal actions; analysis of beams (shear force and bending moment diagrams); analysis of frames (determinacy, internal hinges); analysis of trusses (methods of joints and sections); cables; fluid statics including hydrostatic pressure, body forces, buoyancy, stability, and manometry; introduction to three dimensional statics.  
Assumed Knowledge: 2 unit HSC Mathematics

**CVEN1024 Dynamics**  
School of Civil and Environmental Engineering  
UOC 4  HPW3
An introductory course dealing with mechanics of bodies and of fluids in motion. Topics include laws governing continuity, energy and momentum; dynamics of particles; planar motion of rigid bodies and of fluids; ideal fluid flow; simple spring mass systems responding to forces of simple form; applications to civil and environmental engineering problems.

Assumed knowledge: CVEN1023.

**CVEN1025**
**Computing**
School of Civil and Environmental Engineering
UOC4    HPW3
A course designed to introduce students to engineering computing, including computer programming; programming using spreadsheets; computer graphics and computer aided drafting (CAD).
Assumed knowledge: Basic computer literacy including the use of PC operating systems, word processors & text editors.

**CVEN1026**
**Engineering Materials 1**
School of Civil and Environmental Engineering
UOC4    HPW3
An introduction to the properties and behaviour of civil engineering materials including concrete, steel, other metals, polymers and ceramics. Topics include: (i) Concrete Technology : Cements, aggregates, admixtures, workability, strength and durability; (ii) Metals Technology: Types of materials, mechanical properties of metals, response of metals to loading, creep and fatigue; (iii) Polymers: Classification of polymers, structure of polymers, creep and relaxation, deterioration of mechanisms and durability; (iv) Ceramics: Types of ceramic materials, mechanical and insulation properties and durability.
Assumed knowledge: CHEM1011.

**CVEN1531**
**Introduction to Water and Atmospheric Chemistry**
School of Civil and Environmental Engineering
UOC4    HPW3
Assumed knowledge: CHEM1011.

**CVEN1721**
**Environmental Engineering Practice 1A**
School of Civil and Environmental Engineering
UOC4    HPW2
Introduction to the structure, nature and scope of civil and environmental engineering. Topics include: history of engineering; engineering today; organisation of the profession; the engineer in society; environmental, social and legal considerations; civil and environmental engineering failures and engineering responsibilities; communication methods and skills; oral presentations; report writing; presentation and expectations; case studies of major projects.
Assumed Knowledge: 2 unit HSC English

**CVEN1722**
**Environmental Engineering Practice 1B**
School of Civil and Environmental Engineering
UOC6    HPW4
Following on from CVEN1721, this course introduces students to engineering and its place in society and demonstrates how the various engineering sub-disciplines are integrated in real-world environmental engineering projects. The objective is to develop the students’ skills in critical thinking, communication, teamwork and research. Topics include: communication methods and skills; oral and written presentations; the conduct of meetings; problem solving; recycling; public participation, including the role of sustainability and the influence of engineering practice, the engineer and the law.
Assumed Knowledge: CVEN1721.

**CVEN2022**
**Civil Engineering Practice 2**
School of Civil and Environmental Engineering
UOC3    HPW2
Prerequisite: 36 units of credit
The 2nd year integrating course introducing students to the multi-disciplinary nature of real world engineering problems and the relationship of engineering to the wider socio-economic environment. Case studies in formulation, modelling and resolution of engineering problems. A holistic approach to addressing complex engineering problems, engineering methodology, community participation and public involvement, sustainability, equity and distribution effects. Other topics include introduction to EIS and risk-quantification.
Assumed knowledge: CVEN1021, CVEN1022.

**CVEN2023**
**Mechanics of Solids**
School of Civil and Environmental Engineering
UOC3    HPW3
Prerequisite: CVEN1023
An introduction to the strengths of materials: properties of sections; concepts of stress and strain; stress-strain relationships; bars under axial force, bending moment, shear force, torsion; deflections due to bending and shear; combined stresses; stresses and strains at a point; principal stresses and strains.
Assumed knowledge: MATH1231.

**CVEN2025**
**Engineering Computations 1**
School of Civil and Environmental Engineering
UOC3    HPW3
Graphical data analysis; curve fitting and interpolation; simple and multi-linear regression; random variables and their properties; normal and binomial distributions. Functions of random variables and their simulation using computers; one and two sample interference methods. Risk-quantification; ecological risk assessment. Applied data analysis.
Assumed knowledge: MATH1231, CVEN1025.

**CVEN2026**
**Engineering Materials 2**
School of Civil and Environmental Engineering
UOC3    HPW3
The course builds on the concepts of CVEN1026 with topics in concrete technology, metals technology and fibre reinforced polymer composites. Concrete Technology: Mix design, quality control, long term effects (creep and shrinkage); high performance concrete and fibre reinforced concrete. Metals Technology: Volume change; corrosion; various types of steel including stainless steel. Fibre Reinforced Polymer Composites: Matrix materials, types of fibres, density of composites, absorption characteristics, durability and long term mechanical properties.
Assumed knowledge: CVEN1026.

**CVEN2125**
**Systems Engineering**
School of Civil and Environmental Engineering
UOC3    HPW2
The formulation and solution of engineering problems and their interfaces with other issues. An holistic approach to addressing complicated engineering problems. Basic systems concepts applied to Civil and Environmental Engineering; Classification and representation of systems. Modelling of systems, Classification of fundamental systems problems of analysis, synthesis and investigation. Decision making. Allowance for variability and uncertainty. Case studies.
Assumed knowledge: CVEN1022, CVEN1025.

**CVEN2126**
**Engineering Construction 1**
School of Civil and Environmental Engineering
UOC3    HPW3
An introduction to elemental processes used in construction. Characteristics, selection and usage of plant and equipment, temporary works and specialist construction techniques. Researching issues associated with construction processes. Topics selected from: earthmoving; temporary works and specialist construction techniques; steelwork; concrete construction and masonry construction; a selection of particular construction activities including dam construction, coffer dams and caissons, tunneling, pipelines and road, railway and bridge construction.
Assumed knowledge: CVEN1022.
CVEN2222
Geotechnical Engineering 1
School of Civil and Environmental Engineering
UOC 3  HPW3
A course covering an introduction to Geotechnical Engineering and Geology. Topics include: history of the earth; plate tectonics; formation of different soils and rocks; classification of soils and rocks; structural geology and mapping; site investigation concepts and the geotechnical model.
Assumed Knowledge: CVEN1022.

CVEN2222
Structural Engineering 1
School of Civil and Environmental Engineering
UOC 6  HPW6
Prerequisite: CVEN1023
The course consists of an analysis strand and a design strand. Analysis Strand: Revision of Mechanics of Solids; combined stresses and failure theorems. The principles and requirements of structural analysis of indeterminate trusses and simple frames; structural idealisation; determinacy; principles of virtual work; the force method (flexibility analysis). Design Strand: Introduction to limit state design and codes of practice (design objectives; strength; serviceability and durability limit states); loads and load combinations (dead, live, wind and earthquake loads); structural steel; design of tension and stocky compression members; local buckling; Euler buckling; design of laterally supported steel beams; simple steel connections.
Assumed knowledge: CVEN2023.

CVEN2225
Introduction to Water Engineering
School of Civil and Environmental Engineering
UOC 3  HPW3
Prerequisite: CVEN1023, CVEN1024.
Review of fluid properties, hydrostatics and manometry; extension of pressure, continuity, energy and momentum concepts introduced in CVEN1023 Dynamics (Bernoulli’s equation, momentum flux and force balances); introduction to Navier Stokes Equations; turbulent and laminar flow; velocity profiles; energy losses and gains; pipe systems; boundary layers, skin friction and form drag; pump behaviour and selection; physical models.
Assumed knowledge: CVEN2023.

CVEN2722
Environmental Engineering Practice 2
School of Civil and Environmental Engineering
UOC 3  HPW2
Prerequisite: 36 units of credit
The 2nd year integrating course introducing students to the multi-disciplinary nature of real world engineering problems and the relationship of engineering to the wider socio-economic environment. Case studies in formulation, modelling and resolution of engineering problems. A holistic approach to addressing complex engineering problems, engineering methodology, community participation and public involvement; sustainability, equity and distributional effects. Other topics include: introduction to EIS; risk-quantification; sources of information on natural and social systems; perception and communication; the media; and other current environmental issues.
Assumed knowledge: CVEN1722, CVEN2025.

CVEN3023
Civil Engineering Practice 3A
School of Civil and Environmental Engineering
UOC 3  HPW2
Prerequisite: 84 units of credit
A project-based course integrating the material learnt in the various sub-disciplines of civil engineering. Multi-disciplinary projects are undertaken and involve the identification of major issues and the development of solutions for open-ended problems including considerations of the environmental, economic and social impacts of the proposed solutions. The objective is to further develop the students’ research, teamwork, managerial and self-directed learning skills. This course is focal in Year 3 (S1) of the undergraduate civil engineering program reinforcing the material covered in Years 1 and 2 and in the courses being undertaken concurrently.
Assumed Knowledge: CVEN2022.

CVEN3024
Civil Engineering Practice 3B
School of Civil and Environmental Engineering
UOC 3  HPW2
Prerequisite: 84 units of credit
CVEN3024 continues on from CVEN3023. A project based course integrating the material learnt in the various sub-disciplines of civil engineering. This course is focal in Year 3 (S2) of the undergraduate civil engineering program.
Assumed Knowledge: CVEN3023.

CVEN3025
Engineering Computations 2
School of Civil and Environmental Engineering
UOC 3  HPW3
Topics include: Numerical solution of linear and non-linear equations; numerical integration, finite differences; differential equations, boundary value problems, initial value problems; eigenvalue problems; partial differential equations (civil and environmental engineering applications); an introduction to finite element analysis.
Assumed knowledge: MATH2109, CVEN2025.

CVEN3125
Engineering Construction 2
School of Civil and Environmental Engineering
UOC 3  HPW3
Prerequisite: CVEN2126.
Construction management issues dealing with resources of people, money, equipment and materials. An introduction to the design, planning and management of construction operations. Researching issues associated with construction operations. Topics include: sustainable construction, recycling, waste and environmental issues; construction site organisation of personnel; construction site layout; materials planning and procurement, suppliers, subcontractors; equipment management and maintenance; maintenance; estimating; work physiology; ergonomics; selected construction operations - design, planning and management.
Assumed Knowledge: CVEN2125.

CVEN3126
Engineering Management 1
School of Civil and Environmental Engineering
UOC 3  HPW3
Basic techniques used in the management of engineering projects and engineering works; purpose and practices of management; management of resources including people, equipment and materials; project, asset and strategic management; management information systems.
Assumed knowledge: CVEN2125.

CVEN3222
Geotechnical Engineering 2
School of Civil and Environmental Engineering
UOC 3  HPW3
Prerequisites: CVEN2023, CVEN2222.
An introductory course for fundamental and applied soil mechanics. Topics include: description of soil, clay mineralogy, basic phase relationships, confined and unconfined seepage, principle of effective stress, consolidation theory, stress distribution and settlement.
Assumed Knowledge: CVEN2025.

CVEN3223
Geotechnical Engineering 3
School of Civil and Environmental Engineering
UOC 3  HPW3
Prerequisite: CVEN3222.
An introductory course to fundamentals of soil mechanics. Topics include: Mohr circle, failure criterion, strength of soils, soil testing, shear stress-stain behaviour of soils, slope stability, site investigation and mechanics of unsaturated soils.
Assumed Knowledge: CVEN2222.

CVEN3322
Structural Engineering 2
School of Civil and Environmental Engineering
UOC 6  HPW6
Prerequisites: CVEN2023, CVEN2322.
A course consisting of a structural design strand and a structural analysis strand. Design strand: Reinforced concrete elements; revision of limit states, concrete mechanical properties, reinforcement types and properties; durability requirements; behaviour of cross-sections in bending at both service and ultimate loads; ultimate strength analysis and design of cross-sections in both flexure (singly and doubly reinforced, ductility); serviceability analysis and design of beams (cracked section analysis, deflection and crack control); ultimate strength in shear; bond anchorage and curtailment (simple and continuous beams and one-way slabs); short and slender concrete columns (interaction diagrams). Analysis strand: Stiffness method (displacement method); analysis of beams and frames; second order behaviour of frames; slenderness effects in frames; elastic stability analysis; software applications; moment distribution applied to continuous beams and non-sway frames; plastic analysis of continuous beams.

CVEN3324 Structural Engineering 3
School of Civil and Environmental Engineering
UOC3 HPW3
Prerequisite: CVEN2322

A structural design course dealing with: laterally unsupported steel beams; steel plate girders; steel-beam columns; steel members subjected to biaxial bending; steel connections and detailing; plastic design of steel beams and frames; and timber engineering (including materials, design of simple elements and members, timber connections; domestic construction).

Assumed Knowledge: CVEN3322.

CVEN3348 Transport Planning and Environment
School of Civil and Environmental Engineering
UOC3 HPW3

There are two components of this course. The first deals with environmental acoustics including analytical techniques and procedures for noise impact assessment and control. The second component is concerned with analysis of traffic and transport systems, including the interactions between transportation, land use and the environment. Topics include: definitions and concepts related to land use and transport systems; equation of state; traffic generation; trip distribution; traffic assignment and mode choice; computer modelling of transport systems; assessment of environmental and community impacts.

Assumed knowledge: CVEN2025.

CVEN33448 Transport Engineering
School of Civil and Environmental Engineering
UOC3 HPW3

This course develops skills related to highway design and pavement evaluation. Topics include: introduction to road design including elements, history, terminology and driver influence; route location process; design practice of urban and rural roads, intersections and interchanges; computer aided design; road traffic loadings; sub-grade evaluation; base and sub-base materials; surfacings; pavement design including flexible pavements.

Assumed Knowledge: CVEN2222.

CVEN33526 Water Resources Engineering
School of Civil and Environmental Engineering
UOC3 HPW3

The course introduces the practice of engineering hydrology and its application in water resources management and flood estimation. Topics include: hydrological cycle, climatology, atmospheric circulation, meteorological measurements, precipitation, interpretation of data, streamflow measurement, runoff components; hydrograph analysis, storm runoff and loss rates, rainfall estimation - IDF diagrams and design hyetographs, concepts of flood estimation, deterministic rational method, probabilistic rational method, time-area methods, unit hydrographs concepts.

Assumed Knowledge: CVEN2525, CVEN2025.

CVEN33527 Water Engineering
School of Civil and Environmental Engineering
UOC3 HPW3

Prerequisite: CVEN2525.

The course develops and expands knowledge in hydraulics and hydrology and their application in water engineering. Topics include: open channel flow - specific energy, specific momentum and force, Manning and Chezy equations, uniform flow, subcritical and supercritical flow, hydraulic jumps, gradually varied flow profiles, sediment characteristics, Shields diagram, beform, sediment stability, channel side slopes, suspended sediment, fluvial sediment transport capacity estimators, groundwater, hydraulic conductivity, Darcy's Law, intrinsic permeability, water potential, hydraulic head, unsaturated zone, aquifers, aquicludes, aquitards, steady state flow, transient flow, effective stress, transmissivity, storativity.

Assumed Knowledge: CVEN3526.

CVEN33531 Principles and Applications of Aquatic Chemistry
School of Civil and Environmental Engineering
UOC3 HPW3

Prerequisites: CHEM1011, CVEN1531.

Basic thermodynamic and kinetic concepts are extended in this course to enable analysis of complex aqueous systems typical of surface water, ground water and marine environments. The principles of acid-base behaviour, solid dissolution and precipitation, complexation, oxidation and reduction and interactions at solid surfaces are presented such that problems pertaining to natural system behaviour, water quality degradation and water and wastewater treatment can be coherently addressed. A problem solving approach is emphasised.

CVEN33723 Environmental Engineering Practice 3A
School of Civil and Environmental Engineering
UOC3 HPW2

Prerequisite: 84 units of credit

A project-based course integrating the material learnt in the various sub-disciplines of environmental engineering. Multi-disciplinary projects are undertaken and involve the identification of major issues and the development of solutions for open-ended problems including considerations of the environmental, economic and social impacts of the proposed solutions. The objective is to further develop the students' research, teamwork, managerial and self-directed learning skills. This course is focal in Year 3 (S1) of the undergraduate environmental engineering program reinforcing the material covered in Years 1 and 2 and in the courses being undertaken concurrently.

Assumed Knowledge: CVEN2722.

CVEN33724 Environmental Engineering Practice 3B
School of Civil and Environmental Engineering
UOC3 HPW2

Prerequisite: 84 units of credit

CVEN33724 continues on from CVEN3723. A project-based course integrating the material learnt in the various sub-disciplines of environmental engineering. This course is focal in S2 of Year 3 of the undergraduate environmental engineering program reinforcing the material covered in the courses being undertaken concurrently.

Assumed Knowledge: CVEN3723.

CVEN33725 Waste Management
School of Civil and Environmental Engineering
UOC3 HPW3

An introduction to waste management, from generation to treatment and disposal; including waste characterisation, waste minimisation, waste treatment and landfill design. Wastes generated in urban economies are the focus of the course, but mining and contaminated sites may also be included.

Assumed Knowledge: CVEN2222.

CVEN33726 Environmental Policy, Law and Economics
School of Civil and Environmental Engineering
UOC3 HPW3

An introduction to environmental policies at a range of institutional levels, including sustainable development principles; implementation of environmental policies by regulatory action at international, national, state and local levels; introduction to a range of environmental economic
analytical tools, and implementation of environmental policies by market mechanisms.

**CVEN4000**  
Honours Thesis Part A  
School of Civil and Environmental Engineering  
UOC6  
Prerequisite: 132 units of credit completed and WA of 62.  
The thesis may describe directed laboratory, investigatory, design, field or research work on an approved subject and will be completed under the guidance and supervision of a member of the academic staff. This subject must be satisfactorily completed by all students wishing to obtain an honours degree.  
Prerequisite: Only students having a weighted average as set by the School (currently > 62%) in all courses in Years 1, 2 and 3 will be permitted to undertake the honours thesis. All courses to the end of Year 3 in the discipline of the thesis topic.

**CVEN4001**  
Honours Thesis Part B  
School of Civil and Environmental Engineering  
UOC4  
Prerequisite: CVEN4000  
Part B of the honours thesis. Course description as for CVEN4000.

**CVEN4027**  
Civil Engineering Practice 4A  
School of Civil and Environmental Engineering  
UOC6  
HPW4  
Prerequisites; 36 units of credit from Year 3 including CVEN3024.  
This final year integrating course involves formulating designs for and solution to real world civil engineering problems in the areas of structural and geotechnical engineering. The problems will be drawn form industry and will be multi-disciplinary involving application of material learnt throughout the undergraduate program. The course will involve either group or individual project work and will involve the preparation of working drawings and project reports similar to those required in industry.

**CVEN4028**  
Civil Engineering Practice 4B  
School of Civil and Environmental Engineering  
UOC6  
HPW4  
Prerequisites; 36 units of credit from Year 3 including CVEN3024.  
This final year integrating course involves formulating designs for and solution to real world civil engineering problems in structural engineering, construction and management. The problems will be drawn from industry and will be multi-disciplinary involving application of material learnt throughout the undergraduate program. The course will involve either group or individual project work and will involve the preparation of working drawings and project reports similar to those required in industry.

**CVEN4029**  
Civil Engineering Practice 4C  
School of Civil and Environmental Engineering  
UOC6  
HPW4  
Prerequisites; 36 units of credit from Year 3 including CVEN3024.  
This final year integrating course involves formulating designs for and solution to real world civil engineering problems in water, geotechnical and transport engineering. The problems will be drawn from industry and will be multi-disciplinary involving application of material learnt throughout the undergraduate program. The course will involve either group or individual project work and will involve the preparation of working drawings and project reports similar to those required in industry.

**CVEN4126**  
Engineering Management 2  
School of Civil and Environmental Engineering  
UOC3  
HPW3  
Tools and knowledge needed by engineering managers. Topics chosen from contracts management and administration; legal matters and professional practice; engineering economics and financial management; management of international projects; marketing; managing professional services.  
Students are required to complete a minimum of 60 working days of approved industrial training, submit a report on this training before Week 4 of Session 1 Year 4, and to present a seminar during S1 outlining their industrial training experiences.  
Assumed knowledge: CVEN3126.

**CVEN4139**  
Advanced Construction and Project Management  
School of Civil and Environmental Engineering  
UOC4  
HPW3  
Prerequisite: CVEN3126, CVEN4126  
Advanced construction technology topics and topics in the planning, design, organisation, coordination, staffing, administration, control and management of construction and allied projects.

**CVEN4149**  
Professional Level Project Management Tools and Skills  
School of Civil and Environmental Engineering  
UOC4  
HPW3  
Prerequisite: CVEN3126, CVEN4126  
Professional level construction and project management skills and techniques.

**CVEN4159**  
Advanced Construction Technology and Engineering  
School of Civil and Environmental Engineering  
UOC4  
HPW3  
Prerequisite: CVEN3126, CVEN4126  
State-of-the-art work associated with selected advanced topics in construction technology and engineering.

**CVEN4225**  
Geotechnical Engineering 4  
School of Civil and Environmental Engineering  
UOC3  
HPW3  
Prerequisite: CVEN3222.  
Theoretical and presumptive bearing capacity of shallow and deep foundations including pad, raft and piled foundations. Allowable settlement of foundations on soil and rock. Foundation construction including dewatering, temporary support, soil boring and pile driving. Special foundations for expansive soils and rock. Lateral earth pressures and retaining wall design.  
Assumed Knowledge: CVEN3223.

**CVEN4269**  
Environmental Geotechnics  
School of Civil and Environmental Engineering  
UOC4  
HPW3  
Prerequisites: CVEN3223, CVEN4225.  
Geotechnical design of landfills; contaminant migration in soils; remediation of contaminated sites. Mine waste management, including tailings disposal and acid mine drainage.

**CVEN4279**  
Rock and Slope Engineering  
School of Civil and Environmental Engineering  
UOC4  
HPW3  
Prerequisites: CVEN3223, CVEN4225.  
Description of rock mass and discontinuities; rock strength and failure criteria. Core logging; field data collection, mapping and fracture surveys; data presentation; hemispherical projections; introductory rock slope stability; foundations on rock; excavation or rock; in-situ stress; stresses about underground openings; classification systems and tunnel support requirements; site investigations for landslides and slope stabilisation techniques; use of slope stability analysis programs. The course includes a compulsory 3 day field trip.

**CVEN4289**  
Site Investigations and Dam Engineering  
School of Civil and Environmental Engineering  
UOC4  
HPW3  
Prerequisites: CVEN3223, CVEN4225.  
A general review of foundations, dewatering and temporary support system, and parameters required for design of foundations, slopes and other structures. The influence of geology on geotechnical behaviour of soil and rock; weathering processes and profiles in valleys, site
investigation techniques - test pitting, drilling and water pressure testing; in-situ testing methods - SPT, CPT, vane shear, site investigation examples; laboratory shear strength testing and selection of design parameters; peak and residual strengths; triaxial and direct shear test; zoning of embankment dams. Design of seepage control, design, specification and construction of filters for dams. Stability analysis for embankment dams. Foundation preparation, cleanup, grouting, specification and quality control for embankment dams.

**CVEN4299**
**Advanced Topics in Geotechnical Engineering**
School of Civil and Environmental Engineering  
UOC 4 HPW3  
Prerequisites: CVEN3223, CVEN4225.

Topic 1: either of Topics 2 or 3 will be offered in any one year. Topic 1: An introduction to the fundamentals of critical state soil mechanics and soil plasticity. Topic 2: Advanced pavement engineering. Topic 3: Application of computer simulation techniques to geotechnical engineering problems.

**CVEN4323**
**Structural Engineering 4**  
School of Civil and Environmental Engineering  
UOC3 HPW3  
Prerequisite: CVEN3322.

The course deals with the design and behaviour of the following: one-way and two-way reinforced concrete slabs (including the Direct Design Method and the Equivalent Frame Method of analysis); retaining walls; footings; prestressed concrete beams and one-way slabs; and prestressed concrete anchorage zones.

Assumed Knowledge: CVEN3324.

**CVEN4339**
**Design of Bridges**  
School of Civil and Environmental Engineering  
UOC4 HPW3  
Prerequisites: CVEN3322, CVEN3324, CVEN4323.

Fundamentals of bridge engineering (site selection; bridge type selection; standard superstructures and substructures; bridge hydraulics; bridge form); bridge codes; load distribution in bridges; preliminary design considerations for simply supported beam-and-slab and box girder bridges, continuous beam-and-slab bridges, cable-stayed bridges.

Assumed Knowledge: CVEN3324.

**CVEN4349**
**Special Topics in Concrete, Steel and Composite Structures**  
School of Civil and Environmental Engineering  
UOC4 HPW3  
Prerequisites: CVEN3322, CVEN3324, CVEN4323.

Topics will be selected from the following: Concrete Structures: The Art of detailing: design for torsion; yield line design; strut and tie modelling; time effects; design of continuous prestressed concrete beams. Steel Structures: Plastic analysis and design of steel structures. CompositeSteel-Concrete Structures: concrete filled steel tubes; connections, beam-slab systems; longitudinal shear and slip.

**CVEN4359**
**Structural Analysis and Finite Elements**  
School of Civil and Environmental Engineering  
UOC4 HPW3  
Prerequisites: CVEN3322, CVEN3324, CVEN4323.

Application of finite elements to structural problems. Topics will be selected from 2D membrane elements and their application to shear walls and panels subject to in-plane loading; plate elements and their application to floor slabs and panels subject to out-of-plane loading; buckling analysis using finite elements; output checking.

**CVEN4439**
**Transport Operations and Systems Design**  
School of Civil and Environmental Engineering  
UOC4 HPW3  
Prerequisite: CVEN4349.

This course covers advanced topics on transport operations and design. Topics include: application of mathematical approaches to the operational characteristics of different modes of transport, congestion analysis, graphical and simulation techniques, network theory and queuing theory applications to ports, airports and railyards. Case studies related to ferry services, bus operations and freight transport are also covered.

**CVEN4449**
**Traffic Management and Control**  
School of Civil and Environmental Engineering  
UOC4 HPW3  
Prerequisite: CVEN3438.

An advanced course covering traffic management and control. Topics include traffic studies and capacity, integrated urban traffic management, arterial road traffic management measures and devices, traffic signal timing calculations, history, basic concepts, current signal setting practice, and intersection analysis with the SIDRA software package.

**CVEN4459**
**Transport and Environment**  
School of Civil and Environmental Engineering  
UOC4 HPW3  
Prerequisite: CVEN3438.

This course covers advanced topics on transport planning in the context of integration of land-use, transport and environmental consideration. Topics include the land use/transport/environment, trip generation, trip distribution, modal split, route choice modelling, traffic assignment, economic evaluation of transport and environmental impacts of transport.

**CVEN4526**
**Water and Wastewater Treatment**  
School of Civil and Environmental Engineering  
UOC4 HPW3  
Prerequisites: CHEM1011, CVEN2525.

The course introduces public health engineering, including water supply and wastewater disposal systems, water and wastewater treatment, water quality and contamination indicators. Topics include water quality parameters; unit operations in treatment of water and wastewater; potential water distribution systems; sewage collection systems; and stormwater systems.

Assumed Knowledge: CVEN3527.

**CVEN4533**
**Transport and Fate of Pollutants**  
School of Civil and Environmental Engineering  
UOC4 HPW3  
Prerequisite: CVEN4526.

Topics include pollutant sources; spreading of substances in air, water and groundwater environments; transport processes in rivers, estuaries, lakes and coastal waters; quantification of a groundwater resource, its sustainability and possible contamination.

Assumed knowledge: CVEN3525.

**CVEN4539**
**Advanced Water Quality and Treatment**  
School of Civil and Environmental Engineering  
UOC4 HPW3  
Prerequisite: CVEN4526.

Topics will be selected from the area of water quality and treatment. Topics may include water and wastewater treatment; water quality in rivers, lakes, reservoirs, estuaries, and coastal waters; catchment processes and management; water quality modelling.

**CVEN4549**
**Advanced Catchment and Coastal Processes**  
School of Civil and Environmental Engineering  
UOC4 HPW3  
Prerequisite: CVEN4526.

Topics will be selected from the area of catchment and coastal processes. Topics may include catchment processes and management; rainfall and flood estimation with reservoir yield analysis; groundwater systems; stormwater systems; fluvial processes and river engineering; coastal processes, coastal engineering and coastal zone management.

**CVEN4559**
**Advanced Water Engineering**  
School of Civil and Environmental Engineering  
UOC4 HPW3  
Prerequisites: CVEN3526, CVEN3527.

Topics will be selected from the area of hydraulic and hydrologic systems. Topics may include hydraulic structures; groundwater investigations; hydrological data, analysis and risk assessment; stormwater control structures; computational hydraulics.
CVEN4569  
Advanced Environmental Systems  
School of Civil and Environmental Engineering  
UOC4  HPW3  
Prerequisite: CVEN4526.  
Topics will be selected from the area of environmental systems and management. Topics may include environmental material accounting techniques; waste management; environmental risk assessment; groundwater system contamination; site remediation; microbiology; water quality in rivers, lakes, reservoirs, estuaries, and coastal waters; water quality modelling.

CVEN4727  
Environmental Engineering Practice 4A  
School of Civil and Environmental Engineering  
UOC6  HPW4  
Prerequisite: 132 units of credit  
This final year integrating course involves formulating designs for and solutions to real world environmental engineering problems in the areas of chemical engineering, water and wastewater treatment, and environmental management. The problems will be drawn from industry and will be multi-disciplinary involving application of material learnt throughout the undergraduate program. The course will involve either group or individual project work and will involve the preparation of working drawings and project reports similar to those required in industry.  
Assumed Knowledge: CVEN3723, CVEN3724.

CVEN4728  
Environmental Engineering Practice 4B  
School of Civil and Environmental Engineering  
UOC6  HPW4  
Prerequisite: 132 units of credit  
This final year integrating course involves formulating designs for and solutions to real world environmental engineering problems in the areas of groundwater, environmental geotechnics and waste engineering. The problems will be drawn from industry and will be multi-disciplinary involving application of material learnt throughout the undergraduate program. The course will involve either group or individual project work and will involve the preparation of working drawings and project reports similar to those required in industry.  
Assumed Knowledge: CVEN3723, CVEN3724.

CVEN4729  
Environmental Engineering Practice 4C  
School of Civil and Environmental Engineering  
UOC6  HPW4  
Prerequisite: 132 units of credit  
This final year integrating course involves formulating designs for and solutions to real world environmental engineering problems in water, geotechnical and transport engineering. The problems will be drawn from industry and will be multi-disciplinary involving application of material learnt throughout the undergraduate program. The course will involve either group or individual project work and will involve the preparation of working drawings and project reports similar to those required in industry.  
Assumed Knowledge: CVEN3723, CVEN3724.

DANC1001  
Dance Styles 1  
Media, Film and Theatre  
UOC6  HPW7.5  
Prerequisite: Enrolment in program 3408  
Establishes the basis by which students acquire a technical mastery over their bodies and involves the study of two essential dance styles: Classical Ballet and Modern Dance.

DANC1002  
Dance Styles 2  
Media, Film and Theatre  
UOC6  HPW7.5  
Prerequisite: DANC1001  
Extends the student’s acquisition of technical mastery over the body begun in Dance Styles 1.
Expands and consolidates the student's mastery of a range of practical dance styles.

**DANC2105**  
**Dance Styles 5**  
Media, Film and Theatre  
UOC6  HPW7.5  
Prerequisite: DANC1001, DANC1002  
Expands and consolidates the student's mastery of a range of practical dance styles.

**DANC2106**  
**Dance Styles 6**  
Media, Film and Theatre  
UOC6  HPW7.5  
Prerequisite: DANC1001, DANC1002  
Expands and consolidates the student's mastery of a range of practical dance styles.

**DANC2107**  
**Dance Styles 7**  
Media, Film and Theatre  
UOC6  HPW7.5  
Prerequisite: DANC1001, DANC1002  
This course is the last in a carefully sequenced and graded series involving a range of styles. Students will be expected to display a high level of technical mastery over their bodies.

**DANC2201**  
**The Teaching-Learning Process in Dance**  
Media, Film and Theatre  
UOC6  HPW4  
Prerequisite: DANC1001, DANC1002  
Introduces students to pedagogy in general and considers how dance may best be taught in the context of the Australian secondary school system.

**DANC2203**  
**Dance Teaching Practice**  
Media, Film and Theatre  
UOC12  
Prerequisite: DANC2209  
Teaching experience consists of 40 days experience in a New South Wales secondary school. Students observe lessons conducted by experienced teachers and plan and deliver lessons for a number of classes, under the direction of supervising teachers. Students also become familiar with organisational aspects of a high school and activities other than those related to subject delivery, for example, school policies and general supervision of school students.

**Note:** This course is a formal requirement of the BA(Dance)/BEd program.

**DANC2209**  
**Dance Method A**  
Media, Film and Theatre  
UOC5  HPW2  
Prerequisite: DANC1102, DANC2201; Excluded: DANC2210  
Students are given a wide range of practical dance activities that will enable them to implement all levels of the NSW Syllabuses. They will examine the national Curriculum Document and investigate ways of integrating dance with the other major arts areas.

**DANC2211**  
**Dance Method B**  
Media, Film and Theatre  
UOC3  HPW2  
Prerequisite: DANC2209  
This course, which extends and develops the work of Dance Method A, deals with the application of the experiences gained in schools towards the profession of teaching dance.

**DANC4000**  
**Dance Honours (Research) Full-Time**  
Media, Film and Theatre  
UOC24  HPW5  
Prerequisite: 54 units of credit in DANC/FILM/PFST/THFI/THST courses with an average of 65% in DANC  
Students are required to undertake an original piece of research extending throughout the year and to submit a thesis of 20,000 words based upon it and to undertake a seminar in research method and complete a practical project accompanied by a written exegesis.

**DANC4050**  
**Dance Honours (Research) P/T**  
Media, Film and Theatre  
UOC12  HPW3  
Prerequisite: 54 units of credit in DANC/FILM/PFST/THFI/THST courses with an average of 65% in DANC  
Students are required to undertake an original piece of research extending throughout the year and to submit a thesis of 20,000 words based upon it and to undertake a seminar in research method and complete a practical project accompanied by a written exegesis.

**ECON1101**  
**Microeconomics 1**  
School of Economics  
UOC6  HPW3  
Prerequisite: ECON1101  
Introduces economics as a social science: scarcity, resource allocation and opportunity cost; an introductory analysis of consumer behaviour; the economics of firms and markets; production and costs; the classification and analysis of markets; efficiency concepts and market failure; the gains from international trade and the impact of trade restrictions; economic growth and structural change.

**ECON1102**  
**Macroeconomics 1**  
School of Economics  
UOC6  HPW3  
Prerequisite: ECON1101  
Provides an introduction to the analysis of aggregate output, employment and economic growth and their relationship to the policy issues of unemployment, inflation and the balance of payments. Other topics include: social accounting and aggregate income and expenditure analysis; macroeconomic models of income determination; consumption and investment functions; the role of money and financial institutions; interactions between goods and money markets in equilibrium and disequilibrium situations; and an analysis of recent Australian macroeconomic experience.

**ECON1107**  
**Elements of Environmental Economics**  
School of Economics  
UOC6  HPW3  
Excluded: ECON1101  
This course provides an introduction to environmental issues, market failure, conservation and preservation of environment, discounting, sustainable economic growth and zero growth, measuring benefits and costs on environment, methods of controlling pollution, and management of environment.

**ECON1202**  
**Quantitative Methods A**  
School of Economics  
UOC6  HPW3  
Excluded: MATH1031, MATH1011, MATH1021, MATH1131, MATH1231, MATH1141, MATH1241, ECON2291  
This course examines: mathematics of finance (compound interest, present value, annuities); matrix algebra: (operations with matrices, determinants, matrix inverse, rank, solutions to matrix equations); the graphical approach to linear programming; calculus: (univariate differentiation, maxima and minima of a function, functions of several variables, partial derivatives, unconstrained and constrained optimisation) and the applications of the above concepts and techniques in accountancy and economics, including the use of spreadsheet computer programs.

Assumed Knowledge: A level of knowledge equivalent to achieving a mark of at least 60 in HSC Mathematics. Students who have taken General Mathematics will not have achieved the level of knowledge which is assumed for this course.

**ECON1203**  
**Quantitative Methods B**  
School of Economics  
UOC6  HPW3  
Prerequisite: ECON1202; Excluded:ECON2292, MATH1041, MATH2801, MATH2841, MATH2901.
Course topics include: frequency distributions; measures of central tendency; dispersion and skewness; introduction to probability theory; the binomial distribution; the poisson distribution; the normal distribution; point estimation of population parameters and confidence intervals; hypothesis tests; the t and chi square distributions; bivariate regression; estimation; and hypothesis testing.

**ECON1301**
**Australia in the Global Economy**
School of Economics
UOC6  HPW3
Excluded: ECON1301, PECO1001
This course looks at the international economy at the end of the 19th century (trade, factor flows, and payments arrangements); problems of the international economy between the wars; the impact of World War II and the international economy in the post-war era; and Australian economic development and its relationship with the international economy in terms of economic fluctuations, problems of the inter-war period, growth of manufacturing, government policy and action, the importance of the mining industry, economic development and the distribution of income and wealth.

**ECON1302**
**Australia and the Asia-Pacific Economies**
School of Economics
UOC6  HPW3
Excluded: ECON1302
This course focuses on Australia's economic relations with the countries of Asia and the Western Pacific since the 19th century, with particular emphasis on the period since the Second World War. Topics include: capital and trade flows, labour and immigration issues; the changing political structures; Australian colonial rule and economic development in Papua and New Guinea; the rise to economic power of Japan and its relations with Australia before the Second World War; resurgence of Japan in the 1950s and its dominance of Australia's trade; future relations with Japan; the emergence of the newly industrialising nations in Asia and their impact on Australia; the ASEAN group's special relationship with Australia; Sino-Australian economic relations; trans-Tasman economic integration; Australia's perceptions of Asia and the Pacific and obstacles to greater economic integration.

**ECON2101**
**Microeconomics 2**
School of Economics
UOC6  HPW3
Prerequisite: ECON1101
Economists believe that in a perfect world, with perfect information, under certain conditions, markets will allocate goods efficiently. Usually, markets do not function in this way. Firms may have market power, which they will exert in strategic ways to influence their rivals to gain advantage. Imperfect information presents a series of problems for firms, consumers and households, particularly for insurance and labour markets.

**ECON2102**
**Macroeconomics 2**
School of Economics
UOC6  HPW3
Prerequisite: ECON1102
This course covers models of aggregate income determination in open economies; theories of aggregate economic behaviour with respect to consumption and investment expenditures and financial transactions; balance of payments and exchange rate analysis; theories of inflation and unemployment; introductory dynamic analysis; and theories of growth and cycles.

**ECON2103**
**Business and Government**
School of Economics
UOC6  HPW3
Prerequisite: EC1N1101
This course examines how government affects the business environment at the microeconomic level. The effects on business of government instrumentalties such as the Productivity Commission and the Australian Consumer and Competition Commission are examined. Issues relating to microeconomic reform, economic rationalism, market failure and government business enterprises are explored.
property rights, the strategic implications of lock-in and switching costs, and strategic choice in relation to government policy and regulation. Implications for international trade patterns and taxation policy are also explored.

ECON2116
Economics of Japanese Business and Government
School of Economics
UOC6  HPW3
Prerequisite: ECON1102
This course introduces a number of important facts concerning Japanese business and government and analyses them by applying theoretical frameworks and concepts such as game theory and comparative institutional analysis. This approach provides ways for understanding interconnections among a variety of Japanese-style business and labour market practices as well as tools for evaluating the effectiveness of Japanese industrial policy. Topics include: internal labour market; employment practices; work organisations; industrial relations; manufacturer-suppliers relationships; industrial policy (competition vs. collusion; R&D policy; protectionism).

ECON2117
Economics of Tourism
School of Economics
UOC6  HPW3
Prerequisite: ECON1102
Topics include: macro and micro economic environments; factors affecting international and domestic tourism; tourism forecasting models; economic analysis of projects; cost-benefit and related procedures; and the implications of tourism developments for the community in general.

ECON2127
Environmental Economics
School of Economics
UOC6  HPW3
Prerequisite: ECON1101
Considers the main elements of environmental economics and cost-benefit analysis as it relates to the assessment of environmental issues. Topics include: pollution and pollution policy; environmental cost-benefit analysis and economic methods for measuring costs and benefits; species extinction and irreversibility; environmental ethics and discounting; the environment and developing countries; and the sustainable economy.

ECON2206
Introductory Econometrics
School of Economics
UOC6  HPW3
Prerequisite: ECON1203
This course introduces econometrics and explores the representation of economic relationships by simple and multiple regression models; static and dynamic models; and the statistical complications of autocorrelation, collinearity, and heteroskedasticity. Practical computer applications feature throughout.

ECON2207
Econometric Methods
School of Economics
UOC6  HPW3
Prerequisite: ECON2206
This course covers estimation of econometric models using cross-section data, discrete choice models, and instrumental variable estimators. Practical computer applications feature throughout.

ECON2209
Business Forecasting
School of Economics
UOC6  HPW3
Prerequisite: ECON1103
This course looks at the use of econometric and statistical techniques relevant to forecasting in a business environment and computer implementation of the methods. Short-term forecasting using time series analysis; long-term forecasting with S-shaped growth curves and trend analysis. The study of applied work is emphasised in this non-specialist course.

ECON2215
Statistics for Econometrics
School of Economics
UOC6  HPW3
Prerequisite: ECON1203; Excluded: MATH2801, MATH2901, MATH2841, BLS2041

ECON2291
Quantitative Methods A (Arts)
School of Economics
UOC6  HPW3
Excluded: ECON1202, MATH1011, MATH1021, MATH1031, MATH1131, MATH1141, MATH1231, MATH1241
This course examines: mathematics of finance (compound interest, present value, annuities); matrix algebra (operations with matrices, determinants, matrix inverse, rank, solutions to matrix equations); the graphical approach to linear programming; calculus (univariate differentiation, maxima and minima of a function, functions of several variables, partial derivatives, unconstrained and constrained optimisation) and the applications of the above concepts and techniques in accountancy and economics, including the use of spreadsheet computer programs.

Assumed Knowledge: A level of knowledge equivalent to achieving a mark of at least E6 in HSC Mathematics. Students who have taken General Mathematics will not have achieved the level of knowledge which is assumed in this course.

ECON2292
Quantitative Methods B (Arts)
School of Economics
UOC6  HPW3
Prerequisite: ECON2291; Excluded: ECON1203, MATH1041, MATH2801, MATH2841, MATH2901
Course topics include: frequency distributions; measures of central tendency; dispersion and skewness; introduction to probability theory; the binomial distribution; the poisson distribution; the normal distribution; point estimation of population parameters and confidence intervals; hypothesis tests; the t and chi square distributions; bivariate regression; estimation; and hypothesis testing.

ECON2313
Australian Economic Development
School of Economics
UOC6  HPW3
Prerequisite: ECON1102 Excluded: ECOH2313
This course examines the development of the Australian economy from the Long Boom and the Depression of the 1890s to the present day. It looks at Australian economic development and its main features: economic fluctuations and their consequences, especially the Depression of the 1930s; the rise of Australian economic institutions; changes in the philosophy of development and the role of government; migration and the inflow of foreign capital; development strategies of the States; impact of war; growth of manufacturing and industry policy; development of the services sector; problems of the agrarian economy; and changes in the standard of living. Also considered is Australia’s changing economic relations with other countries and the world economy, and economic problems in the later 20th century in a historical perspective.

ECON2322
European Integration
School of Economics
UOC6  HPW3
Prerequisite: ECON1102 Excluded: ECOH2322, EURO2600
The objective of the course is to impart a knowledge and understanding of the institutions, current policies and likely directions of economic and social change within the European Union. This involves consideration of nation states which, through historical circumstances, have created differing institutional and policy directions (and in the case of Eastern Europe a different socioeconomic system) that now are in the course of being melded. Specific topics considered include the process towards a single market; the problems and implications of monetary integration; the trade distortions arising from the Common Agricultural Policy; the collapse of the Soviet system and the widening of the European Union; the operation of European multinationals; the process of privatisation in Europe; and European integration in relation to Australia and Asia. The
The process of economic development is never smooth. It is associated with profound changes in the fundamental structure of economic society. The rate of growth and development varies substantially between different economies. The course seeks to explain the factors that determine how societies grow and develop, with special emphasis on the role of technology and finance. Various approaches will be examined, and attention will be paid to problems associated with growth, including those relating to equity and human rights issues.

ECON3110 Development Economics
School of Economics
UOC6 HPW3
Prerequisite: ECON2101 or ECON2103 or 48uoc in Arts and Social Science

This course provides an in-depth introduction to different theories of underdevelopment and the associated strategies for fostering development, with emphasis on more recent perspectives. It investigates the role of institutions, institutional change, and markets as they relate to development, and discusses accompanying domestic and international economic policy questions. Much of the material is near the interface between economics and the other social sciences.

ECON3112 The Newly Industrialising Economies of East Asia
School of Economics
UOC6 HPW3
Prerequisite: ECON1102

This course focuses on the principal economic characteristics of the newly industrialising economies of East Asia; South Korea, Taiwan and Hong Kong, and compares internal and external policies and their contribution to the achievement of socio-economic objectives.

ECON3113 Economic Development in ASEAN Countries
School of Economics
UOC6 HPW3
Prerequisite: ECON1102

Analyses principal economic characteristics of the original members of the Association of South East Asian Nations: Indonesia, Malaysia, Philippines, Singapore and Thailand. Looks at causes and consequences of economic development policies, the theoretical issues related to formation of customs unions and free trade areas, and their application to ASEAN.

ECON3114 Superannuation and Retirement Benefits
School of Economics
UOC6 HPW3
Prerequisite/s: ECON1101, ECON1203 Excluded: ACTL3005

This course provides a comprehensive analysis of superannuation and retirement benefits, primarily in Australia. Topics include: alternative superannuation arrangements, taxation and regulation of superannuation, risk management and investment strategies for superannuation, design of retirement benefits, the retirement decision, policy developments and controversies and international comparisons.

ECON3116 International Economics
School of Economics
UOC6 HPW3
Prerequisite: ECON2101, ECON2102 or ECON2103, ECON2104.

Primarily a theoretical treatment of international trade and finance. Looks at international trade and finance theory; comparative costs, gains from trade, effects of resource endowments on trade; barriers to trade including tariffs and quotas; strategic trade policy; economic integration; imperfect competition; Australian balance of payments; balance of payments adjustment mechanisms, internal and external balance; foreign exchange markets; international monetary system; foreign investment.

ECON3119 Political Economy
School of Economics
UOC6 HPW3
Prerequisite: ECON1102, PCLC3000

Course examines alternative paradigms in economics and may include schools of thought such as the Post Keynesians, New Institutionalists, Marxians or Austrians. Particular non-traditional approaches to the theory
of the firm and such topics as experimental economics, Cambridge distribution and growth theory, economic sociology, economics of politics and the debate over economic rationalism may be covered. Specific topics will depend on student preferences.

**ECON3120**

**Econometric Reasoning**

School of Economics

UOC6 HPW3

Prerequisite: ECON2102 or 48uoc of Arts and Social Science

How do economists reason? How do they know when their theories are useful? This course answers these questions. Within this context, it examines the development of economics and the structure of macro and micro theory. After completing this subject, students will be able to apply economics logically to practical problems.

**ECON3121**

**Managerial Economics**

School of Economics

UOC6 HPW3

Prerequisite: ECON2101 or ECON2105 or ECON2112

This course aims to develop students' knowledge of the theory and practice of building causal econometric models for real-world application. Effective modelling requires a deep understanding of economic data, familiarity with a number of model design principles and an awareness of commonleymet construction problems and how to overcome them. These themes are discussed in sequence, in the context of two diverse applications. The presentation emphasises practicalities, rather than formal rigour.

**ECON3202**

**Mathematical Economics**

School of Economics

UOC6 HPW3

Prerequisite: ECON1202

This course gives students a working knowledge of static and dynamic optimisation techniques applied in economics. Topics include classical optimisation, comparative statics, non-linear programming, differential equations and optimal control. All techniques introduced are illustrated with mainstream applications such as consumer theory and the neoclassical theory of optimal growth.

**ECON3203**

**Econometric Theory**

School of Economics

UOC6 HPW3

Prerequisite: ECON2215

This course covers: a coherent theoretical development of multiple regression analysis; restricted least squares and tests of exact linear restrictions on parameters; theoretical aspects of problems with data; basic approaches to econometric specification in nested and non-nested models; error autocorrelation and heteroskedasticity.

**ECON3204**

**Econometric Model Building**

School of Economics

UOC6 HPW3

Prerequisite: ECON2217

This course aims to develop students' knowledge of the theory and practice of building causal econometric models for real-world application. Effective modelling requires a deep understanding of economic data, familiarity with a number of model design principles and an awareness of commonleymet construction problems and how to overcome them. These themes are discussed in sequence, in the context of two diverse applications. The presentation emphasises practicalities, rather than formal rigour.

**ECON3206**

**Financial Econometrics**

School of Economics

UOC6 HPW3

Prerequisite: ECON2206

This course is concerned with the special statistical characteristics that arise when modelling time series data, such as commodity prices, interest rate exchange rate data, that have been collected at high frequency (such as daily or hourly). Topics include: modelling time varying volatility (ARCH models), generalised method of moments estimators (GMM), and non-normality issues.

**ECON3290**

**Introductory Econometrics (Arts)**

School of Economics

UOC6 HPW3

Excluded: ECON2206

This course introduces econometrics and explores the representation of economic relationships by simple and multiple regression models; static and dynamic models; and the statistical complications of autocorrelation, collinearity, and heteroskedasticity. Practical computer applications feature throughout.

**ECON3291**

**Econometric Methods (Arts)**

School of Economics

UOC6 HPW3

Excluded: ECON2207

Covers estimation of econometric models using cross-section data, discrete choice models, and instrumental variable estimators. Practical computer applications feature throughout.

**ECON4100**

**Advanced Economic Analysis**

School of Economics

UOC6 HPW3

Prerequisite: ECON2101, ECON2102 or at discretion of the Head of School

Selected topics in advanced microeconomics and macroeconomics.

**ECON4101**

**International Trade**

School of Economics

UOC6 HPW3

Prerequisite: ECON2101, ECON2102 or at discretion of the Head of School

The theory and practice of international trade. The course will emphasize both traditional neo-classical trade theory as well as the more modern strategic trade theory. The principles and predictions of these theories will be used to consider the recent developments in Australian trading relations and international trading relations in general.

**ECON4102**

**Strategic Market Behaviour and Government Regulation**

School of Economics

UOC6 HPW3

Corequisite: ECON4100

Topics covered will be from amongst the following. Theory of the firm, production costs, monopoly, dominant and fringe firms, cartels, oligopoly and monopolistic competition, differentiated products, regulation, advertising, horizontal and vertical integration, strategic behaviour by firms, and R & D. Both theoretical and empirical results will be covered in the course.

**ECON4103**

**Business Cycles and Growth**

School of Economics

UOC6 HPW3

Corequisite: ECON4100

This course combines modern economic theory and quantitative techniques to examine theories of business cycles and economic growth. Measurement of business cycles, theories of real and nominal courses of business cycle fluctuations, endogenous growth theories, and cross-country growth analysis will be considered.

**ECON4104**

**Economics of Labour Markets**

School of Economics

UOC6 HPW3

Prerequisite: ECON2101, ECON2102 or at discretion of the Head of School

ECON4105 Seminar in Research Methods
School of Economics
UOC6    HPW3
This course provides training in the techniques and methods used in economic analysis and research. Students will be required to attend lectures and undertake a course of independent study as prescribed by the Head of School.

ECON4120 Economics Honours (Arts)
School of Economics
UOC48    HPW6
Prerequisite: ECON2206, ECON2207 and credit in both ECON2101, ECON2102.
This program consists of four courses and a thesis ECON4127. The courses are ECON4100 and three other courses from a selected list.

ECON4127 Thesis (Economics)
School of Economics
UOC12    HPW3

ECON4201 Applied Econometrics
School of Economics
UOC6    HPW3
Prerequisite: ECON2207, ECON2101 or ECON2103.
This course takes a modern approach to applied econometric work. Various empirical problems are considered and the strengths and weaknesses of available ways of solving them are examined. Attention will be given to such matters as diagnostic tests in an LM framework, various forms of autocorrelation and heteroskedasticity, trending data, and outliers and influential observations. Practical experience is gained both from the study of the empirical literature and from class projects.

ECON4202 Advanced Econometric Theory
School of Economics
UOC6    HPW3
Prerequisite: ECON3203
This course focuses on some theoretical aspects of economic time series and cross-sectional data analysis. Topics for the time series part include: stationary and non-stationary processes; unit root tests; VAR and cointegrated VAR models; cointegration tests; estimation and testing in the presence of unit roots. Topics for the cross-section data part include: fixed effect models; random effect models, unbalanced panels; dynamic models and estimation in the presence of autocorrelation; heteroskedasticity and unit roots.

ECON4207 Elements of Econometrics
School of Economics
UOC6    HPW3
Prerequisite: ECON1203; Exclusion: ECON2206
The aim of this course is to provide students with an in-depth understanding of the simple and multivariate regression models. This course deals with numerous economic applications emphasising the practical aspects of model building. Extensions to the multiple regression model are considered in cases where the classical assumptions do not hold. In addition, topics including simultaneous equation models and qualitative choice models are covered using a range of applications from the fields of consumption, demand, investment and production economics.

ECON4227 Thesis (Econometrics)
School of Economics
UOC24    HPW3

ECON4321 Economic History 4 Honours
School of Economics
UOC48
Prerequisite: ECON1102 Excluded: ECOH4321
Consists of a thesis and four courses: Approaches to Economic and Social History; Aspects of Australian Economic Development; Seminar in Research Method; and Comparative Issues in Economic History.

ECON4327 Thesis (Economic History)
School of Economics
UOC24    HPW3
Honours students in their final year are required to prepare a thesis of not more than 20,000 words which must be submitted before the final examinations in November.

EDST1101 Educational Psychology 1
School of Education
UOC6    HPW3
An introduction to the study of Educational Psychology which examines some aspects of development and of learning and instruction. Topics include: cognitive development, memory, the role of knowledge, problem solving and thinking, an introduction to instructional methods.

EDST1103 Educational Psychology 2
School of Education
UOC6    HPW3
Prerequisite: EDST1101; Excluded: EDST2010, GENT1507
An extension of EDST1101. Focuses on learning and instruction in academic domains. Topics include cognitive processes involved in reading, in writing, in mathematics and science. Related research and implications for instruction are discussed.

EDST1104 Social Perspectives in Education
School of Education
UOC6    HPW3
Prerequisite: EDST1101 or enrolment in Diploma in Education Program; Excluded: EDST1303
Investigates schools as an important part of society in terms of how they interact with and respond to cultural, political, economic and other factors in society. Introduces students to relationships between education and Australian society by focusing on the nature and purpose of education in Australian society, winners and losers in education and the current directions in education. Students investigate the above through a small collaborative research project.

EDST1203 History, Philosophy and Science Teaching
School of Education
UOC6    HPW6
Prerequisite: EDST1102 or enrolment in Diploma in Education Program; Excluded: EDST1303
Examines the justification for, and ways of teaching, the historical and philosophical components of the NSW Years 7-12 Science curriculum; includes the study of the history and nature of science and its relations with other aspects of human culture such as philosophy, religion, art and poetry.

Note: Offered in condensed mode during 6 non-practice teaching weeks. Contact the School for dates and details.

EDST2032 Philosophical Issues in Education
School of Education
UOC6    HPW3
Prerequisite: EDST1101 or EDST1104
Examines the ethical, political, epistemological and metaphysical aspects of a number of important issues in education such as: determining aims of education, determining what constitutes human well being, deciding on curriculum content, examining what constitutes knowledge claims in different discipline areas, distinguishing role learning from understanding, identifying rational in contrast to other kinds of beliefs, appreciating the special role of educators in society and their sometimes conflicting obligations towards children, parents and the state, examining arguments about provision of equal educational opportunity, and social justice considerations in school funding.

EDST2041 Stress and Anxiety in Students and Teachers
School of Education
UOC6    HPW3
Prerequisite: EDST1101 or enrolment in Diploma in Education Program; Excluded: EDST1304, GENT1508
Examines the concepts of emotion, stress and anxiety and their effects in both students and teachers. Discusses a range of physiological and psychological aspects, and the impact of the individual’s state on performance outcomes. Includes possible management procedures.

EDST2044
Motivation in Learning and Teaching
School of Education
UC6 HPW3
Prerequisite: EDST1101 or enrolment in Diploma in Education Program; Excluded: EDST1402, GENT1520
Explores various theories of motivation and their application to learning and teaching. A variety of theories, issues and strategies, such as goal setting, learned helplessness, self construal, self regulation, attributions of causality and group behaviour, concerned with achievement-related contexts, are discussed. Teachers’ work motivation and implications for job satisfaction, professional commitment and teaching efficacy are considered.

EDST2045
Teacher Effectiveness, Research and Practice
School of Education
UC6 HPW3
Prerequisite: EDST1101, EDST1102 or enrolment in Diploma in Education Program; Excluded: EDST1451, EDST3904
Explores concepts of teacher effectiveness, the measurement of teacher effectiveness and teacher development. Uses research to identify those teacher skills and behaviours that facilitate student achievement. Examines the school effectiveness and school improvement movements. Analyses the relationship between effective schools and teachers. Explores contemporary education issues within an effectiveness framework. Equips student teachers with the knowledge to link theory with best practice.

EDST2046
Language and Literacy in the Classroom
School of Education
UC6 HPW3
Prerequisite: 36 units of credit or enrolment in Diploma in Education Program; Excluded: LING2700
Introduces students to theories of second language learning, similarities and differences between first and second language learning, language varieties and social attitudes, differences between community and classroom learning, and the implications for language teaching and learning. Uses current research to identify likely areas of difficulty in language learning and effective teaching strategies for language learners including English as Second Language learners.

EDST2052
Relationships Between Personality, Mood, Motivation and Learning
School of Education
UC6 HPW3
Prerequisite: EDST1101 or enrolment in Diploma in Education Program; Excluded: EDST1452, GENT1512
A study of the nature and measurement of a variety of personality characteristics, moods and attitudes commonly encountered in learning situations and their effect on learning. Relationships between personality and subject preferences and possible subsequent occupations.

EDST2053
Human Variation and Education
School of Education
UC6 HPW3
Prerequisite: 36 units of credit or enrolment in Diploma in Education Program
Surveys variation in the major physical and psychological traits relevant to education, particularly ability, personality and sex differences, and examines how educators can best deal with them.

EDST2054
Managing the Classroom Environment
School of Education
UC6 HPW3
Prerequisite: 36 units of credit or enrolment in Diploma in Education Program
Develops student understanding of the relationships between classroom environment, classroom behaviour and learning. Various models of discipline and management and their application in the classroom will be examined. Demonstrates how teacher behaviour and/or instructional strategies can influence student behaviour and learning.

EDST2060
Educational Programs and Curricula for Intellectually Gifted Students
School of Education
UC6 HPW3
Prerequisite: EDST1205 or EDST2050 or EDST4095 or enrolment in Diploma in Education Program; Excluded: EDST1206
Current research on appropriate curriculum design, teaching methodologies and program development for gifted and talented children. Evaluation of program models and enrichment strategies currently used in Australia and internationally. Development of differentiated curricula for use with academically gifted students in the regular classroom or in special settings. Examines research on the effectiveness of in-class enrichment, acceleration and various forms of ability, achievement and interest grouping with particular attention to the effects of these strategies on the students’ academic and social development.

EDST2070
Culture, Identity and Education
School of Education
UC6 HPW3
Prerequisite: EDST1102 or enrolment in Diploma in Education Program; Excluded: EDST1207, EDST3908
Examines how the processes of schooling have interacted with issues of identity and diversity. Explores the historical dynamics of migration and settlement and how their growth has affected the rhetoric of Australian nationalism. How have the issues of race and culture been addressed in our schools? Discussion of how multiculturalism has influenced educational perceptions at a policy level and examination of the interpretations of that policy in the context of the public school classroom.

EDST2090
Student Learning, Thinking and Problem Solving
School of Education
UC6 HPW3
Prerequisite: EDST1101 or enrolment in Diploma in Education Program; Excluded: EDST1301, GENT1502
Examines how we reason, think and solve problems. How should we communicate with people to help them understand and learn? Answers are sought in the context of theories of mental processes.

EDST3090
Introductory Teaching Experience
School of Education
UC6 HPW6
From a combination of university lectures and school-based experiences, students will learn how to plan and conduct lessons in their teaching specialty, as well as become familiar with the many functions of schools and teachers. Seminars will be used to discuss the effectiveness of the lessons taught, and to enable students to identify and solve classroom-based problems. Students will spend one day per week in schools for ten weeks.

Note: A Method 1 course in a teaching specialisation is a corequisite.

EDST4000
Education Honours Full-Time
School of Education
UC24 HPW5
Prerequisite: 42 units of credit in EDST with an average of 65% plus 12 units of credit in approved relevant courses offered by other Schools or programs
Includes three coursework components and a thesis of approximately 10,000 - 15,000 words. The thesis involves individual research work undertaken with direction from a supervisor. The thesis constitutes 60% of the final honours mark and the coursework components constitute 40% of the final honours mark.

Note: Intending Honours students are advised to consult the School about their program of study.

EDST4050
Education Honours Part-Time
School of Education
UC12 HPW3
Prerequisite: 42 units of credit in EDST with an average of 65% plus 12 units of credit in approved relevant courses offered by other Schools or programs. Includes three coursework components and a thesis of approximately 10,000 - 15,000 words. The thesis involves individual research work undertaken with direction from a supervisor. The thesis constitutes 60% of the final honours mark and the coursework components constitute 40% of the final honours mark.

Note: Intending Honours students are advised to consult the School about their program of study.

EDST4081
Professional Issues in Teaching
School of Education
UOC6 HPW3
Prerequisite: EDST1101 and EDST1102; Excluded: EDST1449
Issues related to the teacher as a professional, and concomitant ethical ramifications including responsibilities to students, superordinates, subordinates, employers, parents and society; the role of the teacher in school policy; critical examination of Government and education system policies, especially those related to equity, education of girls, boys’ education, English across the curriculum and child sexual assault. Issues related to private schools and private school systems. Models and means of classroom management.

Note: May not be counted towards a major sequence in the BA program. Course is compulsory for students enrolled in programs 4055, 4075 and 3408.

EDST4092
Computer Skills for Teachers
School of Education
UOC3 HPW2
Prerequisite: Enrolment in Program 5560 or completion of one Teaching Method course; Excluded: EDST1492
Designed to focus on practical computer skills that teachers will need on a day-to-day basis. This e-learning course centres on the use of the internet and its role in education, including learning how to locate an internet site, how to conduct education-based searches and download teaching and educational resources from the internet.

Note: Designed to meet the NSW DET requirements for new teachers in government schools. Students are required to follow a self access e-learning program. Students must attend the demonstration lectures from Week 1 to Week 5 of Session 1. Computer laboratory facilities are available in Mathews Building 210 and 211.

EDST4093
Special Education
School of Education
UOC3 HPW3
Prerequisite: 36 units of credit; Excluded: EDST4080
Exceptional children with learning, intellectual, physical, emotional or sensory disabilities. Philosophical and practical issues. Tests and criteria for identifying these students; their special needs, programs of remediation and evaluation of teaching strategies.

EDST4094
Teaching Experience
School of Education
UOC15
Excluded: EDST4090
Consists of 40 days experience in a New South Wales secondary school. Observation of lessons conducted by experienced teachers; planning and delivery of lessons, under the direction of supervising teachers. Organisational aspects of a high school and activities other than those related to subject delivery, eg school policies and general supervision of school students.

Note: Requires successful completion of 6 units of credit in Teaching Method courses.

EDST4095
Gifted and Talented Students: Recognition and Response
School of Education
UOC3 HPW2
Prerequisite: 36 units of credit; Excluded: EDST2050, GENT1501
Designed to equip prospective teachers with the skills to recognise and respond to the needs of intellectually gifted students, including those from disadvantaged and minority groups. Critically examines theories and definitions of giftedness which currently influence education systems in Australia, and NSW in particular, and focuses on different forms and levels of giftedness. Introduces objective and subjective methods of assessing the abilities and achievements of gifted students. Examines the cognitive and affective development of these students in the light of current research on providing optimal contexts for learning. Introduces systematic approaches to differentiating curriculum for gifted and talented learners.

EDST4121
Chinese Method 1
School of Education
UOC3 HPW4
Excluded: EDST1428, EDST2428, EDST1469
A variety of approaches to the teaching of languages other than English in secondary classrooms and the contribution of linguistics to language learning. Current New South Wales syllabi; resource materials, in particular audio-visual resources, and a range of techniques to motivate learners of Chinese; lesson preparation and assessment practices.

Note: Intended for students in combined Education degrees, years 3 and 4, and DipEd students only. A minimum of 24 units of credit in appropriate background studies is required.

EDST4122
Chinese Method 2
School of Education
UOC3 HPW4
Prerequisite: EDST1469 or EDST4121; Corequisite: EDST4094; Excluded: EDST1429, EDST2429, EDST1470
Continuation of the topics in EDST4121.

EDST4125
Drama Method 1
School of Education
UOC3 HPW3
Excluded: EDST1420, EDST2420, EDST1461
Conceptual structures and practical approaches in the teaching of drama in the secondary school, including consideration of school context, pupil experience and resources. Analysis of the Drama Syllabus; program development; assessment criteria and evaluation procedures. Workshop techniques for teaching theatre arts including consideration of appropriate levels of achievement.

Note: Intended for students in combined Education degrees, years 3 and 4, and DipEd students only. A minimum of 24 units of credit in appropriate background studies is required. Students are expected to have experience in at least one area of practical theatre arts: eg mime, movement or dance, mask, commedia, voice, puppetry, street theatre, technical, actor training, direction.

EDST4126
Drama Method 2
School of Education
UOC3 HPW3
Prerequisite: EDST1461 or EDST4125; Corequisite: EDST4094 or DANC2203; Excluded: EDST1421, EDST2421, EDST1462
Continuation of the topics in EDST4125.

EDST4127
English Method 1
School of Education
UOC3 HPW3
Excluded: EDST1422, EDST2422, EDST1403, EDST1429, EDST1463
Aims and objectives of English teaching and the principles which underpin selection and application of teaching methods. Various teaching strategies for effective classroom management in the teaching of English in secondary schools. Includes practical tasks such as analysing the English syllabus, planning units of instruction, selecting media of instruction, and designing items for assessment.

Note: Intended for students in combined Education degrees, years 3 and 4, and DipEd students only. A minimum of 24 units of credit in appropriate background studies is required.

EDST4128
English Method 2
School of Education
UOC3 HPW3
EDST4129
English Double Method 1
School of Education
UOC6 HPW6
Prerequisite: EDST1431 or EDST2431, EDST1463, EDST4130, EDST1464
Continuation of the topics in EDST4127.

EDST4130
English Double Method 2
School of Education
UOC6 HPW6
Prerequisite: EDST1403 or EDST4129; Excluded: EDST1423, EDST2423, EDST4128, EDST1404
Continuation of the topics covered in EDST4129.

EDST4131
Literacy / English as a Second Language Method 1
School of Education
UOC3 HPW3
Excluded: EDST1424, EDST2424, EDST1465
Aims: to develop students as readers, writers, speakers and listeners in English;
Aspects of language and language theory; various teaching skills and
strategies, different lesson types and the fundamentals of planning units
of work. Principle for the evaluation of teaching materials and possible
strategies for their use. Student assessment and classroom management
in a range of teaching situations for learners of English as a second
language.
Note: Available only to DipEd students. It is recommended that students
complete this course in conjunction with EDST4094.

EDST4132
Literacy / English as a Second Language Method 2
School of Education
UOC3 HPW3
Prerequisite: EDST1467 or EDST4131; Corequisite: EDST4094; Excluded:
EDST1425, EDST2425, EDST1468
Continuation of the topics listed in EDST4131.

EDST4133
French Method 1
School of Education
UOC3 HPW4
Excluded: EDST4130, EDST2430, EDST1471
A variety of approaches to the teaching of languages other than English in
secondary classrooms and the contribution of linguistics to language
learning, Current New South Wales syllabi; resource materials, in
particular audio-visual resources, and a range of techniques to motivate
learners of French; lesson preparation and assessment practices.
Note: Intended for students in combined Education degrees, years 3 and 4,
and DipEd students only. A minimum of 24 units of credit in appropriate
background studies is required.

EDST4134
French Method 2
School of Education
UOC3 HPW3
Prerequisite: EDST1471 or EDST4133; Corequisite: EDST4094; Excluded:
EDST1431, EDST2431, EDST1472
Continuation of the topics in EDST4133.

EDST4135
Geography Method 1
School of Education
UOC3 HPW3
Excluded: EDST1493
Continuation of the topics in EDST4137.

EDST4137
German Method 1
School of Education
UOC3 HPW4
Excluded: EDST1434, EDST2434, EDST1475
A variety of approaches to the teaching of languages other than English in
secondary classrooms and the contribution of linguistics to language
learning, Current New South Wales syllabi; resource materials, in
particular audio-visual resources, and a range of techniques to motivate
learners of German; lesson preparation and assessment practices.
Note: Intended for students in combined Education degrees, years 3 and 4,
and DipEd students only. A minimum of 24 units of credit in appropriate
background studies is required.

EDST4138
German Method 2
School of Education
UOC3 HPW4
Prerequisite: EDST1475 or EDST4137; Corequisite: EDST4094; Excluded:
EDST1435, EDST2435, EDST1476
Continuation of the topics in EDST4137.

EDST4141
History Method 1
School of Education
UOC3 HPW3
Excluded: EDST1426, EDST2426, EDST1405, EDST4143, EDST1467
Aims: to equip students with the essential knowledge and skills to
function as geography teachers in secondary schools by exposing them
to a variety of teaching strategies which will enable them to operate
effectively in classroom situations as well as in field settings. Lectures and
discussions focus on the aims and objectives of geography teaching and
the principles which underpin the selection and application of teaching
methods. Also includes practical tasks such as analysing the geography
syllabus, planning units of instruction, selecting media of instruction,
and designing items for assessment.
Note: Intended for students in combined Education degrees, years 3 and 4,
and DipEd students only. A minimum of 24 units of credit in appropriate
background studies is required.

EDST4142
History Method 2
School of Education
UOC3 HPW3
Prerequisite: EDST1467 or EDST4141; Corequisite: EDST4094; Excluded:
EDST1427, EDST2427, EDST1406, EDST4144, EDST1468
Continuation of the topics listed in EDST4141.

EDST4145
Indonesian Method 1
School of Education
UOC3 HPW4
Excluded: EDST1436, EDST2436, EDST1483
A variety of approaches to the teaching of languages other than English in secondary classrooms and the contribution of linguistics to language learning. Current New South Wales syllabi; resource materials, in particular audio-visual resources, and a range of techniques to motivate learners of Indonesian; lesson preparation and assessment practices.

**Note:** Intended for students in combined Education degrees, years 3 and 4, and DipEd students only. A minimum of 24 units of credit in appropriate background studies is required.

**EDST4146**  
**Indonesian Method 2**  
School of Education  
UOC: HPW4  
Prerequisite: EDST1483 or EDST4145; Corequisite: EDST4094; Excluded: EDST4147, EDST2437, EDST1484  
Continuation of the topics in EDST4145.

**EDST4147**  
**Japanese Method 1**  
School of Education  
UOC: HPW4  
Excluded: EDST1432, EDST2432, EDST1473  
A variety of approaches to the teaching of languages other than English in secondary classrooms and the contribution of linguistics to language learning. Current New South Wales syllabi; resource materials, in particular audio-visual resources, and a range of techniques to motivate learners of Japanese; lesson preparation and assessment practices.

**Note:** Intended for students in combined Education degrees, years 3 and 4, and DipEd students only. A minimum of 24 units of credit in appropriate background studies is required.

**EDST4148**  
**Japanese Method 2**  
School of Education  
UOC: HPW4  
Prerequisite: EDST1473 or EDST4147; Corequisite: EDST4094; Excluded: EDST1435, EDST2435, EDST1474  
Continuation of the topics in EDST4147.

**EDST4149**  
**Mathematics Method 1**  
School of Education  
UOC: HPW6  
Excluded: EDST1444, EDST1479, EDST2444  
Practical and theoretical issues in the teaching of mathematics in secondary classrooms; matching appropriate instructional strategies, including the use of technology and motivational strategies, to knowledge of how children learn mathematics. New South Wales syllabi; resource materials, in particular audio-visual resources, and a range of techniques to motivate students to solve problems in other areas.  
A number of syllabuses are studied in detail, including Design and Technology, Computing Studies for Years 7-10, Information Processes and Technology, Software Design and Development for Years 11-12. Aims to assist students to develop skills in the planning and management of computing lessons. Demonstrates a variety of teaching strategies associated with computing courses. Emphasises how students learn about computers and computing, and how computers impact on society. There is a focus on computing projects and how computing skills can be used to solve problems in other areas.

**Note:** Intended for students in combined Education degrees, years 3 and 4, and DipEd students only. A minimum of 24 units of credit in appropriate background studies is required.

**EDST4150**  
**Mathematics Method 2**  
School of Education  
UOC: HPW6  
Prerequisite: EDST1479 or EDST4149; Corequisite: EDST4094; Excluded: EDST1445, EDST2445, EDST1480  
Continuation of the topics listed in EDST4149.

**EDST4151**  
**Science Method 1**  
School of Education  
UOC: HPW8  
Excluded: EDST1446, EDST2446, EDST1481  
Designed to prepare students for teaching the concepts and processes of science at the secondary level. Aims to assist students to develop skills in planning lessons, presenting demonstrations, using school science equipment, developing audio-visual aids and managing science classrooms. Demonstrates the use of a variety of teaching techniques. In addition, a range of resource material developed in recent projects in secondary science is introduced. Current syllabuses and ways by which they can be implemented are discussed. Important issues such as pupil preconceptions in science, assessment and evaluation, pupil differences, safety, and legal considerations for the science teacher are considered.

**Note:** Intended for students in combined Education degrees, years 3 and 4, and DipEd students only. A minimum of 24 units of credit in appropriate background studies is required.

**EDST4152**  
**Science Method 2**  
School of Education  
UOC: HPW8  
Excluded: EDST1481 or EDST4151; Corequisite: EDST4094; Excluded: EDST1447, EDST2447, EDST1482  
Continuation of the topics listed in EDST4151.

**EDST4153**  
**Spanish Method 1**  
School of Education  
UOC: HPW4  
Excluded: EDST1438, EDST2438, EDST1477  
A variety of approaches to the teaching of languages other than English in secondary classrooms and the contribution of linguistics to language learning. Current New South Wales syllabi; resource materials, in particular audio-visual resources, and a range of techniques to motivate learners of Spanish; lesson preparation and assessment practices.

**Note:** Intended for students in combined Education degrees, years 3 and 4, and DipEd students only. A minimum of 24 units of credit in appropriate background studies is required.

**EDST4154**  
**Spanish Method 2**  
School of Education  
UOC: HPW4  
Prerequisite: EDST1477 or EDST4153; Corequisite: EDST4094; Excluded: EDST1439, EDST2439, EDST1478  
Continuation of the topics in EDST4153.

**EDST4157**  
**Computing Studies Method 1**  
School of Education  
UOC: HPW3  
Prerequisite: Enrolment in Program 5560  
Designed to prepare students for teaching computing studies in schools. A number of syllabuses are studied in detail, including Design and Technology, Computing Studies for Years 7-10, Information Processes and Technology, Software Design and Development for Years 11-12. Aims to assist students to develop skills in the planning and management of computing lessons. Demonstrates a variety of teaching strategies associated with computing courses. Emphasises how students learn about computers and computing, and how computers impact on society. There is a focus on computing projects and how computing skills can be used to solve problems in other areas.

**Note:** A minimum of 24 units of credit in appropriate background studies is required.

**EDST4158**  
**Computing Studies Method 2**  
School of Education  
UOC: HPW3  
Prerequisite: EDST4157; Corequisite: EDST4094  
Continuation of topics covered in EDST4158.

**EDST4161**  
**Economics and Business Studies Method 1**  
School of Education  
UOC: HPW3  
Enrolment in program 4055 Bachelor of Arts/Education or program 5560 Diploma in Education  
Designed to equip students with the essential knowledge and skills to teach Economics and Business Studies at Years 11 and 12. Introduces students to a variety of teaching methods including project work and case studies. Examination of resources that are appropriate for the presentation of content in both HSC courses. Covers a range of assessment strategies.

**Note:** Intended for students in combined Education degrees, years 3 and 4, and DipEd students only. A minimum of 24 units of credit in appropriate background courses is required.
provides an introduction to the practice of electrical engineering. Key

The lecture program for this course has three themes. The first lectures will introduce you to the world of electrical engineering. Your ability to learn from and summarise the visitors’ lectures will be included in the material assessed in the examination. A number of lectures will also be given by different lecturers from the School of Electrical Engineering and Telecommunications covering key areas including power systems, control, telecommunications and electronics.

ELEC1011  
Electrical Engineering 1  
School of Electrical Engineering and Telecommunications  
UOC6  HPW6  

ELEC1041  
Digital Circuits  
School of Electrical Engineering and Telecommunications  
UOC6  HPW4  
Prerequisite: ELEC1011  
Realisations of combinational circuits: MSI devices, ROM’s, PLA’s. Synchronous sequential logic circuits: latches, flip flops, counters, registers. Algorithmic state machines: systematic design procedures, ITDLS. Asynchronous sequential logic circuits, design applications. PLL’s, & FPGA’s.

ELEC2015  
Electromagnetic Applications  
School of Electrical Engineering and Telecommunications  
UOC5  HPW3  
Prerequisite: PHYS2939 or PHYS2949.  

ELEC2031  
Circuits and Systems  
School of Electrical Engineering and Telecommunications  
UOC5  HPW3  
Prerequisite: ELEC1011  
Revision of basic circuit theory; RLC circuits; operational amplifiers; mutual inductance and transformers; state space modelling of systems with particular reference to circuits; Laplace transforms in general and applied to solution of state equations and circuit transient problems; two-port networks; assignments involving an introduction to PSPICE and MATLAB.

ELEC2032  
Electronics and Systems  
School of Electrical Engineering and Telecommunications  
UOC5  HPW3  
Prerequisite: ELEC2031  
Revision of basic circuit theory; RLC circuits; sinusoidal circuit response; mutual inductance and transformers; operational amplifiers; computer aided circuit design; state space circuit representations and time responses; homogeneous and particular solutions for first and secondorder linear differential equations; computer aided analysis of signals and systems, including state space representations; continuous time signals, sinusoids and signal norms; convolution, impulse and step responses; phasors; AC circuits (transient and steady state responses); complex power; frequency responses of circuits and systems; three-phase circuits.

ELEC2041  
Microprocessors and Interfacing  
School of Electrical Engineering and Telecommunications  
UOC6  HPW4
An introduction to programmer model of computer organisation, including assembly and machine language. Process of translation of computer programs including high level language to assembly, assembly to machine instructions, compilers, assemblers, linkers and loaders. Number representation including computer arithmetic, signed, unsigned and floating point arithmetic. Data types and data structures, including characters, integers, structures, arrays. Instruction set including instruction type and cycles, data processing, load/store and branch instructions, addressing modes. Functions, including functions calling conventions, instruction set support for functions, stack frames. I/O interfacing, I/O interrupts, and programming interrupts, instructions support for I/O and interrupts, and OS support for interrupt and I/O interfacing. Memory hierarchy; including cache, main memory, virtual memory and memory management unit. Bus system including memory bus, I/O device buses, and arbitration.

**ELEC2042**

Real Time Instrumentation
School of Electrical Engineering and Telecommunications
UOC6 HPW3
Prerequisite: (ELEC1041 and COMP1021) or (SOLA1051 and ELEC1041)


**ELEC3004**

Signal Processing and Transform Methods
School of Electrical Engineering and Telecommunications
UOC6 HPW5
Prerequisite: ELEC2012.

The mathematics of signals and linear systems. Fourier series, Fourier and Laplace transforms, discrete Fourier and Z transforms. Processing and analysis of continuous (analogue) and discrete-time (digital) signals. Analogue filters: approximation theory, Butterworth, Bessel, Chebyshev and elliptic filters. Filter impulse and frequency responses, stability, and sensitivity. Sampling continuous signals: the sampling theorem, reconstruction, and aliasing. The discrete Fourier transform (DFT) and the fast Fourier transform (FFT). Fundamentals of the design and realisation of finite impulse response (FIR) and infinite impulse response (IIR) digital filters. Digital processing of analog signals, including applications of digital signal processing (DSP) and programmable DSP chips. The representation and modelling of non-deterministic (random) signals, correlation functions, and power density spectra.

**ELEC3005**

Electric Energy 1
School of Electrical Engineering and Telecommunications
UOC6 HPW5
Prerequisite: ELEC2015


**ELEC3006**

Electronics A
School of Electrical Engineering and Telecommunications
UOC6 HPW5
Prerequisite: ELEC2032.


**ELEC3014**

Systems and Control 1
School of Electrical Engineering and Telecommunications
UOC6 HPW5
Prerequisite: ELEC2032.

History of feedback control; Differential equations; Laplace transforms; Transfer functions; Poles & Zeros; State space models; Modelling mechanical systems; First and second order systems; Block diagram algebra; Signal flow graphs; Masons rule; Stability; Routh-Hurwitz criterion; Steady state errors; Root locus theory and sketching; Generalized root locus/Transient response design via gain adjustment/Pole sensitivity/Design via root locus; PID control; Lag-lead compensation; Bode plots/ Nyquist plots/Nyquist stability criterion/Gain margin and phase margin/Time delay; M&N circles/Nichols chart/ Introduction to design via frequency response; Practical classes include Matlab tutorials linked to lectures and construction and testing of DC servo motor feedback control systems.

**ELEC3015**

Electric Energy 2
School of Electrical Engineering and Telecommunications
UOC6 HPW4
Prerequisite: ELEC3005

Basic aspects of both the supply and utilisation of electrical energy, with some emphasis on contemporary aspects of energy utilisation, including modern developments, energy efficiency and environmental aspects. Electrical energy supply systems: transmission and distribution systems, power transfer, reactive power effects, fault current calculation and protection. Quality of electricity supply; transient overvoltages, harmonics etc. and their ramifications in the operation of electrical power equipment. Electromagnetic compatibility (EMC). Utilisation of electrical energy: industrial application considerations, including DC machines, induction and synchronous motor drives. Computer-aided analysis of machines. Use of modern techniques of power electronics for application to variable speed drive systems, including DC-AC, DC-DC and AC-AC converters. Utilisation of electrical energy for lighting and industrial heating processes including discharge, induction and RF heating. Electrical safety of power equipment: equipment requirements for use in hazardous atmospheres; earthing and earth leakage protection.

**ELEC3016**

Electronics B
School of Electrical Engineering and Telecommunications
UOC6 HPW4
Prerequisite: ELEC3006

Operating principles and fabrication technologies of electronic and photonic devices. Devices covered include: pn diodes, BJTs, MOSFETs, LEDS, solar cells, lasers and optical waveguides as used in communication systems and microwave devices. Ebers-Moll model of the BJT. BJTs & MOSFETs in analogue and integrated circuits, including TTL, ECL and CMOS. Principles and key technologies involved in microfabrication of integrated circuits. Non-idealties of devices resulting from realistic architectures and the effect of these non-idealities on the operation and design of circuits and systems.

**ELEC3017**

Electrical Engineering Design
School of Electrical Engineering and Telecommunications
UOC6 HPW5
Prerequisite/s: ELEC2032 and ELEC2041

Electrical product design in a manufacturing environment, from original idea through technical specifications, prototype, manufacture and finally to marketing. In particular: Design Project Management: Introduction to scheduling and other management techniques. Also introductions to costing, pricing, marketing, standards, patents, quality and reliability, safety, (electronic) manufacturing methods and systems, engineering innovation. Design Methodology: Systematic design procedures, design documentation. Designing for quality, for manufacture, for maintenance, for minimum life cycle cost. Use of computer aids for project management, drawing, PCB design, circuit analysis and synthesis, documentation. Engineering Drawing and Graphical Communications: Standards, projections, dimensioning, tolerancing, and drawing interpretation. Aspects of Electronic Design: Device specifications, component choices, sourcing, data sheets, tolerances, aging, thermal dissipation, passive...
component characteristics. Also RFI and EMC, earthing, shielding, PCB layout principles, prototyping methods, interconnection technologies. Group Project: including specification, marketing and business plans, scheduling, design, prototype production, testing, formal technical report and seminar presentation.

**ELEC3041**  
**Real Time Engineering**  
School of Electrical Engineering and Telecommunications  
UOC6  HPW4  
Prerequisite: ELEC2042  
Real-Time Systems: real-time versus non-real-time; hard/soft and critical/ non-critical real-time systems; events and stimuli; processes, tasks and threads; concurrent processes; software architectures; state machines.  
Real-Time Kernels: Scheduling algorithms; co-routines and multi-tasking; inter-process communication and synchronisation; context switching; task management; reliability, testing and fault tolerance; timing analysis; device drivers.  
Real-Time Linux: POSIX and Linux; loadable kernel modules; inter-process communication; interrupts; shared memory and RT-FIFO's.  
Embedded Systems: Real-time kernels for embedded systems; Motorola 68HC11; MXC11 real-time executive.

**ELEC4010**  
**Project Management for Professional Services**  
School of Electrical Engineering and Telecommunications  
UOC3  HPW2  
Prerequisite: 96 units of credit.  
The purpose of this course is to provide students with fundamental insights and tools for project management in the provision of professional services. Lectures will cover the Projectised Organisation, planning processes, project execution and ongoing project management. Other topics include negotiation, organizational strategy development, human resources and effective communications.

**ELEC4011**  
**Ethics and Electrical Engineering Practice**  
School of Electrical Engineering and Telecommunications  
UOC3  HPW2  
Prerequisite: 120 units of credit.  
An introduction to the nature ethical systems; the application of ethical bases to engineering practice with particular reference to electrical engineering and computing; codes of ethics in the professions, with special reference to the Code of Ethics of the Institution of Engineers, Australia; social, political, environmental and economic considerations.  
Students are required to complete a minimum of 60 days of industrial training with one or more companies, preferably before the commencement of this course. The objectives of industrial training are (i) to develop an appreciation to the structure and operation of industrial organisations, (ii) to understand the role of the engineer and engineering in industry, (iii) to appreciate the importance of good communication and interpersonal skills, and to develop these skills, and (iv) to appreciate the ethical basis of engineering practice in industry. Students are required to submit to the School evidence from their employers of each period of training, confirming the work performed, and should address the extent to which the aims of the industrial training have been met. It is preferred that some industrial training should be obtained in Australia. When the industrial training is done overseas, the report should include a more detailed description of the company concerned.

**ELEC4042**  
**Signal Processing 2**  
School of Electrical Engineering and Telecommunications  
UOC6  HPW4  
Prerequisite: ELEC3004  Excluded: ELEC3342  

**ELEC4205**  
**Electrical Energy Systems**  
School of Electrical Engineering and Telecommunications  
UOC6  HPW4  
Prerequisites: ELEC3005  Excluded: ELEC9213  
Review of the basic concepts used in power system analysis: phasors, complex power, three phase systems and per-unit methodology. Modelling of power system components, including transformers and synchronous machines. Aspects of power system operation, including power flow, reactive power control and fault analysis. Harmonics and their effects. Choice and use of protective equipment, including fuses, circuit breakers, relays and surge arresters. Equipment rating for operation in steady state and cyclic modes. Overvoltages and their effect in power systems. Insulation system design and practical limitations. Insulation coordination. High voltage equipment testing methods and their use in insulation condition monitoring of electrical energy systems. Quality of supply.

**ELEC4216**  
**Electrical Drive Systems**  
School of Electrical Engineering and Telecommunications  
UOC6  HPW4  
Prerequisite: ELEC3005  Excluded: ELEC9231  

**ELEC4240**  
**Power Electronics**  
School of Electrical Engineering and Telecommunications  
UOC6  HPW4  
Prerequisite: ELEC3006  Excluded: ELEC9240  
Modern power semiconductor devices eg, diodes, thyristors, MOSFETS, and other insulated gate devices such as the IGBT, MCT and the FCT. Static and switching characteristics, gate drive and protection techniques. Various DC-DC, AC-DC, DC-AC and AC-AC converter circuit topologies, their characteristics and control techniques. Application considerations for remote and uninterruptible power supplies, and for computer systems, telecommunications, automobiles, traction and other industrial processes. Utility interaction, harmonic distortion, and power factor. EMI and EMC considerations.

**ELEC4412**  
**Control of Continuous-time Systems**  
School of Electrical Engineering and Telecommunications  
UOC6  HPW4  
Prerequisite: ELEC3014  
Design of controllers for multivariable dynamical systems (e.g., design of an automatic pilot for an aircraft). State space theory. Design of linear controllers using the polynomial approach and the Diophantine theorem. Continuous-time state space design methods for MIMO systems. Principal gains, shaping system performance, optimal control methods, Linear Quadratic Gaussian (LQG) controllers and Kalman filters.

**ELEC4413**  
**Control of Discrete-time Systems**  
School of Electrical Engineering and Telecommunications  
UOC6  HPW4  
Prerequisite: ELEC3014  
Covers the design of practical control systems intended for implementation using digital computers and embedded systems. Controllers may be developed using both continuous and discrete designs. The topics covered include: identification of model parameters; numerical integration and implementation of continuous designs; observers; discrete systems; stability analysis; observability and controllability; design of digital controllers; pole placement; nonlinear systems; Aspects of implementation are constantly emphasised.

**ELEC4444**  
**New Business Creation**  
School of Electrical Engineering and Telecommunications  
UOC6  HPW4  
Prerequisite: 138 units of credit.
In the new economic environment, graduates must be better prepared to take control of their own employment futures which increasingly must include the option of entrepreneurship and the creation and growth of one's own company. For those graduates with a technical or engineering background, the new technology based firm offers extremely large potential to create jobs and wealth. The course provides the final year student with a clear understanding of the venture creation process with particular emphasis on technology-based ventures. A range of skills are developed relating to R&D management, intellectual property, technology contracts, product development, marketing, financial management and business planning. As a result, it is expected that this course could be the first step for a number of its attendees to progress to active involvement in new technology based firms either in Australia or internationally.

**ELEC4483**

**Biomedical Instrumentation, Measurement and Design**  
School of Electrical Engineering and Telecommunications  
UOC6  HPW4  
Prerequisite: ELEC3004  
Design and development of biomedical instrumentation for clinical measurement and biomedical research. Hardware and software design issues required to produce instruments which satisfy Australian and International standards for safety, performance and quality control. Tutorials and laboratories will be closely integrated so that design and analysis carried in tutorial sessions will be followed by testing and development in the laboratory sessions. A design project and/or case study will also be required as part of this course.

**ELEC4503**  
Electronics C  
School of Electrical Engineering and Telecommunications  
UOC6  HPW4  
Prerequisite: ELEC3006  

**ELEC4522**  
Microelectronics Design and Technology  
School of Electrical Engineering and Telecommunications  
UOC6  HPW4  
Prerequisite: ELEC3006  
Review of technology for bipolar and MOS integrated circuits. Device models, layout rules. Analog circuit building blocks. Bipolar and CMOS operational amplifiers, CMOS logic. MOS Analog-Digital and Digital-Analog converters. Memory - DRAM/SRAM. Yield, reliability, failure analysis techniques and packaging. The laboratory program is aimed at understanding the internal design of some standard IC functions.

**ELEC4532**  
Integrated Digital Systems  
School of Electrical Engineering and Telecommunications  
UOC6  HPW4  
Prerequisite: ELEC1041 or COMP2021  
Integrated circuit logic families with emphasis on MOS technologies, structured chip design, custom and semi-custom approaches, system architecture, computer aided design, layout considerations, timing estimates, circuit failures, faults, fault modelling, testing, design for testability.

**ELEC4910**  
Thesis Part A  
School of Electrical Engineering and Telecommunications  
UOC6  HPW3  
Prerequisite: 132 units of credit and weighted average mark of 65 & ELEC3017.  
The thesis (Parts A&B) is carried out in the last two sessions of the BE degree course. Under the guidance of a supervisor, directed laboratory and research work on an approved topic is carried out. Generally, the thesis involves the design and construction of experimental apparatus, software simulations or models with laboratory tests. Each student is required to present a seminar as part of the requirements for ELEC4910. Thesis Part A involves a detailed literature search and reviews of the background for the thesis topic and planning the activities that will be carried out in Part B.

**ELEC4911**  
Thesis Part B  
School of Electrical Engineering and Telecommunications  
UOC9  HPW10  
Prerequisite: ELEC4910.  
The thesis (Parts A&B) is carried out in the last two sessions of the BE degree course. Under the guidance of a supervisor, directed laboratory and research work on an approved topic is carried out. Generally, the thesis involves the design and construction of experimental apparatus, software simulations or models with laboratory tests. Each student is required to present a seminar as part of the requirements for ELEC4910. Thesis Part B typically involves the detailed theoretical development or modelling work. A written thesis report must be submitted on the thesis topic by Tuesday of Week 14 of the session in which ELEC4911 is taken.

**ELEC4914**  
Group Thesis Part A  
School of Electrical Engineering and Telecommunications  
UOC3  HPW4  
Prerequisite: ELEC3017 and 132 units of credit.  
The group thesis (Parts A&B) is carried out in the last two sessions of the BE degree course. Under the guidance of a supervisor, directed laboratory and research work on an approved topic is carried out. Generally, the thesis involves the design and construction of experimental apparatus, software simulations or models with laboratory tests. Each student is required to present a seminar as part of the requirements for ELEC4914. Group Thesis Part A involves a detailed literature search and reviews of the background for the thesis topic and planning the activities that will be required for Group Thesis Part B.

**ELEC4915**  
Group Thesis Part B  
School of Electrical Engineering and Telecommunications  
UOC9  HPW10  
Prerequisite: ELEC4914  
The group thesis Part A&B is carried out in the last two sessions of the BE degree course. It is carried by a group of between two and five students working on various aspects of a particular topic. Under the guidance of a supervisor, directed laboratory and other research work on an approved topic is carried out. Generally, the project involves the design and construction of experimental apparatus, software simulations or models with laboratory tests. Each student is required to present a seminar as part of the requirements for ELEC4914. Group Thesis Part B typically involves the detailed theoretical development or modelling. A written thesis report must be submitted on the project by Tuesday of Week 14 of the session in which ELEC4915 is taken.

**ENGL1001**  
Ways of Writing: An Introduction to Literary Genres  
School of English  
UOC6  HPW3  
Excluded: ENGL1000, GENT0205  
Introduces students to the study of literature. Reinforces skills in the close reading of literary texts, expands understanding of genres as ways of structuring texts, hones writing skills and strengthens abilities to construct and deploy critical argument. Genres to be examined will include poetry, novels, short stories and plays; but may also include essays, diaries, biographies and collections of letters.

**ENGL1006**  
Imagining the City  
School of English  
UOC6  HPW3  
Introduces students to literary and cultural theory and encourages them to explore various processes in creative writing. Uses the city as a thematic centre, considering ways in which the city has been described and deployed critical argument. Includes reference to intersecting cultural forms such as film and music.

**ENGL1007**  
The Canon of English Literature  
School of English  
UOC6  HPW3
A historical survey of English literature aimed at improving students' knowledge of how it has been organised into a set of special texts (a 'canon'). Enhances their powers to describe, interpret and enjoy it. Presents particular works of literature in English from the earliest periods through to the twentieth century in chronological order, attending to the features of language that make them literary, the context of their production, and some of their major themes. Introduces students to some different kinds of criticism (Marxist, feminist, post-colonial, Bloomian) by way of critical engagement with their accounts of how the canon has been formed and how it should be revised.

ENGL1009
Literature of Revolution
School of English
UOC6  HPW3
Examines the relationship between social upheaval and literary production focusing on key moments in the culture of modernity including the French Revolution, the American Civil War and the Industrial Revolution. Considers literature of protest and reform in civil rights movements that have profoundly reshaped conceptions of the individual, community and the state. Will include fiction, drama and poetry and consider the political charge of oratory and forms of disobedience played out in experimental writing. Comprises modules focused on literary analysis and a component of creative writing.

ENGL2101
Women on the Shakespearean Stage
School of English
UOC6  HPW3
Prerequisite: 6 Level 1 units of credit in English and 36 units of credit overall; Excluded: ENGL2156, ENGL2157
Studies the social and sexual roles of leading female characters in English drama from the late 1590s to the early 1630s, beginning with an analysis of female characters' experience of the 'love-death nexus' in four of Shakespeare's plays and concludes with a consideration of the 'lost' status and state ascribed to 'loose' women in plays by some of Shakespeare's major contemporaries.

ENGL2104
Poetry, Virtue, Corruption: Milton to Burns
School of English
UOC6  HPW3
Prerequisite: 6 Level 1 units of credit in English and 36 units of credit overall; Excluded: IRSH2104
Studies how English, Irish, and Scottish poets from 1660-1800 define themselves in relation to a culture which they deem to be corrupt. Moves from Milton as the single just man in a society that has betrayed the godly revolution to the poet as libertine in Rochester and Behn, and the poet as political propagandist in Dryden. Sees how Finch, Swift, Pope, Wortley-Montague, and Johnson detach themselves and poetry from political life. Later poets show that once you do this, what is left are passion, death, superstition, madness, and small animals.

ENGL2206
Nineteenth Century Prose: Romantic & Victorian Fiction and Non-Fiction 1789-1914
School of English
UOC6  HPW3
Prerequisite: 6 Level 1 units of credit in English and 36 units of credit overall
Focuses on the study of both Romantic and Victorian fiction and non-fiction in English. Novels and other prose texts will be interrogated in the context of contemporary social, political, religious and scientific thought.

ENGL2321
The Twentieth Century: Modernism and Modernity
School of English
UOC6  HPW3
Prerequisite: 6 Level 1 units of credit in English and 36 units of credit overall; Excluded: ENGL2203, ENGL2250, ENGL2350
Examines the main artistic movements which express what it is that makes the twentieth century distinctive in Anglophone societies. Involves investigations into such terms as modernism and postmodernism and their relationship with the experience of modernity as articulated in expressive practices ranging from ‘High’ to ‘Low’ culture, from art to the everyday. Although the emphasis is on literary work, the course will also refer to other media including painting, film/video, music.

ENGL2340
Contemporary Irish Literature
School of English
UOC6  HPW3
Prerequisite: 36 units of credit; Excluded: ENGL3471, IRSH2012
Critically examines the poetry and prose written by Irish writers after WWII in terms of issues of identity, nationality, gender, landscape, language, tradition, and religion. Considers how Irish poets have coped with the legacy of Yeats, Irish novelists with the legacy of Joyce and what their writing tells us about present-day Ireland and the contemporary world.

ENGL2422
Frontiers and Crossings
School of English
UOC6  HPW3
Prerequisite: 6 Level 1 units of credit in English and 36 units of credit overall; Excluded: ENGL2303
This comparative course in Australian, South African and American literature raises questions of the law and transgression in cultures defined as 'Frontier'. Examines the use of genres such as pastoral and the western, and explores the relations between concepts of gender and concepts of the frontier and transgression. The course is grounded in nineteenth- and early twentieth-century literature of the frontier, but also considers more recent reworkings of the field, particularly in film.

ENGL2460
Refi guring Dreams: Twentieth-Century American Literature
School of English
UOC6  HPW3
Prerequisite: 6 Level 1 units of credit in English and 36 units of credit overall; Excluded: ENGL2301
Explores American literature written between the ‘twenties’ and ‘sixties’, using novels and films which captured the spirit and the attention of each decade. Topics include: the ‘roaring twenties’, the Depression, the Second World War, McCarthyism, racial conflict and the liberation movements of the ‘sixties’.

ENGL2520
Twentieth-century Australian Literature
School of English
UOC6  HPW3
Prerequisite: 6 Level 1 units of credit in English and 36 units of credit overall; Excluded: AUST2014, ENGL2300
An examination of some major post-colonial issues in Australian writing of the twentieth century.

ENGL2621
Contemporary Australian Women Writers
School of English
UOC6  HPW3
Prerequisite: 6 Level 1 units of credit in English and 36 units of credit overall; Excluded: AUST2015, ENGL3401
Examines the particular concerns of a selection of contemporary Australian women novelists, poets and a short story writer. In the process asks whether women write from a different perspective, or have different concerns from their male counterparts in a culture that is generally considered to be male-dominated. Also considers the special question of women writing about the land.

ENGL2821
Visual Communication
School of English
UOC6  HPW3
Prerequisite: 6 level 1 units of credit in English and 36 units of credit overall; Excluded: ENGL3304, ENGL3550, LING2530
Communication in contemporary society increasingly combines language with one or more different semiotic modalities, such as visual image, sound and spatial layout. Explores the techniques and theoretical frameworks useful in analysing how such multi-modal texts create meaning and construct positions for readers. Considers a range of texts from printed advertisements and magazines, to web pages, CD Roms, and public sites such as shops, museums and galleries. Aspects covered include the ‘grammar’ of visual images, the interaction of verbal and other modalities, ideological dimensions of multi-modal texts, questions of literacy and access.
ENGL2921
Creative Writing A
School of English
UOC6   HPW3
Prerequisite: 36 units of credit; Excluded: ENGL1753
Aims to familiarise students with a wide range of contemporary writing and to encourage experimentation with a variety of different styles and genres in their own writing. Aims for a practical understanding of how literature works by developing critical reading skills. Students will also have the opportunity to gain feedback on their own writing in a supportive workshop environment. Aims to develop the craft skills necessary to generate, revise and edit their own work.

ENGL2930
Professional Writing
School of English
UOC6   HPW3
Prerequisite: 36 units of credit; Excluded: ENGL3502, LING2560
Introduces the theory and practice of writing factual texts for professional contexts such as: journalism, educational publishing, the workplace, cultural institutions, non-profit organisations. Aspects covered include: forms and functions of different factual genres, appropriacy to readership of grammatical style, word choice, ‘angle’ and ‘tone’; writing Plain English; writing for the web; self-editing skills. Includes workshops.

ENGL3122
Jane Austen in Context
School of English
UOC6   HPW3
Prerequisite: 12 units of credit at the ENGL2000 level; Excluded: ENGL2103
Focuses on the juvenilia and novels of Jane Austen as social and cultural products of their time. Austen's early novels in particular were written under and against the influence of contemporary romantic, gothic and sentimental fiction. Explores the ways her work engages with these and other eighteenth- and early nineteenth-century texts as various as gender-based codes of conduct and landscape-gardening, concluding with an examination of transformations, such as film and sequel.

ENGL3320
Modernism - Joyce
School of English
UOC6   HPW3
Prerequisite: 12 units of credit at the ENGL2000 level; Excluded: ENGL2453, ENGL3472, IRISH3472
Intensive study of James Joyce’s ‘Ulysses’ to enquire into selected aspects of modernism. Of particular interest will be the writer's negotiations with language and with structure, the function of history and/or myth, the role of the comic, and the tensions between innovation and various forms of tradition.

ENGL3420
The Rise of English
School of English
UOC6   HPW3
Prerequisite: 12 units of credit at the ENGL2000 level; Excluded: ENGL2665
Investigates the social and political reasons for the emergence of English as a discipline. Examines issues such as the function of English in consolidating imperial goals, its links with English nationalism, the importance of its ‘civilising’ function in educational planning. Investigates post-colonial appropriations of English and examines the place of English studies in postmodern discourse.

ENGL3423
African Resistance Writing
School of English
UOC6   HPW3
Prerequisite: 12 units of credit at the ENGL2000 level; Excluded: ENGL2305
Studies a range of resistance writing from various African countries. Examines the nature of literary resistance against political, cultural, colonial and patriarchal oppression and considers the ideologies and theories of literature which underlie the notion of writing as resistance.

ENGL3442
Narrative
School of English
UOC6   HPW3
Prerequisite: 12 units of credit at the ENGL2000 level; Excluded: ENGL3900
An analysis of narratives and narrative theory across a range of genres, this course examines selected novels, short stories, poems and plays, and introduces ways of interpreting them in the light of structuralist and post-structuralist narrative theory.

ENGL3651
Contemporary Critical and Cultural Theory
School of English
UOC6   HPW3
Prerequisite: 12 units of credit at the ENGL2000 level; Excluded: ENGL3902
Introduces students to some central texts and concepts in critical and cultural theory as these bear on the study of English. Begins with coverage of key moments and debates in structuralist and post-structuralist thought, including concepts of subjectivity, discourse, ideology and some introductory psychoanalytic and semiotic work, followed by a focus on questions of the body, pleasure and experience.

ENGL4000
English Literature Honours Research Full-Time
School of English
UOC12   HPW5
Prerequisite: 54 units of credit in ENGL including 18 units of credit at the ENGL3000 level at an average of 70% or better
Coursework and seminars and preparation of a thesis. In the first session students are required to choose two courses. The courses offered in any one session depend on student demand and staff resources. The broad range of offerings is designed to enable students to conduct more intensive study in areas relating to special interests developed during earlier years of their English programs. Please refer to the list under the entry for MA, or see the School handbook. In the second session students submit a thesis of between 15,000 and 20,000 words based on research conducted on a topic to be chosen in consultation with the Head of School and other members of staff where appropriate. Throughout both sessions students are required to participate in regular thesis workshops.

ENGL4050
English Literature Honours Research Part-Time
School of English
UOC12   HPW5
Prerequisite: 54 units of credit in ENGL including 18 units of credit at the ENGL3000 level at an average of 70% or better
Coursework and seminars in preparation of a thesis. In the first year students are required to choose two courses. The courses offered in any one session depend on student demand and staff resources. The broad range of offerings is designed to enable students to conduct more intensive study in areas relating to special interests developed during earlier years of their English programs. Please refer to the list under the entry for MA, or see the School handbook. In the year session students submit a thesis of between 15,000 and 20,000 words based on research conducted on a topic to be chosen in consultation with the Head of School and other members of staff where appropriate. Throughout both years students are required to participate in regular thesis workshops.

ENGL4500
Combined English Literature Honours Research Full-Time
School of English
UOC12   HPW2
Prerequisite: 48 units of credit in ENGL including 12 units of credit at the ENGL3000 level at an average of 70% or better
Coursework and seminars and preparation of a combined thesis. In the first session students are required to take one coursework course in English and one course in the combined discipline. In the second session students submit a thesis on an agreed topic of between 15,000 and 20,000 words.

ENGL4550
Combined English Literature Honours Research Part-Time
School of English
UOC12   HPW2
Prerequisite: 48 units of credit in ENGL including 12 units of credit at the ENGL3000 level at an average of 70% or better
Coursework and seminars and preparation of a combined thesis. In the first year students are required to take one coursework course in English and one course in the combined discipline. In the second year students submit a thesis on an agreed topic of between 15,000 and 20,000 words.

ENVS1011 Environmental Science 1
School of Biological, Earth and Environmental Sciences
UOC6 HP6/6
An overview of some of the many problems encountered by Environmental Scientists: climatic change, disturbance events (such as logging, fire and mining), management and conservation of marine and terrestrial resources, water management and pollution are considered. These problems are placed in perspective with regional case studies to highlight specific issues using seminars, workshops, field excursions and group projects. Special emphasis is placed on the political aspects and values inherent in environmental issues.

Note: Restricted to the Environmental Science Programs.

ENVS2030 The Human Environment
School of Biological, Earth and Environmental Sciences
UOC6 HPW4
Prerequisite: ENVS1011; Excluded: ENVS2010, ENVS2020, GEOD2641.

The nature of human population growth and its impact on resource management and global-scale environmental problems. Controls and demographic processes in human populations. Different cultures and development levels. Consideration of urbanisation and the interaction between urban economic and environmental systems. Case studies of urban environmental management, coastal planning and industrial change are used to critically evaluate human-environmental interactions. Practical work involves introduction to Geographical Information Systems (GIS).

ENVS2801 Aspects of Environmental Policy and Law
School of Biological, Earth and Environmental Sciences
UOC6 HPW4
Prerequisite: ENVS1011

This course examines the legal issues likely to be encountered by an environmental scientist and addresses the question: Is the adversary system the most appropriate method of dealing with conflict in determining the appropriate use of resources? The difficulties encountered with the multiplicity of authorities and interactions between local government regulations, state and federal laws and international law are considered. Case studies examined at each of these levels are used to provide a brief overview of current environmental law in Australia and the World, with examples.

ENVS4101 Environmental Science 4 Biology A (Honours) F/T
School of Biological, Earth and Environmental Sciences
UOC6

ENVS4103 Environmental Science 4 Biology (Honours) F/T
School of Biological, Earth and Environmental Sciences
UOC18

ENVS4104 Environmental Science 4 Biology B (Honours) Full-Time
School of Biological, Earth and Environmental Sciences
UOC24

Half year research project and thesis. 24 UOC of course work as approved by the Environmental Science Program Co-ordinator must also be completed.

Note: Completion of 144UOC (with credit average) of an appropriate Environmental Science program is required for enrolment.

ENVS4204 Environmental Science 4 Marine B (Honours) Full-Time
School of Biological, Earth and Environmental Sciences
UOC24

Half year research project and thesis. 24 UOC of course work as approved by the Environmental Science Program Co-ordinator must also be completed.

Note: Completion of 144UOC (with credit average) of an appropriate Environmental Science program is required for enrolment.

ENVS4304 Environmental Science 4 Microbiol B (Honours) Full-Time
School of Biological, Earth and Environmental Sciences
UOC24

Half year research project and thesis. 24 UOC of course work as approved by the Environmental Science Program Co-ordinator must also be completed.

Note: Completion of 144UOC (with credit average) of an appropriate Environmental Science program is required for enrolment.

ENVS4404 Environmental Science 4 Chemistry B (Honours) Full-Time
School of Biological, Earth and Environmental Sciences
UOC24

Half year research project and thesis. 24 UOC of course work as approved by the Environmental Science Program Co-ordinator must also be completed.

Note: Completion of 144UOC (with credit average) of an appropriate Environmental Science program is required for enrolment.

ENVS4504 Environmental Science 4 Geography B (Honours)
School of Biological, Earth and Environmental Sciences
UOC24

Half year research project and thesis. 24 UOC of course work as approved by the Environmental Science Program Co-ordinator must also be completed.

Note: Completion of 144UOC (with credit average) of an appropriate Environmental Science program is required for enrolment.

ENVS4518 Environmental Science 4 Geography (FBE) (Honours) Full-Time
School of Biological, Earth and Environmental Sciences
UOC24

Full year research project and thesis, under supervision of a member of staff in the Geography Program in the Faculty of the Built Environment.

Note: Superior performance in 144 UOC of an appropriate Environmental Science program, including all core requirements is necessary for enrolment.

ENVS4546 Environmental Science Geography B (Honours)
School of Biological, Earth and Environmental Sciences
UOC12

Half year research project and thesis. 24 UOC of course work as approved by the Environmental Science Program Coordinator must be completed. 12 UOC research to be completed in each session.

ENVS4602 Environmental Science 4 Geology B (Honours) Part-time
School of Biological, Earth and Environmental Sciences
UOC12

Part-time research project and thesis. 12 UOC of course work as approved by the Environmental Science Program Co-ordinator.

Note: Completion of 144 UOC (with credit average) of an appropriate Environmental Science program is required before enrolment is allowed.

ENVS4604 Environmental Science 4 Geology B (Honours) Full-Time
School of Biological, Earth and Environmental Sciences
UOC24

Half year research project and thesis. 24 UOC of course work as approved by the Environmental Science Program Co-ordinator must also be completed.

Note: Completion of 144UOC (with credit average) of an appropriate Environmental Science program is required for enrolment.

ENVS4704 Environmental Science 4 Math B (Honours) Full-Time
School of Biological, Earth and Environmental Sciences
UOC24
Half year research project and thesis. 24 UOC of course work as approved by the Environmental Science Program Co-ordinator must also be completed.

**Note:** Completion of 144 UOC (with credit average) of an appropriate Environmental Science program is required for enrolment.

**EURO1000**

**The New Europe A**
Faculty of Arts and Social Sciences
UOC6 HPW3

Despite a surprisingly rapid economic recovery after the catastrophe of World War II and the remarkable success of European integration, Western European nations were externally reoriented to the status of second-class powers, both politically and ‘morally’, and the East seemed caught in the vise of state socialism for the foreseeable future. But the unexpected collapse of the Berlin Wall and the disintegration of the Soviet ‘block’ force us to look again at the developments from 1945-1989 in a divided Europe and a divided Germany from a post-89 perspective: what was really going on?

**Note:** EURO1000/1001: Two session-length courses, which together form the first year of the European Studies major, but are also available separately. May also be counted towards a major in HIST.

**EURO1001**

**The New Europe B**
Faculty of Arts and Social Sciences
UOC6 HPW3

After the unexpected collapse of the Berlin Wall and the disintegration of the Soviet ‘block’, Europe seemed once again to have assumed a central role on the world stage. Yet the euphoria of 1990, which looked forward to a United Europe and the rapid transformation and integration of post-communist societies, has been followed by a considerable hangover. The events of the last years and their implications will be discussed, and the problems and prospects confronting the New Europe in relation to its past, present and future.

**Note:** EURO1000/1001: Two session-length courses, which together form the first year of the European Studies major, but are also available separately. May also be counted towards a major in HIST.

**EURO2000**

**Concepts of Europe**
Faculty of Arts and Social Sciences
UOC6 HPW3

Prerequisite: 36 units of credit; Excluded: HIST2400

Europe conquered, colonised and revolutionised the world despite being politically and culturally fragmented. Now, faced with the threat of decline, it seeks to overcome that fragmentation through the consolidation and expansion of the European Union, but different ideas about what a united Europe should be like continue to divide the participants in the European project. These differences have deep historical roots, as indeed does the European idea itself. They reflect the ambiguities of defining “Europe” between geographical boundaries, cultural identities, religious beliefs, political power, military security and economic interests, between local, regional, national and imperial loyalties. Traces the historical origins of the European idea, examines the various concepts of Europe used throughout the centuries, and discusses their relevance to the contemporary difficulties of the European Union.

**EURO2201**

**Text Workshop A**
Faculty of Arts and Social Sciences
UOC6 HPW3

Prerequisite: 36 units of credit; Excluded: HIST2491

A close analysis of short key texts in modern European history and culture, designed to develop students’ close reading skills and to introduce them to important social, philosophical and theoretical questions through first-hand encounters with the texts themselves.

**EURO2331**

**The Attraction of Communism**
Faculty of Arts and Social Sciences
UOC6 HPW3

Prerequisite: 36 units of credit; Excluded: HIST2489, SOCA3313

After the demise of the Soviet Empire, the ‘totalitarianism thesis’, which equates Fascism and Communism, has gained a new lease of life. Though there are many similarities in the political practices of these two movements which dominated the twentieth century, their aims and the groups they appealed to seem radically opposed. Seeks to explain the attractions of Communism through the study of documents, literary texts and film, and to shed light on the reasons for the loyalty of many European workers and intellectuals to ‘the cause’ despite their increasing awareness of its deformations in the Soviet Union and elsewhere.

**EURO2231**

**Understanding Nazi Germany: Origins, Structures, Explanations**
Faculty of Arts and Social Sciences
UOC6 HPW3

Prerequisite: 36 units of credit; Excluded: HIST2422, HIST3101

Explores debates over the origins and role of Nazi Germany. Issues will include its roots in German history; the driving force of the regime; Hitler’s role and Nazi Germany’s war aims. Sixty years after its defeat in World War II, Nazi Germany continues to fascinate and to leave questions hotly debated by historians. Discusses whether the Nazis were modernisers or backward-looking romantics, and why there was so little opposition. Considers Nazi Germany’s war aims and if the Holocaust was the inevitable outcome of Nazi ideology or a bureaucratic response to impending defeat. These issues will be explored in lectures and student-led seminar discussions of primary and secondary texts.

**EURO2410**

**19th Century Europe, 1848-1918: Nation, Empire, Revolution**
Faculty of Arts and Social Sciences
UOC6 HPW3

Prerequisite: 36 units of credit; Excluded: HIST2410 and IRSH2410

Examines the rise of the explosive social and national tensions in late-nineteenth-century Europe which culminated in world war and revolution (Russia, Germany, Hungary, Ireland). Key themes are industrialisation and the rise of the labour movement; urbanisation and its impact on gender roles; the flowering of bourgeois culture and its fin de siecle crisis; the transformation of revolutionary into “integral” nationalism and imperialist jingoism; great power rivalry and the origins of the First World War. Aims to understand how the period laid the foundations for the dramatic events of the “short twentieth century”.

**EURO2411**

**Spain: From Loss of Empire to European Integration**
Faculty of Arts and Social Sciences
UOC6 HPW3

Prerequisite: 36 units of credit; Excluded: SPAN2406

An overview of Spain’s turbulent history following loss of empire, including the Spanish Civil War and the Franco Dictatorship. Most attention is given to the nation’s transformation since 1975 (the death of Franco and the return to democracy) and its enthusiastic embrace of Europe. As a peripheral European nation, and one that has been riven by cultural, political and economic conflicts in the recent past, Spain may well constitute a litmus test for the viability of European unity.

**EURO2482**

**Europe, 1914-1945: Dark Continent?**
School of History
UOC6 HPW3

Prerequisite: 36 units of credit; Excluded: HIST2066, HIST2067, HIST2482

Explores examples of catastrophic wars and revolutionary upheavals, examines cases of ethnic-cleansing and genocide, and analyses the impact of ideologies on concepts of nation, race and gender. Themes include: Total War, Socialism, Fascism, Communism, Anarchism and the “New Woman”. Case studies will include Hitler’s Germany, Stalin’s Russia, the Spanish Civil War, WWII & WWII, the Armenian genocide and the Holocaust.

**EURO2483**

**Decadence, Dada & All That Jazz: European Cultural History, 1880-1945**
Faculty of Arts and Social Sciences
UOC6 HPW3

Prerequisite: 36 units of credit; Excluded: HIST2483

Focuses on the major cultural expressions of European modernity and the way in which they reflected social and political transformation. Themes include: modernism’s challenges to positivism, fin-de-siecle decadence, Freud and the rise of psychoanalysis, the roaring 20s, feminism, Surrealism, Cubism, Cabaret, Americanisation, Jazz, and cultural representations of WWII & WWII.
EURO2600
European Integration
Faculty of Arts and Social Sciences
UOC6 HPW3
Prerequisite: 36 units of credit; Excluded: ECOH2322
Aims to impart a knowledge and understanding of the institutions, current policies and likely directions of economic and social change within the European Union. Problems confronting nation states with differing institutional and policy directions (and in the case of Eastern Europe a different socioeconomic system) that now are in the course of being melded. Specific topics include the process towards a single market; the problems and implications of monetary integration; the trade distortions arising from the Common Agricultural Policy; the collapse of the Soviet system and the widening of the European Union; the operation of European multinational; the process of privatisation in Europe; and European integration in relation to Australia and Asia.

EURO2700
What is Postcommunism? Central and Eastern Europe after 1989
Faculty of Arts and Social Sciences
UOC6 HPW3
Prerequisite: 36 units of credit; Excluded: LAWS2232
When European communist states collapsed like a house of cards, there was an explosion of euphoria in the region and around the world. Post-communism has turned out, however, to be a more complex, variable, and uncertain condition than was anticipated by many of those who greeted it with such enthusiasm. An introduction to some of the characteristic features of the post-communist world, to some of its difficulties, problems, challenges and triumphs; and to similarities and differences among the developments in post-communist societies. Discusses some of the major successes of post-communist countries and some of their major failures; students will be encouraged to reflect on similarities and differences between post-communist realities and those of the society/ies which they know.

EURO3000
Evidence and Interpretation: Controversies in European History
Faculty of Arts and Social Sciences
UOC6 HPW3
Prerequisite: 36 units of credit, including 6 units of credit in HIST at credit level or better; Excluded: HIST3905
From the famous controversy between E H Carr and Geoffrey Elton, sparked by Carr’s ‘What is History?’ half a century ago, to the more recent ‘postmodernism’ debate, historians have been sharply divided over such key issues in historiography as the relative importance of empirical evidence, theories, moral values, and narrative subjectivity. Explores these issues through both the major writings of the key protagonists in these debates, and case studies of three of the most celebrated ‘wars of interpretation’ in European history: the English Civil War, the French Revolution, and the rise of Nazism in Germany.

EURO3001
Barbarians, Peasants & Vampires: Eastern Europe in History & Imagination
Faculty of Arts and Social Sciences
UOC6 HPW3
Prerequisite: 36 units of credit; Excluded: HIST3109
Examines imaginative representations of East European peoples through history, drawing on evidence from visual images, travel writing, and chronicles. Clarifies the connections between history, mythology, demonisation and romanticism in West European depictions of “the East”, and Eastern self-representation.

EURO3900
Advanced Program A
Faculty of Arts and Social Sciences
UOC6 HPW3
Prerequisite: 36 units of credit including 6 units of European Studies at credit level
Topics in modern European history and culture (consult co-ordinator).

EURO3901
Advanced Program B
Faculty of Arts and Social Sciences
UOC6 HPW3
Prerequisite: 36 units of credit including 6 units of European Studies at credit level
Topics in modern European history and culture (consult co-ordinator).
program after one semester of study at UNSW. During their period of exchange, students remain enrolled at UNSW and pay normal activity fees and student contributions, local or international fees. The overseas university waives tuition fees for exchange students, but students are responsible for their own travel, accommodation and living expenses. Given the objectives of Exchange programs, and reciprocal agreements with partner institutions, students are required to enrol in a full-time 24 unit exchange program. Students are usually enrolled in a 24 unit of credit exchange course that relates to the faculty that administers their degree program, and will be charged the corresponding Student Contribution amount (for Commonwealth supported students) or UNSW tuition fees (for fee-paying students). Where combined degree program students are approved to take their exchange in areas related to both component degrees, enrolment will be in equivalent 12 unit of credit courses, on the same fee principles. Please refer to Fee Band above for more information.

For details on institutions participating in the International Exchange Program at UNSW, visit www.international.unsw.edu.au.

EXCH8021
Arts and Social Sciences Exchange Program

EXCH8022
Built Environment Exchange Program

EXCH8023
College of Fine Arts Exchange Program

EXCH8024
Commerce and Economics Exchange Program

EXCH8025
Engineering Exchange Program

EXCH8026
Law Exchange Program

EXCH8027
Medicine Exchange Program

EXCH8028
Science Exchange Program

Division of Registrar and Deputy Principal UOC:12
These courses are for administrative use by Schools and Faculty Offices only. Students will not be able to enrol in these courses via myUNSW.

UNSW actively encourages all students to take part of their degree program overseas through formal reciprocal exchange agreements with over 160 universities in 34 countries. Under the program, students can spend one or two semesters at a university in Asia, Europe, USA, India, Canada, or Latin America. Studies completed at the overseas university are credited towards the UNSW degree.

Local and international undergraduate and postgraduate students with a satisfactory academic record may apply to participate in the exchange program after one semester of study at UNSW. During their period of exchange, students remain enrolled at UNSW and pay normal activity fees and student contributions, local or international fees. The overseas university waives tuition fees for exchange students, but students are responsible for their own travel, accommodation and living expenses.

Given the objectives of Exchange programs, and reciprocal agreements with partner institutions, students are required to enrol in a full-time 24 unit exchange program. Students are usually enrolled in a 24 unit of credit exchange course that relates to the faculty that administers their degree program, and will be charged the corresponding Student Contribution amount (for Commonwealth supported students) or UNSW tuition fees (for fee-paying students). Where combined degree program students are approved to take their exchange in areas related to both component degrees, enrolment will be in equivalent 12 unit of credit courses, on the same fee principles. Please refer to Fee Band above for more information.

For details on institutions participating in the International Exchange Program at UNSW, visit www.international.unsw.edu.au.

FIN51613
Business Finance
School of Banking and Finance
UOC:6 HPW:3
Corequisite: FIN51612 or any two of ACCT1511, ECON1102, ECON1203
Looks at the essential aspects of financial decision-making. Financial mathematics is used to value securities and make capital expenditure decisions. Portfolio theory is introduced to provide a foundation for determining the relationship between expected risk and returns in financial and real asset investments. Dividend payouts and the choices between debt and equity financing are covered. Includes: factors affecting the formulation of the capital structure and the influence of the capital market environment. The implications of financial risk, taxation and the conflict of interest between managers and investors on the value of business firms are introduced.

FIN52100
Industrial Training 1 (Co-op)
School of Banking and Finance
UOC:6
Prerequisite: FIN51613
Students consider the practical application of the fundamental principles of Banking & Finance in an industry environment.

FIN52622
Emerging Capital Markets
School of Banking and Finance
UOC:6 HPW:3
Prerequisite: FIN51612
Emerging capital markets have become in vogue as a result of a wave of mass financial liberalization, which occurred towards the end of the 1980s. Emerging financial markets behave differently to developed financial markets because of their level of integration (or conversely degree of segmentation) with world markets. A major aim of this course is to examine the issues pertinent to investment in emerging financial markets from both the perspective of international investors and policy makers. These broadly revolve around financial crises, liberalization and capital flows, pricing of political risks and other risks, governance and financial architecture, and regional integration.

FIN52624
Portfolio Management
School of Banking and Finance
UOC:6 HPW:3
Prerequisite: FIN51613
Modern investment theories are introduced with an equal emphasis on theory and practice. The Markowitz model, capital asset pricing model, and single index model are studied and applied to design portfolios, price and manage risks, evaluate performance, identify mispriced assets, and estimate asset betas. The pricing of stocks, bonds, options, and futures; the impact of tax on the choice of investments; the duration concept; and the strategic use of options and futures for hedging and investment are also studied. Spreadsheet applications to securities pricing and investment theories are introduced to put theories into practice.

FIN52643
Wealth Management
School of Banking and Finance
UOC:6 HPW:3
Prerequisite: FIN51613; Prerequisite or corequisite: FIN52624

FIN53100
Industrial Training 2 (Co-op)
School of Banking and Finance
UOC:6
Prerequisite:FIN531616
Students consider the practical application of the fundamental principles of Banking & Finance in an industry environment.

**FINS2200**  
**Industrial Training 3 (Co-op)**  
School of Banking and Finance  
UOC6  
Prerequisite: FINS3100  
Students consider the practical application of the fundamental principles of Banking & Finance in an industry environment.

**FINS3616**  
**International Business Finance**  
School of Banking and Finance  
UOC6 HPW3  
Prerequisite or corequisite: FINS2624  
Focuses on the basic theoretical and practical knowledge required for the management of the financial and investment functions of multinational corporations. Topics include international diversification, foreign investment decisions, cost of capital, financial and political risks, hedging strategies, the financial benefits of Euro-currencies and Eurobonds and international equity markets. It is relevant to a broad range of professions including corporate treasury management, corporate finance, international securities trading and investment management. The general emphasis is on the identification and management of opportunities and risk relating to exchange rate fluctuations, international financial markets and government policy changes.

**FINS3625**  
**Venture Capital**  
School of Banking and Finance  
UOC6 HPW3  
Prerequisite: FINS1613  
Examines various aspects of entrepreneurial finance for small and medium enterprises in Australia and considers financial decisions made from start-up until the original shareholders cash out via public offering. Theories associated with entrepreneurship and specifically closely held enterprises are reviewed. In dealing with advanced issues in relation to project selection, business finance and financial management, there is a strong emphasis on encouraging students to understand how to augment traditional financial views with practical issues and problems faced by small to medium sized firms.

**FINS3625**  
**Applied Corporate Finance**  
School of Banking and Finance  
UOC6 HPW3  
Prerequisite: FINS1613  
Focuses on practical applications relating to the theory of financial decision making. Case studies, empirical evidence and current issues in the financial media are used to illustrate key decisions made by managers of the firm. Topics include advanced capital budgeting issues, capital raising including venture capital and initial public offerings, mergers and acquisitions and advanced capital structure and dividend policy issues. One of the aims is to develop students' ability to make judgments in a realistic setting and to develop the capacity to articulate judgments both orally and in writing.

**FINS3626**  
**International Corporate Governance**  
School of Banking and Finance  
UOC6 HPW3  
Prerequisite: ACC11511, FINS1613  
Corporate governance is fundamental to the existence and growth of public corporations as it encompasses the mechanisms which help suppliers of finance assure themselves of getting a return on their investment. Its practical importance is also evident in the recent mega corporate collapses around the world. This course analyses how different governance mechanisms prevent managerial self-dealing, protect minority shareholders and add value to corporations. Specific topics include: directors responsibilities, board structure; regulations; auditing; executive compensation; financial ownership and control; shareholder activism; hostile takeovers and defence mechanisms; and the difference in governance systems in the US, UK, Australia, Japan, Germany and some Asian countries.

**FINS3630**  
**Bank Financial Management**  
School of Banking and Finance  
UOC6 HPW3  
Prerequisite: FINS1612, FINS1613  
The theory and practice of banking from a financial management perspective; banks and the financial services industry; regulatory restrictions and financial management; asset management - liquidity and loan management; liability and deposit management; capital structure and dividend decisions; and financial management implications of electronic banking, and other developments are studied.

**FINS3633**  
**Real Estate Finance**  
School of Banking and Finance  
UOC6 HPW3  
Prerequisite: FINS2624  
Evaluates real estate financing, the mechanics of the mortgage market, and the application of modern finance theory to the evaluation, selection and management of direct and securitised property investments. Topics include the role of regulation, taxation, government agencies, property trusts, and the banking system on real estate activity. Analyses real estate, diversification aspects, valuation techniques, evaluates lease structures, concepts of rent and yields.

**FINS3634**  
**Credit Analysis and Lending**  
School of Banking and Finance  
UOC6 HPW3  
Prerequisite: FINS1612, FINS1613  
Focus is on latest approaches to loan portfolio selection and credit risk modelling. Topics include: credit scoring; credit ratings and default probabilities; pricing bonds and loans as options; reduced-form models; simulation-based approaches; capital structure and risk return analysis; overview of credit risk markets. Includes Excel-based project on portfolio credit risk..

**FINS3635**  
**Options, Futures and Risk Management**  
School of Banking and Finance  
UOC6 HPW3  
Prerequisite: FINS2624  
An intermediate course on options, futures and techniques for managing asset risk. Topics covered include an overview of derivative securities, forward and futures contracts (on stock indices, investment and consumptive assets), options (on stocks, stock indices and futures), hedging positions in options and other derivative securities, binomial option pricing, risk-neutral valuation, the stochastic process followed by stocks, numerical techniques in option pricing, options on non-traded assets, exotic options and pricing biases.

**FINS3636**  
**Interest Rate Risk Management**  
School of Banking and Finance  
UOC6 HPW3  
Prerequisite: FINS2624  
Looks at interest rate risk (IRR) and techniques for managing risk. Topics covered include term structure dynamics (including bond price lattices, spot and forward rate models), analytical and numerical techniques, duration measures, interest rate derivative securities (including options, futures, caps, floors and swaps), mortgage-backed securities and their derivatives, portfolio management, value-at-risk, and the interaction between IRR and credit risk. In discussing interest-rate derivatives, the primary emphasis is on the Hull-White model, but other models, such as the models of Ho-Lee, Cox-Ingersoll-Ross and Heath-Jarrow-Morton are discussed.

**FINS3640**  
**Investment Management Modeling**  
School of Banking and Finance  
UOC6 HPW3  
Prerequisite: FINS2624  
Covers the essential analytical and quantitative tools applied in the investment management industry. It provides students with the knowledge and skills required to construct and manage portfolios of financial securities. Examines both index funds and actively managed portfolios, the mix of different types of assets in portfolios, and the role
of derivative securities in portfolio management. Focuses on portfolio theory, investment analysis, quantitative analysis, factor models and portfolio risk management. An essential component involves the use of software programs (MS-Excel and Barra) in applying concepts to the real-world market environment.

FINS3641
Security Analysis and Valuation
School of Banking and Finance
UOC6 HPW3
Prerequisite: FINS2642
Explores techniques, models and industry practices used in the selection of securities for institutional equity portfolios. Both quantitative and fundamental analysis are covered. Considerable attention is paid to recent research, through published journal and working papers on the efficiency or otherwise of financial markets, and to anomalies that form the bases for quantitative stock election models. Students will develop skills in finding recent material not yet in standard text books, thus enhancing their ability to remain current throughout their professional careers. A changing selection of contemporary topics, such as advanced theories of risk, hedge funds, etc. may also be included.

FINS3642
Strategies for Investment Management
School of Banking and Finance
UOC6 HPW3
Prerequisite: FINS3640
Deals with the adoption of financial innovations in funds management with a particular emphasis on the understanding of the characteristics of a large trans-national hedge fund. Covers recent innovations in the development and management of some strategic special-purpose funds, designed for investors interested in particular financial markets eg foreign exchange markets and stock markets. Incorporates extensive use of computer spreadsheets, macros, and programs to aid in the examination of individual stock data and calculations and later hedge a fund via the derivatives market. Involves extensive use of MS-Excel and financial and statistical packages.

FINS3650
International Banking
School of Banking and Finance
UOC6 HPW3
Corequisite: FINS3616
Focuses on providing students with an understanding of the operating environments of international banking institutions. Topics covered are: the nature and theory of international banking, the major functions of international banking (international trade financing, participation in the interbank foreign exchange and Eurocurrency markets, international investment banking services, and sovereign lending), and other important issues (international money laundering, international banking crisis, regulation of international banking, international debt crisis, and offshore banking markets). Some of the topics covered may vary over time.

FINS3651
International Financial Services
School of Banking and Finance
UOC6 HPW3
Prerequisite or corequisite: FINS2642
Designed to acquaint the student with the planning and administration of a worldwide corporate insurance program under conditions of uncertainty. International dimensions of risk management are surveyed; highlighting the importance of differing economic, social, and political environments. Topics include: international banking; the structure of insurance markets; the economics of international trade in insurance; the integration and globalisation of financial services; the role, importance and functioning of reinsurance worldwide; the legal environment of risk management and insurance internationally; the tax environment for insurance internationally; rationales and nature of government intervention into insurance markets worldwide; regulatory harmonisation in insurance; the demographic and social environment for insurance internationally; the advantages and disadvantages of different social welfare strategies in an international business environment; and global risk management.

FINS3775
Research Methods in Finance 1
School of Banking and Finance
UOC6 HPW3
Prerequisite: Credit or better in FINS2624; Excluded: FINS4775
Provides an introduction to econometric theory and its application in empirical finance. Much emphasis is on the practical aspects. There is extensive use of leading statistical and econometric software that is employed extensively in research and practice.

FINS4774
Financial Decision Making Under Uncertainty
School of Banking and Finance
UOC6 HPW3
Prerequisite or Corequisite: HONS3775 or HONS4775
Provides an intermediate exposition of the fundamentals of portfolio selection and corporate finance: (i) the basics of choice theory; (ii) binomial option pricing; (iii) portfolio theory; (iv) classical, non-game theoretical theories of capital structure and dividend policy and empirical evidence on these theories; and (v) theories and evidence related to mergers and acquisitions.

FINS4775
Research Methods in Finance 1
School of Banking and Finance
UOC6 HPW3
Prerequisite: Credit or better in FINS2624; Excluded: FINS3775
Provides an introduction to econometric theory and its application in empirical finance. Much emphasis is on the practical aspects. There is extensive use of leading statistical and econometric software that is employed extensively in research and practice.

FINS4776
Advanced Topics in Asset Pricing
School of Banking and Finance
UOC6 HPW3
Prerequisite or corequisite: FINS3775 or FINS4775
 Provides an in-depth treatment of asset pricing theories, including surveying the evidence from tests of these models. Both general asset pricing techniques and the micro-foundations of these models are covered. Emphasis is on applications of mathematical and statistical tools to provide a rigorous development of each topic. Students are assessed through a variety of means, which may include problem sets, exams, papers, and presentations.

FINS4777
Advanced Topics in Corporate Finance
School of Banking and Finance
UOC6 HPW3
Prerequisite or corequisite: FINS3775 or FINS4775
The main emphasis is exposure to the latest research on selected topics in corporate finance. Topics covered are primarily selected on the basis of the lecturer’s area of expertise and include methodological considerations in corporate finance research, corporate restructuring, agency theory and governance, performance measurement, valuation models, dividend policy and repurchases, forecasting, and capital structure. A combination of assessment methods is used, including group projects, case studies and student presentations. Assumes a sound knowledge of the theories relating to the foundations of finance.

FINS4779
Research Methods in Finance 2
School of Banking and Finance
UOC6 HPW3
Prerequisite or corequisite: FINS3775 or FINS4775
A more advanced course in empirical methods in finance, covering general methodological aspects, testing of hypotheses and falsifiability principle. Review of relevant econometric material applications to topics such as generalised beta models of market equilibrium (including CAPM, APT), foreign exchange risk premium, stock price variability and volatility estimation.

FINS4781
Special Topics in Finance
School of Banking and Finance
UOC6 HPW3
Prerequisite: Admission to BCom Honours
This is an optional unit forming part of the Fourth-Year Honours program and is designed in a flexible way to provide students with advanced knowledge in important areas of finance that fit in with the supervisory capacity of the academic staff. The content areas may thus vary from year to year. A more detailed course outline will be provided prior to the commencement of the unit.
FINS4794 Thesis B (Finance)
School of Banking and Finance
UOC.18

Note: The thesis is to be approved and supervised by the School of Banking and Finance.

FINS4795 Thesis (Finance)
School of Banking and Finance
UOC.24

Note/s: The thesis is to be approved and supervised by the School of Banking and Finance.

FOOD1120 Introduction to Food Science
School of Chemical Engineering and Industrial Chemistry
UOC.6 HPW.4

This course will provide students with an insight into the breadth and depth of food science, outlining many of the historical, social, physiological, nutritional, industrial, legal and psychological issues affecting food consumption and production. This course will also introduce some of the common scientific principles underpinning many of the practices and challenges relating to food preparation in the home, the food service industry and food manufacturing sectors, highlighting the role of creativity and innovation in meal design and food product development.

FOOD1130 The Food Industry: Professional Perspective and Practice
School of Chemical Engineering and Industrial Chemistry
UOC.6 HPW.6

This course will examine the contribution of the breadth of food science and technology to the food industry, and the skills expected of a food science professional. A technical lecture series will demonstrate the integration of all aspects of food science and technology, and their underpinning by the basic sciences, through examination of a hypothetical company producing a selected food product. Field trips will provide early exposure to the food industry. Students will be exposed to the theory and have the opportunity to practice a range of generic skills relevant to both their University studies and practice in food science and technology, including oral and written communication, team/group work, information literacy, personality types and learning styles.

FOOD1230 Food Choice: Psychology, Preference and Acceptability
School of Chemical Engineering and Industrial Chemistry
UOC.6 HPW.6

This course considers factors that influence the choice of foods and eating patterns by consumers, and provides a rational basis for the design, development and marketing of new food products and new processing technologies. It is aimed at students with interest in food and human behaviour, for example, marketing, advertising, food service/hospitality and psychology, as well as students in food science and technology. Topics covered include: physiology of taste and smell; sensory acceptability of foods in terms of flavour, appearance and texture and its measurement (sensory evaluation); psychological, physiological, cultural, religious, environmental and genetic factors that affect food preference and consumption patterns and behaviour; eating disorders (e.g. anorexia, bulimia); diet and consequences for physical and mental activity (e.g. sports diets); implications for food product development, process development, marketing, advertising and diet design.

FOOD1360 Food Processing Principles
School of Chemical Engineering and Industrial Chemistry
UOC.6 HPW.6

Food processing is introduced in a series of integrated labs and lectures covering the basics of food engineering: heat transfer and fluid flow. This includes heat and mass balances, heat and mass transfer, Fourier's equation, modes of heat transfer, heat exchangers, transient heat transfer and Heisler charts for cans, food properties, physical chemistry of phases in crystalline, steam and enthalpy, thermal death, sterility, Fo, Z and D values, retorting, lethality, texture of solids and liquids, product flow and pumping, non-Newtonian behaviour, esp. viscoelasticity, and intermediate moisture foods. Some example food operations are presented, including mixing powders and slurries, baking, frying, roasting, cooling, thawing, and freezing.

FOOD1370 Food Preservation: Principles and Applications
School of Chemical Engineering and Industrial Chemistry
UOC.6 HPW.6

The basis of food science is presented in a series of lectures and integrated labs covering traditional and novel methods of preserving foods for distribution and storage. Food commodities are introduced in groups, including dairy, meat, fish, fruit, vegetables, beverages, eggs, sugars, cereals and lipids. The need for preservation is discussed, including physical, chemical and biological deterioration factors and water relationships. Technologies covered are heating, chilling, freezing, drying, brining, pickling, sugar, radiation, packaging (MAP and CAP), chemical preservatives and novel methods.

FOOD1380 Unit Operations in Food Processing
School of Chemical Engineering and Industrial Chemistry
UOC.6 HPW.6

Prerequisite: FOOD1360, FOOD1370

The principles introduced in FOOD1360 and FOOD1370 are used in studying some of the more important unit operations in the food industry. The procedure used for each unit operation is to firstly describe the process, its applications, effects on the food product and requirements, appropriate process diagrams, mass and heat balances and flows, solving unit operation problems. Unit operations covered are refrigeration, dehydration, evaporation, extraction, physical separation and comminution.

FOOD1390 Product Design and Development
School of Chemical Engineering and Industrial Chemistry
UOC.6

Prerequisite: CHEM2921

This course provides a series of lecture and laboratory classes that cover the basic theoretical and practical concepts associated with the design and development of new food products and processes. The product development process: the need for new products, types of new products, the development team, idea generation, steps in the product development process; the role and specific tasks of market research, market research techniques, target markets, limitations of market research. Roles of advertising and supermarkets in new product success; product lifecycles, reasons for new product failure and preventative strategies. Ingredient and additive behaviour and contributions in foods: properties of the major food components in relation to food properties, storage stability and nutritional properties of foods. Impact of new technology. Sensory analysis: basic sensory analysis techniques, expert vs consumer panels, interpretation and implementation of sensory testing data, sensory rankings from different target markets.

FOOD1400 Project
School of Chemical Engineering and Industrial Chemistry
UOC.6

Prerequisite: CHEM3811, FOOD1360, FOOD1370, FOOD1380, FOOD1390, FOOD2320, FOOD2330, FOOD2340

The student undertakes an individual project involving a literature survey, an experimental investigation, the preparation of a detailed report on a selected topic in food science and technology, and presentation of seminars on a literature review and experimental results.

Note: Restricted to program 3060.

FOOD1480 Minor Project
School of Chemical Engineering and Industrial Chemistry
UOC.6

Prerequisite: CHEM3811, FOOD1360, FOOD1370, FOOD1380, FOOD1390, FOOD2320, FOOD2330, FOOD2340

The student will be required to undertake a literature-based study of a research problem, submit a project thesis and present seminars arising from the project.

FOOD1490 Advanced Food Chemistry
School of Chemical Engineering and Industrial Chemistry
UOC.6 HPW.6

Prerequisite: CHEM3811 or equivalent
Chemistry and analysis of food flavours; measurement, fractionation and structural determination of proteins, starch and its derivatives, non-starch polysaccharides, dietary fibre constituents and lipids; detection and measurement of mycotoxins; analysis of selected vitamins; application of advanced separation techniques to food components.

**FOOD2320 Food Microbiology**  
School of Chemical Engineering and Industrial Chemistry  
UOC6 HPW3

This is a lecture-laboratory course that introduces the basic concepts of food microbiology, covering the ecology, biochemistry, isolation, enumeration and identification of bacteria, yeasts, fungi and viruses associated with foods and beverages. Food spoilage: specific food microorganisms and foodborne microbial disease; food as vectors of disease and food poisoning; statistics and epidemiology; ecology and taxonomy of foodborne pathogenic microorganisms; control and prevention by hygiene, microbiological standards and legislation. Food fermentation: microbial ecology and biochemistry of fermentations; fermentations of alcoholic beverages, bakery products, dairy products, meats, vegetables, cocoa beans, soy sauce; production of food ingredients and processing aids by fermentation. Microbiological examination of foods: sample preparation and sampling plans; sublethal injury; standard methods for determination of total plate counts, indicator organisms, foodborne pathogenic species, principal spoilage species. Microbiological quality assurance: specifications and standards; decision criteria; hazard analysis and critical control point (HACCP) concept; cleaning and sanitation.

**FOOD2330 Quality Assurance and Control**  
School of Chemical Engineering and Industrial Chemistry  
UOC6 HPW4

This course aims to provide students with a knowledge base of concepts in quality assurance (QA) and quality control (QC) in the context of the food industry. Whole of quality management, quality management, quality costs, Total Quality Management and ISO9000-based Quality Management Systems; tools in quality management, brainstorming and other qualitative tools, benchmarking; production-level QA and QC, HACCP, risk analysis and management, statistical quality/process control, sampling and sampling plans, cleaning and sanitation; QA in the laboratory, accreditation, metrology, proficiency testing; regulatory aspects of QA/QC; auditing quality; staff training.

**FOOD2340 Food Safety**  
School of Chemical Engineering and Industrial Chemistry  
UOC6 HPW4

This course presents a package of information and exercises designed to demonstrate the public health risk associated with the production and consumption of foods and the strategies adopted by industry, government and consumers to manage and control these risks. Topics covered include: chemical risks - natural, additives and residues; microbiological risks - bacterial, fungal, viral, algal, parasites, prions; nutrition - diet and health; genetically modified foods - concepts and specific safety issues; management of food safety by government - food law, national and international regulation and issues; legal and insurance issues; consumer concerns - education, social, moral and ethical issues.

**FOOD2350 Forensic Food Science**  
School of Chemical Engineering and Industrial Chemistry  
UOC6 HPW3

This course consists of a series of lectures, discussions and assignments that examine a wide range of techno-legal issues which frequently confront companies involved in the manufacture and service of foods and beverages. A portfolio of case studies are used to demonstrate the fundamental and practical aspects of the investigative process: defining the cause of the problem, acquisition of appropriate information and analytical evidence; loss assessment; reporting; communication with solicitors, barristers and insurance companies; appearance at court. Topics covered include: the legal process; prosecution for breach of food safety, quality and labelling regulations; prosecution of fraud, deception and adulteration; compensation disputes between companies when products and processes do not meet contractual specifications; compensation claims from consumers who have experienced foodborne illness; food composition and labelling authenticity, including religious certification for halal and kosher foods, genetic modification using recombinant DNA technology, species homogeneity; sabotage, deliberate adulteration, tampering; protection of intellectual property, patents. The course is aimed at students in food science and technology, but its content and structure are designed to accommodate students with a broader background in science and technology, as well as practicing professionals in the food/ beverage industries, government regulatory agencies and consulting companies.

**FOOD2480 Advanced Food Microbiology**  
School of Chemical Engineering and Industrial Chemistry  
UOC6 HPW3

Prerequisite: FOOD2320

This course consists of a series of lectures, discussion groups and visits to local food companies that takes food microbiology from its basic concepts to advanced consideration of current issues on food spoilage, foodborne microbial disease, food and beverage fermentations and the use of microorganisms as processing aids and sources of food ingredients and additives. With a focus on commodity groups, it considers industry structure, food properties and processing operations that impact on the growth, survival and biochemical activity of microorganisms as they relate to spoilage, safety and desirable fermentations. Commodities considered include dairy products, fruit and vegetables, meat products (red meats, poultry, seafoods) and alcoholic beverages. Advanced concepts of microbial taxonomy, biochemistry, physiology, detection and enumeration are covered as well as the use of microorganisms as sources of colours, flavours, polysaccharides, vitamins, amino acids and as probiotic and biocontrol agents.

**FOOD2322 Nutrition**  
School of Chemical Engineering and Industrial Chemistry  
UOC6 HPW6

Corequisite: BIOL101 or BIOL2181

This course consists of a series of lectures and practical exercises that provide students with knowledge about the occurrence of nutrients in foods and their role in human physiology, health and disease. Structure, properties and sources of nutrients; role of nutrients in human structure and function. Introduction to food groups, tables of food composition, food labels, dietary recommendations; food guides; nutrition in health and disease; nutritional needs of vulnerable groups: infants, pregnant and lactating women, the aged; dietary intolerance, disorders related to the affluent diet including coronary heart disease, dental caries, diabetes, hypertension and cancer; problems of undernutrition including protein, energy, mineral and vitamin deficiencies; physiological and nutritional aspects of dietary fibre, alcohol; assessment of nutritional status using dietary and anthropometric techniques; practical exercises on anthropometric techniques and measurement of nutrient intake using computer systems on an individual and group basis.

**FOOD3330 Nutrition for Sports Science**  
School of Chemical Engineering and Industrial Chemistry  
UOC6 HPW6

Prerequisite: BIOL2101 or BIOL2181; Excluded: FOOD3220, FOOD3567.

This course consists of a series of lectures and practical exercises that provide students with the knowledge about the occurrence of nutrients in foods and their role in human physiology and health. Structure, properties and sources of nutrients; role of nutrients in human structure and function. Introduction to food groups, tables of food composition, food labels, dietary recommendations, National physical activity guidelines. Nutrition through life cycle. Dietary intakes of athletes, disorders related to obesity, alcoholism, iron deficiency and calcium imbalance. Effects of exercise on protein and carbohydrate metabolism, fluid imbalance. Dietary supplements and nutritional aids in sports, special needs of athletes.

**FOOD3440 Advanced Nutrition**  
School of Chemical Engineering and Industrial Chemistry  
UOC6 HPW3

Prerequisite: FOOD3220

This course consists of lecture and discussion classes that build on the basic concepts of nutrition with respect to the food supply, giving advanced treatment of the following topics. Food and nutrition policy:
structure of the population; food supplies, food consumption, nutritional epidemiology; population dietary references; food programs such as food fortification, supplementary feeding schemes, nutritional rehabilitation, nutritionally modified foods, nutritional regulations and standards, nutrition education, dietary and nutrition interventions (ORT, family planning, infection control, growth monitoring); principles, practice and evaluation of applied nutrition programs; advanced assessment methods in nutrition: nutrient bioavailability studies, nitrogen balance tests, vitamin load tests, sodium and potassium excretion, creatinine excretion, fitness assessment, biochemical assessment, design and evaluation of nutritional epidemiology studies, food intake studies.

**FOOD4450 Advanced Food Processing**
School of Chemical Engineering and Industrial Chemistry
UOC6  HPW6
This course consists of lectures and discussion groups covering advanced aspects of modern food processing and preservation. This includes food bulk and thermal properties, rheological properties and models of heat transfer (analytical, graphical and numerical methods, computer packages, microwave, infrared, and radio frequency irradiation); process modelling and control, dehydration, evaporation and distillation.

**FOOD5400 Industry Liaison**
School of Chemical Engineering and Industrial Chemistry
UOC6  HPW6
Prerequisite: 144 Units Of Credit.
This course involves structured inspections of a variety of food processing establishments, production areas and food research institutes and stations within Sydney, NSW and interstate. The aim is to strengthen student understanding of the structure, practical operation and management of the local food industry and to demonstrate how theoretical concepts in food science and technology are applied in a commercial situation. The important linkage between the technical aspects of food production and commercial requirements of food companies will be explained.

**FOOD5410 Industry Practicum**
School of Chemical Engineering and Industrial Chemistry
UOC6  HPW6
Prerequisite: 144 Units Of Credit.
This course involves a structured program of activity within a food processing or related company as approved by the course coordinator. The aim is to provide a detailed insight into aspects of company structure and activity through project work, reports and seminars.

**FOOD9410 Honours Research Project**
School of Chemical Engineering and Industrial Chemistry
UOC21
An extensive research project is required on some aspects of food science and technology, including preparation of a literature review, conduct of laboratory-based research, presentation of two seminars, and submission of a thesis based on the results of the research project. Candidates will undertake corequisite formal coursework as approved by the Program Coordinator.

**Note:** Restricted to program 3065.

**FOOD9420 Food Science and Technology (Honours)**
School of Chemical Engineering and Industrial Chemistry
UOC24
Advanced training in selected areas of food science and technology: a formal component consisting of lectures, seminars, tutorials and written assignments plus a supervised research program in a specified area of food science and technology. Students intending to do this program should consult with the Program Coordinator about selection of courses in earlier years.

**FOOD9430 Food Science (Honours)**
School of Chemical Engineering and Industrial Chemistry
UOC24
A research project in a selected area of food science, including preparation of a literature review, conduct of laboratory-based research, presentation of a seminar and submission of a thesis based on results of the research project. Candidates will undertake 24 Units of Credit corequisite formal coursework as approved by the Program Coordinator.

**Note:** Restricted to programs 3970, and Advanced Science - Life Sciences. Enrolment requires co-requisites: 24 UOC of level III/IV courses as approved by the Program Coordinator.

**FREN1101 French Language and Culture 1A**
Department of French
UOC6  HPW6
Excluded: FREN1001, GENT0425
Introduction to listening, speaking, reading and writing in French; development of basic competence in everyday practical situations, together with regular study of grammar and initiation to contemporary French culture.

**Note:** For students with no previous knowledge of French.

**FREN1102 French Language and Culture 1B**
Department of French
UOC6  HPW6
Prerequisite: FREN1101 or FREN1001; Excluded: FREN1002
Further development of the skills learnt in FREN1101 now in a wider range of practical situations, together with the continuation of the study of grammar and contemporary French culture.

**FREN2101 French Language and Culture 2A**
Department of French
UOC6  HPW5
Prerequisite: FREN1102 or FREN1002; Excluded: FREN2003
Intensive study of French language, with particular emphasis on aural comprehension, oral expression and the acquisition of elementary writing skills. Initiation into the study of syntax and the various registers of French. Further study of French culture.

**FREN2102 French Language and Culture 2B**
Department of French
UOC6  HPW5
Prerequisite: FREN2101 or FREN2003; Excluded: FREN2004
Extension of the skills gained in FREN2101 with special emphasis on the study of syntax and an introduction to literary text analysis. There is also further study of French culture.

**FREN3101 French Language and Culture 3A**
Department of French
UOC6  HPW4
Consolidation of interactive skills and initiation to the study of some forms of spoken and written discourse of general interest, mainly oral discussion and short written narrative texts. Systematic study of French syntax and phonology.

**FREN3102 French Language and Culture 3B**
Department of French
UOC6  HPW4
Prerequisite: FREN3101 or FREN1011 or FREN3003; Excluded: FREN1012, FREN3004
Extension of the skills gained in FREN3101 with a focus on spoken and written discourse of general academic interest, such as oral presentation and short essay. Further study of French syntax together with systematic literary text analysis.

**FREN3103 French Language and Culture 4A**
Department of French
UOC6  HPW3
Prerequisite: FREN3102 or FREN1012 or FREN3004; Excluded: FREN1021, FREN2013
Consolidation of all skills and initiation to the study of some forms of spoken and written discourse of vocational interest, mainly interview, oral report and short essay. Systematic study of syntax and contemporary French culture.
FREN3104
French Language and Culture 4B
Department of French
UOC6  HPW3
Prerequisite: FREN3103 or FREN1021 or FREN2103; Excluded: FREN1022, FREN2014
Extension of the skills gained in FREN3103 with focus on some forms of spoken and written discourse of vocational and academic interest such as debate and essay. Further study of syntax and systematic literary text analysis.

FREN3105
French Today
Department of French
UOC6  HPW3
Prerequisite: FREN3104 or FREN3104 or FREN1022 or FREN2014; Excluded: FREN3110, FREN3120
Theoretical and practical study of the patterns of contemporary French. Special focus on the features of spontaneous speech in interaction. Students will practise interactive skills and expository discourse in French. This course is particularly useful for students intending to teach French as a foreign language.

FREN3106
Discourse Studies: Media, Politics and Society
Department of French
UOC6  HPW3
Prerequisite: FREN3004 or FREN3104 or FREN1022 or FREN2014; Excluded: FREN2030
Theoretical and practical study of French in various vocational fields. Topics may include media, political and scientific types of discourse. Students will practise their written skills and gain a better understanding of sophisticated uses of French in contemporary Francophone societies.

FREN3210
French Prose Fiction
Department of French
UOC6  HPW3
Prerequisite: FREN1022, FREN2014, FREN2020, FREN2030, FREN3011, FREN3101 or FREN3104
A close study of three French novels from the realist tradition of the nineteenth century. While studying each work in its historical and social context, the course will also observe the evolution of major themes and/or structural aspects.

FREN3211
Special Reading Program
Department of French
UOC6  HPW3
Prerequisite: FREN1022, FREN2014, FREN2020, FREN2030, FREN3011 or FREN3104
Reading in selected French masterpieces. Students are required to submit an in-depth analysis of work studied.

FREN3214
Modern French Poetry
Department of French
UOC6  HPW3
Prerequisite: FREN1022, FREN2014, FREN2020, FREN2030, FREN3011 or FREN3104; Excluded: FREN3201
A close study of the works of two major poets of the 19th century, Baudelaire and Rimbaud. Analyses the historical context and the beginnings of modernism in the work of these two poets.

FREN3312
French Cinema and Society
Department of French
UOC6  HPW3
Prerequisite: FREN1022, FREN2014, FREN2020, FREN2030, FREN3011 or FREN3104; Excluded: FREN3510
A study of contemporary French cinema. The aims of the course are to develop the student's skills in analysing film, and to examine the ways in which French society is represented in fiction films. It will also introduce students to French film theory. Students should note that films will be screened outside class time.

FREN3901
Reading Program 1 (Advanced)
Department of French
UOC6  HPW3
Prerequisite: 36 units of credit including 12 units of French at Distinction level
Any approved Upper Level option from the following: FREN3120, FREN3210, FREN3310, FREN3410, FREN3110, FREN3215, FREN3220, FREN3510 to be taken second year, plus an intensive reading program.

Note: Typically done in the second year, this course is designed for students wishing to proceed to Honours in the Department of French.

FREN3910
Honours Preparatory Seminar
Department of French
UOC6  HPW3
Prerequisite: 36 units of credit in French at Distinction level
Critical readings of French or Francophone texts which raise key issues in each of the three categories of Language, Literature and Culture. There is also an introduction to the nature and philosophies of research, research methods and techniques, and the principles of writing a dissertation and thesis.

Note: Typically done in the third year, this course is designed for students wishing to proceed to Honours in the Department of French.

FREN4000
French Honours (Research) Full-Time
Department of French
UOC24  HPW5
Prerequisite: 54 units of credit in FREN, including FREN3910 at 70% and permission from Head of Department
1. Two seminars (each HPW3 for 14 weeks). 2. A thesis workshop (HPW1 for 14 weeks). 3. A research project (thesis) of 12,000 to 15,000 words, in French, written under the supervision of a member of staff on a subject approved by the Department. Students from A or B streams follow an additional advanced language seminar (HPW3 for 14 weeks). Students from A stream may seek permission from the Head of Department to write their thesis in English rather than French.

FREN4050
French Honours (Research) Part-Time
Department of French
UOC12  HPW3
Prerequisite: 54 units of credit in FREN, including FREN3910 at 70% and permission from Head of Department
1. Two seminars (each HPW3 for 14 weeks). 2. A thesis workshop (HPW1 for 14 weeks). 3. A research project (thesis) of 12,000 to 15,000 words, in French, written under the supervision of a member of staff on a subject approved by the Department. Students from A or B streams follow an additional advanced language seminar (HPW3 for 14 weeks). Students from A stream may seek permission from the Head of Department to write their thesis in English rather than French. Program spread over two years of study.

FREN4500
Combined French Honours Full-Time
Department of French
UOC12  HPW2
Prerequisite: 48 units of credit in FREN, including FREN3910 at 70% and permission from Head of Department
The program usually consists of one session-length seminar in the Department of French, as well as a research project whose subject and nature have been approved by the two departments/Schools concerned. The exact details of the Fourth Year program and its assessment are subject to prior consultation and approval by the Heads of the two Departments/Schools concerned.

FREN4550
Combined French Honours Part-Time
Department of French
UOC6  HPW2
Prerequisite: 48 units of credit in FREN, including FREN3910 at 70% and permission from Head of Department
The program usually consists of one session-length seminar in the Department of French, as well as a research project whose subject and
nature have been approved by the two Departments/Schools concerned. The exact details of the Fourth Year program and its assessment are subject to prior consultation and approval by the Heads of the two Departments/ Schools concerned. Program spread over two years of study.

**FUEL0040**
Fuel Engineering for Ceramic Engineers
School of Chemical Engineering and Industrial Chemistry
UOC3 HPW2
An introduction to combustion technology, combustion calculations, burner design, furnace, kiln and boiler thermal design.

**GENC2001**
An Introduction to the Australian Economy
School of Economics
UOC3 HPW2
Excluded: ECON2104
This course will introduce students to the main issues and problems currently faced by the Australian economy. The aim is to acquaint students with the basics to enable them to understand contemporary policy debates, and to achieve economic literacy. The focus will be on macroeconomic policy debates, with special attention paid to problems associated with economic growth, inflation, unemployment and the balance of payments. In addition, some of the debates associated with aspects of microeconomic reform, such as privatisation and deregulation, will be considered.

**GENC3003**
Personal Financial Planning
School of Banking and Finance
UOC3 HPW2
This course provides you with the knowledge and skills to manage your personal finances and investments both now and after graduation. Topics include buying a house or investment property with confidence, creating financial independence through superannuation, making a savings plan that works, how to invest in shares and managed funds, protecting yourself through insurance, making a will, understanding taxation, practical budgeting that works, identifying strategies for family members approaching retirement and tips for seeking professional financial advice.

**GENC5001**
Introduction to the Internet and Electronic Commerce
School of Information Systems, Technology & Management
UOC3 HPW2
Students will learn to use the Internet, gaining an understanding of Internet applications such as e-mail, news-groups and navigating the World Wide Web to access information from around the world. Students will also design and implement a simple World Wide Web home page. All students will gain hands-on experience with applications and the information superhighway.

**GENC6001**
An Introduction to Marketing
School of Marketing
UOC3 HPW2
Excluded: MARK1012
Marketing is one of the core disciplines of successful management today. It impacts on society every day in a myriad of ways - creating new products and services; helping organisations understand what people want and need; helping people find products and services that meet their needs; communicating information that makes people's lives more efficient; creating exchanges that generate employment and wealth. But marketing also raises ethical issues about excess consumption, unhealthy obsessions and addictions, the impact we have on the environment and questioning approach is adopted throughout the course.

**GENC6002**
Marketing and the Consumer
School of Marketing
UOC3 HPW2
Excluded: MARK2051, MARK3072
This course is designed to provide students with an understanding of the relationship between marketing as a business discipline and consumer rights and responsibilities. It looks at marketing from the consumer's point of view, rather than the traditional marketing manager's point of view. The course covers topics such as the “culture” of consumption of products and services in developed economies; the history and development of the consumer rights movement and “consumerism” in the United States and Australia; the philosophical underpinnings of the movement and where it is heading with regard to issues such as personal privacy and anti-globalisation; the opportunities and concerns posed by new interactive and personalisation technologies; and attempts by marketers to respond in multiple ways to all these consumer pressures and challenges. A critical and questioning approach is adopted throughout the course.

**GENC6003**
Tourism: The Global Future
School of Marketing
UOC3 HPW2
It is claimed that tourism is one of the three growth industries of the new millennium, along with information systems and communications technology. In this course the wider significance of tourism is examined, looking at its economic, social, political and environmental importance. Topics include: tourism through the ages; tourism models and markets; the structure of the industry; the distribution of tourism products, and transport-related issues; governments and tourism - agents of regulation and promotion; the environmental, cultural and economic impacts of tourism, and the dilemmas that can arise when these appear to be in conflict; tourism planning, innovation and technology; special interest tourism, such as eco-tourism; and the future of tourism, particularly as it relates to sustainability issues. The course challenges students to think about tourism in new ways. This is facilitated with fieldwork to meet tourism operators, planners and regulators. The course also highlights career opportunities that tourism has to offer university graduates, and provides a starting point for students planning to take an MCom in Tourism, Hospitality Management and Marketing on completion of their undergraduate degree.

**GENC7002**
Getting Into Business
School of Business Law and Tax
UOC3 HPW2
Excluded: LEGT1711
This course examines how to set up, manage and develop a business within the limits of the law. The law regulates and provides protection and value to every aspect of the business and its activities. In a step by step method, using case studies, students will be exposed to the ideas and concepts which make up the ingredients of a successful business. Identifying the business opportunity; developing the concept; setting up the vehicle to conduct the business, securing premises; equipment and employees; dealing with creditors, suppliers customers and the government; and protecting the assets of the business are all covered in this course.

**GENC7003**
Managing Your Business
School of Business Law and Tax
UOC3 HPW2
Excluded: LEGT1711
Business management is the science of managing scarce resources, change and competitive forces in deregulated environment. Within this context the law has emerged as a key player in helping, guiding and prohibiting the behaviour of managers in small to medium businesses. The course examines the regime of laws and regulations, institutions and authorities that govern the function and performance of management in small and large business entities in Australia and internationally. The topics covered include: rights and obligations attached to property; dealing with suppliers, employees and subcontractors; developing legal financial models and business plans and undertaking legal and compliance audits and continuing governance reviews that provide focus to the business entities. The course will provide a substantial range of analytical research and practical skills to empower students to undertake the responsibilities of the contemporary manager.
GEND9002

Web Information Resources
School of Information Systems, Technology & Management
UOC3 HPW2

The World Wide Web offers a wealth of information resources with deceptively simple search engines. The social implications of the Web will be critically examined as a background to the effective utilisation of these resources. This examination will lead to a better and deeper understanding of how these resources are organised and retrieved. Traditional approaches to subject analysis are combined here with comparison of different navigational techniques and an introduction to the variety of resources in the electronic environment.

GEND0201

Graphics and Contemporary Society
College of Fine Arts
UOC3 HPW2

Online Course

During the last two decades of the 20th century computerisation in the graphic design industry brought about profound changes to the way we produce and consume knowledge just as the invention of printing transformed the dissemination of information in Renaissance Europe. Not only did the digital revolution transform the roles, working methods, project management and production processes for designers and printers, the digitisation of text and pictures influenced the aesthetics and formal aspects of the graphic image in print and electronic media, and stimulated discourses on visual experience and reconfiguration of the graphic image.

This fully online course comprises a series of lectures, learning activities and assessment tasks. It introduces topical issues in contemporary graphic design and its significance in society, including form and function in communication design, pictorial and narratives structures in visual communication, systems of icons and symbols as global visual language, and the influence of technology on aesthetics and visual experience. Assessment tasks will include individual and team projects to encourage group interaction and collaborative development of ideas and projects.

Excluded: COFA0201.

Note: This course is conducted via the Omnium system (omnium.edu.au).

Students will receive log in instructions via their UNSW email account prior to the commencement of the course. For international students: This 3 unit of credit (UOC) online course can only be undertaken in addition to the minimum 18 UOC face-to-face requirement per session.

GEND0204

Seeing Light as a Design Tool
College of Fine Arts
UOC3 HPW2

Online Course

Light. Its essential nature and characteristics are the focus of your study in this course. Light is a core ingredient behind high-end technology such as lasers, optical medical diagnostic tools, live performance event lighting machines, and computers. Light is a design tool unmatched in its flexibility and relative ease of application, and can reveal and enhance our experience of natural and built environments. You will design with light, without the need of sophisticated apparatus, complex equations or a detailed understanding of science. You will consider both the theoretical and practical aspects of light design, and the specific lighting requirements of virtual and real environments.

Your learning in this fully online course will be based on demonstrations and experiential observations that seek to understand the effect of light sources on your perception of space. Learning exercise and assessment tasks will include both individual and joint activities to encourage collaborative learning, and will be supported by online resources. Your activities will include problem solving, critical thinking and establishing a design process.

Your design decisions for a lighting design solution will be examined and related to an environment design project from design initiation through to documentation. This culminates in the production of a lighting design report. Access to a digital camera or a film camera & scanner is a requirement.

Excluded: COFA0204.

Note: This course is conducted via the Omnium system (omnium.edu.au).

Students will receive log in instructions via their UNSW email account prior to the commencement of the course. For international students: This 3 unit of credit (UOC) online course can only be undertaken in addition to the minimum 18 UOC face-to-face requirement per session.

GEND0202

Art & Cultures: The Language of Interactivity
College of Fine Arts
UOC3 HPW2

Online Course

The last ten years have seen a proliferation of screen-based interfaces and online content, most of which is interactive in some shape or form. However, interactive media are in their formative stages and although widely experienced, the processes and language of interactivity are still poorly understood. This poverty of understanding is particularly apparent when compared to the shared cultural understanding of the language of the moving image for example, in which elements such as camera angles, lighting, sound and editing are all used to deliver a crafted experience. This fully online course comprises a series of lectures, learning activities and assessment tasks that seek to discover and understand the underlying ‘language’ of interactivity. The content includes a broad history of interactive media (from non-computer interactions to wireless devices). It questions existing conventions of interactivity and explores the notions of play and interactive design (in which new ideas are ‘found’ by generating successive versions of a project).

The course aims to develop a set of ideas, approaches and practices that are essential to the creation of engaging interactive experiences. This includes a series of online lectures and discussions in which you will play an essential role in analysing and defining these experiences. Your assessment tasks will include individual participation and online team projects to encourage group interaction and collaborative processes, which are essential to discovering and defining this new exciting paradigm.

Please note: Whilst there are some technical elements to this course, it is not intended to be a course that teaches Flash programming or web design but rather the ideas that should underpin these, and other practices.

Whilst some existing knowledge of Macromedia’s Flash or Director will be useful it is not essential for completion of the course. Excluded: COFA0202.

Note: This course is conducted via the Omnium system (omnium.edu.au). Students will receive log in instructions via their UNSW email account prior to the commencement of the course. For international students: This 3 unit of credit (UOC) online course can only be undertaken in addition to the minimum 18 UOC face-to-face requirement per session.

GEND0205

Curating Art and Exhibitions
College of Fine Arts
UOC3 HPW2

Online Course

Today’s contemporary art practice includes temporary and site-specific projects, screen-based, digital and online art. The role of the curator, whether museum-based or freelance, has changed dramatically with the emergence of these new art practices. This course investigates key exhibitions and art projects internationally, providing a range of approaches to curating art today. It focuses on new models of exhibition-making both in traditional and alternative art venues, including public art.

Throughout the course, exhibitions and art projects in various parts of the world are used as case studies. With assistance from lectures and additional resources, your analysis of these projects will reveal an exciting range of solutions by curators to rapidly evolving media and exhibition possibilities. In addition, you will have opportunities to investigate and discuss new public art projects with reference to cultural and physical contexts.

A series of online lectures and resources is offered in a thematic format over 14 weeks. Your learning will be supported and enhanced by online learning activities, including group discussions and assessable tasks. Excluded: COFA0205.

Note: This course is conducted via the Omnium system (omnium.edu.au). Students will receive log in instructions via their UNSW email account prior to the commencement of the course. For international students: This 3 unit of credit (UOC) online course can only be undertaken in addition to the minimum 18 UOC face-to-face requirement per session.
GEND0206
The Art of Plants and Nature
College of Fine Arts
UOC3    HPW2
Online Course
Have you ever looked at parts of a flower, and realised that the ‘petals’ you think you are seeing are actually an arrangement of modified leaves, perhaps not too different from leaves elsewhere on the plant? Have you thought about the pattern of veins on a leaf, the scars on a stem or a plants general growth habit?
This fully online course comprises a series of lectures, activities and assessment tasks that seek to increase your visual awareness of plant structures, the analytical and conceptual means by which you see and define them, the possibilities for pictorial and aesthetic outcomes, and the translation of these understandings into your own art/design products.
The course centres on visual analysis of natural forms including: structure, growth, environmental influence, issues of symmetry, division, and proportions the investigation of botanical form (plant morphology), and an introduction to some of the descriptions and traditions which make up artistic responses to plants and flowers. Practical examinations and studies will be made from: specimen, in situ sources and field studies. This course aims to help you develop imaginative and conceptual processes and skills, and to produce figenerative or abstract 2D and 3D responses from your analysis of the systems of plants and nature.
Assessment tasks will focus on individual projects and online team activities that encourage participation and collaboration.
Excluded: COFA0206.
Note: This course is conducted via the Omnium system (omnium.edu.au). Students will receive log in instructions via their UNSW email account prior to the commencement of the course. For international students: This 3 unit of credit (UOC) online course can only be undertaken in addition to the minimum 18 UOC face-to-face requirement per session.
GEND0207
Textiles - Technology and Tradition
College of Fine Arts
UOC3    HPW2
Online Course
In 20 years time, will clothes be intelligent, self cleaning, or grown from a living layer of tissue?
The above statement is a question about the possibilities of where the future of textile design is leading. This allows you to reassess what a textile design can be. This fully online course looks at the relationship between traditional techniques and contemporary technology and how developments across both areas have revolutionised the design process and how such a synthesis opens up new possibilities in defining the boundaries of what constitutes a fabric.
You will learn how to analyse textile design from fundamental theoretical and historical viewpoints; you will be able to identify how contemporary textile design has been influenced by the interrelationship between traditional and technological processes; through experimenting with your own individual projects you will examine the influence of traditional processes on technology and how technology is reinventing traditional techniques. In reaction to these issues you will provide individual responses through practical projects. You will also learn how to appreciate the scope of textile design by exploring the innovative possibilities of future textile developments.
Excluded: COFA0207.
Note: This course is conducted via the Omnium system (omnium.edu.au). Students will receive log in instructions via their UNSW email account prior to the commencement of the course. For international students: This 3 unit of credit (UOC) online course can only be undertaken in addition to the minimum 18 UOC face-to-face requirement per session.
GEND0208
Fashion 1980 - Now
College of Fine Arts
UOC3    HPW2
Online Course
Why do high-heeled shoes feature in the television series Sex and the City? How are fashion, gender and sexuality linked? Why can women now wear a cheongsam dress and trainers? Fashion history and theory is one of the most rapidly developing areas of humanities research, drawing upon new theories of the body, social space, surfaces, ephemerality and popular culture.
This course examines fashion as a vehicle of self-fashioning since the 1980s. It will present a variety of theoretical methods to interpret the fashion choices of post-modern society.
You will study themes including fashion and identity politics; the ‘post-subculturalist’; fashion design and the street; gender and consumerism; cross-cultural dressing. You will examine topics including music and dress; dress and sexuality; vintage, retro and second-hand clothing; ‘anti-fashion’; ‘costume play’ and Japanese ‘cuteness’ (kawaii); and the spectacle of the contemporary fashion parade.
The course will include topics and collaborative assessment in which ‘net society’ plays a role. Your tasks may range from online diaries to role-plays as a fashion victim having to defend your stance.
Excluded: COFA0208.
Note: This course is conducted via the Omnium system (omnium.edu.au). Students will receive log in instructions via their UNSW email account prior to the commencement of the course. For international students: This 3 unit of credit (UOC) online course can only be undertaken in addition to the minimum 18 UOC face-to-face requirement per session.
GEND0209
Cross Cultural Sculpture
College of Fine Arts
UOC3    HPW2
Online Course
This is a practical, online sculpture course that will introduce you to ways of making contemporary sculpture and installation art through online projects. The two studio projects are designed to help you develop your own future creative enquiries as the activities mimic the processes artists employ to make artworks that are content rich and idiosyncratic. Ordinary skills, such as cutting, assembling, sanding and gluing, painting, sewing, stapling and snap shot photography are required for everyday methods of construction and recording. Materiality will be investigated using culturally encoded found objects and commonplace stuff.
Your art making will be informed by studio theory components that will enhance your awareness and understanding of how and why contemporary artists often blend and quote diverse cultural practices in their artwork. Online group discussions and a collaborative online studio theory project will create a community of scholarship and critical feedback to support your art making.
The interdisciplinary nature of contemporary sculptural practice will be explored in an installation project, with an invitation to experience a diversity of sculptural methodologies. Interdisciplinary approaches will develop from an initial project that creatively investigates the more familiar, object based sculpture. You will need access to a digital camera.
Excluded: COFA0209.
Note: This course is conducted via the Omnium system (omnium.edu.au). Students will receive log in instructions via their UNSW email account prior to the commencement of the course. For international students: This 3 unit of credit (UOC) online course can only be undertaken in addition to the minimum 18 UOC face-to-face requirement per session.
GEND0210
Visual Identity in the Built Environment
College of Fine Arts
UOC3    HPW2
Online Course
It may seem obvious why a fashion boutique stamps a big logo on the front of its commercial premises, however, ask yourself: why do local councils program their commercial premises, however, ask yourself: why do local councils label street signs in their municipality with a council emblem, or why do public parks nowadays have a logo designed to represent them? Most environments we encounter on a daily basis have been designed to carry a specific visual identity or brand. Some of the more obvious examples include retail stores, shopping malls and themed parks. Today, however, even train stations, public parks and city districts are being visually branded.
In this fully online course, you will examine a range of commercial and non-commercial spaces and consider the way visual identity has been programmed into them. Through these examples you will learn how ‘spatial branding’ affects the experience of people using a space.
This course includes a series of online lectures, individual and group tasks and site visits (in your locality) that will provide you with insight needed
to identify social, commercial and psychological implications arising from the practice of ‘spatial branding’.

Excluded: COFA0210.

Note: This course is conducted via the Omnium system (omnium.edu.au). Students will receive log in instructions via their UNSW email account prior to the commencement of the course. For international students: This 3 unit of credit (UOC) online course can only be undertaken in addition to the minimum 18 UOC face-to-face requirement per session.

GEND0211
Print Advertising for a World Market
College of Fine Arts
UOC3  HPW2

Online Course
When global giants Coca Cola first entered the Chinese market, its people interpreted the English name with a strange Chinese meaning which was ‘bite the wax tadpole’. Not surprisingly, Coca Cola began as a poor selling product in the new market. Today, its interpretation has been amended to ‘happiness in the mouth’ thus receiving far greater commercial success.

This fully online course considers such issues when looking at cross-cultural representation and perception in graphic advertising design. It invites you to analyse some interesting advertising design case studies, with emphasis on print media advertising from magazine ads to billboard posters. Nowadays, with many companies trying to sell their goods in the global market, there is a claim that the developed world has evolved into a global monoculture. Nevertheless, designers and entrepreneurs still need to be aware of cultural nuances.

This online course offers you an opportunity to explore global advertising’s graphic design strategies through a series of structured themes. The course will help your understanding through activities that require individual reflection, discussion and project-based collaborative interaction.

Excluded: COFA0211.

Note: This course is conducted via the Omnium system (omnium.edu.au). Students will receive log in instructions via their UNSW email account prior to the commencement of the course. For international students: This 3 unit of credit (UOC) online course can only be undertaken in addition to the minimum 18 UOC face-to-face requirement per session.

GEND0212
Textiles for Interiors - Senses and Spaces
College of Fine Arts
UOC3  HPW2

Online Course
This fully online course will help you learn why textiles are important in the design of interiors. Although their role is often overlooked, fabrics have always played important roles in defining both the atmospheric and spatial qualities of interiors - for example, textiles are sometimes used to filter light and muffle noise.

Exploring various dimensions of visual aesthetics, you will learn about contemporary trends in textile and interior design, and possible futures of textile design using new digital technologies. These will be placed in an overview of the context of an historical timeline. Through personal analysis, shared experiences and observation, you’ll understand more about how textiles affect your home and work environments.

This online course offers you opportunities for both individual and collaborative learning activities. These will include problem solving, critical thinking and establishing design outcomes that support you in developing a heightened awareness of the sensory and spatial influences of textiles on interior settings.

Note: This course is conducted via the Omnium system (omnium.edu.au). Students will receive log in instructions via their UNSW email account prior to the commencement of the course. For international students: This 3 unit of credit (UOC) online course can only be undertaken in addition to the minimum 18 UOC face-to-face requirement per session.

GEND0213
Contemporary Aesthetics in Digital Architecture
College of Fine Arts
UOC3  HPW2

Online Course
How will tomorrow’s built and landscaped environments look and feel? In these first few decades of the digital age, the planet’s leading architects have been discovering the creative potentials of on-screen design tools which behave very differently from pens, slide rules and paper.

In this fully online course, you will examine how emerging convergences of diverse technologies are influencing how architects aim to reinvent the way buildings look and feel – not only to answer humanity’s next challenges but to continue telling humanity’s stories through aesthetics.

Through reading, images, reflection, discussion, analysis and writing, you will learn how futuristic architects are styling tomorrow’s built and landscaped environments. And you’ll discover why 21st century architecture will look and feel radically different from the monuments of history.

Note: This course is conducted via the Omnium system (omnium.edu.au). Students will receive log in instructions via their UNSW email account prior to the commencement of the course. For international students: This 3 unit of credit (UOC) online course can only be undertaken in addition to the minimum 18 UOC face-to-face requirement per session.

GEND0214
Creative Thinking Processes
College of Fine Arts
UOC3  HPW2

Online Course
Have you ever had an idea that you wanted to push and develop further, but you weren’t sure how to do it? This fully online course will introduce you to some of the many tools that can facilitate creative thinking. The processes of analysis can help to extend possibilities beyond predictable outcomes, and the same thinking tool can be used across many different disciplines to create new, more integrated and original options.

We will explore visual, verbal and physical ways of transforming ordinary ideas into fantastic ones. Using taught techniques such as the Synectic Pinball Game you will learn to understand more clearly what happens when the creative mind is at work.

We will test the principles of interconnectivity, non linear (associative) thinking, and use maps, models and metaphors to develop your creative thinking. Famous creative thinkers like Leonardo da Vinci, Dr. Edward de Bono, George Lucas, Nicholas Roukes, Malcolm Gladwell and Walt Disney use/used a wide range of processes which we will critically explore.

Note: This course is conducted via the Omnium system (omnium.edu.au). Students will receive log in instructions via their UNSW email account prior to the commencement of the course. For international students: This 3 unit of credit (UOC) online course can only be undertaken in addition to the minimum 18 UOC face-to-face requirement per session.

GEND0216
Celebrity and the Face in Australian Cinema
College of Fine Arts
UOC3  HPW2

Online Course
Australian actors, directors and cinematographers, play a disproportionately prominent role in the global film industry, given the relatively small size of the Australian population and film industry.

Where does this immense creativity come from? In this fully online course, you will learn how a particular style of performance and cinematography emerged in Australia in the first century of cinema. From early technical experiments in Australian cinema to the casting of performers whose body types differed significantly from European and American cinema in the same period, you will examine how different ideas of beauty and movement developed in Australian cinema. In more recent cinema, you will assess how these earlier ideas affect performance style when actors go global and become ‘stars’.

You will also explore ideas about the image more generally, - the idea of charisma and photogeneity, the importance of the face and the close-up in the evolution of the cinematic image and the links which these ideas have to the history of painting, from the icon to abstraction.

You will be engaged in interactive activities and discussion that will support your development of a deeper understanding of the phenomenon of celebrity and a greater appreciation of Australian cinema.

Note: This course is conducted via the Omnium system (omnium.edu.au). Students will receive log in instructions via their UNSW email account prior to the commencement of the course. For international students: This 3 unit of credit (UOC) online course can only be undertaken in addition to the minimum 18 UOC face-to-face requirement per session.
GEND0217
The Art of Scientific Visualisation
College of Fine Arts
UOC3    HPW2
Online Course
How have imaging and visualisation technologies changed our lives? This fully online course will introduce you to contemporary and historical crossovers and collaborations between art, science and medicine, and how relationships between these disciplines have evolved from the seventeenth century to the present time. This online course will provide you with opportunities to investigate a vast range of images generated by visualisation techniques in the life sciences; from drawing through to microscopy, anatomical photography, DNA sequencing, radiology and MRI scans. This course is designed to enhance your interest in and awareness of medical and scientific imaging, and to support you in exploring its interdisciplinary potential with the visual arts. Through a series of lectures, independent research and tasks as well as online group activities, you will become aware of the varied history and current implications of medical imaging.

Note: This course is conducted via the Omnium system (omnium.edu.au). Students will receive log in instructions via their UNSW email account prior to the commencement of the course. For international students: This 3 unit of credit (UOC) online course can only be undertaken in addition to the minimum 18 UOC face-to-face requirement per session.

GEND0218
Experiencing and Contemplating Art
College of Fine Arts
UOC3    HPW2
Online Course
This online course will help you better understand the processes involved in observing art from different perspectives and enable you to write an informed essay on the exhibition of your choice. It is also a forum for a discussion about art critique and its relationship with art practice and art history. You will be asked to visit galleries and choose an exhibition, address the ways in which space, placement, context, etc. impact on our response, research the artist(s) and works and relate those findings to broaden and contextualise your understanding of the exhibition and the artwork. You will be shown how to undertake research into art with the goal of improving your capacity to address art in your own lives.

The course will be conducted through a series of individual and group online assignments including research, discussion, reports and analysis, using images of artworks and text. You will be given support and feedback. There are also four lectures which discuss topics such as: subjective and first person accounts in observing art; perceptions and expectations; artists’ perspectives and a range of debates on the role of the artist in determining the meaning of the work; can art critique stand the test of time; can art reviewing substitute for art historical writing? These lectures will inform your research.

By the end of this course, you will have a better understanding of artworks and the creative processes of art-making and writing about art. Importantly, through the online interactive interchange of ideas you will have contributed to the discussion in these fields.

Note: This course is conducted via the Omnium system (omnium.edu.au). Students will receive log in instructions via their UNSW email account prior to the commencement of the course. For international students: This 3 unit of credit (UOC) online course can only be undertaken in addition to the minimum 18 UOC face-to-face requirement per session.

GEND1203
Drawing the World From Within/Without
School of Art
UOC3    HPW2
Excluded: SART2832.

Drawing - The initial response to the realisation and transformation of an idea, the delineation of shape or the foundation of form. Based upon practical observation, students are encouraged to understand both the inter-relationship of form and content and the creative possibilities of media and techniques. An awareness of the methods of interpretation and translation through the drawing process is a focus of this course. Drawing as the evidence of inquiry, combined with the development of conceptual skills, forms the central structure of this course.

Note/s: Lecture/seminar/workshop. Paddington Campus.

GEND1204
Studies in Painting
School of Art
UOC3    HPW0
Excluded: SART1502.

Through paintings we can imagine other times, cultures, psychologies. Practical engagement with painting as a creative form involves the individual in selective and particular imaginative, intellectual and perceptual processes. This course provides an introduction to ways of looking, seeing, thinking and using materials to make paintings. The course involves both theoretical and practical exploration of visual elements to construct form-space relationships within a two-dimensional field. Practical studies include the simple preparation of painting surfaces, the mixing of tones and colours and experience in using a range of basic materials. The subject includes a supervised excursion to the AGNSW.

Note/s: Lecture/seminar/workshop. Paddington Campus.

GEND1205
Making a Print
School of Art
UOC3    HPW1
Excluded: SART1591.

This course will cover theoretical and practical aspects of producing a fine art print. The theoretical component will deal with the context in which artists produce prints; describing the contemporary world in which rapidly developing technology has provided the means of producing multiple, repeatable images very easily via the photocopier, fax machine and computer printer. The basic differences between a ‘reproduction’, a commercial printed image and a ‘fine art print’ will be discussed, and the conventions of annotating and numbering a printed edition will be covered. The practical component will enable the student to become familiar with some of the fine art printing techniques, such as etching, relief, lithography and screen print through studying the work of a selection of Australian printmakers and techniques demonstrated. Students will have the opportunity to produce a print using one of the above mediums and to mount and document it appropriately.

Note: Lecture/seminar/workshop.

GEND1208
Studies in Sculpture
School of Art
UOC3    HPW0
Excluded: SART1601.

This sculpture course provides practical experience in the appreciation of space and form. Theoretical and historical information is discussed related to the discipline as it is practised at present, ranging from skilled crafts to realising concepts. In particular, the use of space as a primary element in contemporary sculpture is investigated. This is developed through an examination of contemporary inter-disciplinary art works. Practical work is structured to provide experience and exploration of the ideas put forward in discussion. Elementary skills are demonstrated in inexpensive materials and students are encouraged to grapple with the handling of space as it encounters form.

Note/s: Lecture/seminar/workshop. Paddington Campus.

GEND1209
Black and White Photography
School of Media Arts
UOC3    HPW2
Excluded: SOMA1521, SOMA2521, SOMA3521.

Note/s: Lecture/seminar/workshop. Paddington Campus.
This course provides an introduction to and overview of the black and white analogue photograph in the context of contemporary visual arts. Demonstrations and workshops to enhance skill acquisition in the use of 35mm cameras and the knowledge of B/W darkroom procedures provide the basis of the practical component of this course. Practical workshops and topics include: 35mm camera operation; B/W film types and formats; basic natural lighting techniques; light metering; film exposure and processing; print production and darkroom procedures; print finishing and presentation. Students undertake a gallery visit to view contemporary photomedia work to support a written research component. Slide lectures and topics introduce the student to the History of Photography and the Photographic Image in Contemporary Visual Arts. Projects are set which focus on the production of photographic images for contemporary visual arts.

GEND1210  
Colour Photography  
School of Media Arts  
UOC3  HPW2  
Excluded: SOMA1521, SOMA2521, SOMA3521.

This course provides an introduction to and overview of the colour analogue photograph in the context of contemporary visual arts. Demonstrations and workshops to enhance skill acquisition in the use of 35mm cameras and the knowledge of colour darkroom procedures provide the basis of the practical component of this course. Practical workshops and topics include: 35mm camera operation; colour film types and formats; basic natural lighting techniques; light metering and film exposure, print processing; colour darkroom procedures; print finishing and presentation. Students undertake a gallery visit to view contemporary photomedia work to support a written research component. Slide lectures and topics introduce the student to the History of Photography and the Photographic Image in Contemporary Visual Arts. Projects are set which focus on the production of photographic images for contemporary visual arts.

GEND1211  
The Artist's Studio  
School of Art  
UOC3  HPW0

This course looks at the relationships which have existed between artists, patrons, consumers, dealers, auctioneers and critics, and discusses the directions which the art market may take in the era of the Internet. The lectures are designed for the interested non-specialist and involve visits to artists' studios, galleries, museums, and auction houses. The student will learn how to make informed decisions concerning the collection of art. Topics will include the effects which new technologies have had upon the traditional arts of painting and drawing, the impact on artists of concepts from diverse cultures and the influence of political ideas on the deskillng of the contemporary artist.

Note/s: Lecture/seminar/workshop. Paddington Campus.

GEND1212  
Analysing a Picture: Composition and Design in Art  
School of Art  
UOC3  HPW0

Apart from paints, pastels and pencils, most of us now possess some image-making device, whether it be a camera, a video recorder or a computer with a graphics program. There is a need for understanding key ideas about pictorial composition if we wish to create better images with these tools.

This course is intended to provide an introduction to the analysis of visual works of art for the interested non-specialist. It introduces students to the formal aspects of the visual arts, such as the fundamental elements of colour, shape, size and texture, and explores some of the competing sets of organising principles which have guided artists in the creation of visual images.

Note/s: Lecture/seminar/workshop. Paddington Campus.

GEND2201  
Art Therapy  
School of Art History and Theory  
UOC3  HPW0  
Excluded: SAED2476

The aim of this course is to explore the integration of art and therapy in theory and practice. Students will be introduced to the concepts, philosophies and methodologies of Art Therapy as an emerging discipline in its own right. The course will look at the use of art within the traditional frameworks of psychology. It will explore various forms of the visual arts as a medium for self expression, communication and growth. It is intended for the non-specialist interested in the psychological implications and effects of image making.

Note/s: Paddington Campus.  
Excluded: SAED2476

GEND2202  
Multicultural Contexts  
School of Art Education  
UOC3  HPW2  
Excluded: SAED2475

The aims of this course are to increase students' knowledge and awareness of the cultural diversity of Australian society, develop their sensitivity to the needs of minority groups and explore the implications of multiculturalism for policies and practices represented through the lens of art and art education.

Through lectures and discussion groups, the course will consider Australia's history of multiculturalism and look at the issues and possibilities arising for the visual arts from multicultural education.

Note/s: Lecture/tutorial/seminar. Paddington Campus.  
Excluded: SAED2475

GEND2203  
Dialogues and Communities  
School of Art Education  
UOC3  HPW0

This course enables students to become familiar with issues and contexts of contemporary community arts, including cultural development and democracy, cultural resources, real wealth/community value and social capital. Students experience a range of community activities e.g. events, public art/design projects, interest groups together with traditional applications of community arts practice seem as social and cultural development. Students undertake preparation of funding applications, field work in selected community settings and collaborative projects.

Note/s: Lecture/tutorial/seminar. Paddington Campus.  
Excluded: SAED2479

GEND2204  
The Art Museum and Art Education  
School of Art Education  
UOC3  HPW0

This course aims to make students aware of the ideology and philosophies of art museums through an understanding the broad educational functions of the museum including the vernacular appreciation of art and the development of a lifelong approach to learning. Students have the opportunity to observe the educational functions of the art museum within a diversity of contexts and systematically investigate the roles which the museum performs within our society. Field work in selected museums and the use of videos, discussion and group tasks course experiences include field work in museums video discussions and group work.

Note/s: Lecture/tutorial/seminar. Paddington Campus.  
Excluded: SAED2480

GEND3218  
Psychoanalysis and Art  
School of Art History and Theory  
UOC3  HPW0  
Excluded: SAHT2644.

The subject is designed to develop a critical understanding of the relationship between specific theories of psychology, psychoanalysis and art practice. The motivation, reception and interpretation of works of art will be studied in the light of such theories as Freud's 'metapsychology', Jung on Dreams, Laura Mulvey's notion of the 'gaze' and Michael Foucault's histories of madness and sexuality. Art works examined will be representative of a wide range of movements and traditions.

Note: HPW2 lecture/tutorial/seminar. Kensington Campus. Exclusions apply to some Faculty of Arts and Social Sciences courses.  
Excluded: COFA2256.

GEND3230  
Art, Money and Power  
School of Art History and Theory  
UOC3  HPW2
What is the relationship between art and the economic and political life of our society? Art and power have gone hand in glove from medieval feudalism, through the emergence of mercantile capitalism and centuries of capitalism and colonisation to the global market and cultural infrastructure of today. Those who wielded political and economic power have sought a reflection of greatness, civility, and taste in their art patronage, connoisseurship and collecting.

This course explores the nexus between art, money and power in both historical and contemporary society.

Note/s: Lecture/tutorial/seminar.

GEND2351
Picturing Death: Art and the Human Predicament
School of Art History and Theory
UOC3    HPW2

If we understand death, will we understand life? Many artists have thought so, and in picturing death, they have given us insight into the meaning and value of life. Looking death in the face, artists from different epochs and cultures have produced extraordinary images that are sometimes troubling, sometimes healing; sometimes dispassionate, sometimes deeply moving.

This course explores the art of death, including funerary and memorial images of ancient cultures, images of war and revolution, images giving expression to our experience of AIDS and other catastrophes of the contemporary world. The course ranges from the funerary art of ancient cultures to the contemporary images of Aboriginal artists who express traditional spiritual values in modern forms and media.

Note/s: Lecture/tutorial/seminar. Kensington Campus.

GEND3232
Pornography, Art and Politics
School of Art History and Theory
UOC3    HPW2

This course will explore the boundary between art and pornography and the social function of that boundary in western society. It will look at the ways in which bodies are eroticised and/or designated as ‘pornographic’ or ‘perverse. Concepts such as fetishes, voyeursism, sadism and masochism will be discussed in relation to art history and contemporary art practice. The politics of pornography will be debated in relation to such issues as gender/feminism, child sexuality, censorship and AIDS.

Note/s: Lecture/tutorial/seminar. Paddington Campus.

GEND3233
Scandals of Modern Art
School of Art History and Theory
UOC3    HPW2

From its inception, modern art attracted outrage, rejection and ridicule from some audiences and amased approval and critical engagement from others. Many artworks now viewed with profound respect were greeted initially with disbelief and atrocity. Modern art rarely met with polite boredom. The taint of scandal offers a key to the value and interpretation of modern art. This course explores modern art through some of the controversies and reactions of audiences and power-brokers. It considers derisory response to Cubism, Hitler's hostile closure of the famous Bauhaus and his exhibition of 'degenerate art' (and the long queues of people who took the opportunity to see the work of the modern 'masters'), the post-revolution repression of Russian avant-garde artists. Closer to home, some Australian frauds and scandals provide the basis for discussion on Australian attitudes to art, and artists' attitudes to Australia.

Note/s: Lecture/tutorial/seminar. Kensington Campus.

GEND3238
Memory and Self
School of Art History and Theory
UOC3    HPW2

This course traces contemporary ideas of body and subjectivity through the work of a range of artists and writers. Its major focus is on the experience of memory and self-understanding. It addresses the questions of how memory is constituted and how it is crucial to our sense of self; of how memory affects our relations to images and objects, and how memory is represented. The course also examines human relations to space, the themes of horror and humour, and the topics of gesture, performativity and mimesis. Contemporary art and writing practices will be used as the basis for a creative engagement with theoretical issues. Focus texts include writing by Christian Boltanski, Georges Perec, Oliver Sacks, Dori Laub, Julia Kristeva, Jeff Wall, Judith Butler and the stories of the ‘stolen children’.

Note/s: Lecture/tutorial/seminar. Kensington Campus. Excluded: SAHT2213

GEND4202
Design and Human Functioning
School of Design Studies
UOC3    HPW2

This course will introduce students to some of the psychological and physical characteristics of individual human functioning as factors in the design of objects, surfaces and spaces. The concepts explored will include the psychology of perception, theoretical approaches to the analysis of human behaviour, basic anatomy/biology/physiology, basic ergonomics and anthropometrics, analysis and measurements of the relationship between the human body and the design of macro and micro environments.

Note/s: Paddington Campus. Excluded: SDES1103

GEND4203
Design Management
School of Design Studies
UOC3    HPW2

Excluded: SDES2171, SDES2116

This course will develop students' understanding of principles applied to design management, and the place of design practice within the commercial environment both in the public and private sector. Students will cover the above concepts in one session of study. They will also be introduced to the broader question of general management, and the importance of the development of a design culture within organisations whether company or institutions.

Note/s: Paddington Campus.

GEND4204
Designing: Practical Studies in Design
School of Design Studies
UOC3    HPW0

This course introduces students to the study of the multi disciplinary nature of design. It is organised to extend the student's level of understanding about the way in which concepts and processes in graphic, object and environments design may be integrated to contribute to the development of richer appropriate design solutions.

Note/s: Paddington Campus.

GEND4205
Design Communications and Presentations
School of Design Studies
UOC3    HPW0

This course examines the issues which affect the communication and presentation of visual information in design and other disciplines which deal with text and images. A series of lectures and tutorials will introduce students to the theories and principles of visual communication and information design. Students from different disciplinary backgrounds will be able to interact, acquire, develop and use skills based on visual thinking and critical analysis to address issues dealing with textual and visual communication in society. The course provides opportunities for students to examine conventional communication methods and to approach creatively the dissemination of visual information in ways which are well conceived, communicative, interactive, responsible, comprehensible and user-friendly.

Note/s: Paddington Campus.

GEND4206
Integrated Design Studio
School of Design Studies
UOC3    HPW0

This course provides students with a study of the multidisciplinary nature of integrated design practice through their involvement in a series of design projects. The aim is to extend students' level of thinking and understanding about the ways in which the communication of concepts and processes
in design may be integrated to contribute to the development of richer, more appropriate design solutions in the commercial context.

Note/s: Paddington Campus.

GED4207
Designing: Models as a Tool for Design Communication
School of Design Studies
UOC3 HPW0
Excluded: SDES1107.

This course is an introduction to basic model making techniques, materials and equipment. Models are a three dimensional method of expressing design process intent and approach. The students will be made aware of the place of models as a communication tool in an array of design situations. The various types of models required for differing objectives will also be described. The course will consist of model making exercises and visual references through lectures and slide shows. Students will be encouraged to experiment and develop understandings and skills which will enable them to appreciate their designs through practicality. Through the exercises and project work, students from varied disciplines can interact through their creativity and experience working approaches from a discipline other than their own specialist study area. The assessment of this course will consist of a progressive evaluation as well as both verbal and visual presentations of the completed exercises and project.

Note/s: Paddington Campus.

GED4208
Working with Ceramics
School of Design Studies
UOC3 HPW2
Excluded: SDES1155, GEND1206.

This course introduces the student to ceramics through historical, theoretical and practical investigations. An understanding of the ways clay has been used by different cultures at different times will inform the student as to why certain conventions have been established in the medium. An emphasis is placed on the ideas and practices of contemporary ceramics. Practical work is carried out in such a way that demonstration and application will be developed in graduated stages so that the potential for a satisfying result is continually expanded.

Note/s: Paddington Campus.
Excluded: GEND1206

GED4209
Working with Jewellery
School of Design Studies
UOC3 HPW2
Excluded: SDES1154, GEND1207.

This course introduces students to the work and practice of current Australian studio jewellers and object makers. Through projects and exhibition visits students will gain insight into the concepts and ideas that are currently explored. The course is designed to challenge perceptions of body adornment and traditional notions of jewellery. Through studio activities students will learn the skills of jewellery making processes and techniques, idea generation and their application to the realisation of project work.

Note/s: Paddington Campus.
Excluded: GEND1207

GED4210
Textiles and Fashion
School of Design Studies
UOC3 HPW0
Excluded: SDES2167.

This course introduces students to contemporary textiles and their relationship to fashion. Theoretical and practical aspects of textiles and fashion are covered through lectures on the concepts, work and ideas of leading textile artists and designers. The theoretical component deals with the context in which contemporary artists work, the conceptual basis for their work and how historical and social references are made.

The practical component enables students to become familiar with some of the elementary techniques used by leading practitioners to make textile and fashion items. The emphasis of the course is on creating textiles and surface designs for textiles and fashion rather than garment construction. Students learn some basic techniques in embroidery and the surface design processes of dyes, dyeing and printed textiles.

Note/s: Paddington Campus.

GED4211
Design in Performance
School of Design Studies
UOC3 HPW2
Excluded: SDES2177, COFA7061.

This course covers the major elements of design in staging large scale events including theatre performance. Theatricalisation and design theming of public occasions, community ceremonies and sporting events is an established design trend. Students are introduced to the design process on which staging of performance events in various contexts are based. Through close examination of the characteristics by which such occasions are represented and communicated to audiences, students systematically investigate the crafts and contemporary theories of staging such events. A design brief is set for students to construct, draw, design and complete.

Note/s: Paddington Campus.
Excluded: SDES2177

GED4212
Design in Adornment and Costume
School of Design Studies
UOC3 HPW2

This course considers clothing as cultural evidence and through a series of lectures and workshops provides students with the opportunity to both investigate the function and meaning of clothing and examine its codes and cultural significance. Clothing and costume provides a unique area of study. It is a potent combination of function, design and cultural meaning. Students are able to communicate their understandings through drawing, designing, constructing and making in a studio environment.

Note/s: Paddington Campus.

GED4213
The Arts of Aboriginal People and Torres Strait Islanders
School of Design Studies
UOC3 HPW0
Excluded: SAHT1627.

This course is an ideal means from which to access basic cultural information viewed through art works. No prior knowledge of art or anthropology is necessary to participate in the lectures, museum and gallery visits or any practical work undertaken during the term. The course focuses on one region and a specific art form, like fibre objects or sculpture. Both historical and contemporary work are examined.

Note/s: Paddington Campus.

GED4214
Surface and Image in Tapestry Weaving
School of Design Studies
UOC3 HPW2

This course will introduce students to tapestry weaving through historical, contemporary and practical investigation. Theoretical and practical aspects of tapestry will be covered through lectures on the concepts, work and ideas of leading tapestry artists. The theoretical component will deal with the context in which contemporary artists work, the conceptual basis for their work and how historical and social references are made through woven tapestry.

The practical component will enable students to become familiar with ways of weaving textured surfaces and transferring images to woven tapestry. Painted, graphic, digitally scanned or text base images will be developed and woven for miniature, shaped or larger scale tapestries.

GED5201
Landscape Animation
School of Media Arts
UOCL3 HPW3
Excluded: 4810 Bachelor of Digital Media and 4800 Bachelor of Fine Arts major Time-Based Art

Students will be taken through a range of workshops and animation techniques specifically designed to experience nature frame by frame. Students will experience five days of animation in the landscape around historic Broken Hill. This unique approach to animation draws upon environmental sculpture as an aesthetic for animation using digital video. Each student will shoot edit and score their own digital animation in the Australian outback. Students will learn valuable skills in digital camcorder and digital editing as well as developing classic animation timing skills.
GENE1011
From Catchment to Ocean
School of Civil and Environmental Engineering
UOC3 HPW2

The environmental amenity of water in catchments, waterways and the coastal zone is under increasing threat from human generated pollutants such as rubbish, heavy metals, pathogens, nutrients, pesticides and other toxic compounds. This subject provides a non-technical introduction to this threat and what can be done about it. The path and transformation of the pollutants from the catchments where we live, to rivers and estuaries, and finally the oceans is covered. Measures for controlling pollutants and disposing of pollutants, inclusion of: catchment management on-site techniques; gross pollutant traps; ocean outfalls; chemical and biological treatment; and wetlands will be covered. Finally, the environmental impacts of these pollutants on our waterways are discussed. In particular, human health issues, eutrophication and ecological impacts will be examined.

GENE1012
Tools for Ecologically Sustainable Development in Corporations and Regions
School of Civil and Environmental Engineering
UOC3 HPW2

A brief introduction to Ecologically Sustainable Development (ESD) principles and the social, economic and political context in which they have arisen, and in which they are implemented. A non-mathematical introduction to developing methods and techniques (tools) being used by regional and corporate environmental managers to implement ESD principles in organisations and regions. These tools include a range of material accounting techniques that can be applied at a product level (Life Cycle Assessment), to a corporate and regional level (Materials Flux Analyses) and to a national and global level (Total Material Requirement, Ecological Footprints, Material Inputs per Service Unit). Physical indicators of the State of the Environment at these levels will be introduced. A comparison will be made with the use of economic indices, such as GDP and current account deficit, used in the National Accounts to control the state of the economy.

This course is offered in winter session 2003

GENE1051
Solar Cars - Speed of Light
School of Photovoltaic and Renewable Energy Engineering
UOC3 HPW2

Solar powered racing cars capitalise on state-of-the-art developments in engineering and technology, especially photovoltaics, aerodynamics, motor design, electronics, automotive engineering, battery technology, communication and global positioning, software technology, and race strategy development. Besides learning about solar racing cars, enrolled students participate in a “virtual” World Solar Challenge race from Darwin to Adelaide (complete with virtual media stops). In addition, enrolled students participate as a team in the design, construction, testing and racing (against their classmates at the end of session) of model-scale solar powered cars from a simple kit. This class is designed to give non-engineering students a broad perspective in basic engineering principles, like problem solving, design, project planning, technical writing and oral presentation. No previous knowledge or experience in any of the above-mentioned areas is assumed.

GENE4001
Biomedical Engineering: Technology in Medicine
Graduate School of Biomedical Engineering
UOC3 HPW2

The objective of this course is to explore current and future biomedical devices, procedures and technology. Students from non-engineering backgrounds will gain an understanding of the history and development of current technologies such as the bionic ear, artificial heart, bone marrow transplantation, and CT and MRI scanning. Trends and possible future developments will be discussed.

Classes will be held in S1 on Wednesdays 10am-12noon.

GENE7001
Oil & Gas: The Lifeblood of Society
School of Petroleum Engineering
UOC3 HPW2

The role of oil and natural gas as our main source of energy. The environmental impact of drilling and production of oil and gas. The role of the Federal and State Governments in the Australian Petroleum Industry. Visit to the Federal Agency in Canberra responsible for monitoring the industry. Visit to a gas field close to Sydney. A practical, hands-on course with presentations by industry experts. Oil/gas companies and the future of petroleum in our lives. Planning, drilling and completion of oil/gas wells. Data acquisition and analysis. Petroleum Economics.

GENE7801
Energy and Mineral Resources - Use or Abuse?
School of Mining Engineering
UQL3 HPW2

This course examines Australia’s importance as a vast source of mineral and energy resources. It concentrates on the impact the continued extraction and consumption of non-renewable resources has on our physical, social and political environment. The issues of global warming, native title, recycling and the viability of alternative energy sources are dealt with in detail.

All course material is delivered via WebCT. A number of optional workshops are scheduled throughout the duration of the course to promote discussion on relevant topics and to present additional information.

A more detailed description of this course together with the semester timetable can be found under the timetable information link: http://webct.edtec.unsw.edu.au/public/GENE7801_S1/index

GENE8000
Getting the most out of Spreadsheet & Database Applications
School of Computer Science and Engineering
UOC3 HPW2

Spreadsheets and databases are two of the most commonly used and powerful computer tools yet they are often poorly utilised and the reasons for using one rather than the other are poorly understood. Many people purchase Microsoft Office which comes bundled with Microsoft Excel and Microsoft Access - a spreadsheet and a database application - yet while many people have some familiarity with Microsoft Excel, Microsoft Access is rarely utilised. This course aims to explain in straightforward terms the concepts underlying both of these powerful pieces of software so that students can exploit them effectively for both their studies and future careers. It will investigate how to design and implement effective spreadsheet and database applications. Students should also be able to transfer these skills to other, similar spreadsheet and database packages. Students will be expected to have personal copies of Microsoft Excel and Microsoft Access on their own computers.

Notes: This course may not be taken by students enrolled in a CSE program or major.

Further Information: CSE class page www.cse.unsw.edu.au/~ge8000

GENE8001
Designing and Creating Computer Games
School of Computer Science and Engineering
UQL3 HPW2

Students will work in groups to create a computer game of their choosing using “Game Maker”. (see http://www.gamemaker.nl/). With Game Maker, students can use simple drag-and-drop actions to create professional looking games without having to write any code in a traditional programming language. Each week, there will be a one hour lecture followed by one hour of supervised group work on the game. Lectures will cover both the art (e.g. liberal arts, the social sciences, and psychology) and science (e.g. computer graphics, artificial intelligence, human-computer interaction, security, distributed programming and simulation) of computer game design.

Note(s): This course may not be taken by students enrolled in a CSE program or major.

Further Information: CSE class page www.cse.unsw.edu.au/~ge8001

GENLO230
Law in the Information Age
Faculty of Law
UQL3 HPW2

This course will give students an overview of the operation of new media and communications services under Australian law, examining both the legal requirements and the policy reasoning behind the way in which media and communications are regulated. It will cover five broad areas: how laws are made, changed, interpreted and enforced; electronic commerce and what it means for business, consumers and the community; the laws governing licensing, ownership and control of
telecommunications, radiocommunications and broadcasting enterprises, and whether these laws are appropriate and effective to deal with new technologies and services; restrictions on media and online content, including classification and censorship, and regulation of content; and protecting intellectual property and reputation, covering copyright, trademarks and defamation.

**GENL0250**
**Sport, Law and Society in Australia**
Faculty of Law
UOC3 HPW2
The rise of organised sport coincided with Australia's development as a nation playing a major role in developing Australian identities. As one of Australia's major cultural practices, participation and success in international sport became an essential element in projecting Australia on the global stage. In the late twentieth century sport became one of nation's fastest growing industries. This course explores the history of Australian sport and the development of a body of law to underpin its place and function in Australian society. Topics include sport and Australian nationalism; the rise of organised sport in Australia; development of sports governance; the intersection of sport and the law in issues of race, gender, ethnicity and religion; the debate between amateurism and professionalism; Australian sport on the global stage; doping and the law, the court of Arbitration for sport; the impact of corporate interest in Australian sport.

**GENL1020**
**World Religions: Customs and Laws**
Faculty of Law
UOC3 HPW2
Religion constitutes a significant factor in our understanding of how a society orders and regulates itself. This course offers students a general introduction to five of the world's major religions with a special focus on the manner in which their specific customs and laws impact upon the behaviour of their adherents. The religions studied are Hinduism, Buddhism, Judaism, Christianity and Islam. In each case, we explore the distinctive religious customs and rules, which shape the activity of believers in such areas as worship, dress, diet, marriage and family, work and recreation, birth and death. A major focus of the course is the social relevance of religion in today's society. Its aim is to deepen the student's appreciation of the rich mosaic, which characterises the practical and legal dimensions of the world's great religions.

**GENL1060**
**Moral and Legal Foundations of Human Rights**
Faculty of Law
UOC3 HPW2
Moral and Legal Foundations of Human Rights will examine the philosophical and religious origins of the contemporary human rights discourse, and the development of national and international human rights instruments. The course will evaluate the effectiveness of historical and contemporary approaches to human rights protection. The course will critique the Western bias of current human rights language, and explore the notion of rights in non-Western religions and societies.

Topics covered include the moral and religious foundations of human rights; the development of historical and contemporary human rights documents; the notion of rights in relation to universalism, cultural relativism, pluralism and multiculturalism; the effectiveness of current human rights protection; the problems of language in the current human rights discourse, and alternatives.

**GENL1061**
**Religion and Terror**
Faculty of Law
UOC3 HPW2
Religion and Terror examines the link between religion and terrorism which can be found in the rhetoric of some world leaders, and in the popular media. It assesses the reality of the link, and the reasons it is made. It will do so from two interrelated perspectives: ideology (general) and the nature of religious conviction (individual). The course will investigate the history of religion and terror; examine the issue of motivation and justification for the use terror in religious conflicts; and explore the relationship between religious conviction and behaviour. It will evaluate the effectiveness of the rhetorical use of religion in armed conflict.

This course provides a basic understanding of the Australian legal system. It deals with the principal institutions of the legal system, particularly the courts; the legislature and the executive arms of government; the judiciary; the legal profession; the doctrine of precedent; sources of Australian law including the past and present status of Aboriginal customary laws; the origins of common law; the colonialisation of Australia; classifications within the common law; the jurisdictions of Australian courts and consideration of alternative methods of dispute resolution.

Assessment: Class participation and take-home exam.

**GENL2031**
**Cyberspace Law**
Faculty of Law
UOC3 HPW2
This course surveys how cyberspace (the social space created by computing networks such as the Internet) is being regulated by law and other means, and examines how successful is this regulation. The course takes an Australian perspective, but with a strong emphasis on the exclusion: enrolment in program 3502, 3543, 3979, 3571 or 3971

**GENL5020**
**Business Fundamentals**
Faculty of Law
UOC3 HPW2
This course introduces students to the fundamentals of business law. The course provides an overview of the interrelationship of laws governing business in Australia and critically evaluates those laws.

Contracts are entered into every day. Most of you will become professionals subjects to a duty of care towards your clients. You are also consumers who have the benefit of certain rights afforded by the Trade Practices Act. As entrepreneurs, professionals and/or employees you are also entitled to the benefit of intellectual property protection for your creative or inventive effort or for the good you will have acquired individually or through your business. The aim of the course is to empower students in everyday situations through the study of the law of contract, negligence, defamation, trade practices law and the law of intellectual property such as copyright, patents and trademarks.

Assessment: Take home or 2 hour examination (in last lecture) 60%; class participation/project, team and individual problems 40%.

**GENL5030**
**Understanding Tax**
Board of Studies in Taxation
UOC3 HPW2
Exclusion: enrolment in program 3502, 3543, 3979, 3571 or 3971
Understanding Tax is for students who want a non-technical, practical introduction to our tax system. Whatever career or lifestyle you’re contemplating, tax will be an important consideration in decisions you make -- whether it’s about buying or renting accommodation, amounts that have to be disclosed to the Tax Office, expenses that can be claimed as deductions, how to fill out a tax return, investing in shares, how much tax you have to pay, whether there are acceptable ways of minimising your tax liability, and what you can do if you’re unhappy about a Tax Office decision. The course will be taught in two-hour classes made up of a lecture followed by discussions and practical exercises.

**GENM0123**
**Children - Growing Up in Society**
School of Women's and Children's Health
UOC3 HPW2
An introduction to normal growth and development in children and to their interactions with society. Topics include children and the media (advertising and violence), children and sport, childhood accidents, status of children in different cultures, poverty and childhood, exploitation of children, behaviour disorders, nutrition, adolescence. In short, how can we ensure that children have an optimal relationship with society?
explaining how health care is represented in news items, addressing health care's tragic choices and wicked problems and the situating representations about health care in a historical and socio-
assessing how the prerogatives and established practices of the media and or sensationalise issues to the detriment of informed public debate.

We will be considering what studies of primate behaviour tell us about the behaviour of ancient and modern humans and looking for the origins of some modern human problems (warfare, child abuse and infanticide) in our primate heritage. The course will examine the neurological and structural basis of language and speech and look at how the human brain and hand have become adapted for tool use. Other issues to be examined include the origins and structural adaptations involved in upright walking, problems of human childbirth, hominid reproductive strategies, modern human variation, human prehistory in Australasia and the human face as a means of communication and recognition. The course involves both lecture and laboratory class sessions. The latter will use models and anatomical material to illustrate important aspects of human evolution.

Course dates: Summer 20th - 24th February, Winter 10th - 14th July

GENM0202
Frontiers in Brain Research
School of Medical Sciences
UOC3 HPW3
Excluded: ANAT3411.

We take for granted the notion that the human brain is the seat of our consciousness and yet very much remains to be learned about how the living brain actually works. Brain disease and mental illness are some of the most important health problems in our community and yet the causes of many of these diseases remain unknown. This course will allow the student to explore the current state of knowledge on the structure and function of the human brain and to learn about current thinking concerning the causes of brain-related illness. Topics include: cellular architecture of the brain; structural and functional differences between the left and right brain hemispheres; developmental abnormalities of the brain; language and the brain; fear and anxiety and the brain; the addicted brain; spinal cord injury and hopes for repair; degenerative brain disease; gender in brain structure and function; and mad cow disease. Students will also have the opportunity to consider ethical issues associated with the treatment of brain diseases (e.g. fetal nerve tissue transplantation in the treatment of degenerative brain disease) in the course of the lecture and laboratory sessions.

Course dates: Winter 17th - 21st July.

GENM0510
Using the Media: Promotion Through Mass Media and Multi Media
School of Public Health and Community Medicine
UOC3

This is an intensive course in the understanding of mass media and ways of dealing with it and using it to advantage. An introductory analysis of mass media is followed by instruction and training in preparation of material for dissemination in mass media. The course material is supplemented by lectures from outside experts who are engaged in media liaison in TV, print and radio on a regular basis. An optional segment deals with the use of the internet as a mass medium. Tutorials are led by students themselves. All participants are encouraged to express their thoughts and opinions about media and also to interact with other students, who are drawn from a wide variety of faculties in the University. Assessment is based on a journal and a media project which are handed in a month after the classes are complete.

GENM0572
(Mis)representation of Health
School of Public Health and Community Medicine
UOC3 HPW2

Students will examine how health issues pertaining to, for example, medicine, nursing, hospitals, the environment, death and dying, surrogacy and new technologies, are presented in the print media, television news, documentaries, web sites, films, soaps and fiction films. Having critically appraised the prerogatives of the media, students will examine the institutional and discursive imperatives under which the media operate in its various forms (print and electronic, mass and new). Against this background we examine how these imperatives may lead to a particular form of the media to down play complexity and over-simplify, trivialise, and or sensationalise issues to the detriment of informed public debate. The consequences of these limitations will be related to the ways in which we think about and debate health and illness in the public sphere.

This subject will develop knowledge and skills in:
- explaining how health care is represented in news items, documentaries, web sites, films, soaps, dramas, with specific focus on their ‘politics of representation’;
- situating representations about health care in a historical and socio-cultural perspective;
- assessing how the prerogatives and established practices of the media institutions which produce the representations in question for the appearance of what is produced;
- addressing health care's tragic choices and wicked problems and the moral, practical and political complexities which constitute them.

GENM0518
Health and Power in an Internet Age
School of Public Health and Community Medicine
UOC3 HPW2

Australia spends $60 billion a year on health care and its average health indicators are among the best of any country in the world. None the less, some Australians are much less healthy than others. In exploring the question of why this is so, the course examines concepts of power and wealth in society and how the distribution of power and wealth in society is reflected in the health of different social classes and ethnic groups. It also traces how modern understandings of health are moving towards a more wholistic model, the challenge of alternative models of health, how the internet is bringing about changes in power relationships in the health fi elds and explores controversies over childhood.

GENM0701
Contemporary Bioethics
School of Public Health and Community Medicine
UOC3

Bioethics is the process of reflecting on health issues and moral implications, in individual and social contexts. The course concentrates on contemporary dilemmas which are common in health care. Consumer and professional perspectives on the dilemma are presented, and students are encouraged to use ethical frameworks as tools in the development of an argument. Topics for discussion include: the development of bioethics for health professions and consumers; health care information and privacy and confidentiality; safety and autonomy for patients and carers; resources and justice; life decisions; research and health care and advisory bodies.

GENM0703
Concepts of Physical Fitness and Health
School of Public Health and Community Medicine
UOC3 HPW2

The students will be exposed to theory and concepts relating to the development and maintenance of physical fitness and general health. Components will include aerobic fitness and conditioning, resistance training, flexibility training, and appropriate nutritional practices. Lifestyle management issues (exercise, smoking, obesity etc) will be discussed with benefits and consequences of those actions used to direct decision making. Popular misconceptions will be addressed during the course of the subject, with research findings used to dispel these myths.

GENR0003
Spirit, Myth and Sacredness in Architecture
Interior Architecture Program
UOC3 HPW2

The aim of the course is to investigate the sources from which architecture and design have extracted meaning throughout history. The specific focus of the lecture series will be the interrelationship between myth, religion, philosophy and architecture. Case studies demonstrating symbolic traditions will be drawn from both Eastern and Western design, including examples as diverse as the Greek Temple, the Jewish synagogue, the Christian church and the Chinese palace complex. The diversity of subjects and themes will highlight the complexity and sophistication characterising design traditions of the past, and reveal the intricate role architecture has played in the expression of a society’s belief systems.

GENR0006
The City: Sydney
Landscape Architecture Program
UOC3 HPW2

The city is the habitat of modern society. While architects make substantial contributions to the form of the city, they have relatively little influence.
over the success or failure of cities. There are much stronger forces at work than architecture. Buildings make the best contribution to the human habitat when they support the patterns and systems of life in the city. By providing an introduction to those patterns and systems, this subject gives students a basis for making buildings work with the city rather than against; Sydney is used as the example. Each lecture is given by an authority in the topic.

**GENR0008 History, Theory and Interpretation: Art and Architecture**
Architectural Program

This course aims to deepen an understanding of basic theoretical concepts in the history of art and design; to gain familiarity with some key writings by artists, art historians and art critics; to develop strategies for evaluating theoretical arguments against appropriate visual works; and to develop competence and confidence in evaluating works of art/design and interpretive strategies developed for our understanding of them. Key concepts to be investigated are: style, ‘connoisseurship’, formalism, iconography, sociological perspectives, semiotics, gender, sexuality, cultural studies, modernity and post modernity. The subject has been developed around a seminar structure which will encourage students to learn through looking, reading, thinking and informed arguing. All students will be required to purchase a reader.

**GENR0012 Great Buildings of the World**
Interior Architecture Program

UOC3  HPW2

The aim is to acquaint students with a dozen or more great buildings which were supreme achievements of their time and a timeless contribution to the cultural heritage of the human race. These span from antiquity to the present day, and across different cultures and spiritual traditions. A single building will be presented in each lecture, within its physical, mental and spiritual context; and seminar discussions will debate the symbolic significance of the building and its lasting influence on civilisation. Buildings will include the Acropolis, the Pantheon, the Alhambra, the Forbidden City, the Temple of Ise, the Dome of the Rock, the Crystal Palace, the Pyramid of Cheops, Borobudur, Falling Waters, and the Sydney Opera House.

**GENR0015 City Planning Today**
Planning and Urban Development

UOC3  HPW2

Excluded: Program 3360.

The way our cities look and operate, their cultural and community life are all considered by town planners. The course deals with the fundamentals of urban planning: its language; its rules and regulations; its controversial nature and the way it operates in practice. It looks at how and why urban planning came into being: how the legal and administrative system works; how the political system operates; and how planners deal with issues - from designing the city to balancing the many conflicts which arise over development projects. Lectures are given by staff of the Faculty of the Built Environment as well as planning practitioners. This course will give you the skills, the understanding and the enthusiasm to play an active role in shaping your city!

**GENR0017 Principles and Philosophy of Design**
Interior Architecture Program

UOC3  HPW2

The currently popular pseudo-elitist view of art and design is rejected in favour of the proposition that the artist is not a special kind of person but that everyone is a special kind of artist. Design is not something which is practiced by the elite few who call themselves designers but by all of us all of the time. This course looks closely at the principles which underpin design in its broadest meaning and application, from the most simple, seemingly intuitive to the most complex of decision-making processes. These principles are studied within a philosophical framework strongly linked to the ‘perennial philosophy’ which may be found in all cultures and at all times and which has been particularly championed in our age by such writers as A.K. Coomaraswamy, Frithjof Schuon and Rene Guenon, and based heavily upon the work of the late Visiting Professor Peter Kollar.

**GENR0019 Critical Perspectives on Twentieth Century Art and Design**

Architectural Program

UOC3  HPW2

This course is designed to introduce students to some of the key interpretive strategies used in art history and cultural studies over the last hundred years, with an emphasis on current lively debates. The lectures will explore and question some of the layers of interpretation of artists’ works from the time they were made to the present. European, north American and Australian art and design will be examined through various filters such as modernism, postmodernism, internationalism, nationalism, regionalism, gender and identity.

In visual and cultural studies there is no single correct interpretation of a particular art work or movement. This course has been designed to enable you to become aware of the plurality of interpretations and to appreciate (if not always endorse or adopt) the arguments for contesting interpretations of objects and events.

**GENR0027 Photography, Society, and the Built Environment**
Faculty of the Built Environment

UOC3  HPW3

This elective will give students an individual opportunity to use a camera as a visual research tool in the exploration of society and the built environment. This course involves theory and practice. A series of lectures covering different aspects of social documentary: a brief history of this genre, photojournalism, the photo-essay, street photography, oral history, the family album, and an introduction to some contemporary photographers detailing the urban environment through pattern or landscape. In Photography there is an intimate link between the image and the original. Light acting on and transforming emulsion still seems magical, or thousands of pixels transferred digitally to catch a moment in time is extraordinary. The ability to freeze frame movement in space, hang still light in time, document our communities today for tomorrow, record our visual reality is a powerful tool. With this power comes certain responsibility.

**GENS0450 Measuring up the Universe**
Faculty of Science

UOC3  HPW4

Microscopes, telescopes, sextants, chronometers, computers, scales and the standard meter. Scientific instruments of the past influenced the evolution of all areas of science and many aspects of daily life. This course looks at topics ranging from Galileo’s telescope to the development of barometers. Lectures are supplemented by the examination of items in a historical collection in the Faculty of Science and by visits to museums. The course is ‘hands-on’ with short written assignments and frequent feed-back in place of exams. Students will learn techniques for studying the history of science and technology and their impact on cultural and economic development both internationally and in Australia.

**GENS0501 The Marine Environment**
School of Mathematics

UOC6  HPW4

Excluded: GENS4625, MSCI2001, GENB5001 Not available to students in Science Programs

This course covers aspects of both the physical and biological environment of the sea and their inter-relationships. It depicts marine science as a body of knowledge and a process of continual enquiry and testing of ideas. It considers human impacts on the marine environments and how the principles and methods of science in general are used to predict and to solve the problems created by human activities. This course includes discussion of: i) the marine environment, its physical, geological, chemical and biological characteristics and their interactions; ii) the sea as a source of human food. Attention is given to aspects of marine productivity, fisheries and mariculture and how science can assist in management for a sustainable yield; and iii) the effects of development, especially industrial development on the marine environment and how science can contribute to providing solutions to these problems created by development. Throughout the course emphasis is placed on case studies. Field excursions are used to supplement the lectures and to encourage further discussion of the problems created by human interference in the environment and their possible solutions.

**GENS1002 Consumer Chemistry in the Marketplace**
School of Chemistry

UOC3  HPW2

Excluded: GENS4623
This course seeks to provide students with an interesting overview of the chemistry which they will encounter in everyday life. Emphasis will be placed on the types and functions of chemicals used in some typical consumer products. The subject matter is grouped into areas of application which have a common theme and each will form the topic for a given lecture period.

GENS1004 Science and the Cinema
School of Chemistry
UOC3
Picture 3: Imagine Keanu Reeves, Uma Thurman, Elizabeth Shue or Lisa Simpson as scientists. Well Hollywood has in a series of movies which use real scientific concepts as an integral part of the plot. Often the script writers stretch these concepts beyond the realms of reality to make the movies more exciting. In this general education course you will view at least six movies which deal with a range of scientific issues (and we don’t just mean science fiction here!). You will be given some lectures of the basics of the science involved in a given movie, discuss how faithfully the movies portray the science and look at some of the social and ethical issues related to the science that are explored in the films. There will be an opportunity to debate scientific and ethical issues raised by the movies. Not only that but you will get to meet some of the movies stars currently masquerading as scientists in the School of Chemistry. Movies you will see include Garfield (starring Ethan Hawke, Jude Law and Uma Thurman), The Saint (with Val Kilmer and Elizabeth Shue), Chain Reaction (Keanu Reeves and Rachel Weisz), Jurassic Park (Sam Neill, Jeff Goldblum and Laura Dern), an old classic Man in a White Suit (starring Sir Alec Guinness) and more. So come along, see some movies and you might learn some basic stuff about how to make your own genetically modified organism, alternative sources of energy and how science could save the world if only the world wanted saving.

GENS2002 Mathematics in Art and Architecture
School of Mathematics
UOC3 HPW2
There will be alternating Art and Architecture lectures/tutorials and Mathematics lectures/tutorials. The Art and Architecture lectures will present the appearance and/or major influence of mathematical concepts in art and architecture, and the following mathematics lectures will illuminate these concepts. The mathematical content will be: Surfaces, Platonic solids, conics, rotational, developable and minimal surfaces, topology; Symmetry, space filling; projective geometry, perspective; ratios, proportions, spirals; fractals, chaos theory; the computer in art. The mathematics tutorials will discuss problems and exercises in the conventional manner, while the art and architecture tutorials will involve students in discussion of visual material. If possible, there will be visits to museums and galleries.

Assumed knowledge: This course assumes a mathematical knowledge equivalent to that of the NSW School Certificate. In particular, students will be expected to do simple manipulations of algebraic expressions (including substituting values for the variables) and be familiar with the concept of graphing of curves.

Note: This course only runs in Summer and/or Winter sessions.

GENS2005 History of Mathematics
School of Mathematics
UOC3 HPW2
Prerequisite: Any Level 1 Mathematics course or ECON1202 or ECON1203; Excluded: MATH1560.

Classifications of mathematics, ancient and modern; Counting, navigation and measurement in pre-literate societies; Babylonian mathematics on calculating lengths and areas; The 'Greek miracle': round earth, logic, Pythagoras; 'All is number'; Hippocrates of Chios on areas of figures; proof; Euclid on axioms, on idea of deductive structure; Ptolemy's geocentric astronomy; Ancient Chinese simultaneous linear equations; 16th C solution of cubic equations; Copernicus' heliocentric astronomy; 17th C mathematical laws; Galileo, Kepler, Snell, Hooke, Boyle; development of calculus: Topology: Euler on the bridges of Königsberg; Statistical inference, 'average man', Galton and correlation; Abstract set theory; Formal (symbolic) logic in 19-20th C, and its role in computing software; Operations research, e.g., stock-cutting and hunting submarines; Chaos, fractals and self-organisation; Social context of mathematics.

GENS3501 Metals, Ceramics, Plastics - Building the Twenty First Century
School of Materials Science and Engineering
UOC3 HPW2
This course is designed to introduce students with a non-technical background to the science of advanced materials, with particular emphasis on how they function and where they are used.

The following topics are included: Surfaces are not superficial; Zeolites: crystals with holes; New forms of carbon: buckyballs, nanotubes and buckycondoms; Conductors and superconductors; Polymers: how to make them and what they can do; Synthesis of materials; Hot metal: its production and use; Making metals strong: the tricks of the blacksmith exposed; Why steel rusts but gold does not; Solar cells, lasers and transistors: how they work; Composites: making plastics strong; Ceramics: from earthenware to space; Smart materials.

Consideration of these materials includes examination of how they have impacted on and contributed to society over the last 100 years, and how they may help shape social and technological development in the future.

Note: 28 hrs/week lecture/tutorials. Offered over 5 days on a full-time basis in the summer recess, 13-17 February 2006. Includes field trip to Powerhouse museum.
GENS5010 Science and Religion
School of Physics
UOC3    HPW2
In many people's minds there is a conflict between religious faith and scientific knowledge. Some of these supposed areas of conflict will be explored, including creation, miracles and suffering, mind and consciousness, and modern environmental and bioethical problems. A mainly Judaean-Christian perspective will be used but references to other teachings (Buddhist, Taoist, Islamic etc.) will be included.
Note: This course will be taught via web delivery.

GENS4011 Science of Music
School of Physics
UOC3    HPW2
Why are some sounds harmonious? How do musical instruments work? How do we hear and comprehend music? How and why does music work? The science of music addresses these and other questions in lectures and in experimental sessions. The science of music is one of the oldest experimental sciences and has been a paradigm for science for much of our history. By looking at developments in the science of music in particular, this course also gives an introduction to the history and nature of science in general, and the way in which it interacts with other aspects of culture and society.

GENS4014 Are We Alone? The Search for Life Elsewhere in the Universe
School of Physics
UOC3    HPW2
Excluded: PHYS2170
A free-ranging review of all aspects of the mind-boggling question: "Are we alone?". The material will include discussions on the origin and survival of life, current hi-tech searches for radio signals from extra-terrestrial, discoveries of new planetary systems, possible types of life-forms, Einstein's relativity, space-travel, and much more. A team or researchers will present lectures, and often disagree with each other. The controversies and the science behind the disputes will be clearly presented.

GENS4015 Brave New World: Science Fiction, Science Fact and the Future
School of Physics
UOC3
This wholly Internet-delivered course aims to give a big picture overview of the physical sciences at the dawn of the 21st century and beyond. The most common interface between the general public and science is often through science fiction; hence, science fiction is used as a teaching aid to stimulate student interest and as a starting point from which to communicate the science, and its likely future development. This course also examines the interaction between science and society, encouraging students to consider how culture influences science and vice versa. The areas covered are: the physics of space and time; astronomy; space travel and exploration; astrobiology: life in the Universe; computers & robotics, artificial intelligence & human intelligence; the future of the human race.

GENS5001 Flight and Civilisation
Department of Aviation
UOC3    HPW2
Aviation has had a tremendous influence on the development of the world in the Twentieth Century. It has significantly reduced transport times and opened new markets for both business and pleasure. The course explores the development of aviation from the first flight up to the present day and into the future. It considers the many components of the industry ranging from the principles of flight, aerodynamics and design to the importance of flight safety and air traffic control. The importance of aviation as a means of transportation, communication and employment are examined from technological, economic, social and environmental perspectives. A field excursion is used to supplement the lectures by examining aircraft at an operating airport and in the Department of Aviation flight simulator at Bankstown.

GENS5002 Aviation: Contemporary Issues in a Complex Sociotechnical System
Department of Aviation
UOC3
Aviation is a high-profile industry that influences modern society at many levels. The aviation system comprises a complex array of human and mechanical interactions - known as a sociotechnical system - providing a myriad of social and technical challenges. Additionally, many seemingly unrelated industries and groups are influenced by aviation.
This course provides the opportunity for students to challenge industry dogmas and consider solutions to the problems facing contemporary aviation. By utilising the variety of skills and backgrounds that General Studies courses bring together, students develop an understanding of the main issues in complex, highly reliable mass-transport systems.
The course also allows students to investigate how the key issues interrelate both within the industry and with entities external to aviation; this course does not simply focus on problems for the industry, but collates those that affect the providers, users and third parties involved in the system.
The course is built on four major areas: competition, capacity, safety and the future.

GENS6011 The Consumers Guide to DNA
School of Biotechnology and Biomolecular Science
UOC3    HPW2
Excluded: BIQC2201, BIQC2291, GENB1001
DNA is the genetic information store of almost all organisms. Rapid advances in DNA technology have led to the discovery of new genes, the deliberate transfer of DNA between different organisms, the cloning of whole animals, genetic engineering of new species and the creation of new pharmaceuticals. Many of the fruits of these developments are now or will soon be available to the general public. Medicine is coming to rely more on DNA analysis for genetic testing and gene therapy. Techniques of DNA manipulation have led to a better understanding of diseases like AIDS and cancer. The Human Genome Project has yielded a new view of human biology. The social, ethical and legal ramifications of these technologies are immense - we will all need to make informed decisions about these issues. This course will explore DNA-based technologies and products with the aim of creating a deeper understanding of their implications for individuals and society.

GENS6012 Diet-Food, Fact, Fiction and Fallacy
School of Biotechnology and Biomolecular Science
UOC3
Excluded: BIQC2101, BIQC2181, BIQC2312, BIQC2372, GENB1002, BIQC1221, BIOD1319, BIQC1320, MACF1501, MFAC1508.
This course aims to consider the human diet and to discuss popular opinions and misconceptions about diet, and why many of these are scientifically incorrect.
The course will summarise how fat, carbohydrate and protein provide metabolic energy and how metabolic fuels are stored in the body. This information provides the basis for discussing how the body adapts to starvation, how the body's fuels are used during exercise and whether ‘diets’ are useful for losing weight.
The function of vitamins and micronutrients are described and megadoses of vitamins discussed from the perspectives that 'if some is good, is more better?' and 'can vitamins be toxic?'.
The course will cover a selection of topics relevant to Australian contemporary society, including obesity and weight loss, the significance of dietary cholesterol in relation to heart disease, the debate over saturated and polyunsaturated fats, diabetes, fad diets and other food fallacies, glycogen-loading for athletes and fun runners, and some common metabolic diseases.
Note: X2 = web mode and approximately 6 mornings of lectures and tutorials in July.

GENS6013 Plants & People: Murder, Magic, Medicine
School of Biotechnology and Biomolecular Science
UOC3    HPW2
Excluded: GENB1003
For a very long time mankind has used plant extracts for a wide variety of purposes. Our ancestors found these extracts efficient as medicines, poisons, narcotics, hallucinogens or stimulants. Their experimentation has led to the development of many compounds still used in the food, cosmetic and pharmaceutical industries. Many plant species remain undiscovered or poorly characterised, and much native folk medicine has yet to be fully investigated. This course will explore primarily the
relationship between human culture, the folk use of plant extracts and the development of modern drugs. More recent issues such as the value and use of genetically engineered plants will also be covered. There will be a Saturday field trip to the Royal Botanic Gardens, Sydney.

GENS6014
Genes and Society
School of Biotechnology and Biomolecular Science
UOC3  HPW2
Excluded: GENB1004
This course provides an introduction to the molecular studies of genes in humans as they relate to health, ill-health and behaviour as well as an overview of the scope and direction of gene manipulation and the Human Genome Project, together with their supporting technologies. The consequences of all this are the ethical and moral dilemmas, and challenges that society has to deal with, these including the confidentiality of genetic tests, use of such tests in the workforce and the insurance industry, DNA database for criminal investigation, the justification of a genetic defect for terminating a pregnancy, the patenting of our genes, improving the human gene pool, gene therapy, designer babies, cloning humans (?), who makes the decisions, etc.

GENS6033
HIV and Other Unconquered Infections
School of Biotechnology and Biomolecular Science
UOC3
Excluded: GENS6033, GENB3003
This course, delivered via the web, examines some of the great microbiological challenges that face us today, and their social and economic ramifications. An important focus of the course is the Human Immunodeficiency Virus, but it also considers conditions as diverse as Mad Cow Disease, Ebola haemorrhagic fever, and Hepatitis C. It seeks to explain how, for example, HIV infection is detected, how the HIV virus destroys the immune system, and the social and financial implications of the HIV pandemic world-wide. Students are also introduced to the general nature of antibiotics, and to the challenge of emerging antibiotic resistance. All modules within the course address both the scientific and social aspects of the diseases under discussion. The course builds upon the General Education Course “Great Epidemics in History”, however, each course can be taken independently. No prior knowledge of biology is assumed. Tutorials, films and other web-based activities will provide many opportunities for students to explore the controversies relating to HIV policy, use of antibiotics, and management of emerging diseases.

Note: Distance (web) mode

GENS6071
Technological, Social and Business Aspects of Alcohol
School of Biotechnology and Biomolecular Science
UOC3
Excluded: GENB7001
Consumption of alcoholic beverages has been part of human activity for thousands of years. This course aims to look at various aspects of these products, including an historical and current perspective. The science, technology and commercial aspects of the manufacture of beer, wine and spirits will be emphasised. The quality attributes of flavour, aroma and appearance of alcoholic beverages will be investigated. The impacts of alcohol on human health and society will be considered. The course involves some practical work. A number of lecturers from industry and affiliated research centres contribute to this course.

Note: Four full days of lectures/practicals in Summer Session (X1). Note: Final assessment marks won't be available until May. Students wishing to do a summer session course to graduate in April or May, please do not enrol in this course.

GENS7201
Australian Wildlife Biology
School of Biological, Earth and Environmental Sciences
UOC6  HPW3
Excluded: BIOS1101, BIOS1201, BIOS1401, LAND1151, GENB2001
Not available to students enrolled in Science Programs
The conservation of natural ecosystems is a topic of immense social significance. This is particularly true in Australia, since not only our animals and plants are unique, having evolved for millions of years in isolation from life on other continents, but our ecosystems are considered some of the most fragile on earth. In this course the broad spectrum of the Australian flora and fauna is explored via lectures and hands-on experience in practical classes and a weekend excursion. As well as providing a basic grounding in Australian biodiversity, the factors that have shaped it are examined, as well as the challenges faced in its future survival. The influence of people, both indigenous and newly-arrived, is also considered, especially in regard to conservation problems that are of current interest either because of their inherent ecological significance or because they exist within a complex social framework. The knowledge gained in this course will help you to make intelligent and useful contributions to the discussion of a wide range of ecological issues.

Note: There will be a one weekend excursion to the UNSW field station at Smith Lake near Seal Rocks, on the Central Coast (Friday night to Sunday afternoon). Some personal expense will be incurred.

GENS7602
Viewing the Earth Through a Geological Window
School of Biological, Earth and Environmental Sciences
UOC3
Excluded: GEOL1111/GEOS1111, GEOL1211/GEOS1211.
The plate tectonics model. An introduction to resources and the geological processes that control their formation. Application of satellite and airborne imagery in viewing the Earth’s surface, environmental assessments and resource discovery. Tutorial sessions on methods of processing satellite imagery and maps. Field excursions examining the influence of geology on landscape and land use. Visit historical mine workings. Four-day short course delivered during July break.

Note: Students will incur some costs associated with field excursion.

GENS7604
Energy Resources for the 21st Century
School of Biological, Earth and Environmental Sciences
UOC3
Excluded: GEOL1111/GEOS1111
This course explores the relative roles of coal, uranium, oil and natural gas as our main energy sources, including current usage patterns and projection of energy needs and resources in the 21st Century. It also covers: a brief history of the international coal, oil and natural gas industries and the organisations involved in their development; the distribution of coal, oil and gas resources in Australia and world-wide, together with their economic, environmental and political significance; alternative sources of energy and improved ways of using conventional energy sources. Four-day short course delivered during July break.

GENS8001
Risk Perception and Reality
School of Safety Science
UOC3
Decisions which affect businesses and the community are often made with a very uncertain knowledge of the future. Decisions are made (or often not made) based on distorted perceptions of risks. This course looks at objective and subjective views of risks that are important to business, the environment, the community and the wider social context. The Australian standard on Risk Management will be reviewed and applied to a number of areas selected by students. The class will consider case studies of major natural and man-made disasters and personal risks and discuss how the risks could have been better managed and how they relate to emergency and contingency planning.

Note: Short course mode only (compulsory 5-day workshop plus assessable tasks completed subsequently).

GENS8002
Sports Performance and Injury Prevention
School of Safety Science
UOC3  HPW2
This course is an introduction to the study of human movement with a focus on sports performance and injury prevention. Lectures will provide the student with a back-ground in anatomy, fundamentals of biomechanics and exercise physiology. Laboratory participation will provide practical experience in methods of performances analysis. There are no mandatory pre-requisites, but a background in science would be helpful to the student.

Note: Assignment and laboratory participation.

GENS8003
Work and Safety
School of Safety Science
UOC3
Workplace injuries and deaths are a great financial and social burden. Work and Safety is a course that explores the interactions between humans, work, and safety and the concept of ‘due diligence’. It concentrates on identification of workplace hazards, their associated risks to health and how they can be controlled. This is a practical course with great value for future employment as it equips students with fundamental principles of work and safety awareness. It provides tools for students to discharge their legal and social obligations in Occupational Health and Safety. This course is offered by either class attendance or web mode see www.safesci.unsw.edu.au/ge. Students in their final years at University are preferred.

GENS8004
Ergonomics, Productivity and Safety
School of Safety Science
UOC3
The course is designed to provide students with the basic concepts and principles of ergonomics' human factors design so that they are able to understand the problems of human-technology interface in the workplace. It looks at the role of ergonomics with reference to the social context, especially in enhancing productivity and safety in the workplace, and emphasises the social role of ergonomics in creating jobs and workplaces that increase workers’ safety and satisfaction.

The course discusses topics such as origins and development of ergonomics, fundamentals of ergonomics, socially centered design, human error reduction and safety, environmental ergonomics, human performance analysis, ergonomics and industrial productivity, macro-ergonomics, cost-benefits analysis, ergonomics, OH&S Law, work stress, etc. Case studies from manufacturing, construction, service and other industries are used to demonstrate the role of ergonomics in improving workplace productivity and safety.

The course is available by web mode in all sessions. See www.safesci.unsw.edu.au/ge/

GENS8005
Environmental Management in the Workplace
School of Safety Science
UOC3
Environmental problems are seen by society as a failure of technology and industry to play their part in prevention. This course explores the full range of environmental problems that occur in industry. Students develop skills to examine and also play an active role in solving these problems. Students gain an appreciation of environmental laws that affect business operations, the concept of ‘due diligence’, the development of environmental management systems and fundamental principles of best practice, and of meeting new and changing social expectations in managing environmental problems.

The course is available by web mode in all sessions. See www.safesci.unsw.edu.au/ge/

GENS9001
Psychology of the Individual and the Group
School of Psychology
UOC6 HPW4
Excluded: GENB4001, PSYC1001 Not available to students enrolled in Science Programs
After a brief historical introduction this course will examine the development of humans into distinct individuals who nevertheless function in a social environment. There will be emphasis on the cognitive and social development of the individual through childhood and the development of individual differences in the areas of abilities, personality, attitudes and values will be stressed. Finally, the nature and measurement of the social influences on our behaviour will be considered.

GENS9002
Psychology of the Body and the Mind
School of Psychology
UOC6 HPW4
Excluded: GENB4002, PSYC1011 Not available to students enrolled in Science Programs
This course will begin with an introduction to the physiological basis of behaviour. The biological approach will continue through consideration of basic questions in perception, conditioning and learning, and motivation and emotion. These will lead to a discussion of abnormal behaviour and of the question of what it is that makes us uniquely human.

GENS9007
The Psychobiology of Sex, Love and Attraction
School of Psychology
UOC3 HPW2
Excluded: GENB4007, PSYC2001
This course is an introduction to the study of sex, love and attraction in humans and other animals. Although a broad-based perspective is taken throughout the course (using comparative, historical and cross-cultural approaches), evolutionary interpretations are emphasised. The goal of the class is to increase our understanding of the powerful influences sex, love and attraction have on our, and on other animals' lives.

GENS9008
Stereotyping and Prejudice
School of Psychology
UOC3 HPW2
Excluded: GENB4008, PSYC2001
This course is an introduction to the psychological study of stereotyping and prejudice. The course will consider how stereotypes develop, how they are applied to others and with what consequences, and how they change. The course will also examine the roots of prejudice, and will consider the broad spectrum of what it means to be prejudiced, from unconscious forms to modern day hate groups.

GENS9009
Sport and Exercise Psychology
School of Psychology
UOC3 HPW2
Excluded: PSYC2001, PSYC2126
This course aims to increase understanding of how psychological factors influence involvement and performance in sport and exercise settings. In addition to being able to identify what general psychological theories and principles are relevant in specific sport and exercise situations, the course provides an overview of contemporary theory, research design, methodology and analytical techniques appropriate to sport and exercise research.

GENT0201
Communication Skills
School of English
UOC3 HPW2
Excluded: ENGL1004, ENGL2503, ENGL3502 and GENL0220
Examines the factors involved in any communicative event and develops practical skills in effective oral and written communication. Aspects covered include: theoretical models of communication, interpersonal skills, issues of gender and cultural difference, power and solidarity, resolving conflict, oral presentations, writing effectively in a variety of contexts, visual aspects of communication.

GENT0209
Great Books
School of English
UOC3 HPW2
Excluded: All ENGL courses
Introduces students to a number of texts that have been designated as ‘great books’ - either because over time they have achieved the status of classics, or because they have won major literary prizes in our own time. Students will read the set books and try to decide what it is that makes a book ‘great’. There will also be some discussion of the social, pedagogical and economic mechanisms at work in the making of literary reputations.

GENT0310
Opiate of the People? Religion and Western Society, 1500-2000
School of History
UOC3 HPW2
Excluded: All HIST courses
Topics to be covered include: the medieval church and the Reformation; religion and culture contact in the New World; the Enlightenment and the emancipation of the Jews; religion in an age of Revolution; the role of religion in USA and Australasia; religion and totalitarianism; postwar and contemporary developments.

GENT0312
Dressed to Kill: Dress and Identity in History
School of History
UOC3 HPW2
Focuses on the many meanings of dress from daily attire, national dress, and religious costume, to high fashion across a wide gamut of cultures. Specific topics include gender and identity, dress and citizenship, inventing national dress, mass manufacturing, uniforms, haute couture, and issues of tradition and modernity as shown through the human body. The relationships between coecalment and etiquette, cloth, holiness and magic, dress and undress, and the manipulation of costume for political agendas will also be explored. Case studies will be taken from world history particularly Europe and Asia from approximately the last four hundred years.

GENT0404
Gods, Heroines and Heroes in Greek Myth and Modern Culture
School of Modern Language Studies
UOC3    HPW2
Excluded: EURO2105

The Greek myths have had a profound and lasting influence on our culture. Partly because the way they comment on the human condition is very adaptable, they continue to be a major source of inspiration to contemporary artists, philosophers, writers and film-makers. An understanding of this influence greatly enhances our appreciation of modern culture. An introduction to the nature of myth, to the creation myths, the stories of the gods and their interaction with humans, and to some of the great cycles - Oedipus, Orpheus, the Trojan War. In order to provide a focus, the myths will be discussed in terms of stories of families and family groups. Reference will be made to contemporary works incorporating new versions of the stories, especially films.

GENT0405
An Introduction to "...isms": Ideas That Have Shaped Our World
School of Modern Language Studies
UOC3    HPW2

Introduces students to a number of major intellectual and political movements, focussing mainly on the twentieth-century. Such notions as Fascism, Marxism, Existentialism, Surrealism, Feminism and Postmodernism will be considered, with reference to key texts, in order to give students a general understanding of some of the major elements of these movements. Students will be provided with extensive bibliographic information to allow them to pursue any particular interest they may identify.

GENT0413
Introduction to Modern Japan
Department of Japanese & Korean Studies
UOC3    HPW2
Excluded: GENC8003, IBUS2103, JAPN2500, JAPN3500, JAPN3601, JAPN3900

The West has long held a particular fascination for Japan and its people and culture. This fascination arose partly because of Japan's two centuries of self-imposed isolation during the 17th and 18th centuries and following the Meiji Restoration, despite rapid modernisation, and the preservation of many aspects of traditional culture. This course provides an introduction to the language and culture of Japan. Topics include Japan's cultural history, its languages and writing system, Japan's people and geography, traditional arts and aspects of Japanese society including psychological makeup, social stratification and customs.

GENT0414
Korea at a Glance
Department of Japanese & Korean Studies
UOC3    HPW2
Excluded: KORE2500, KORE3900, GENC8002

An introduction to Korean society, history, culture, politics and economy, with an emphasis on the relationship between the economic development and socio-cultural aspects. Topics include societal trends and social stratification, family life and the role of women, demographic change, education and schooling, historical impact, electoral politics and political corruption, interest-group representation, the role of the state, the role of media, economy, business and employment practices, industrial groupings, crime and underworld of Korea, and traditional and modern art forms.

GENT0420
Along the Silk Road: Conquerors, Traders and Explorers
Department of Chinese & Indonesian Studies
UOC3    HPW2
Excluded: CHIN2310

Introduces students to the many cultural influences, which contributed to the formation of the ancient world along the 'Silk Road'. The 'Silk Road' has been the link between the great civilisations of Europe and Asia. Travelled by conquerors, missionaries, traders and explorers, the 'Silk Road' carried ideas, religion, arts, technologies, cuisines and diseases, as well as silk and trade goods of all descriptions.

GENT0421
Chinese Cinema
Department of Chinese & Indonesian Studies
UOC3    HPW2
Excluded: CHIN2302

Since the mid-1980s, films from China have received critical acclaim in many circles and substantial scholarly response, both from within and outside Chinese Studies. Analyses significant feature and documentary films from China, beginning with examples of the cinema of the 1930s and 1940s, and highlights from the cinema of the hard-line Communist period. Examines examples from the ideological thaw in the late 1970s, the New Wave films of the 1980s and several avant-garde films from the 1990s.

GENT0436
Chinese Language for Beginners A
Department of Chinese & Indonesian Studies
UOC3    HPW2
Excluded: All CHIN courses

Introduces Chinese language and culture to beginners and background speakers without any knowledge of Chinese characters. Teaches Mandarin pronunciation through the pinyin script and basic knowledge of Chinese characters.

GENT0437
Chinese Language for Beginners B
Department of Chinese & Indonesian Studies
UOC3    HPW2
Excluded: All CHIN courses

Introduces Chinese language and culture to beginners and background speakers with a limited knowledge of Chinese characters. Teaches Mandarin pronunciation and basic skills in pinyin and character writing.

Note: Students enrolled in Faculty of Arts and Social Sciences degree programs who have completed GENT0436 cannot enrol in this course.

GENT0501
Life-Giving Songs: Music in Australian Aboriginal Society
School of Music and Music Education
UOC3    HPW2
Excluded: All MUSC and MUSI courses, AUST2026

The sonic resources, musical styles and social functions of traditional and popular Australian Aboriginal music; the distribution of musical styles in various parts of the continent; the relationship between music, dance and ceremonies, the anthropologically claimed links between music, social organisation and land occupancy, and the way these musical styles and their encoding of social and ritual structures are articulated in sound recordings and films.

GENT0503
Jazz and Popular Music Studies
School of Music and Music Education
UOC3    HPW2
Excluded: GENP0250, all MUSC and MUSI courses

Provides an opportunity for the formal study and discussion of personalities and elements that have shaped and enriched twentieth century jazz and selected popular musics (with emphasis given to the popular music of the non-western world). Through a chronological study of music trends, students become familiar with the significant innovations of each of the evolutionary stages of each genre. Through application of some of the methods of ethnomusicology and cultural studies, an understanding of the social ecology of each genre will be sought.

GENT0504
Performance and Practice of Music A
School of Music and Music Education
UOC3    HPW2
Excluded: All MUSC and MUSI courses

Designed to enable students to gain experience in performing music, thereby developing the technical, artistic and socially co-operative skills
necessary to perform music as a member of a group. Students will have opportunities to specialise in either choral, wind ensemble, or orchestral performance. Knowledge of repertoire and of the principles of musical interpretation is developed. Content includes critical appraisal of music being studied and activities designed to extend and enrich students’ understandings of different genres of music.

GENT0505
Performance and Practice of Music B
School of Music and Music Education
UOC3 HPW2
Excluded: All MUSC and MUSI courses
As for Performance and Practice of Music A, but with completely different repertoire.

GENT0506
Music Technology
School of Music and Music Education
UOC3 HPW2
Excluded: All MUSC and MUSI courses
Introduction to the theory and practice of digital sound recordings. Examines issues in psychoacoustics and music composition techniques, as well as developments in electronic and related technologies in making, storing, altering and reproducing music in electronic and digital forms. A variety of softwares will be examined. The practical, lab oriented, focus of the course consists of developing skills and understanding in digital audio and MIDI (Music Instrument Digital Interface) recording and sequencing. Course contents include a project where the student can learn how to create, edit produce and burn their own music CD.

GENT0604
Critical Thinking and Practical Reasoning
School of Philosophy
UOC3 HPW2
Excluded: All PHIL courses
In this course we investigate thinking, arguing and reasoning, and try to get better at them. Skills in these areas are like any other human skill in that, whatever our level of natural talent may be, developing it is a matter of practice and study. Lectures focus on the sorts of moves and techniques which get used in moral, political, social and academic arguments. We will learn how to understand them, evaluate them and, where necessary, resist them.

GENT0606
The Use of Language, Images and Symbols
School of Philosophy
UOC3 HPW2
The leading question we consider: How do language, images and symbols function as a means of communication? Our central concern is with the basis of meaning and we study the way our use of words, symbols and images gives them the meanings they have for us. The conscious use of signs and symbols is compared with the role of symbols in the unconscious and their relation to metaphor and analogy. Our use of language, talking and writing, is often contrasted with real action. We nevertheless can do a lot using language. The following questions will be explored: How do we manage to say what we mean? What is involved in meaning what you say? How do we often succeed in communicating much more than our words mean?

GENT0707
Globalisation and the Nation State
School of Politics and International Relations
UOC3 HPW2
Excluded: All POLS courses
An interdisciplinary introduction to ‘globalisation’ and the issues surrounding it. Concentrates on the question of whether or not globalisation is making, or will make, the nation state redundant. Attempts to answer this question by using theories and concepts from economics, history and politics.

GENT0803
Introduction to Australian Cinema
School of Media, Film and Theatre
UOC3 HPW4
Excluded: GEN54507, SOCA1005, all MDCM and MEFT courses
Provides students with an introduction to the issues that arise in the study of national cinemas. Structured around concepts, such as ideology, mediation, representation and identity, which are exemplified by looking at different media forms. Investigates the cinema as a cultural industry that does more than merely reflect or report on society.

Note: Contact hours include screening.

GENT0804
Internet and Cyberculture
School of Media, Film and Theatre
UOC3 HPW2
Excluded: All MDCM and MEFT courses
Introduces critical perspectives on Internet histories, explores the conventions for production and use of online content and applications, examines the industrial and workplace implications of new technologies; and traces changes in political landscapes with new information infrastructures.

GENT0902
Witches, Quacks and Lunatics: A Social History of Health and Illness
School of History and Philosophy of Science
UOC3 HPW2
Excluded: GEN55522, all HPSC courses, all HPST courses
If you felt sick in the past, who did you consult? The local witch, the alchemist, the seller of pills and potions which claimed to cure everything? Find out why very few people before the 20th century ever consulted a doctor and why, in some times and places, it was probably better not to.

GENT0903
Environmental Conflicts
School of History and Philosophy of Science
UOC3 HPW2
Excluded: GEN54529, all HPSC courses, all SCTS courses
Explores the social, historical and political aspects of environmental conflicts and ‘sustainable development’. These can be understood through the history of environmentalism in the twentieth century, and the study of political and social controversies arising from the push for a ‘sustainable’ society. Implications at the local, national and international level are examined through specific areas of conflict, for example fossil fuels and the politics of energy, the politicisation of hazardous chemicals, sustainable urban design, and the politics of trees. Uses a ‘hands-on’ case study approach.

GENT0911
Maniacs, Murderers and Medical Detectives
School of History and Philosophy of Science
UOC3 HPW2
Excluded: All CRIM courses, SLP2821
Examines the ways in which many people in the past “got away with murder” and in what ways the detection of crime and the subsequent conviction of criminals have been influenced by developments and discoveries in medical science. Explores these questions using an historical perspective to explain how the public understanding of science and medicine went hand in hand with increasingly sophisticated methods of murder, and hence increasingly efficient methods of scientific detection. Topics include: over-confident poisoners; weapons and wounds; craniometry and the “criminal type”; the 19th century “epidemic” of matrimonial murder; doctors as murderers; science in the courtroom.

GENT1202
Social Aspects of Deviance
School of Sociology and Anthropology
UOC3
Excluded: SOCA2208 and SOCA3410
Provides a broad overview of current theories of how deviance is maintained or controlled and provides a closer look at some selected aspects of deviance. The sociology of deviance studies the making and breaking of rules in society. Deviance includes both legally proscribed activities such as arson, vandalism, and assault; and socially sanctioned activities, states and phenomena such as rudeness, promiscuity, acne, obesity, stupidity, pollution and pornography. In a changing society, new forms of deviance may emerge (smoking, sexual harassment) and other activities gain social acceptance (e.g. higher education for women, ethnic diversity).

GENT1205
Experiencing Anthropology Through Fieldwork
School of Sociology and Anthropology
UOC6
Excluded: SOCA2204, SOCI3710, GENT1204
Provides training in and use of ethnographic fieldwork methods in the context of a developing country with an understanding of village vs urban life and how development organisations impact. Ethnography is a part of the methodology of both sociology and anthropology as well as other social science research. Interview techniques and technologies, cultural mapping, methods of recording field data and participatory community development research are amongst the procedures to be explored. Field visits to regional, government and non-government organisations form a part of the research to understand how such institutions impact on village life.

Note: This course will be taught in November-December. Students must contact Grant McCall (G.Mccall@unsw.edu.au) prior to the commencement of Session Two.

GENT1206
Australian Feminist Issues
School of Sociology and Anthropology
UOC3    HPW2
Excluded: ARTS3010

Australian women were among the first in the world to organise to demand the right to vote and to stand for Parliament and have gained major changes in matters affecting the family, religion, employment, property, sexuality, education and health. Sets current demands within the social context of past failures and achievements. Addresses both general concerns and principles of Australian feminism and their application to a sample of specific issues involving personal and public life of women and girls.

GENT1207
Crime, Sex and Gender
School of Sociology and Anthropology
UOC3
Excluded: SOCA3409, WOMS2007, WOMS3006

Examines social implications of the role of law in defining the limits of gender and sexuality, regulating gender and sexual relationships, and in reinforcing particular gender and sex based interests. The intersection of criminality and sexuality demonstrates legal limits of public and private in intimate matters of identity, relationship, and pleasure. Provides an overview of major issues and theories, and may also deal with some specific examples such as pornography, rape, discrimination, AIDS transmission, moral danger, prostitution, abortion, and underage pregnancy.

GENT1209
Migration and Australian Society
School of Sociology and Anthropology
UOC3
Excluded: SOCA3407, SOCI3614, AUST2011

Examines racial, ethnic and social issues surrounding migration to Australia. Topics may include an ecologically sustainable population; globalisation and international migration flows; brain drain to and from Australia; multiculturalism; criteria in determining migration policy; settlement issues; skilled migrants; refugees, international aid and social justice; identity, ethnicity and community.

GENT1301
Contemporary American Film
Media, Film and Theatre
UOC3    HPW4
Excluded: GENSS180, all FILM, MEFT and THFI courses

From the late 1960s to the present day, America has produced powerful independent films that make up the New Hollywood. This course focuses critically on the diverse range of films, filmmakers and genres of contemporary American cinema from ‘Easy Rider’ to Tarantino. It takes an analytical approach to the study of the formal systems of narrative and filmic style.

GENT1401
Biopsychosocial Study of Humour
School of Social Work
UOC3    HPW2
Excluded: GENP0350

Examines humour from a biopsychosocial perspective. The large number of theories on humour from a variety of perspectives are considered, but the course focuses mainly on theories relating humour to health, well-being and coping. The increasing use of humour in health care and related contexts is critically examined. Students study the research literature on the putative effects of humour on physiological arousal, physiological functioning, immune function, depression, anxiety and coping under stress. In order to understand humour it is necessary to consider individual differences in terms of taste, sense of humour and ability to generate humour. These factors are also considered. Students are required to collect and present humour material, and discuss this in tutorials.

GENT1403
Global Crisis: Transition to a Sustainable Society
School of Social Work
UOC3    HPW2
Excluded: GEN5429

Examines the argument that our industrial-affluent society is not sustainable and that we must face up to fundamental change in coming decades. The first half analyses major global problems such as the environment, resource depletion, Third World poverty and social breakdown, and explains these primarily in terms of the over-consumption by rich countries. Critical attention is given to the present economic system and to the values of consumer society. The second half presents a vision of a sustainable alternative society, based on more simple lifestyles and self-sufficient communities. There will be a short visit to an alternative lifestyle educational site 45 minutes from the city.

GENT1501
Gifted and Talented Students: Recognition and Response
School of Education
UOC3    HPW2
Excluded: EDST1205, EDST2050

Explores the concept of giftedness, beginning with an analysis of its historical and cultural roots and leading through to a focus on different domains and levels of giftedness. Introduces some of the objective and subjective methods of assessing the abilities and achievements of gifted students. Examines cognitive and affective development of gifted students as well as empirical research on optimal contexts for learning for students of high intellectual potential.

GENT1502
Student Learning Thinking and Problem Solving
School of Education
UOC3    HPW3
Excluded: EDST1301, EDST2090

Examines how we reason, think, and solve problems. How should we communicate with people to help them understand and learn? Answers are sought in the context of theories of mental processes.

Note: Runs for 9 weeks only

GENT1503
Introduction to Educational Psychology
School of Education
UOC3    HPW3
Excluded: EDST1101

An introduction to the study of Educational Psychology which examines some aspects of development and of learning and instruction. Topics include: cognitive development; development of memory; the role of knowledge; problem solving and thinking; an introduction to instructional methods.

Note: Runs for 9 weeks only

GENT1507
Learning Process and Instructional Procedures
School of Education
UOC3    HPW2
Excluded: EDST1103, EDST1201, EDST2010

Covers critical areas of classroom instruction and provides a solid grounding in the cognitive psychology of school subjects. Topics include cognitive processes involved in writing, reading, mathematics and science.

GENT1508
Managing Stress and Anxiety
School of Education
UOC3    HPW2
Excluded: EDST1304, EDST2041

Examines the concepts of emotion, stress and anxiety and their effects on physical and mental health. Discusses a range of physiological and psychological aspects, and the impact of the individual's state on performance outcomes. Includes possible stress management procedures.
GENT112
Personality, Mood and Learning
School of Education
UOC3  HPW3
Excluded: EDST1452, EDST2052
A study of the nature and measurement of a variety of personality characteristics, moods and attitudes commonly encountered in learning situations and their effect on learning. Relationships between personality and subject preferences and possible subsequent occupations.
Note: Runs for 9 weeks only

GENT113
Culture, Identity & Education
School of Education
UOC3  HPW3
Excluded: EDST1207, EDST2070
Examines how the processes of schooling have interacted with issues of identity and diversity. Looks at the historical dynamics of migration and settlement and how their growth has affected the rhetoric of Australian nationalism. How have the issues of race and culture been addressed in our schools? Explores how multiculturalism has influenced educational perceptions at a policy level and examines the interpretations of that policy in the context of the public school classroom.
Note: Runs for 9 weeks only

GENT120
Motivation in Learning and Teaching
School of Education
UOC3  HPW3
Excluded: EDST1402, EDST2044
Explores the relationship between power and knowledge in systems of education; its ideological processes and its historical and social context.
Many theorists have articulated the role of ideology in schools, school administration and social culture. Studies how and why schools are considered political agents exploring the notions of empowerment, libertarian pedagogy, social and cultural reproduction, social control theory and the dynamics of public policy. Australia, in particular NSW, is used as a case study.
Note: Runs for 9 weeks only.

GENX0101
Indigenous Australia - Travelling Through Time
Nura Gili (Indigenous Programs)
UOC3  HPW2
Examines the relationships of Aboriginal people to this place we now call Australia. Moves through the history of Indigenous Australians up until the 1960s. Designed to give a broad general knowledge and understanding of the diversity of Indigenous societies. The impact of colonisation on Aboriginal people and the effects of government policies will be a theme.

GENX0102
Indigenous Australia - From the Present to the Future
Nura Gili (Indigenous Programs)
UOC3  HPW2
Focuses on the political and social issues that have impacted on Indigenous Australians. Government policies on citizens’ rights, education, employment, health, housing, and connection to land have been central to the changing circumstances of Aboriginal and Torres Strait Islander peoples. These and other major issues from the 1960s to the present will be examined.

GENX0103
Aboriginal Heritage: From Diggings to Display
Nura Gili (Indigenous Programs)
UOC3  HPW2
Focuses on the role of museums, art galleries and cultural centres in the display and representations of Indigenous peoples and their culture. A critical introduction to heritage of both pre-contact and contact Australia and its relationship to perpetuating myths through display are examined. Disciplines of anthropology, ethnography, archaeology, and museum curatorial studies are examined. Particular attention is given to material culture and the politics of display in museums and keeping places.
Note: Includes museum/gallery visits.

GENX0104
Aboriginal Popular Culture - We Hear the Songs, See the Dance and Live the Culture
Nura Gili (Indigenous Programs)
UOC3  HPW2
Examines the way in which Australia’s popular culture is filled with representations and misrepresentations of Indigenous Australians. Focuses on the role of media, film, photography, newspapers, and other written texts in creating, replicating, reproducing and manufacturing stereotypes which represent and misrepresent Aboriginal identity and culture. Also covers the contemporary expressions of Aboriginal art, music and literature.
Note: Includes a half-day excursion to examine a number of forms of Aboriginal popular culture.

GEOH1601
Australian and Global Geographies: Integration and Divergence
School of Biological, Earth and Environmental Sciences
UOC6  HPW4

GEOH2001
Field Research
School of Biological, Earth and Environmental Sciences
UOC6  HPW3
Excluded: GEOG2001
An introduction to field research in geography. Usually composed of a four day field trip in the mid-semester break. Field methods and skills in both physical and human geography. Workshops in report writing, critical analysis, and research practice.

GEOH2611
Geographies of the Asia-Pacific
School of Biological, Earth and Environmental Sciences
UOC6  HPW3
Excluded: GEOG2001
The Geographies of the Asia-Pacific introduces a region that is as diverse as it is vast. This course draws on geography’s renewed interest in locality, or context specificity. These ‘new location studies’ are informed by the ‘cultural turn’ and link broader structures to processes in local settings. This course aims to encapsulate some of the shared histories, the various experiences of colonisations, and some of the more contemporary consequences, as well as provide details about the uniqueness of context, of places and peoples.

GEOH2641
Australian Urban Environments
School of Biological, Earth and Environmental Sciences
UOC6  HPW4
This course examines human environments in Australia. Theoretical frameworks include political ecology, economic and poststructuralist geography. The course begins by exploring ideologies of human-nature relations. Urban and natural landscapes, the built environment and planning principles are all considered as cultural constructions - as concepts linked to ideologies of human-nature relations. The course considers environmental impacts of urbanisation, population growth and economic production that stem from different articulations of human-nature relations, and discusses forms of resistance, theories of environmental justice and participatory decision-making that seek to transform human-nature relations. Practical classes include field exercises and introductory Geographical Information Systems (GIS) workshops.

GEOH2801
Geographical Information Systems
Built Environment Geography
UOC6  HPW4
An introduction to Geographical Information Systems (GIS) and their applications in urban studies, planning, public management, public health, environment planning, and business contexts. A solid understanding of fundamental concepts, principles, and functions of GIS, and of types of spatial data, their entry, analysis and display into a GIS. Overview of technical and institutional issues in GIS development. Teaching will involve lectures and computer laboratories.

**GEOH3101**  
**Advanced Geographic Data Analysis**  
School of Biological, Earth and Environmental Sciences  
UOC6  HPW4  
Prerequisite: GEOG2101 or BIOS2041 or SLSP2001  
Applications of multivariate techniques commonly used in geographical enquiry. Explorations of spatial analysis methods and advanced models in a GIS environment. The collection, assembly, analysis and presentation of quantitative and spatial data. Preparation for reading more advanced geographical and statistical literature.

**GEOH3111**  
**Advanced Qualitative Method for Geography**  
School of Biological, Earth and Environmental Sciences  
UOC6  HPW4  
Excluded: GEOG3611  
Application of interview techniques. Construction of interview guides. Landscape interpretation. The collection, assembly, analysis (NVIVO) and presentation of qualitative data.

**GEOH3621**  
**Place, Identity and Difference**  
School of Biological, Earth and Environmental Sciences  
UOC6  HPW4  
Excluded: GEOG3166  
Issues of place, identity, territory and representation. Case studies cover a range of axes of difference including religion, place, gender, sexuality, nationalism and popular culture. Key theories of identity. Creative and official representations of places and of peoples. The deployment and representation of cultural difference.

**GEOH3641**  
**Regional Australia: Geographies of uneven development**  
School of Biological, Earth and Environmental Sciences  
UOC6  HPW4  
Key concepts and theories in regional economic geography. Theories of location and regional development, spatial interaction, uneven development, and structural change. Economic and regional problems in Australia. Field work, workshops and practical skills in regional and spatial analysis. This course is taught as a field school in winter session.

**GEOH3651**  
**Geographies of international migration and settlement: remaking nations in the Pacific Rim**  
School of Biological, Earth and Environmental Sciences  
UOC6  HPW4  
An international and cross-institutional discussion of the theory and experience of international migration and settlement. Analyses of: immigration policies; international migration patterns; settlement policies; outcomes and experiences; international regimes regulating migration, and; changing global demographics. Case studies of Australia, Canada and Singapore. Mixed tutorial groups (with students from Singapore, Vancouver and Sydney).

**GEOH3661**  
**Cities and Urbanism**  
School of Biological, Earth and Environmental Sciences  
UOC6  HPW4  
Geographers, and others, are interested in urbanism: the ways we live in cities as individuals, and in groups. Cities and Urbanism provides an overview of urban theory, and in particular the concept of ‘urbanism’. It considers how urbanism is studied and theorised, over time and in different disciplines. During the quantitative revolution, the study of urbanism declined. It then re-emerged with the ‘cultural turn’ in human geography and other disciplines and now includes the benefits of, for example, a postcolonial perspective. This course is designed for human geographers, urban sociologists, urban/town planners, architects and anyone interested in theorisations of ‘the city’.

**GEOH3671**  
**Transport, Land Use and Environment**  
Built Environment Geography  
UOC6  HPW6  
Prerequisite: 6 Units of Credit of Level 1 Geography courses or PLAN1011; Excluded: GEOG2071, GEOG3181, AUST2031.  
Introduction to the complex interactions between transport, land use, and the environment in urban areas. Special focus on the long term environmental consequences of transport decisions. Introduction to the various methods used to analyse and predict the consequences of policy changes. Australian cities as case studies.

**GEOH3911**  
**Environmental Impact Assessment**  
School of Biological, Earth and Environmental Sciences  
UOC6  HPW4  
Environmental Impact Assessment (EIA) is an important part of environmental decision making throughout the world. This course will provide students with an understanding of: the Commonwealth and NSW legislative framework for EIA; guidelines for EIA; ecologically sustainable development; impact evaluation in terms of environmental and socio-economic criteria; procedures, techniques and issues in EIA; and, future directions. Case studies of environmental impact statements (EIS) from the physical and human environment are used throughout the course. The course is valuable to students interested in environmental management.

**GEOH3921**  
**Coastal Resource Management**  
School of Biological, Earth and Environmental Sciences  
UOC6  HPW4  
This course focuses on coastal resource assessment and management. Topics include: Australian coastal zone policy, coastal erosion and conservation, soil and water acidification, global shrimp farming issues and management, oyster farming, causes of fish kills and fish disease outbreaks, estuary management, coastal water resource management, recreational and commercial fisheries, and coastal wetlands. The course considers Australian and global perspectives on current and emerging coastal resource management issues. Students will participate in group work to develop skills in resource management.

**GEOH4418**  
**Honours Geography**  
School of Biological, Earth and Environmental Sciences  
UOC24  HPW0  
A 24 uoc research project in physical geography to be completed within a single session.  
Notes: Plus BSE5451, and 18 UOC from BSE5452, Stage 3 courses in physical Geography (GEO5) not completed previously or other science courses at Stages 2 to 4 (not completed previously) approved by the Honours coordinator. Entry requires the completion of Stages 1-3 of Advanced Science study plans in Geoscience, completion of Stages 1-3 of the Environmental Science degree or a Major in Physical Geography or Earth Environmental Science with a Credit average or better in stage 3 Physical Geography courses.

**GEOH4871**  
**Transport Applications of Geographical Information Systems**  
Built Environment Geography  
UOC6  HPW4  
Prerequisite: GEOG3671.  
Introduction to the concepts and applications of Transport Information Systems (GIS-T). Topics covered include network structures, data structures, transportation related referencing systems. Applications of urban transport planning models, vehicle routing and logistics. Location and allocation analysis.

**GEOL4131**  
**Advanced Topics in Applied Geology - A**  
School of Biological, Earth and Environmental Sciences  
UOC12  HPW8  
Prerequisite: 24 Units Of Credit Of Level 3 Geology or Physical Geography Courses; Excluded: GEOL4102.  
Instruction by lectures, tutorials and assignments in advanced aspects of geological science and its applications. Students will individually select modules and subjects, which may include subjects drawn from...
outside the School or Faculty, approved by the School. Modules will cover a number of specialised fields including mineral exploration, mine geology, sedimentary basin studies, geophysics, environmental geology, hydrogeology, data processing methods, as well as fundamental geology topics. Some modules may be delivered at other universities through the Sydney Universities Consortium of Geology and Geophysics.

**Note:** Some fieldwork may be involved; students may need to meet personal costs.

**GEOL4141**

*Advanced Topics in Applied Geology - B*

School of Biological, Earth and Environmental Sciences

UOC6  HPW4

Prerequisite: 24 Units Of Credit Of Level 3 Geology or Physical Geography Courses; Excluded: GEOL4102.

Instruction by lectures, tutorials and assignments in advanced aspects of geological science and its applications. Students will individually select modules and subjects, which may include subjects drawn from outside the School or Faculty, approved by the School. Modules will cover a number of specialised fields including mineral exploration, mine geology, sedimentary basin studies, geophysics, environmental geology, hydrogeology, data processing methods, as well as fundamental geology topics. Some modules may be delivered at other universities through the Sydney Universities Consortium of Geology and Geophysics.

**Note:** Some fieldwork may be involved; students may need to meet personal costs.

**GEOL4203**

*Field Project (Part-Time)*

School of Biological, Earth and Environmental Sciences

UOC12  HPW10

A major field and laboratory project spread over two sessions for part-time study, which may include geological mapping and interpretation of other geological data (possibly including satellite imagery, geophysical datasets, geochemical or geohydrological information). The project may involve aspects of resource development, engineering or environmental geology, regional geology and groundwater studies.

**Note:** Geological field work of up to six weeks duration may be required. Students may incur personal costs.

**GEOL4204**

*Geology Honours Research Project*

School of Biological, Earth and Environmental Sciences

UOC24  HPW18

A major field and laboratory project, which may include geological mapping, laboratory experimental work and processing of earth science data (possibly including satellite imagery, geophysical or geochemical datasets, or hydrogeological information). The project may involve aspects of resource development, engineering or environmental geology, regional geology and groundwater studies. The results of the project will be presented in the form of an honours thesis. Projects may receive external support from companies or government agencies. Geological field work of up to six weeks duration may be required. Students may incur personal costs.

**GEOL4205**

*Research Project Geology Honours 18uoc*

School of Biological, Earth and Environmental Sciences

UOC18

An 18 uoc research project in Geology to be completed within a single session.

**Notes:** Plus BEES4511, and 18 uoc from BEES4521, GEOL4131, GEOL4141 or other science courses at stages 2 to 4 (not completed previously) approved by the Honours coordinator. Entry requires the completion of stages 1-3 of Advanced Science study plans in Geoscience or Geophysics, completion of stages 1-3 of the Applied Geology degree or a Major in Geology or Earth Environmental Science with a credit average or better in stage 3 geology courses.

Geological field work of up to 6 weeks duration may be required and students may incur personal expense.

**GeOL4206**

*Research Project Geology Honours 12uoc*

School of Biological, Earth and Environmental Sciences

UOC12  HPW12

A 12 uoc research project in Geology to be completed within a single session.

**Note:** Plus BEES4511, and 18 uoc from BEES4521, GEOL4131, GEOL4141 or other science courses at stages 2 to 4 (not completed previously) approved by the Honours coordinator. Entry requires the completion of stages 1-3 of Advanced Science study plans in Geoscience or Geophysics, completion of stages 1-3 of the Applied Geology degree or a Major in Geology or Earth Environmental Science with a credit average or better in stage 3 Geology courses.

Geological field work of up to 6 weeks duration may be required and students may incur personal expense.

**GEOL4207**

*Research Project Geology Honours 6uoc*

School of Biological, Earth and Environmental Sciences

UOC6  HPW6

A 6 uoc research project in Geology to be completed within a single session.

**Note:** Plus BEES4511, and 18 uoc from BEES4521, GEOL4131, GEOL4141 or other science courses at stages 2 to 4 (not completed previously) approved by the Honours coordinator. Entry requires the completion of stages 1-3 of Advanced Science study plans in Geoscience or Geophysics, completion of stages 1-3 of the Applied Geology degree or a Major in Geology or Earth Environmental Science with a credit average or better in stage 3 Geology courses.

**GEOS1111**

*Fundamentals of Geology*

School of Biological, Earth and Environmental Sciences

UOC6  HPW4

Excluded: GEOL5200, GEN57601, GEN57602, GEN57604, GeOL1111

This course provides a sound basis in geology to those wishing to pursue professional careers as geologists, mining and petroleum engineers and environmental earth scientists. It will also be of interest to those who wish to understand more about the nature and origin of earth materials. The fundamental properties of minerals and rocks and the processes by which they form are described. Geological history and structure and consequences for the formation and preservation of mineral, coal and petroleum resources are considered. Methods for the analysis, description and definition of geological materials and resources are provided.

**Note:** Up to two days field work is required and will involve some cost to students.

**GEOS1211**

*Environmental Earth Science*

School of Biological, Earth and Environmental Sciences

UOC6  HPW4

Excluded: GENS7601, GENS7602, GENS7604, GEOL1211

This course takes a modern approach to studying the history of change on planet Earth. The origins of the continents, oceans, atmosphere and the planet itself are considered from a variety of perspectives. The beginnings of life and evolution of selected fauna and flora are investigated from genetic and fossil evidence. The relationships between Earth’s geological environments and their associated life forms are explored. The effects of change, both natural and induced by humans, on soil, water and the landscape are examined. The course is delivered by experts from across the range of earth and environmental sciences.

**Note:** Skills in environmental earth science will be acquired through problem-solving laboratory tutorials and a four day field study camp. The field camp is compulsory and will involve some cost to students.

**GEOS1701**

*Environmental Systems and Processes*

School of Biological, Earth and Environmental Sciences

UOC6  HPW5

Excluded: GEOG1701, GEOG1721, GEOG1031, GEOG1073, GEOG1711, GEO51711
An introduction to the role of environmental processes in shaping the patterns of the physical environment and the operation of global environmental systems. Topics include earth, atmosphere and biosphere systems, weather and climate, water resources, soils and land degradation, fluvial and coastal processes and landforms, biodiversity and Australian biotic patterns. A major theme of the course involves the sustainable interaction of humans with their environment and the causes of environmental crises. Instruction is given on practical methods involved in applied geography and environmental sciences including mapping, analysis of aerial photography, field techniques and remote sensing.

Note: Students are required to take part in a one-day field trip and students will incur personal costs. Details will be provided during the first week of the course.

**GEOS1711**
**Planet Earth (Physical Geography for Environmental Engineers)**
School of Biological, Earth and Environmental Sciences
UOC6 HP/W4
Excluded: GEOG1711, GEOG1701, GEOS1701

An introduction to the role of environmental processes in shaping the patterns of the physical environment and the operation of global environmental systems. Topics include earth, atmosphere and biosphere systems, weather and climate, water resources, soils and land degradation, fluvial and coastal processes and landforms, biodiversity and Australian biotic patterns. A major theme of the course involves the sustainable interaction of humans with their environment and the causes of environmental crises. Instruction is given on practical methods involved in applied geography and environmental sciences including mapping, analysis of aerial photography, field techniques and remote sensing.

**Note**: Students are required to take part in a one-day field trip and students will incur personal costs. Details will be provided during the first week of the course.

**GEOS2071**
**Life through Time**
School of Biological, Earth and Environmental Sciences
UOC6 HP/W4
Excluded: GEOL3121

The course offers an overview of life through time with a focus on Australian prehistory. The nature, functional morphology and evolutionary history of invertebrates, vertebrates and plants are presented in the context of Australia’s evolving habitats and climates. Processes and places of fossilisation, evolution, time scales, approaches to assessing relationships and the plate tectonic history of the continent of Australia are important components of this overview of the history of Australia’s unique biota. Practical work on the most important groups of fossils is an essential part of the course.

**Note**: Up to 4 days of fieldwork at selected fossil sites will be part of the course and students will incur some personal costs.

**GEOS2171**
**Earth Structures**
School of Biological, Earth and Environmental Sciences
UOC6 HP/W4
Pre-requisites: GEOG1111/GEOG1111 or GEOL2121/GEOS1211
Exclusions: GEOL2171

Most regions of the Earth’s crust have been deformed over many millions of years, resulting in a complex three dimensional form. This course seeks to unravel this history through use of remotely sensed geophysical imagery and field mapping data. This course will demonstrate how large scale regional structures are inferred or measures from surface outcrop mapping.

**Note**: A four day field mapping camp is an essential part of the course and will involve some cost to students.

**GEOS2181**
**Earth Materials**
School of Biological, Earth and Environmental Sciences
UOC6 HP/W4
Pre-requisites: GEOJ1111/GEOJ1111 or GEOL2121/GEOS1211 or GEOS1701 Exclusion: GEOL2181

An introduction to the nature and analysis of minerals, rocks and soils. Atomic structure, composition, properties and classification of minerals, with special reference to the rock-forming minerals and the clay minerals. Mineral analysis techniques including chemical methods and X-ray diffraction; application of isotope studies including an introduction to radiometric dating. Genesis, analysis and classification of igneous, metamorphic and sedimentary rock types; chemical weathering and rock formation. Optical properties of minerals and rocks under the polarising microscope.

**GEOS2291**
**Ground and Surface Water**
School of Biological, Earth and Environmental Sciences
UOC6 HP/W4
Exclusion: GEOL2291

An introduction to the interaction between water and the surficial environment, and the nature of water resources in Australia. The hydrologic cycle, geological and geomorphological controls on water flow and accumulation. Groundwater chemistry, salinity and contamination; the nature, development and sustainability of Australian groundwater resources. The application of environmental geophysics and drilling methods in groundwater studies and mapping of contaminants, including downhole logging techniques, electrical and seismic methods.

**Note**: Field work at dryland saline and contaminated sites, and students may incur personal costs.

**GEOS2711**
**Australian Climate and Vegetation**
School of Biological, Earth and Environmental Sciences
UOC6 HP/W4
Pre-requisite: GEOG1701; Excluded: GEOG2711


**Note**: Field work is an important component of the course and will involve expense to individuals.

**GEOS2721**
**Australian Surface Environments and Landforms**
School of Biological, Earth and Environmental Sciences
UOC6 HP/W4
Pre-requisite: GEOS1701; Excluded: GEOG2721

The study of surface processes and landforms; especially those formed by river systems and coastal environments. The nature of surface deposits, sediments and soils and the interrelationships with landforms in different environmental settings. An emphasis on contemporary processes and factors of landform creation, as well as changes to landforms and surface deposits over time and in response to human modification of the landscape. Field and laboratory based work will provide practical experience in physical landscape evaluation and land management techniques.

**Note**: Students will incur personal costs associated with a three day field trip to the Kiama/Robertson district on the South Coast. Details will be provided during the first week of the course.

**GEOS2811**
**Remote Sensing Applications and Digital Image Analysis**
School of Biological, Earth and Environmental Sciences
UOC6 HP/W4

Computer based techniques for digital image display, analysis and interpretation including the acquisition and processing of optical, hyperspectral, thermal and radar remotely sensed imagery will be introduced. Laboratory work will use practical techniques including image enhancement, geometric correction, mapping. Classification and data interpretation will be developed with a focus on the use of earth-resource imagery for a wide range of environmental applications including geology, vegetation and forestry, agriculture, oceanographic and regional and urban analysis.

**GEOS2821**
**Geographic Information Systems and Science**
School of Biological, Earth and Environmental Sciences
UOC6 HP/W4
Excluded: GEOG2821

There has been a rapid growth in the use of digital spatial data in many areas of resource management and the environmental sciences. The aim of this course is to provide both a solid theoretical understanding and a comprehensive practical introduction to the use of geographic information systems and science in the analysis of digital spatial data, simple modelling using digital spatial data, and in decision support using commercially available software. Topics covered in the course
provide a comprehensive overview of the analytical treatment of digital geographic information including: sources; storage, representation and visualisation; analysis to generate new information and knowledge; and their dissemination through avenues such as the internet.

**GEOS3131**

**Field Methods and Mapping**  
School of Biological, Earth and Environmental Sciences  
UOC6: HPW4  
Pre-requisites: GEOL1111/GEOS1111 or GEOL1211/GEOS1211 or GEOS1701  
Excluded: GEOL3131

This course provides opportunity to undertake an extended field mapping exercise in a selected area of the state. The course will cover practical geological mapping techniques, general field skills, and the integration of stratigraphic, lithological, structural and palaeontological concepts. Use of remote sensed and geophysical imagery of the area to be mapped will be included. This course may be run in conjunction with other universities.

**Note:** A field mapping camp, up to 6 days in duration, forms the principal component of the course and students will incur some personal costs.

**GEOS3141**  
**Mineral and Energy Resources**  
School of Biological, Earth and Environmental Sciences  
UOC6: HPW4  
Pre-requisite: GEOL1111/GEOS1111 or GEOL1211/GEOS1211 or GEOS1701 or GEOL3211 or GEOL3200.  
Excluded: GEOL3241, GEOL3101, GEOL3300, GEOL3201, GEN57604

The course provides an introduction to the nature and formation of mineral and energy resources. It is designed for those students wishing to work in the future as professional geologists, resource engineers and in other fields of geoscience. It covers: the geological setting, characteristics and genesis of major categories of metallic resources, the nature and origin of coal-bearing sequences and the generation, migration, entrapment and degradation of petroleum. Laboratory study of hand specimens, thin and polished sections is undertaken. Exploration and development methods are described.

**Note:** Up to four days of fieldwork is a compulsory part of this course for which students will incur personal costs.

**GEOS3251**  
**Field Studies: Geological Terrains**  
School of Biological, Earth and Environmental Sciences  
UOC6: HPW5

Examination of geological features of selected geological terrains. Course will involve a series of preliminary readings and tutorials, an extended field excursion incorporating geological mapping and terrain evaluation, as well as a major field report. Course may be delivered in cooperation with other universities, government agencies or companies.

**Note:** Involves geological fieldwork of up to 12 days duration. Students will incur costs.

**GEOS3281**  
**Environmental and Contaminant Geochemistry**  
School of Biological, Earth and Environmental Sciences  
UOC6: HPW4  
Excluded: GEOL3281

This course examines the characteristics, source and fate of metals and organic contaminants in natural and urban environments. Primary and secondary dispersion of elements and weather processes. Principles of vapour, water, soil, drainage sediments, rocks and vegetation geochemistry as applied to environmental assessments: aqueous geochemistry and contaminant modelling, with reference to Australian case studies. Introduction to sampling, analytical techniques and design of environmental surveys.

**Note:** Fieldwork of up to 3 days duration will involve geochemical surveys at a contaminated site and students will incur some personal costs. Assumed knowledge of level 1 geology, geography or chemistry.

**GEOS3300**  
**Mine Geology**  
School of Biological, Earth and Environmental Sciences  
UOC3: HPW4  
Prerequisites: GEOL1111/GEOS1111 or GEOL5200  
Excluded: GEOL3141, GEOL3300, GEN57601, GEN57602

Taught in Weeks 1 - 10, this course provides an introduction to the nature and formation of mineral deposits and coal resources. It covers the geological setting, characteristics and genesis of major categories of metallic and non-metallic mineral resources, the nature and origin of coal-bearing sequences and the relevance of geological factors to their extraction and use. There is an introduction to stereographic projection analysis in understanding slope stability. This course includes a laboratory study of hand specimens. Exploration and resource assessment methods are also described.

**GEOS3321**  
**Fundamentals of Petroleum Geology**  
School of Biological, Earth and Environmental Sciences  
UOC6: HPW4  
Excluded: GEOL1111/GEOS1111, GEN57601, GEN57602

Introduction to the earth sciences; nature and properties of rocks and minerals; sedimentation and sedimentary environments; stratigraphy and the geological time scale; geological maps and structures; introduction to plate tectonics. Nature and geological properties of petroleum; petroleum generation, migration, entrapment and degradation; sedimentology of petroleum-bearing sequences; primary and secondary porosity; structural and stratigraphic traps; formation waters; coal-bed methane, oil shale and other non-conventional petroleum sources; geological and geophysical methods in petroleum exploration and development; regional geology of selected petroleum basins.

**Note:** The one day field excursion is a compulsory part of the course and students will incur some personal costs.

**GEOS3331**  
**Petroleum Reservoir Geophysics**  
School of Biological, Earth and Environmental Sciences  
UOC6: HPW4  
GEOL3211 or GEOL1111/GEOS1111 or GEOL1211/GEOS1211  
Excluded: GEOL3332

The applications of geophysics in 3D mapping of geological structures. Interpretation of 2D and 3D seismic reflection data, including horizontal and vertical slices, presentation parameters, horizon autotracking, fault mapping, stratigraphic and structural interpretation, reservoir evaluation. Inversion of seismic reflection data to determine petrophysical properties. Analysis of direct hydrocarbon indicators.

**GEOS3341**  
**Special Topics in Petroleum Geoscience**  
School of Biological, Earth and Environmental Sciences  
UOC3: HPW3

Instruction by lectures, tutorials and assignments in aspects of geoscience and their application to the petroleum industry. Individual students will select modules, covering topics such as sedimentary rocks and clay minerals, groundwater hydrology, geophysics, coastal monitoring and environmental assessment, complemented by a relevant project task.

**GEOS3731**  
**Catchment and Coastal Geomorphology**  
School of Biological, Earth and Environmental Sciences  
UOC6: HPW4  
Excluded: GEOG3025, GEOG3731

This course provides a lecture and field-based study of the processes responsible for shaping and modifying Australian and global landforms. An overview of the theoretical framework of geomorphology will provide the foundation for the theme of the course “from catchment to coast”. Topics covered include catchment hydrology, slope evolution, erosion and sediment transport, fluvial systems and coastal processes and landforms. Application of geomorphology to land and resource management will be emphasised.

**Note:** Field data form the basis of laboratory work and the compulsory field trip to collect these data will involve expense to individual students. Assumed knowledge: GEOS2721

**GEOS3761**  
**Environmental Change**  
School of Biological, Earth and Environmental Sciences  
UOC6: HPW4  
Excluded: GEOG3062, GEOG3761

GEO3811
Advanced Techniques in Remote Sensing
School of Biological, Earth and Environmental Sciences
UOC6  HPW6
Excluded: GEOG3032, GEOG3811.
Theory and application of state-of-the-art remote sensing technologies including hyper spectral and radar remote sensing systems; standardisation of datasets using geometric, radiometric and atmospheric correction techniques; use of spectrometers, radiometers, scatterometers and spectral libraries in remote sensing analysis; introduction to geophysical remote sensing; fusion of multi-resolution imagery; mini-project work in either vegetation/land use applications, soils/geoctology applications or fluvial/marine applications.
Assumed knowledge: GEO2811

GEO3821
Remote Sensing and GIS Applications
School of Biological, Earth and Environmental Sciences
UOC6  HPW4
Excluded: GEOG3821
The fields of Geographic Information Systems and Remote Sensing have expanded considerably over the past decade and the world has become very much richer in digital geographic information. Vast amounts of geographic data are routinely collected and new sources of remotely sensed hyperspectral, radar and geophysical data are now available. These complex data, although providing previously unattainable information about the Earth, also reduce the efficacy of many traditional methods of analysis. An increased requirement to build applications-specific solutions and simulations has therefore become imperative in the context of the need to plan for e.g. a changing climate, optimise agricultural productivity for an increasing population, and to provide niche marketing analysis for business. This course explores a range of highly complex, often non-deterministic, problems in GIS and Remote Sensing. It explores a true enabling technology for the natural sciences in addition to a rich source of computational and representational challenges for the computer sciences. Topics covered include: classification methods, dynamic spatio-temporal modelling, error analysis and data accuracy, geostatistics, hyper-dimensional analysis, and network analysis. This course emphasises a range of GIS and Image Processing approaches via a disparate selection of real-world applications.
Assumed knowledge: GEO2811 or GEO3821

GEOS4415
Physical Geography Honours
School of Biological, Earth and Environmental Sciences
UOC6
A 6UOC research project to be completed in one session

GAUS441b
Honours in Physical Geography Research Project 12uoc
School of Biological, Earth and Environmental Sciences
UOC12
A 12 UOC research project in physical geography to be completed within a single session.
Note: Plus BEES4511, and 18 UOC from BEES4521, Stage 3 courses in physical Geography (GEOS) not completed previously or other science courses at Stages 2 to 4 (not completed previously) approved by the Honours coordinator. Entry requires the completion of Stages 1-3 of Advanced Science study plans in Geoscience, completion of Stages 1-3 of the Environmental Science degree or a Major in Physical Geography or Earth Environmental Science with a Credit average or better in stage 3 Physical Geography courses.

GEOS4417
Research Project Honours in Physical Geography 18 UOC
School of Biological, Earth and Environmental Sciences
UOC18
A 18 uoc research project in physical geography to be completed within a single session.
Note: Plus BEES4511, and 18 uoc from BEES4521, Stage 3 courses in physical Geography (GEOS) not completed previously or other science courses at stages 2 to 4 (not completed previously) approved by the Honours coordinator. Entry requires the completion of stages 1-3 of Advanced Science study plans in Geoscience, completion of stages 1-3 of the Environmental Science degree or a Major in Physical Geography or Earth Environmental Science with a credit average or better in stage 3 Physical Geography courses.

GEOS4418
Honours Geography
School of Biological, Earth and Environmental Sciences
UOC24
A 24 uoc research project in physical geography to be completed within a single session.

GEOS4721
Current Issues in Land Management
School of Biological, Earth and Environmental Sciences
UOC6  HPW4
Excluded: GEOG4320.
The aim of this course is to examine the major forms of land degradation and practical solutions to land management problems. This course aims to consolidate the current level of knowledge of national and global land degradation issues, but with an emphasis on eastern Australia. The main issues covered will include vegetation clearance, desertification, salinisation, global climate change and greenhouse, soil health, and wind and water erosion. The format will comprise formal lectures, some by visiting experts, and student presentations.
Note: A one week compulsory field trip provides an opportunity to visit farms and research institutions in Cowra, Young and Wagga Wagga and to discuss land degradation and conservation issues with land management agencies and local landholders.
Assumed knowledge: GEO2721

GERS1400
Introductory German 1
German Studies
UOC6  HPW6
Excluded: GENT0426
Aims to provide students who have little or no previous knowledge of German with basic communicative skills in listening, speaking, reading and writing. Incorporates an introduction to the culture of the German-speaking countries into language study.
Note: Excludes students qualified to enter GERS1600 or GERS1700.

GERS1401
Introductory German 2
German Studies
UOC6  HPW6
Prerequisite: GERS1400
Further consolidation and development of language skills acquired in GERS1400 or an elementary German language course of comparable format.

GERS2400
Intermediate German 1
German Studies
UOC6  HPW5
Prerequisite: GERS1000 or GERS1022 or GERS1401; Excluded: GERS2021
Designed for students with HSC German or two semesters of elementary German at tertiary level. Develops and extends skills in listening, speaking, reading and writing German and provides an introduction to German Studies. Includes 1 hour per week lecture on cultural aspects of German-speaking countries.

GERS2401
Intermediate German 2
German Studies
UOC6  HPW5
Prerequisite: GERS2400 or GERS2021; Excluded: GERS2022
Further develops and extends language skills acquired in GERS2400 and continues introduction to German Studies. Includes 1 hour per week discussion or German literary texts.
Designed for students with advanced German language skills. Extends and consolidates these skills through the study of authentic German texts discussing contemporary issues in German-speaking societies. Includes 1 hour per week lecture or individual project.

**GERS3411**
**Advanced German 2**
**German Studies**
UOC6  HPW4
Prerequisite: GERS3410 or GERS2605; Excluded: GERS2606, GERS1701
Further extends and consolidates advanced German language skills and discussion of contemporary issues in German-speaking societies. Includes 1 hour per week discussion of German literary texts or individual project.

**GERS3700**
**Advanced German 3**
**German Studies**
UOC6  HPW3
Prerequisite: GERS2701; Excluded: GERS3141, GERS3142.
Designed for students with very advanced German language skills, including native speakers. Concentrates on aspects of advanced German grammar and/or techniques of translation. Includes 1 hour per week lecture on cultural aspects of German-speaking societies or individual project.

**GERS3800**
**Modernism & Cultural Innovation in Weimar Germany**
**German Studies**
UOC6  HPW3
Prerequisite: GERS2401 or GERS3411 or GERS3701
Explores the social and historical foundations of the Weimar Republic and its innovative and modernist cultural scene, including visual arts, film, architecture, music, literature, theatre and the new media (radio, journalism), as well as developments in social and cultural theory.

**GERS3801**
**Language & Society in the German-speaking Countries**
**German Studies**
UOC6  HPW3
Prerequisite: GERS2401 or GERS3411 or GERS3701
Explores norms and varieties of the German language and their relationship to different regions and population groups.

**GERS3802**
**German Culture and Society: 19th and 20th Century**
**German Studies**
UOC6  HPW3
Prerequisite: GERS2401 or GERS3411 or GERS3701
Explores aspects of German culture and society in the 19th and 20th century through the study of selected texts.

**GERS3803**
**Post-war German Literature and Culture: Hans Magnus Enzensberger**
**German Studies**
UOC6  HPW3
Prerequisite: GERS2401 or GERS3411 or GERS3701
Explores the essayistic work of one of the leading social theorists and cultural critics of postwar Germany, covering a wide range of topics, including media theory, multiculturalism, globalisation, war and violence.

**GERS3900**
**German Studies Pre-Honours Program 1**
**German Studies**
UOC6  HPW3
Prerequisite: 36 units of credit including 12 units of credit of German at credit level
An advanced seminar on selected topics on the literature, culture, history, language and society of the German-speaking countries. Particular emphasis will be placed on research methodology and critical writing.

**GERS3901**
**German Studies Pre-Honours Program 2**
**German Studies**
UOC6  HPW3
Prerequisite: 36 units of credit including 12 units of credit of German at credit level
An advanced seminar on selected topics on the literature, culture, history, language and society of the German-speaking countries. Particular emphasis will be placed on research methodology and critical writing.

**GERS4000**
**German Honours (Research) Full-Time**
**German Studies**
UOC24  HPW5
Prerequisite: 54 units of credit in German Studies at an average of 70%, including GERS3900 and GERS3901
Two seminars on literary, linguistic or historical topics; and practical language work as required. A thesis of approximately 15,000 - 20,000 words on a topic approved by the Coordinator.

**GERS4050**
**German Honours (Research) Part-Time**
**German Studies**
UOC12  HPW2
Prerequisite: 54 units of credit in German Studies at an average of 70%, including GERS3900 and GERS3901
Two seminars on literary, linguistic or historical topics; and practical language work as required, but taken part-time over two years. A thesis of approximately 15,000 - 20,000 words on a topic approved by the Coordinator.

**GERS4500**
**Combined German Honours (Research) Full-Time**
**German Studies**
UOC6  HPW3
Prerequisite: 48 units of credit in German Studies, including GERS3900 at 70% or better
Two seminars on literary, linguistic or historical topics. Of these, one is shared with the other School or Department. Practical language work as required. A thesis on a topic approved by the two Schools/Departments concerned.

**GERS4550**
**Combined German Honours (Research) Part-Time**
**German Studies**
UOC6  HPW2
Prerequisite: 48 units of credit in German Studies, including GERS3900 at 70% or better
Two seminars on literary, linguistic or historical topics. Of these, one is shared with the other School or Department. Practical language work as required, taken part-time over two years. A thesis on a topic approved by the two Schools/Departments concerned.

**GLST1100**
**Introduction to Globalisation**
**School of Sociology and Anthropology**
UOC6  HPW3
Prerequisite: Enrolment in International Studies or International Studies/Law program; Excluded: SOCA1006, INST1003
Considers how the transnational flows of people, goods, culture and capital are changing the significance of locality and national societies in shaping social life. Examines questions of belonging by looking at migration, refugees and citizenship. Looks at the emergence of global culture through a study of the emergence of global and multicultural cities, new patterns of consumption for pleasure, and the role of media and communications in globalisation. Explores the issues of global governance and examines the cultural and political responses to globalisation in anti-globalisation movements, fundamentalism and economic strategies.

**GLST1200**
**Women, Gender & World History**
School of History
UOC6  HPW3
Prerequisite: Enrolment in International Studies or International Studies/ Law programs; Excluded: HIST1020, WOMS1003

Looks at world change from ancient times, with reference to premodern women, male-female relations, sexuality and social constructions of gender. Emphasis will be placed upon patterns of change from prehistorical to modernity but with the recognition that even ‘revolutionary’ change has not necessarily involved progress for women. Topics include: androcentric periodizations of history; debates about early ‘matriarchies’; patriarchal controls placed upon women, their sexuality and fertility; different social constructs of feminine and masculine roles and identity; and the importance of culture and class in determining social roles, male-female relations and differences between women.

GLST2101
(Un)Making the Third World: History and Global Development B
Faculty of Arts and Social Sciences
UOC6  HPW3
Prerequisite: Enrolment in International Studies or International Studies/ Law programs, 36 units of credit; Excluded: COMD2010, HIST2040, HIST2060, SPAN2424, SPAN2428

Explores the history of dictatorship and democracy in the nineteenth and twentieth centuries from the vantage point of the early twenty-first century. In geographical terms, the focus is on Latin America with a particular focus on Argentina, Brazil, Chile, Peru, Mexico, Cuba, Guatemala and Colombia. The historical trajectories, current circumstances and future prospects of these nation-states will be examined in relation to themes such as authoritarianism, violence, terror, fear, democracy, liberty, freedom, nationalism, revolution, US hegemony, neo-liberalism and globalisation.

GLST2102
(Un)Making the Third World: History and Global Development A
Faculty of Arts and Social Sciences
UOC6  HPW3
Prerequisite: Enrolment in International Studies or International Studies/ Law programs, 36 units of credit; Excluded: COMD2020, HIST2061, INST2000, SPAN2429

Explores the history of underdevelopment and development in the nineteenth and twentieth centuries from the vantage point of the early twenty-first century. Themes include: colonialism, nationalism, decolonisation and post-colonial states; the history and politics of development in the Cold War and post-Cold War era; the state and economic development; the role of international organisations such as the World Bank and the IMF; and the question of globalisation. In geographical terms, the focus is on sub-Saharan Africa, especially the Democratic Republic of the Congo; the Middle East, especially Egypt; South Asia, especially India; Southeast Asia, especially Indonesia; and Northeast Asia, especially South Korea.

GLS12103
The United States and Changing Global Orders
Faculty of Arts and Social Sciences
UOC6  HPW3
Prerequisite: Enrolment in International Studies or International Studies/ Law programs, 36 units of credit; Excluded: COMD2010, SPAN2431

Examines the role of the USA in the world in the context of the history of changing global orders. Drawing on diplomatic history, international history, international relations, international political economy, and social and cultural history, the main themes include: westward expansion, ‘Manifest Destiny’, theories of imperialism, US-Soviet rivalry, and debates about globalisation and the character and future of the contemporary global order centred on the USA.

GLS12104
Globalisation and Uneven Development
School of Politics and International Relations
UOC6  HPW3
Prerequisite: Enrolment in International Studies or International Studies/ Law program, 36 units of credit; Excluded: INST2400, SLSP2701

Examines the problems and political prospects of ‘Third World’ or ‘Less Developed’ countries in the context of the development of a global economic and communications system. The first part examines the historical development of the system, the second part looks at its current structure and functioning and the third part considers the specific role of less developed countries and regions within the global system.

GLST3000
Global Studies and Global Transformations
School of Modern Language Studies
UOC6  HPW3
Prerequisite: 96 units of credit in Program 3415, 4768, 3424 or 4765; Excluded: INST3000

Provides a detailed examination of the key theoretical debates in the emergent fields of international, transnational and global studies. Discusses the growing array of conceptual and empirical efforts to explain the dynamics of global transformations in the post-Cold War era. Provides Global Studies students with the opportunity to evaluate their time overseas and link it to a detailed discussion of historic and contemporary processes of global transformation.

GMAT0411
Surveys in Building and Construction
School of Surveying & Spatial Information Systems
UOC3  HPW3

Overview of services provided by Surveyors/Geomatic Engineers. Linear and angular measurement. Setting out; Levelling; laser levelling; Electronic tacheometry; Earthwork surveys; High-rise building surveys; quality assurance. Basic land law and cadastral surveying; subdivision surveys.

GMAT0442
Surveying for Civil Engineers
School of Surveying & Spatial Information Systems
UOC3  HPW3

To provide civil engineering students an introduction to and understanding of the basic principles of surveying as it applies to civil engineering works. Topics include: Linear and angular measurement (band and electronic distance measurement); Levelling principles and applications including laser levelling and bar code levelling; 3D coordinate systems; Traversing and control surveys; “field-to-finish” electronic detail surveys, electronic data recording; horizontal and vertical curves and construction survey set outs; areas and volumes, surveys to monitor deformations of structures and mine walls; GPS (satellite positioning); and an introduction to consulting services available from Surveyors and Geomatic Engineers.

GMAT0443
Surveying for Mining Engineers
School of Surveying & Spatial Information Systems
UOC3  HPW3

To provide the fundamental principles and demonstrates the relevance of surveying to mining engineering. Topics include: Principles of surveying; levelling principles and techniques; contouring; theodolites: angle measurements, instrument and survey errors; distance measurement techniques; coordinate calculations; control surveys; traversing; area and volume calculations. Also an introduction to: GPS satellite positioning; deformation monitoring surveys; map projection coordinates and calculations; correlation of surface surveys with underground surveys; shaft plumbing; transfer of height and coordinates; concept of azimuth. Awareness of other contemporary surveying topics.

GMAT0491
Survey Camp
School of Surveying & Spatial Information Systems
UOC3  HPW3
CoRequisite: GMAT0442

A one-week field camp (on campus, usually in mid-year recess) for students studying GMAT0442 Surveying for Civil Engineers.

GMAT0753
Introduction to Spatial Information Systems
School of Surveying & Spatial Information Systems
UOC3  HPW3
Prerequisite: CIVL2710, MATH2869, MATH2019

To provide Environmental Engineers with an overview of the resources and analytical tools in Spatial Information Systems applicable to their discipline, and to provide an understanding of the roles of other professions in SIS. An introduction to coordinate reference systems, with particular reference to Australia. Overview and background of spatial information systems. Explanations of definitions and terminology of LIS and GIS. Introduction to remote sensing. Sources of spatial information, field surveys including GPS, maps, aerial photography, satellite imagery. Introduction to image analysis techniques for remote sensing. Introduction to geographical information systems for display, management and analysis of spatial information. Modelling and analysis techniques and software for GIS. Application of above to environmental engineering. A view of the future.
GMAT1100
Principles of Surveying
School of Surveying & Spatial Information Systems
UOC6    HPW5

Induction to Surveying and Spatial Information Systems: to gain exposure to the range of topics covered in Surveying and Spatial Information Systems, hands-on experience with the School’s facilities and laboratories, and to develop teamwork amongst the students. Horizontal reference frames and positions. Tubular bubbles, surveying telescopes. Theodolites; direction measurement. Distance measurement with steel tapes, bands and electronic tacheometers. Total stations. GPS positioning. Detail surveys. Levelling, level runs, instrument errors and tests. Field techniques and data recording. Use of minor survey equipment. Reconnaissance surveys: field sketches and planning. Recovery sketches.

GMAT1150
Survey Methods & Computations
School of Surveying & Spatial Information Systems
UOC6    HPW5
Prerequisite: GMAT 1100


GMAT1200
Visualisation of Spatial Data
School of Surveying & Spatial Information Systems
UOC6    HPW4


GMAT1300
Computing Applications in Geomatics
School of Surveying & Spatial Information Systems
UOC6    HPW4

Applications of computing technology to Geomatics including the development of proficiency with commonly used software packages. Overview of hardware, operating systems, networks, the internet, applications software, and peripherals including storage media, printers, scanners, digitizers. Use of word processors, spreadsheets, databases, presentation packages, graphics and visualisation packages, publishing and multi-media, browsers and email. The application of these packages to various aspects of Geomatics including data input, data manipulation, data management and storage, data presentation and communication.

GMAT1400
Land Studies in Geomatics
School of Surveying & Spatial Information Systems
UOC6    HPW5

What is “Land”? Topographic and geomorphological descriptions of land. Land cover classification: soils and vegetation. Land use: rural and urban land. Land value and land economics. Land as a recreational resource, national parks, and ecological issues. Land as Real Estate. Land ownership and rights to use and redevelopment. Land from the cultural, social and spiritual perspectives. Native and other forms of “title”. Land, water and air space rights. Law of the Sea and sovereign rights over marine resources. State, Local and Federal Government jurisdictions over land. Professional communications will be an integral component of the subject. Students will be expected to analyse the subject material and prepare appropriate responses, including: poster presentations, addresses to a mock local government council meeting, PowerPoint presentations, and application of research methodology for the WWW and subsequent preparation of reports.

GMAT2100
Electronic Surveying Instrumentation:Principles & Practice
School of Surveying & Spatial Information Systems
UOC6    HPW5
Prerequisite: GMAT1100, GMAT1150 Co-requisite: MATH2829

Precise digital levelling (bar code) instruments and techniques; design, accuracy, errors. Precise levelling techniques, design and location of bench marks. Systematic and random errors, motorised levelling. Electronic theodolites, construction, circle reading, level sensors, centring systems, constrained centring, electronic data recording. Sources, testing and elimination of errors in electronic theodolites, eccentricities of ellipiod and horizontal circle. Vertical circle and level sensor errors; circle graduation errors. Centring and levelling of theodolites. Precise horizontal angle measurement, definition of an arc of directions, observation procedures, elimination of errors, National and State specifications; precise zenith angle measurement. Trigonometric heighting, effects of earth curvature and refraction, observation procedures, precision of computed heights; EDM-height traversing.

GMAT2110
Electronic & GPS Positioning Technologies
School of Surveying & Spatial Information Systems
UOC6    HPW5

Principles and applications of EDM: basic working principles; phase measurement techniques, coefficient of refraction, flight-time measurement in short range pulse distance meters, working principles of microwave distance meters; wave propagation in atmosphere, atmospheric transmittance and range equation; measurement of atmospheric parameters, velocity corrections; geometric reductions, reductions of distances to the spheroid, analysis of errors, corrections to EDM measurements; electro-optical distance meters; calibration of electro-optical instruments; reflectors; field procedures. GPS surveying: the GPS signal and measurement characteristics; GPS instruments; GPS planning, field and office procedures; GPS observations and equations; baseline measurements; networks; presentation of GPS measurements, datums, coordinate systems and heights; data acquisition from maps and images.

GMAT2200
Geographic Information Systems & CAD
School of Surveying & Spatial Information Systems
UOC6    HPW5
Corequisite: GMAT 2110, GMAT 2700

Inputting both spatial and attribute data to the GIS. Transformation of data between coordinate systems, such as digitizer coordinates, geodetic and geographic coordinates, and map projection coordinates. Editing data and creating topologically clean data. Tagging spatial data with attributes, linking spatial data to attribute databases. Use of basic analysis functions: spatial selection, attribute selection, making reports of spatial and attribute data, interfacing to the system using a high level language. Surveying CAD familiarisation with at least one CAD package commonly used in engineering surveying. Data entry for detail survey. Editing and setting attributes within the package. Contouring, Plan drawing. Demonstration of alternative CAD packages.

GMAT2300
Analysis of Observations
School of Surveying & Spatial Information Systems
UOC3    HPW3
Prerequisite: MATH 1231, GMAT 1150; Corequisite: MATH 2019.


GMAT2350
Computing for Spatial Information Sciences
School of Surveying & Spatial Information Systems
UOC3    HPW3
Corequisite: GMAT1300

Principles of program design. Algorithm development and programming languages. Procedural programming and event driven programming. Variables, input, output, event, syntax, loops, condition statements, procedures, forms and controls, menus and multiple document interface. Applications and GUI; application development in common programming languages. Exercises in program development relevant to Surveying and Spatial Information Systems throughout the course.
GMAT2700

Geometry of Coordinate Reference Systems
School of Surveying & Spatial Information Systems
UOC6  HPW5

Cadastral coordinate systems, applications of Cartesian coordinate transformations in geomatics. Mathematical transformations between geodetic, Cartesian and topocentric coordinate systems, ellipsoid geometry, orthometric and ellipsoid height systems; Keplerian orbit representation and the transformation of Keplerian elements into other satellite coordinate and velocity representations. Map projections and ellipsoidal geometry, principles of map projections, surveying and mapping projections, transverse Mercator projection, ellipsoidal computations. Corrections to field observations. Geodetic and astronomical reference systems; the relationship between natural and geodetic reference systems, deflection of the vertical; geoid models and reference ellipsoids, height systems, celestial coordinate systems. Geodetic coordinate systems and datums; definition of AGD, GDA and AHD.

GMAT3100

Surveying Applications
School of Surveying & Spatial Information Systems
UOC6  HPW5

This course introduces the student to a wide variety of surveying applications undertaken as part of engineering projects. The student will be expected to perform common engineering surveying tasks such as the determination of volumes as well as the design, computation and set out of horizontal and vertical curves, roads, buildings and large structures. In addition, selected topics of specialist survey applications will be dealt with using lectures, site visits, guest speakers and technology demonstrations. Topics will be selected from the following areas of special surveys: mining surveying (including Azimuth transfer, north-seeking gyro theodolites, plumbing of shafts and high structures), industrial surveying, tunnel engineering, hydrographic surveying, alignments, monitoring of deformations and settlement of terrain, structures and machines, design of precise engineering networks, dimensional measurement.

GMAT3150

Field Projects
School of Surveying & Spatial Information Systems
UOC6  HPW5

At camp, a survey project of substantial extent is carried out involving detail surveys, contour surveys and the setting-out of a road. The processing of the field data and the preparation of plans and reports is done during session.

Note: Students are required to attend a one week survey camp during the mid-year recess equivalent to 3 contact hours per week followed by three hour per week processing during session.

GMAT3200

Geospatial Information Techniques and Applications.
School of Surveying & Spatial Information Systems
UOC6  HPW5

Concepts and definitions of spatial systems, coordinate systems, mapping and spatial issues with maps, data structures including vector, raster and surface modelling. An overview of the components of the technology, database management in the context of spatial data, database design, data acquisition techniques including overviews of digitizing, scanning, field survey and remote sensing, the data conversion process, data management, display of geo-spatial data, cartography, colour and 3D views. Analysis of geospatial problems including components of data acquisition and database development, spatial analysis and display, and customising and performing advanced analysis using macro languages and integrating with other software, using the World Wide Web to disseminate information. Management and institutional issues including how the technology and data is used by various organisations and government departments, geospatial data issues for government and industry, standards, Metadata, legal issues associated with these systems, intellectual property, copyright, liability, project management and implementation of these systems.

GMAT3400

Cadastral Surveying 1
School of Surveying & Spatial Information Systems
UOC3  HPW3

The legal system in Australia and NSW; the nature of land law including land tenure, estates in land, interests in land. Land title systems. Land administration in Australia and NSW. Boundary surveying principles. Cadastral mapping in NSW.

GMAT3410

Land Economics & Valuation
School of Surveying & Spatial Information Systems
UOC3  HPW2

The surveyor's role in the economic use of land. Variation of land use and land value. Temporal change of land use due to supply and demand, and its effect on land development and urbanisation. Location theory, public measures for directing land use, introduction to valuation; factors affecting value of land, valuation principles and practice.

GMAT3450

Cadastral Surveying 2
School of Surveying & Spatial Information Systems
UOC3  HPW3

Survey investigation for both artificial and natural boundaries; survey and title searching. Field note preparation for cadastral surveying. Survey marking and preparation of plans of survey. Study of appropriate statutes and regulations. Cadastral survey techniques for urban and rural properties; the status of roads in NSW, strata plan surveys, identification surveys, consents for MHWM, railways, rivers, kerbs in Sydney. The role of coordinates in cadastral surveying.

GMAT3500

Photogrammetry and Remote Sensing
School of Surveying & Spatial Information Systems
UOC6  HPW5

Introduction to geometric and spectral properties of remotely sensed images. Analogue and digital images - photography, electro-optical and microwave systems. Introduction to the physics of visible, infrared and microwave remotely sensed imagery. Atmospheric effects. Image geometry - central projection, scan and microwave systems. Concept of stereovision. Inner orientation of central projection, collinearity equations, deviations from collinearity. Exterior orientation of sensor systems; object geometry from overlapping images, for block photography for aerial and close range applications. Digital photogrammetric workstations and their functions. Photogrammetric project planning. Image interpretation.

GMAT4000

Thesis Part A
School of Surveying & Spatial Information Systems
UOC3  HPW2

GMAT4000 is to be taken in the second last session required for the completion of all requirements for the award of the BE degree. Generally, the thesis involves directed laboratory, investigatory, design, field or research work on an approved subject under the guidance of members of the academic staff. Time devoted to the thesis is two hours per week in Session 1 (Part A) for library methodology instruction and preliminary work. Each student is required to prepare a thesis proposal with literature review and a short seminar as part of the requirements for GMAT4000. Thesis Part A. Satisfactory performance in course GMAT4000 is a prerequisite for progress to GMAT4001.

GMAT4001

Thesis Part B
School of Surveying & Spatial Information Systems
UOC9  HPW8

Prerequisite: GMAT4000

Satisfactory performance in course GMAT4000 is a prerequisite for GMAT4001. GMAT4001 is to be taken in the last session required for the completion of all requirements for the award of the BE. Generally, the thesis involves directed laboratory, investigatory, design, field or research work on an approved subject under the guidance of members of the academic staff. Session 2 (Part B) is for the major part of the thesis work. Students are required to report on their work at a thesis conference in Week 15, Session 2 and to present a written report on the work undertaken in this course. A supervisor guides each student, but the successful completion of the project, the writing of the thesis and the submission of two bound copies by specified deadlines, for example, are the sole responsibility of the student. Students are required to submit a log book and report detailing at least 60 days of professional practice (industrial training).

GMAT4020

Project in Surveying and Spatial Information Systems
School of Surveying & Spatial Information Systems
UOC6  HPW5

Prerequisite: GMAT3150
Projects will involve small groups of students working as a team to complete the execution of specially designed multi-faceted selected tasks in Surveying and Spatial Information Systems. Topics may be the remote sensing analysis of the environment from satellite images, a digital photogrammetric mapping task, setting up a precise geodetic control network, the use of precise GPS techniques to map the local road network and insert this data into a GIS system, a precise engineering survey or the development and analysis of a geospatial database of a region. Students will be required to present the results of their project in a well written report and verbally at the annual thesis conference (Week 15, Session 2).

GMAT4400 Land Management & Development Project 1 School of Surveying & Spatial Information Systems UOC6  HPW2
Design and studio project for a residential neighbourhood development. Constraint and site analysis: preparation of maps of land use, vegetation, surface and soils, drainage and terrain, slopes, climate and aspect; composite overlay maps. Structure plan design: residential precincts, schools, commercial areas, industrial areas, active and passive recreation, pedestrian ways and road hierarchy. Continuation of design and studio project for a residential neighbourhood development. Plan of detailed lot layout: consideration of access, grades, drainage reserves, parks and pedestrian ways.

GMAT4410 Land Subdivision & Development School of Surveying & Spatial Information Systems UOC3  HPW3 Subdivision and development control in New South Wales. Administration of subdivision and development under Local Government and environmental planning and assessment legislation; procedures and legal controls. Statutory requirements for land development and subdivision of land, particularly as they apply to broad-acre subdivisions.

GMAT4450 Land Management and Development Project 2 School of Surveying & Spatial Information Systems UOC6  HPW2 Engineering design and plans: catchment details, road longitudinal and cross-sections, drainage layout, flow schedule, hydraulic grade line calculations, longitudinal sections of kerb profiles. Detention systems, infill subdivisions, shadow diagrams, driveway designs.


GMAT4750 Project Management 2 School of Surveying & Spatial Information Systems UOC3  HPW3 Aims and forms of project organisation. Preparation of contracts and specifications: contract law, subcontracting, contract work, bidding. Project scheduling, control and documentation. Project teams in a corporation. Psychology of professionals. Qualifications of a project manager. Decision making process in project management: authority, power, interaction, leadership, assignments. Human resource management: small group behaviour, learning curve, management of teams in professional practice, professional liabilities and responsibilities. Case studies in the application of project management.


GMAT4900 Principles of GNSS Positioning School of Surveying & Spatial Information Systems UOC6  HPW3 This course will introduce the student to reference coordinate systems and time systems, satellite orbital motion, signal propagation and satellite tracking observables. The principles of positioning using the current two Global Navigation Satellite Systems (GNSS) will be studied: the U.S. developed Global Positioning System (GPS) and Russia's Global Navigation Satellite System (GLONASS). The mathematical models for pseudo-range and carrier phase-based modes of positioning, for both single receiver (absolute) positioning and relative positioning implementations, will be developed. These principles will be illustrated using the Matlab GNSS toolkit, which allows the student to develop algorithms for real and simulated data processing. Local, regional and wide area differential positioning will also be considered. Land, marine and airborne positioning applications will be discussed.

GMAT4910 Modern Navigation & Positioning Technologies School of Surveying & Spatial Information Systems UOC6  HPW3 This course presents an overview of the various satellite-based and non-satellite navigation technologies and some of their applications. Particular emphasis will be placed on the role such positioning technologies will play in Intelligent Transport Systems (ITS). Various user receiver configurations, system augmentations and implementation issues will be examined. These include: differential GPS (DGPS) schemes and services, real-time systems and their communication links, pseudo-range and carrier phase-based techniques, pseudolites, and combined GPS/GLONASS positioning. In addition, the role of other sensors (such as gyros, accelerometers and inertial navigation systems (INS)) and ancillary data (such as digital maps) can play in ITS positioning/navigation will be discussed. Data fusion techniques for integrating GPS (or GLONASS) with INS, such as Kalman Filtering, will be presented. Students will gain hands-on experience with a variety of navigation receiver and sensor technology.

GREK1301 Introductory Modern Greek 1A Modern Greek Studies UOC6  HPW5 Excluded: GEN0427, GREK1001
Aims to enable students to communicate in a Greek-speaking environment, to discuss everyday topics, and, for example, to read and write a simple letter.

Note: Intended for students without any knowledge of Greek.

GREK1302 Introductory Modern Greek 1B Modern Greek Studies UOC6  HPW5 Prerequisite: GREK1301 or GREK1001; Excluded: GREK1002
Further consolidation and development of language skills acquired in GREK1301.

GREK2301 Intermediate Modern Greek 2A Modern Greek Studies UOC6  HPW5 Prerequisite: GREK1302, GREK1002; Excluded: GREK1101, GREK2010
Aims to enable students to understand and use Greek accurately, and to develop structural understanding of the language to a point where it can become a practical asset. Includes a review of Modern Greek grammar. Equal emphasis is given to the four basic skills of comprehension, speaking, reading and writing. Reading will be taught partly through a selection of simple literary texts and songs.

**GREK2302**  
**Intermediate Modern Greek 2B**  
Modern Greek Studies  
UOC6  HPW5  
Prerequisite: GREK1101 or GREK2301; Excluded: GREK1102  
Continues with the development of comprehension, speaking, reading and writing skills acquired in GREK2301.

**GREK3301**  
**Advanced Modern Greek 3A**  
Modern Greek Studies  
UOC6  HPW4  
Prerequisite: GREK2302 or GREK1102 or HSC Modern Greek; Excluded: GREK1200, GREK1201, GREK2003  
Aims to enable students to advance their ability to understand and use Greek accurately, and to develop a structural understanding of Greek to the point where it can become a professional asset. Includes a review of Modern Greek grammar. Reading will be taught partly through a selection of literary texts.

**GREK3302**  
**Advanced Modern Greek 3B**  
Modern Greek Studies  
UOC6  HPW4  
Prerequisite: GREK3301 or GREK1201; Excluded: GREK1202, GREK2004  
A continuation of GREK3301 with further consolidation and development of language skills.

**GREK3401**  
**Advanced Modern Greek 4A**  
Modern Greek Studies  
UOC6  HPW3  
Prerequisite: GREK3302 or GREK2022 or GREK1202; Excluded: GREK2203, GREK3001  
An intensive study of the Greek language through texts in different styles and registers (including literary works and journalism). Develops the ability to assimilate texts at various levels of complexity, and cultivates discursive competence in spoken as well as written Greek.

**GREK3402**  
**Advanced Modern Greek 4B**  
Modern Greek Studies  
UOC6  HPW3  
Prerequisite: GREK3401 or GREK2022; Excluded: GREK2204, GREK3002  
A continuation of GREK3401.

**GREK3500**  
**Traditional Greek Culture**  
Modern Greek Studies  
UOC6  HPW3  
Prerequisite: 36 units of credit; Excluded: GREK2202  
Introduces a variety of folksongs, proverbs, popular tales and shadow theatre (Karagiozis) and explores Greek society, aspects of which still play an important role in people's living.

**GREK3501**  
**Pandora's Box**  
Modern Greek Studies  
UOC6  HPW3  
Prerequisite: 36 units of credit; Excluded: GREK3205  
Mythical heroes and heroines in Greek tragedy are treated as human archetypes which are demythologised and brought down to earth. The tragedies generate universal truths and illuminate aspects of the human condition. Examines gender issues in five tragedies and gives students the opportunity to observe the consistency with which basic attitudes of men and women have endured through the centuries in western society.

**GREK3502**  
**Greek Women Writers**  
Modern Greek Studies  
UOC6  HPW3  
Prerequisite: 36 units of credit; Excluded: GREK3202  
Examines a number of literary texts written by women within the framework of feminist literary criticism.

**GREK3503**  
**The Modern Greek Experience**  
Modern Greek Studies  
UOC6  HPW3  
Prerequisite: 36 units of credit; Excluded: GREK2201  
Examines the society and historical experiences of Greeks in the twentieth century, through literature and film.

**GREK3504**  
**Greek Music: From Homer to Haroula**  
Modern Greek Studies  
UOC6  HPW3  
Prerequisite: 36 units of credit  
Considers the evolution of Greek music from ancient times to the present, including music in antiquity, Orthodox (Byzantine) church music, folksong, rebetika (the Greek “blues”), the national school of symphonic music, and popular composers from the 60s on, such as Theodorakis and Hadjidakis, with emphasis on their settings of modern poetry. Considers the relation between music and society, processes of cultural continuity and change, and elements of diversity and unity within and between musical cultures.

**GREK3505**  
**Born to the Purple: The Byzantine World (330-1453)**  
School of History  
UOC6  HPW3  
Prerequisite: 36 units of credit; Excluded: HIST2202  
Examines the Byzantine world, from its origins in the late antique world, through the Middle Ages, to its political and cultural legacy in the early modern world. Focuses on political, social and religious developments in the Byzantine state and church, the manner in which Byzantine culture received and redeployed its Classical heritage, and its place between the European, African and Asian worlds.

**GREK3506**  
**The Modern Greek World (1453 - Present Day)**  
Modern Greek Studies  
UOC6  HPW3  
Prerequisite: 36 units of credit; Excluded: HIST2203  
Examines the contemporary culture of Greece and Cyprus within its historical context. Considers the meaning of events such as the fall of the Byzantine Empire in 1453, the effects of western rule and Ottoman domination, the influence of the European Renaissance and Enlightenment, the movement for independence, the Asia Minor catastrophe, the Nazi and Fascist occupation and the military dictatorship of 1967-74.  
**Note:** This course is compulsory for students who wish to major in Modern Greek. Taught in Greek.

**GREK3900**  
**Culture, Ethnicity & Identity in Greek Australian Literature**  
Modern Greek Studies  
UOC6  HPW3  
Prerequisite: 36 units of credit including 12 units of Greek at credit level; Excluded: GREK3203  
Provides a study of Greek society and culture in Australia, together with a study of prose, poetry and drama texts written in Australia. Special emphasis is placed on the way socio-cultural and historical phenomena are represented in the works by Greek Australian literary writers.  
**Note:** Option for Honours.
and 20th century Greece. Students will be required to study selected literary texts in Katharevousa (puristic Greek), Medieval Demotic Greek and Demotic (spoken Greek).

Note: Option for Honours.

GREK4000 Modern Greek Studies Honours (Research) Full-Time
Modern Greek Studies
UOC24  HPW5
Prerequisite: 54 units of credit in GREK with an average of 70%
The Honours program involves two session-length seminar courses, for which students are required to complete a coursework, and a thesis of between 15,000 - 20,000 words on a topic approved by the Unit.

GREK4050 Modern Greek Studies Honours (Research) Part-Time
Modern Greek Studies
UOC12  HPW3
Prerequisite: 54 units of credit in GREK with an average of 70%
The Honours program involves two session-length seminar courses, for which students are required to complete coursework, and a thesis of between 15,000 - 20,000 words on a topic approved by the Unit.

HESC1501 Introductory Exercise Science
School of Medical Sciences
UOC6  HPW6
This course provides an overview of exercise science. Students will be introduced to the areas of exercise physiology, biomechanics, motor control, and exercise behaviour science. Basic concepts and theories in each of the areas will be outlined together with an overview of measurement techniques and basic statistics.

HESC1511 Lifestyle, Kinanthropometry, and Health
School of Medical Sciences
UOC6  HPW6
Pre req: HESC1501
This course will introduce students to the literature examining the effects of physical activity on health. In particular, the effects of exercise on lifestyle diseases will be described. The relation between structure and function within the context of physical movement will also be discussed. Health based screening and intervention techniques will also be outlined with students undertaking a personalised lifestyle change project.

HESC1531 Exercise Behavioural Science
School of Medical Sciences
UOC6  HPW6
Pre req: HESC1501
This course provides an overview of exercise behavioural science based on the concepts introduced in PSYC1001 Psychology 1A. It aims to acquaint students with those aspects of exercise behaviour that have relevance to health and exercise science. Topics covered include psychological responses to injury, exercise addiction, exercise motivation, the effect of exercise on the stress response, the exercise immune response, exercise and cognition, exercise and perception, and the effect of exercise on mental health.

HESC1540 Growth, Development, and Physical Activity
School of Medical Sciences
UOC5  HPW5
Prerequisites: HESC1501
This course will provide an introduction to the development of bones, joints, muscle tissue, nervous tissue, circulatory, and respiratory systems with reference to physical activity. The determining factors in growth and physical activity throughout the lifespan will be discussed and reviewed from multiple perspectives.

HESC2501 Exercise Physiology
School of Medical Sciences
UOC6  HPW6
Prerequisites: BIOL2181, ANAT2111, PHPH2501
This course focuses on how human structure and function is influenced by work and physical activity. Areas to be studied include energy metabolism and liberation, endocrine physiology, applied muscle physiology, and applied cardiopulmonary physiology. The unit includes a number of laboratories covering different areas of exercise physiology.

HESC3504 Physical Activity and Health
School of Medical Sciences
UOC6  HPW6
Prerequisites: HESC1501, HESC1511, HESC2501
This course will introduce students to the literature examining the effects of physical activity on health. In particular, the effects of exercise on cancer, heart disease, vascular disease, lower back pain, stroke, hypertension, obesity, immune function, sleep, stress, and depression will be described. Health based screening and intervention techniques will also be outlined with students undertaking a supervised lifestyle change project through the Lifestyle Clinic.

HESC3521 Advanced Exercise Physiology
School of Medical Sciences
UOC6  HPW6
Prerequisites: PHPH2502, HESC2501
An advanced course linking previous physiological principles with aerobic and anaerobic based energy systems and metabolism. The course examines endocrine physiology and biochemistry of energy systems during exercise and looks at the responses and the adaptations that occur with exercise. The course will also cover ergogenic aids and associated detrimental physiological and pathological factors.

HESC3531 Cardiac Rehabilitation and Exercise
School of Medical Sciences
UOC6  HPW6
Prerequisites: PHPH2502, HESC2501
This course provides in-depth examination of cardiac rehabilitation and the cardiopulmonary system and exercise. Performance of the cardiopulmonary system in healthy and diseased people will be discussed. Extensive practical components involve cardiopulmonary and ECG assessment and related exercise clinical skills. This course offers a mixture of traditional and interactive/case study approaches to learning.

HESC3561 Research Topics in Health and Exercise Science
School of Medical Sciences
UOC6  HPW6
Prerequisite: HESC2501
Initially, in this course a research review will be carried out. Then the student will learn a range of research skills and techniques in their chosen area. The student will both observe and practice data collection in the laboratory of their choice. A report is to be written in the form of a research review and a summary of the skills and techniques acquired.

HESC3571 Motor Control and Dysfunction
School of Medical Sciences
UOC6  HPW6
Prerequisites: ANAT2111, PHPH2502, SESC2451
This course presents a broad overview of how humans plan and execute movement at a systems level of analysis. Emphasis is placed on the relationship between motor behaviour and the way in which the nervous system is organised. The implications of nervous system organisation for motor learning and the treatment of a range of neuro-motor disorders are discussed.

HESC3581 Physical Activity in Special Populations
School of Medical Sciences
UOC6  HPW6
Prerequisites: PHPH2502, HESC2501
The focus of this course is on special populations and their special needs for engaging in physical activity. The course will introduce students to the literature examining the effects of physical activity on health. In particular, the influence of physical activity on the health of children, women, ageing adults, pain, arthritic, and asthmatic patients will be described. This course offers a mixture of traditional and interactive/case study approaches to learning.
HESC3591
Research Topics in Health and Exercise Science
School of Medical Sciences
UOC6 HPW6
Prerequisite: HESC2501
Initially, in this course a research review will be carried out. Then the student will learn a range of research skills and techniques in their chosen area. The student will both observe and practice data collection in the laboratory of their choice. A report is to be written in the form of a research review and a summary of the skills and techniques acquired.

HESC3611
Clinical Movement Studies
School of Medical Sciences
UOC6 HPW6
Prerequisites: ANAT3131, ANAT3141, SESC2451
This course focuses on the quantitative assessment of human movement. Techniques, skills, and knowledge to assess both normal and pathological human motion will be covered. The clinical applications of human motion assessment will also be examined. The course will extend student's knowledge of biomechanics and musculoskeletal functional anatomy acquired in SESC2451.

HESC4501
Research Methods in Physical Activity
School of Medical Sciences
UOC6 HPW6
Prerequisite: HESC3501
This course builds on the information that was covered in HESC1501 Introductory Exercise Science. The student receives more advanced training in statistical software such as SPSS and learns to administer statistical tests such as regression, between and repeated analysis of variance, and multivariate analysis of variance. The student will also develop a research proposal during the course.

HESC4511
Practicum A
School of Medical Sciences
UOC6 HPW6
Prerequisite: HESC3521
Students are required to complete 80 hours of work experience with an approved organisation under the supervision of the practicum coordinator. Course availability: it is intended that students will complete this placement over semester 1. The student chooses, after consultation and academic advice, to undertake a structured internship in a relevant professional area. This is done under the supervision of an accredited exercise physiologist with industry experience. The supervisor will ensure adequate records of activities and skills developed by the student. The course requires the submission of a substantial internship report, a completed lab book, and a seminar presentation.

HESC4521
Practicum B
School of Medical Sciences
UOC6 HPW6
Prerequisite: HESC4511
See description for Practicum A. The student may take the internship in a different or related professional area to that of Practicum A. The same requirements apply in terms of a completed log book, a substantial report, and seminar presentation.

HESC4531
Movement Rehabilitation A
School of Medical Sciences
UOC6 HPW6
Prerequisites: ANAT3131, ANAT3141, SESC2451, HESC3571
This course describes the use of exercise as a clinical rehabilitative tool for humans with neurological and muscular pathologies. The course delivers information about evaluation of injury sites and the design and implementation of exercise-based rehabilitative techniques to improve functional capability. This course offers a mixture of traditional and interactive/case study approaches to learning.

HESC4541
Clinical Exercise Physiology A
School of Medical Sciences
UOC6 HPW6
Prerequisites: HESC3521, HESC3531
This course describes the use of exercise as a clinical tool in the rehabilitation of humans with cardiovascular and pulmonary pathologies. The course delivers information about the design and implementation of exercise-based rehabilitative methods to improve functional capability. This course offers a mixture of traditional and interactive/case study approaches to learning.

HESC4551
Research Project
School of Medical Sciences
UOC6 HPW6
Prerequisite: HESC3521
A research proposal will have been developed in the course Research Methods in Physical Activity (HESC4501). In this course the student will implement the approved project in terms of reviewing the literature, applying the appropriate methods, accumulating results and analysing the results through the appropriate statistics, discussing the results, and drawing conclusions. A report is to be written in the form of a scientific paper.

HESC4560
Professional Practice
School of Medical Sciences
UOC6 HPW6
Prerequisite: HESC3521
This course incorporates an initial research literature review followed by the acquisition of a range of research skills and techniques in the student's chosen area. The student will both observe and practice data collection in the laboratory of their choice. A final report is to be written with a summary of the skills and techniques acquired.

HESC4571
Research Project
School of Medical Sciences
UOC6 HPW6
Prerequisite: HESC3521
The principles and practice of planning, staffing, financial management and information systems management with reference to exercise rehabilitation will be the focus of this course. Issues such as ethics, indemnity, and insurance will also be discussed.

HESC4581
Clinical Exercise Physiology B
School of Medical Sciences
UOC6 HPW6
Prerequisite: HESC4541
This course builds on material presented in HESC4541 Clinical Exercise Physiology A. The course elaborates the use of exercise as a clinical rehabilitative tool for humans with a spectrum of diseases and disabilities not examined in HESC4541. The course delivers more advanced information about design and implementation of exercise-based rehabilitative methods used to improve functional capability. This course offers a mixture of traditional and interactive/case study approaches to learning.

HESC4591
Neuromuscular Rehabilitation
School of Medical Sciences
UOC6 HPW6
Prerequisites: HESC3571, HESC4531
This course provides the opportunity for students to understand the potential and limitations of exercise as a tool for clinical rehabilitation in humans with neurological pathologies. Specific information about a range of neuromuscular disorders is provided, and students are encouraged to apply their knowledge to case studies and realistic scenarios in order to develop the scientific and clinical attributes necessary to contribute effectively to a neuromuscular rehabilitation team. This course offers a mixture of traditional and interactive/case study approaches to learning.

HESC4621
Movement Rehabilitation B
School of Medical Sciences
UOC6 HPW6
Prerequisites: HESC4531
This course builds on material presented in HESC4531 Movement Rehabilitation A. The course describes specific rehabilitation techniques
that are used for treating a variety of injuries involving the shoulder, elbow, hand, wrist, groin, hip, thigh, knee, lower leg, ankle, foot, and the spine. This course offers a mixture of traditional and interactive/case study approaches to learning.

HESC4631
Nutrients, Metabolism, and Exercise
School of Medical Sciences
UOC6 HPW6
Prerequisite: FOOD3330
This course will consider the relationship between nutrients, metabolism, and different types of exercise. The current literature on the influence of nutrition on pre-, during-, and post-exercise metabolism with a view to enhancing performance will be reviewed. Discussion will focus on the adjustment of nutrient requirements for age, gender, special needs, and environment (heat and altitude).

HIST1003
The Fatal Shore: Aborigines, Immigrants and Convict Society
School of History
UOC6 HPW3
Sex and violence pervaded early colonial society. Looks at the way violence was used to dispossess Aboriginal people from their land and to establish and maintain convict society. Examines the complex relationships arising from sexuality: sex as a form of currency, domination, negotiation and identity for both Aboriginal people and Europeans. What is the legacy of these brutal beginnings for modern Australia? Are we still marked by the convict stain? And how did the criminal system develop in Australia? Did early colonial Australia recreate the class, gender and ethnic inequalities of 18th and 19th century Britain? Also includes an excursion to a historic site in the Sydney region.

HIST1004
Making Australia 1850 - 1901: Land, People and Culture
School of History
UOC6 HPW3
The historical context for the making of modern Australia, 1850-1901. What was the 19th century experience of Aboriginal people? Where does the Republican Movement find its Australian origins? What do recent stereotypes of masculinity and femininity owe to our colonial past? How has history shaped definitions and expressions of sexuality? What are the origins of our current political system? Charts Australia's development from an isolated colony to an independent nation.

HIST1010
Introducing Southeast Asia
School of History
UOC6 HPW3
Excluded: ASIA1002
Introduces students to the history of the Southeast Asian region through a survey of the major eras from the classical civilisation of Angkor, Pagan and Borobodur up until the early twentieth century. Beginning with the religious and cultural traditions of Southeast Asia, kingship and power, pre-colonial society, colonial society and nationalist visions are explored. Analyses the ideas of nationalist figures like Jose Rizal and Sukarno, as well as pre-modern Southeast Asia. Explores themes such as women, male-female relations, sexuality and social constructions of gender. Emphasis will be placed upon patterns of change from prehistory through to modernity but with the recognition that even ‘revolutionary’ change has not necessarily involved progress for women. Topics include: androcentric periodization of history; debates about early ‘matrarchies’; patriarchal controls placed upon women, their sexuality and fertility; different social constructs of feminine and masculine roles and identity; and the importance of culture and class in determining social roles, male-female relations and differences between women.

HIST1011
The Emergence of Modern Europe (A)
School of History
UOC6 HPW3
The principal themes in the history of early modern Europe, concentrating on the 16th and 17th centuries. Topics may include modern trends such as the Renaissance, the Protestant Reformation, the Scientific Revolution, the emergence of towns and the centralised absolute state. Discussion may also include the history of climate, disease and population change and their relationship with the environment; social and religious conflicts; and the lives and beliefs of ‘ordinary people’ in the period, such as witchcraft. For details of topics covered in current year contact the School of History.

HIST1012
The Emergence of Modern Europe (B)
School of History
UOC6 HPW3
Excluded: JWST1000
Investigates major themes in the history of early modern Europe during the 17th and 18th centuries. Topics may include the consolidation of ‘absolute’ monarchies, the intellectual challenges of the Scientific Revolution and the Enlightenment, the emergence of a more literate and secular society, the lives and beliefs of ‘ordinary people’, and the prospects for reform of the ‘Old Regime’ in the late 18th century.

HIST1014
Enter the Dragons: Continuity & Change in East Asia
School of History
UOC6 HPW3
An introduction to the societies and cultures of East Asia. Special consideration will be given to early contacts with Europe, responses to intervention and modernisation and the links between traditional cultures and patterns of historical change into the twentieth century. The course is intended to provide a survey of major themes in East Asian history, preparatory to more specific study at upper level in the School of History.

HIST1015
The 60s: Australia and the United States
School of History
UOC6 HPW3
Examines the significance of the 1960s in Australian and American national life and explores the construction of the Sixties as an epoch in western history. After exploring the construction of the Sixties the course will examine a number of significant social and political themes which have characterised the period and compare and contrast the Australian and American experience. Themes include issues such as race and minorities, popular culture, civil protest, architecture, the war in Vietnam, student activism, the sexual revolution and the counter-culture. Concludes by examining the legacy of the Sixties for Australia and the United States.

HIST1016
World History: The Big Picture
School of History
UOC6 HPW3
Excluded: ASIA1000, HIST1017, INST1000, INST1100
Focuses on the basic features and forces which have shaped human history from the origins of civilisation to modern times. The first part of the course covers selected major civilisations (eg, Roman Empire, Han China) while the second covers transnational issues such as nomadism, trade between civilisations, disease and climate. The final part covers the origins and nature of modernity, to the 19th century.

HIST1020
Women, Gender & World History
School of History
UOC6 HPW3
Excluded: GLST1100, WONS1003
Looks at world change from ancient times, with reference to premodern women, male-female relations, sexuality and social constructions of gender. Emphasis will be placed upon patterns of change from prehistory through to modernity but with the recognition that even ‘revolutionary’ change has not necessarily involved progress for women. Topics include: androcentric periodization of history; debates about early ‘matrarchies’; patriarchal controls placed upon women, their sexuality and fertility; different social constructs of feminine and masculine roles and identity; and the importance of culture and class in determining social roles, male-female relations and differences between women.

HIST1021
World History: The Twentieth Century
School of History
UOC6 HPW3
Excluded: HIST1019, HIST2000, INST1004, INST1200, INST2000, SPAN2432
Focuses on the major forces and features of twentieth century world history. Includes empires, modernity, nationalism, fascism, decolonisation, communist revolutions, total war, genocide, the growth of the media, social movements, environment, ‘Americanisation’, and terror.

HIST1030
The Modern Jewish Experience: Emancipation to the Holocaust
School of History
UOC6 HPW3
Excluded: JWST1000
The progress towards emancipation of the Jews in the 18th and 19th centuries was driven not only by Enlightenment ideas of equality and tolerance, but also by highly pragmatic considerations. While initially, for the most part, enthusiastic objects of this process, European Jews grew increasingly aware of the conditions attached to it and of its real and potential dangers. Traces the history of emancipation, its achievements and failures, and the light it sheds on the development of European societies.

HIST1031
The Modern Jewish Experience: Nationalism and Statehood
School of History
UOC6 HPW3
Excluded: JWST1001
Explores the origins of modern Jewish nationalism, Zionism, in the mid-nineteenth century and charts its development through to the creation of the State of Israel in 1948. Discusses the influence of emancipation, nationalism, socialism and anti-semitism. Concludes by considering the debate on ‘post-Zionism’ and the challenges it may present for Israel and the Jewish Diaspora.

HIST2015
Women in the Modern World
School of History
UOC6 HPW3
Prerequisite: 36 units of credit
History of women in the Western world since the French and American Revolutions. Stress on relating the role and position of women to questions of social change over long periods. Topics include: changing family structures, sexual attitudes and practices, women's work, the role of women in feminist politics and reform movements, the position of women in contemporary Western society. Covers the United States, Europe and Australia.

HIST2016
Film in History
School of History
UOC6 HPW3
Prerequisite: 36 units of credit
Assesses the significance, for the discipline of History, of film as a major communications medium. Issues include: the industrial archaeology of the film; the political-economic history of the film; national and transnational film industries, the impact of film upon perceptions of the past, and its uses in teaching history; film as a primary historical source material (ie documentaries, pedagogic films, advertising commercials and propaganda films, and home movies); reading film texts from the standpoint of the historian.

HIST2019
Identity, Culture, Politics: Ireland and Australia in the 20th Century
School of History
UOC6 HPW3
Prerequisite: 36 units of credit; Excluded: IRSH2002
Examines the political, economic and social changes that took place in Ireland and Australia during the course of the 20th century as they became increasingly independent of Great Britain. Compares and contrasts developments in both countries in terms of national identity, constitutional arrangements with Great Britain, the impact of war, politics, economics and social issues.

HIST2025
Slavery and Freedom: American History 1750-1890
School of History
UOC6 HPW3
Prerequisite: 36 units of credit
A social history of the expansion and consolidation of the new Republic, with special attention to slavery, native Americans, the western frontier, Jacksonian democracy, reform, the Civil War and its aftermath. The central concern is how a social system based on physical coercion and paternalistic social relations came to be replaced by a free labour system based on principles of individual morality and self-restraint.

HIST2027
Inventing Australia: Race, Nation, Identity, 1901-1949
School of History
UOC6 HPW3
Prerequisite: 36 units of credit; Excluded: AUST2019
Examines the changing myths, ideas, visions, prejudices and debates through which Australians experienced themselves, others and the world during the first half of the twentieth century. Themes include: the making of a White Australia, ideas of nationhood, invasion fears, the experience of Indigenous Australians, sex, disease, housewives, new forms of cinema, slums, cities and work.

HIST2028
Australia since World War 2
School of History
UOC6 HPW3
Prerequisite: 36 units of credit; Excluded: AUST2020
Major developments in Australian Society since World War II. Topics include: immigration, religion, culture, government, education, comparative welfare history, external relations, women's experiences, media studies, Aboriginal culture and politics, the impact of the Vietnam war, tough times and the 1980s, Australia and America, sporting culture and Olympism, television and the media, Australia and Asia, and the emergence of the new commercial and communication systems of 'the Information Age'.

HIST2041
Australian Sport: History and Culture
School of History
UOC6 HPW3
Prerequisite: 36 units of credit; Excluded: AUST2018
Urbanisation transformed the shape of sport and popular culture and created an industry of mass entertainment. Explores how and why this transition took place in 19th-century Australia and England and what it all meant in personal, familial, regional and national terms. Topics include: historiography of sport and mass culture; the leisure revolution in 18th-century Britain; the rise of organised sport and mass culture in Australia; and the social and political implications of new leisure institutions.

HIST2045
Modern America
School of History
UOC6 HPW3
Prerequisite: 36 units of credit
Analyses US history from the end of the Civil War to the reverberations of 9/11 from the perspective of politics, economics, culture, minorities, and foreign policy. Asks what America is and who the Americans are, and explains how this former colony acquired the status of hyperpower.

HIST2049
Working Lives: Historical Perspectives
School of History
UOC6 HPW3
Prerequisite: 36 units of credit
Explores the historically changing nature of work in relation to the individual and society. Uses theoretical literature to explore themes such as the development of the labour process, the relationship between work and ethnicity, the cultural and ideological dimensions of work, and the connections between changes in the workplace and broader labour movements. Unemployment, technological change and workers' responses are examined. The gendered nature of work is considered: the role of the household economy, the development of sexual divisions of labour and the forms of work specific to women's experience as well as the role of work in shaping men's identities. Students will visit museums and industrial sites. Draws on case studies from a broad range of countries, including Australia.

HIST12054
Modern Japan: Political Culture, Popular Culture
School of History
UOC6 HPW3
Prerequisite: 36 units of credit; Excluded: HIST2012
Concentrates on Japan from Meiji (1868-1912) to the Fifteen-year War (1931-45), but includes the Allied Occupation, post-war popular culture, and the apparent ‘successes’ of Japan's modernisation; looks at imperial Japan not just through the eyes of its 'successful' leaders, but also through the eyes of Japanese who were marginalised in society or who actively resisted state authoritarianism. Weekly topics vary, ranging from the hegemonic imperialist ideology of emperor-centred paternalism, to social movements of opposition, to changing cultural (eg literary) forms.
Includes a field trip to the Australian War Memorial in Canberra.

Note: Includes a field trip to the Australian War Memorial in Canberra.

HIST2035
Modern India
School of History
UOC6    HPW3
Prerequisite: 36 units of credit; Excluded: HIST2008
Examines the history of Modern India, and the controversies surrounding history in the subcontinent. Topics include the Mughal empire, the British Raj, the Indian Nationalist Movement, Mahatma Gandhi, Independence and the partition of India into the new nations of India and Pakistan, independent India and the effects of globalisation in South Asia. Themes include colonialism and its aftermath, resistance, gender and religious nationalism. Also engages with, and critiques, popular conceptions of India as it is represented in the West, and incorporates Indian popular culture, literature, film, sport and music to this end.

HIST2059
The Modern Olympics
School of History
UOC6    HPW3
Prerequisite: 36 units of credit
Examines the successful elevation of a small-scale European athletic event into a major world festival. Topics include: the invention of the modern Olympics; myth and ideology; politics, including the role and structure of the IOC; commercialisation; the impact of media, especially film and television; the bidding process; gender issues; and the impact of the Olympics on the environment, town planning, tourism and the economies of host cities.

HIST2060
(Un)Making the Third World: History & Global Development B
School of History
UOC6    HPW3
Prerequisite: 36 units of credit; Excluded: COMD2010, GLST2101, HIST2040, SPAN2424, SPAN2428
Explores the history of dictatorship and democracy in the nineteenth and twentieth centuries from the vantage point of the early twenty-first century. In geographical terms, the focus is on Latin America with a particular focus on Argentina, Brazil, Chile, Peru, Mexico, Cuba, Guatemala and Colombia. The historical trajectories, current circumstances and future prospects of these nation-states will be examined in relation to themes such as authoritarianism, violence, terror, fear, democracy, liberty, freedom, nationalism, revolution, US hegemony, neo-liberalism and globalisation.

HIST2061
(Un)Making the Third World: History & Global Development A
School of History
UOC6    HPW3
Prerequisite: 36 units of credit; Excluded: COMD2020, GLST2102, INS120100, SPAN2429
Explores the history of underdevelopment and development in the nineteenth and twentieth centuries from the vantage point of the early twenty-first century. Themes include colonialism, nationalism, decolonisation and post-colonial states; the history and politics of development in the Cold War and post-Cold War era; the state and economic development; the role of international organisations such as the World Bank and the IMF; and the question of globalisation. In geographical terms, the focus is on sub-Saharan Africa, especially the Democratic Republic of the Congo; the Middle East, especially Egypt; South Asia, especially India; Southeast Asia, especially Indonesia; and Northeast Asia, especially South Korea.

HIST2074
Holocaust and Genocide in Historical Perspective
School of History
UOC6    HPW3
Prerequisite: 36 units of credit; Excluded: JWST2101
Introduces students to the field of genocide and Holocaust studies, beginning with competing definitions of genocide and moving to a detailed treatment of various cases of mass death in world history. The Holocaust as a paradigm case of genocide and the legal prosecution of genocide will be considered.

HIST2078
In the Firing Line: Australians go to War
School of History
UOC6    HPW3
Prerequisite: 36 units of credit; Excluded: AUST2008
Examines the importance of war in shaping Australia, from the colonial period to the engagement at Gallipoli and up until the outbreak of World War II. Considers war’s contribution to definitions of nationality, ethnicity, citizenship, masculinity and femininity and the way war shaped Australia’s place in Empire. Focuses on the battle zone and looks at the way that participants understood and represented the experience of war, drawing on literature and film, personal letters and diaries, reminiscences and oral interviews as well as official records.

Note: Includes a field trip to the Australian War Memorial in Canberra.

HIST2090
The Transformations of Warfare
School of History
UOC6    HPW3
Prerequisite: 36 units of credit; Excluded: GENT0309
Ranging from ancient Roman warriors to Vietnamese guerrillas and Islamic suicide bombers, examines the evolution of warfare in terms of the nature of troops, tactics, and technology. Considers wars not only as the greatest cataclysms in history, but also as fundamental catalysts of change. Emphasises how society has impacted warfare and the other way around, exploring themes as varied as law, ethics, women, identity, inter-racial relations, and war and war's collateral damage and its consequences for civilians and the environment.

HIST2201
The Medieval World
School of History
UOC6    HPW3
Prerequisite: 36 units of credit
The Middle Ages is among the most dynamic and formative phases in world history. Deals mainly with Europe and the Mediterranean world from Late Antiquity through to the Renaissance, and covers topics such as the ‘fall’ of Rome, the ‘Barbarian West’, Byzantium, Persia and Islam, the making of Latin Christendom, the Vikings, the Crusades, and Europe’s cultural and intellectual revival from 1000 AD. Important themes include sex, gender, Christianity, Islam, heresy, state formation, feudalism, imperialism and warfare.

HIST2202
Born to the Purple: The Byzantine World (330-1453)
School of History
UOC6    HPW3
Prerequisite: 36 units of credit, Excluded: GREK3505
Examines the Byzantine world, from its origins in the late antique world, through the Middle Ages, to its political and cultural legacy in the early modern world. Focuses on political, social and religious developments in the Byzantine state and church, the manner in which Byzantine culture received and redeployed its Classical heritage, and its place between the European, African and Asian worlds.

HIST2203
The Modern Greek World (1453 to Present Day)
Modern Greek Studies
UOC6    HPW3
Prerequisite: 36 units of credit; Excluded: GREK3506
Examines the contemporary culture of Greece and Cyprus within its historical context. Considers the meaning of events such as the fall of the Byzantine Empire in 1453, the effects of Western rule and Ottoman domination, the influence of the European Renaissance and Enlightenment, the movement for independence, the Asia Minor catastrophe, the Nazi and Fascist occupation and the military dictatorship of 1967-74.

Note: This course is compulsory for students who wish to major in Modern Greek. Taught in Greek.

HIST2351
Chinese Civilisation, 1600 BC to 1600 AD
School of History
UOC6    HPW3
Prerequisite: 36 units of credit
Examines the history of China from the origins of the state through to the present day. Topics include technology, ritual, and war-making in Shang (1600-1050 BC) and Zhou (1050-256 BC) periods; Chinese political thought; the establishment of a unified government under Confucian principles; influence of Buddhism on Chinese society; technological innovations in the Song period (960-1276); relations with northern barbarians and the Mongol conquest of China: commerce and culture under the Ming, and building the Great Wall.
HIST2352
Modern China, 1600-present
School of History
UOC6 HPW3
Prerequisite: 36 units of credit; Excluded: HIST2043, HIST2044
Covers the history of China from the foundation of the Manchu Qing Dynasty (1644-1912) through the Republican Era (1912-1949) and the era of Communist Party rule (1949-present). Topics include consolidation and empire-building under Manchu rule; internal rebellions and the growing menace of nineteenth century Western imperialism; the formation of a modern Republic and a Nationalist system of government (1912-49); the brutal and devastating war with Japan (1931-1945); and the foundation of a socialist government backed by the tide of rural revolution. Examines China’s transformations under the leadership of Mao Zedong, Deng Xiaoping, and Jiang Zemin.

HIST2400
Concepts of Europe
School of History
UOC6 HPW3
Prerequisite: 36 units of credit; Excluded: EURO2000
Europe conquered, colonised and revolutionised the world despite being politically and culturally fragmented. Now, faced with the threat of decline, it seeks to overcome the fragmentation through the consolidation and expansion of the European Union, but different ideas about what a united Europe should be like continue to divide the participants in the European project. These differences have deep historical roots, as indeed does the European idea itself. They reflect the ambiguities of defining “Europe” between geographical boundaries, cultural identities, religious beliefs, political power, military security and economic interests, between local, regional, national and imperial loyalties. Traces the historical origins of the European idea, examines the various concepts of Europe used throughout the centuries and discusses their relevance to the contemporary difficulties of the European Union.

HIST2410
Nineteenth Century Europe 1848-1918: Nation, Empire, Revolution
School of History
UOC6 HPW3
Prerequisite: 36 units of credit; Excluded: EURO2410, IRSH2410
Examines the rise of the explosive social and national tensions in late nineteenth-century Europe which culminated in world war and revolution (Russia, Germany, Hungary, Ireland). Key themes are industrialisation and the rise of the labour movement; urbanisation and its impact on gender roles; the flowering of bourgeois culture and its fin de siècle crisis; the transformation of revolutionary into “integral” nationalism and imperialist jingoism; great power rivalry and the origins of the First World War. Aims to understand how the period laid the foundations for the dramatic events of the “short twentieth century”.

HIST2482
Europe, 1914-1945: Dark Continent?
School of History
UOC6 HPW3
Prerequisite: 36 units of credit; Excluded: EURO2482, HIST2066, HIST2067
Explores examples of catastrophic wars and revolutionary upheavals, examines cases of ethnic-cleansing and genocide, and analyses the impact of ideologies on concepts of nation, race and gender. Themes include: Total War, Socialism, Fascism, Communism, Anarchism and the “New Woman”. Case studies will include Hitler's Germany, Stalin’s Russia, the Spanish Civil War, WWI & WWII, the Armenian genocide and the Holocaust.

HIST2483
Decadence, Dada & All That Jazz: European Cultural History, 1880-1945
School of History
UOC6 HPW3
Prerequisite: 36 units of credit; Excluded: EURO2483
Focuses on the major cultural expressions of European modernity and the way in which they reflected social and political transformation. Themes include: modernism’s challenges to positivism, fin-de-siècle decadence, Freud and the rise of psychoanalysis, the roaring 20s, feminism, Surrealism, Cubism, Cabaret, Americanisation, Jazz, and cultural representations of WWI & WWII.

HIST2484
Europe in the Age of Revolutions
School of History
UOC6 HPW3
Prerequisite: 36 units of credit
Examines and assesses the most significant upheavals of the turbulent decades between the late-18th century and the mid-19th century. Topics may include: the French Revolution, Napoleonic Europe, innovations in agriculture, industry and communications, social transformations (population growth, urbanisation, ideas about ‘classes’), cultural production (Romanticism, the periodical press), the expansion of state power, and conflicts over political representation (conservatism, nationalism, socialism, feminism).

HIST2485
The German-Jewish Experience
School of History
UOC6 HPW3
Prerequisite: 36 units of credit; Excluded: EURO2300, JWST2103, SOCA3310
The contribution of Jewish Germans to the social, political and cultural life of Germany and Austria from 1900 to 1933. The impact of attempted integration as reflected in the work of Herzl, Schnitzler, Kafka, Buber, Feuchtwanger, Scholers and others; the failure of the German-Jewish symbiosis as a basis for discussion of the concepts of assimilation, acculturation, ethnicity, identity and nationality.

HIST2489
The Attractions of Communism
School of History
UOC6 HPW3
Prerequisite: 36 units of credit; Excluded: EURO2311, SOCA3313
After the demise of the Soviet Empire, the ‘totalitarianism thesis’, which equates Fascism and Communism, has gained a new lease of life. Though there are many similarities in the political practices of these two movements which dominated the twentieth century, their aims and the groups they appealed to seem radically opposed. Seeks to explain the attractions of Communism through the study of documents, literary texts and film, and to shed light on the reasons for the loyalty of many European workers and intellectuals to ‘the cause’ despite their increasing awareness of its deformations in the Soviet Union and elsewhere.

HIST2491
Text Workshop A
School of History
UOC6 HPW3
Prerequisite: 36 units of credit; Excluded: EURO2201
A close analysis of short key texts in modern European history and culture, designed to develop students’ close reading skills and to introduce them to important social, philosophical and theoretical questions through first hand encounters with the texts themselves.

HIST2510
The United States and Changing Global Orders
School of History
UOC6 HPW3
Prerequisite: 36 units of credit; Excluded: GLST2103, SPAN2431
Examines the role of the USA in the world in the context of the history of changing global orders. Drawing on diplomatic history, international history, international relations, international political economy, and social and cultural history, the main themes include: westward expansion, ‘Manifest Destiny’, theories of imperialism, US-Soviet rivalry, and debates about globalisation and the character and future of the contemporary global order centred on the USA.

HIST2511
The United States and Conflict in the Middle East
School of History
UOC6 HPW3
Prerequisite: 36 units of credit
Explores shifting American interests and policies in the Middle East - conceived as a broad and diverse region from Algeria to Afghanistan - from the early republic’s conflict with ‘Barbary’ states to the clash with ‘Rogue’ states after 9/11. The emphasis is on the post-World War II era and major crises such as, among many others, the Arab-Israeli conflict.
HIST2662
Rome: From Kingdom to Republic
School of History
UOC6 HPW3
Prerequisite: 36 units of credit
Traces the rise of Rome from a small, unimportant city-state to the largest power in the Mediterranean world. Explores the political, social, and cultural development of Roman civilisation from the eighth century BC to the late Republic. Examines how Rome as a state and as a people dealt with both internal conflict and external adversaries. Topics include: Rome's rise, the Punic Wars, the rise of the aristocracy; culture, art, philosophy and the uniqueness of the 'Greek experiment'.

HIST2665
Early Greece: Bronze Age to Archaic Greece
School of History
UOC6 HPW3
Prerequisite: 36 units of credit
Explores the origins of Greek civilisation. Begins with a survey of the earliest eras before examining the island and mainland civilisations of the Aegean Bronze Age, the Greek 'Dark Age' following their collapse, and the 'Greek Renaissance' of the Archaic Era. Themes may include: historiography and archaeology; the political evolution of Greek states; trade, colonisation, and intercultural relationships; Panhellenism and the evolution of Greek identity; the evolution of social structures (such as the practice of slavery, the status of women, the composition and role of the aristocracy); culture, art, philosophy and the uniqueness of the 'Greek experiment'.

HIST2666
The Expansion of Greece: Classical to Roman Greece
School of History
UOC6 HPW3
Prerequisite: 36 units of credit
Examines the dynamic, diverse, and troubled society of Classical Greece's polis civilisation, the failure of the polis and the rise of the kingdom of Macedon. Studies Greek interaction with non-Greeks in the Hellenistic kingdoms following the aftermath of Alexander's conquests. Investigates the decline of these kingdoms, and traces how Greece became a prosperous backwater of the Roman Empire. Themes include the origins and evolution of Greek institutions, long-term changes in economic and social structures, and Greek interaction with the outside world.

HIST2751
Nightlife and the Metropolis: Moulin Rouge to Rave
School of History
UOC6 HPW3
Prerequisite: 36 units of credit
Traces the unfolding of a global culture of nightlife in the twentieth century, thus providing a window into modern urban cultural history. Examines how nightlife spaces created new forms of sociability, fashionability, sexuality, and identity for modern urbanites. Other influences on the growth and spread of nightlife include imperialism, colonialism, and war; advances in media technologies such as radio, film, television, and recording; and the role of criminal organisations and narcotics in building modern nightlife industries. Emphasises East Asian cities such as Tokyo and Shanghai.

HIST2752
Religion in World History
School of History
UOC6 HPW3
Prerequisite: 36 units of credit
Uses pilgrimage and travel as a device to examine the role of religion in world history, focusing on the politicized nature of religions, the role of religion in people's lives, and recent manifestations of religious experience. Topics include: Jerusalem; medieval and modern Marian devotion (the Coqee Madonna); Haj; the adoption of pilgrimage as resistance against colonial or totalizing regimes in India and Tibet; religion as protest (Malcolm X); New Religious Movements; 'civic religion' (travel to Ground Zero), pilgrimage to Gallipoli; travel to places associated with iconic people (Diana, Elvis); backpacking and New Age travel and virtual pilgrimage.

HIST2760
A History of Sexualities
School of History
UOC6 HPW3
Prerequisite: 36 units of credit; Excluded: WOMS2003
Begins with Classical Greece and establishes some important themes concerning gender, sex and culture which will be traced through the intervention of colonialism, Christianity, and the development of social sciences from the 18th century; traces the relationship between sexuality and socio-political control in the 19th and 20th centuries; investigates the shaping of sexualities through art, literature, cinema and media as well as pornography; and looks beyond the infamy of Lesbos, Mary Magdalen, the Marquis de Sade, Oscar Wilde, Margaret Mead, and Monica Lewinsky, amongst others, to uncover a rich history of the west.

HIST3101
Understanding Nazi Germany: Origins, Structures, Explanations
School of History
UOC6 HPW3
Prerequisite: 36 units of credit and 12 units of credit at the HIST2000 level; Excluded: HIST2422, EURO2331
Explores debates over the origins and role of Nazi Germany. Issues will include: the roots in German history; the driving force of the regime; Hitler's role and Nazi Germany's war aims. Sixty years after its defeat in World War II, Nazi Germany continues to fascinate and to leave questions hotly debated by historians. Discusses whether the Nazis were modernisers or backward-looking romantics, and why there was so little opposition. Considers Nazi Germany's war aims and if the Holocaust was the inevitable outcome of Nazi ideology or a bureaucratic response to impending defeat. These issues will be explored in lectures and student-led seminar discussions of primary and secondary texts.

HIST3102
Premodern Japan: Status, Sex and Power
School of History
UOC6 HPW3
Prerequisite: 12 units of credit at the HIST2000 level; Excluded: HIST2076
A thematic treatment of Japanese history from ancient state formation to the Meiji Restoration of 1868, this course covers a variety of cultural and political topics. Features a particular emphasis upon cultural heterogeneity, differences and tensions between the different status groups: aristocrats, samurai, clerics, peasants, merchants - and also upon gender constructs and sexuality/s. Students are encouraged to reflect upon issues of historiography such as: the pitfalls of linear narrative histories; how the Japanese past has been constructed by scholars and to what ends; and the extent to which interpretations of the past are the products of our present.

HIST3103
Urban Legends: The History of Sydney
School of History
UOC6 HPW3
Prerequisite: 36 units of credit and 12 units of credit at the HIST2000 level; Excluded: HIST2100, AUST2022, AUST3103
Explores Sydney's dramatic transformation from a tiny preindustrial penal settlement to a sprawling city of over four million people by examining the interplay of natural, cultural and spatial histories in the broader context of urban history and historiography. Themes include Sydney's environmental, Aboriginal, immigrant and gendered histories, 'slums' and suburbs, communities and sub-cultures, heritage and modernity, sex and food, the creation and impact of urban images.
Note: Includes excursions to key historic Sydney areas.

HIST3106
Environmental History
School of History
UOC6 HPW3
Prerequisite: 12 units of credit at the HIST2000 level; Excluded: HIST2039
A global perspective on our modern environmental condition and its development, primarily in Europe, the US and Australia, since pre-industrial times. Topics include: human impacts and natural changes in climate, the forests and the oceans; changing concepts of the natural world; economics and environmental damage; the impact of population growth and the industrial revolution; imperialism and its ecological effects on indigenous peoples; modern conservation and environmental movements.
HIST3108
The Mediterranean in History: From Odyssey to Club Med
School of History
UOC6 HPW3
Prerequisite: 12 units of credit at the HIST2000 level
Navigates the Mediterranean world from the time of Homer through to the advent of package tours, and examines whether there is such a thing as Mediterranean history. Topics include: The Odyssey, Greeks and Phoenicians, Roman cults, saint worship, the Jewish diaspora, and the broad impact of Venice, the Crusades, Islam and the Corsairs. Pays particular attention to the modern period, with special reference to multi-ethnic port cities (eg, Salonica, Alexandria andHaifa), banditry, rural poverty and revolt, Mediterranean fascism, popular religion and mass tourism.

HIST3109
Barbarians, Peasants & Vampires: Eastern Europe in History & Imagination
School of History
UOC6 HPW3
Prerequisite: 12 units of credit at the HIST2000 level; Excluded: EUROJ3001
Examines imaginative representations of East European peoples through history, drawing on evidence from visual images, travel writing, chronicles. Clarifies the connections between history, mythology, demonisation and romanticism in West European depictions of the ‘East’, and Eastern self-representation.

HIST3111
The Ages of Homer
School of History
UOC6 HPW3
Prerequisite: 12 units of credit at the HIST2000 level
Explores the societies reflected in the Homeric poems, drawing upon documentary and material evidence from the Late Bronze Age to the early Archaic Period. In addition to the history and archaeology of Greece and Anatolia from ca. 1300-700 BC, topics include the collapse of complex civilisations in the Late Bronze Age Mediterranean and the onset of a ‘dark age’, the nature of oral tradition, the historicity of political, social, and cultural arrangements described in the poem, the emergence of state-level societies, colonisation, and long-distance trade in the Aegean, and the origins of Panhellenism.

HIST3900
Historiography of Southeast Asia
School of History
UOC6 HPW3
Prerequisite: 12 units of credit at the HIST2000 level at credit level or better; Excluded: HIST3008
Gives students practice in the discipline of history. Students will: conduct literature searches, comparing use of reference guides and computer searches; write review articles of scholarly literature on a prescribed topic; study the art of the book review; analyse general histories to establish ‘dark age’, the nature of oral tradition, the historicity of political, social, and cultural arrangements described in the poem, the emergence of state-level societies, colonisation, and long-distance trade in the Aegean, and the origins of Panhellenism.

HIST3902
Australian History and its Constructions
School of History
UOC6 HPW3
Prerequisite: 12 units of credit at the HIST2000 level at credit level or better
Deals with various questions, themes and debates which have shaped current perceptions of the past and the evolution of historical literature in the Australian national context. Special attention is paid to the problems of attempting history in a national perspective and representative examples of colonial, as well as early and more recent Australian historiography. Also deals with individualism and the recent new historiography including feminist perspectives and the globalisation of ideas and topics which include the role of libraries and similar institutions and the Internet, film and memory, postmodernism and the killing of history.

HIST3904
Going Public: Public History and the Historian
School of History
UOC6 HPW3
Prerequisite: 12 units of credit at the HIST2000 level at credit level or better
Public history - the practice of history outside academia - is a conduit between academic history and the wider community. Explores the many ways public history is understood, practised and applied and its dynamic (often subversive) potential to question standard historical narratives. Offers practical information on working as a historian and gives students experience in primary research and writing for diverse audiences. Topics include: heritage and environmental campaigns, conservation and redevelopment projects, museums, and popular history.

HIST3905
Evidence and Interpretation: Controversies in European History
School of History
UOC6 HPW3
Prerequisite: 12 units of credit at the HIST2000 level at credit level or better
From the famous controversy between E H Carr and Geoffrey Elton, sparked by Carr’s ‘What is History?’ half a century ago, to the more recent ‘postmodernism’ debate, historians have been sharply divided over such key issues in historiography as the relative importance of empirical evidence, theories, moral values, and narrative subjectivity. Explores these issues through both the major writings of the key protagonists in these debates, and case studies of three of the most celebrated ‘wars of interpretation’ in European history: the English Civil War, the French Revolution, and the rise of Nazism in Germany.

HIST3907
Clio’s Craft: Writing Feminist Histories
School of History
UOC6 HPW3
Prerequisite: 12 units of credit at the HIST2000 level at credit level or better
Examines the theory and practice of feminist history, comprising histories of women, gender and sexualities. Emphasises changing approaches to feminist history inspired by different sorts of feminist theory - recently, for example, by sexual difference (‘French’) feminism and postcolonial feminism.

HIST3912
Researching and Writing History
School of History
UOC6 HPW3
Prerequisite: 12 units of credit at the HIST2000 level at credit level or better
A seminar and workshop series in which students are introduced to a variety of research methods, sources and styles of writing, e.g. biography, oral history, family history, use of land titles, newspapers, parliamentary papers, official and private archives. Students will receive hands-on experience in dealing with primary sources and visit major archives in Sydney and Canberra.

HIST4000
History Honours (Research) Part-Time
School of History
UOC24 HPW5
Prerequisite: 54 units of credit in HIST at 70% including 6 units of credit from HIST39** Pre Honours courses and permission of Head of School
History Honours (Research) students are required to prepare a thesis of between 15,000 - 20,000 words which must be submitted by a date specified by the School and to complete two fourth year seminar courses. At least one of these must be taken in the first session of enrolment. For details consult the School.

HIS14050
History Honours (Research) Part-Time
School of History
UOC12 HPW3
Prerequisite: 54 units of credit in HIST at 70% including 6 units of credit from HIST39** Pre Honours courses and permission of Head of School
History Honours (Research) students are required to prepare a thesis of between 15,000 - 20,000 words which must be submitted by a date specified by the School and to complete two fourth year seminar courses. For details consult the School.
Understanding Environmental Controversy

Examines the nature of global and local environmental problems with particular emphasis on understanding controversies about environmental risk. Patterns of population and consumption, production and waste; what constitutes an environmental problem; risk and risk perception; environmentalism; the uses of knowledge, science and environmental controversy; international attacks on global problems; stakeholders and stances; environmental problems in your backyard; local and global action. In the last seven weeks students will participate in group projects examining particular environmental risk controversies.

Darwin & the Order of Nature

School of History and Philosophy of Science

HPSC2150

Prerequisite: 36 units of credit; Excluded: HPST2107

Examines ideas about the natural order (that is, about the ecology and classification of living things), from the 18th century to the present era, in cultural and political context. Retraces the West’s quest for an explanation of living creation in terms of life forces and their interaction with a changing Earth, a quest which ultimately arrived at Darwin’s theory of evolution. Also examines the major historical developments that set the stage for these scientific developments in an age of dramatic political and economic revolution, and at the ongoing impacts of the Darwinian world-view.

Philosophy of Science

School of History and Philosophy of Science

HPSC2200

Prerequisite: 36 units of credit; Excluded: HPST2111, HPST2116

An examination of central issues in the philosophy of science. Introduces students to the nature and scope of the discipline, and through the examination of central issues prepares students to undertake work not only on the issues examined, but also across the discipline more broadly. Issues include: scientific method; inductivism and deductivism; scientific progress; explanation; causality; confirmation and evidence; values; scientific realism.

Sociology of Science and Technology: How Science Works

School of History and Philosophy of Science

HPSC2300

Prerequisite: 36 units of credit; Excluded: SCTS2002, SCTS2107

Examines contrasting accounts of how science works as a system of knowledge production, as a social system, and as a basis for manipulating the world through technology. Is science insulated from social and technological processes or integrated with them? Approaches include: Mertonian normative sociology; sociology of scientific knowledge; Latourian actor-network theory; symbolic interactionism and pragmatist sociology of science. Provides understanding of the objectivity of scientific knowledge; the relationship between science and technology; the role of science in handling environmental problems; the communication of scientific knowledge to wider business, governmental and community constituencies and their understanding of it.

Environment, Technology and Politics

School of History and Philosophy of Science

HPSC2500

Prerequisite: 36 units of credit; Excluded: SCTS2118

Provides historical, social and political background for understanding the ‘social crisis of the environment’ - often blamed on the technological systems of ‘Western Industrialised Society’. Also examines alternative visions such as ‘Deep Ecology’, ‘Ecofeminism’, and ‘Ecological Democracy’. Key developments of thought and action in Western society are related to present day environmental politics. Topics include: pre-industrial developments in Europe; the ideas of the Enlightenment; changing images of nature; ecological impacts of industrialisation; globalisation; and public participation. Examples are drawn from the politics of energy systems, the relationship between agriculture and civilisation, and the politics of waste.

Sustainable Development, Globalisation and the Third World

School of History and Philosophy of Science

HPSC2550

Prerequisite: 36 units of credit; Excluded: COMD2050, INST2401, SCTS3106

This course is about sustainable development along with the technological and social changes that are involved in achieving it, both at a national
and global level. It is divided into three parts: (1) the historical causes of the present global environmental and economic crisis; (2) possible solutions to problems of food production, environmental degradation, industrialisation, energy use, and population growth; (3) ideas for a New World Economic Order and the economic and technological changes required to bridge the ever increasing gap between rich and poor nations.

**HPSC2600**  
*Galileo, Science and Religion*  
School of History and Philosophy of Science  
UOC6 _HPW3_  
Prerequisite: 36 units of credit; Excluded: HPST2139  
Examines Galileo's scientific discoveries and his defence of Copernicanism against Aristotle and the Church. Also examines “the greatest scandal in Christendom” - the trial and condemnation of Galileo by the Catholic Church in 1633. Issues raised include the perennial conflict between science and religion as well as central issues in the history and philosophy of science. Students will view Jupiter’s moons and the phases of Venus, first seen by Galileo, and they will participate in a “re-trial” of Galileo re-enacting the Roman Inquisition hearing.

**HPSC2610**  
*Computers, Brains and Minds*  
School of History and Philosophy of Science  
UOC6 _HPW3_  
Prerequisite: 36 units of credit; Excluded: GEN55525, HPST2004  
Introduction to contemporary discussions of the mind, thought, intelligence and consciousness. Focuses on the issues which arise in connection with the so-called ‘cognitive sciences’ - the disciplines which include such fields as neuro-science, psychology, linguistics, the philosophy of mind, and ‘artificial intelligence’. Can computers think? Is the brain a machine?

**HPSC2630**  
*God, Life, the Universe and Everything: Science and Meaning*  
School of History and Philosophy of Science  
UOC6 _HPW3_  
Prerequisite: 36 units of credit; Excluded: HPST2126  
‘Ultimate’ questions about God, the meaning of life and the point of it all, have traditionally been the business of religion. Can science provide an answer to these questions, or is there always a realm of understanding which is beyond scientific knowledge? Examines philosophical issues in epistemology, metaphysics and philosophy of science. Topics include arguments for the existence of God and the underlying questions of evidence and explanation in science.

**HPSC2650**  
*Worrying Ourselves to Death? Health, Risk & Modern Medicine*  
School of History and Philosophy of Science  
UOC6 _HPW3_  
Prerequisite: 36 units of credit; Excluded: HPST2138  
Statistics suggest that populations of First World countries are healthier and longer-living than at any previous time. Ironically, the perception exists that we are ‘doing better but feeling worse’. How did we become the ‘worried well’? Departing from traditional positivist and progressivist approaches in medical history, this course provides a framework for examining some of the practices and paradoxes of modern medicine. We ask why the forces that created modern medical ‘miracles’ have also created the current climate of anxiety and ambivalence. Why has the maintenance of health become a perpetual exercise in risk assessment?

**HPSC2660**  
*Cheating Death: A History of Medicine*  
School of History and Philosophy of Science  
UOC6 _HPW3_  
Prerequisite: 36 units of credit; Excluded: GEN55522, GENT0902, HPST2003, HPST2128  
What was the Medieval attitude to the bubonic plague? How has the doctor-patient relationship changed through time? In what ways has society reacted to new diseases such as AIDS? The answers to these questions, and many more, will be discussed in this course, which looks at the changes in Western medical theory and practice from the earliest recorded times to the present day. No previous biological knowledge is required for this examination of issues of health and disease in their historical and social contexts.

**HPSC2665**  
*On Drugs: Pharmaceuticals, Medicine, and Culture*  
School of History and Philosophy of Science  
UOC6 _HPW3_  
Prerequisite: 36 units of credit  
Drugs are powerful forces of change, rapidly reshaping medical care, lifestyles and even nations. Examines the ‘life cycles’ of successful medicines developed in the past century, from sex hormones to amphetamines to the latest genetically engineered protein drugs. Considers how the pharmaceutical industry creates new drugs, how marketing interacts with doctor and patient behavior, and how medicine, culture and politics are affected in the process. Applies general concepts regarding the way scientific and social change are connected to help understand drugs and their impact.

**HPSC2881**  
*Cultural Heritage Management*  
School of History and Philosophy of Science  
UOC6 _HPW3_  
Prerequisite: 36 units of credit; Excluded: ATS1003, SCTS3120  
Over 40,000 years of human habitation has helped to shape Australia’s environment. Examines the policies and processes of managing both Aboriginal and non-Aboriginal (historical/European) ‘cultural heritage’. It will define the notion of ‘cultural heritage’ and examine to what extent the Australian environment may be defined as ‘natural’. Identifies and examines the values attributed to cultural heritage items, sites and places by a variety of interest groups, and critically examines the legal, ethical and policy requirements which dictate management processes.

**Note:** Taught by Nura Gili (Indigenous Programs)

**HPSC3100**  
*Advanced History of Science*  
School of History and Philosophy of Science  
UOC6 _HPW3_  
Prerequisite: 36 units of credit  
Introduces students to key issues, methods and debates in the history of science by means of close examination of case studies of significant turning points in the development of Western science. Critical examination of primary sources will be stressed, along with the central historiographical debates concerning each case. Issues include: the Scientific Revolution of the 17th century; science and technology in the Enlightenment; life science and the sciences of the environment in the 19th and 20th Centuries.

**HPSC3200**  
*Topics in the Philosophy of Science*  
School of History and Philosophy of Science  
UOC6 _HPW3_  
Prerequisite: 36 units of credit  
Explores central issues in the philosophy of science at advanced level. Topics will be drawn from: scientific change; demarcation; rationality and objectivity; theory and observation; discovery; instrumentalism and realism; cognitive approaches to science; laws of nature; explanation; reduction and causality; underdetermination; justification and evaluation. Emphasis is placed on developing disciplinary skills required for higher level research in the field.

**HPSC3300**  
*Technology and Culture*  
School of History and Philosophy of Science  
UOC6 _HPW3_  
Prerequisite: 36 units of credit; Excluded: SCTS3900  
Explores issues in the history, philosophy and sociology of technology at advanced level. Issues will be drawn from: technology and everyday life; technological determinism and change; ways of being with technology; the development of technological systems; the social construction of technology; actor-network theory; risk and trust; technology and gender; citizen participation and strategies for technological reform. Emphasis is placed on developing disciplinary skills and literacy required for higher level research in the field.

**HPSC3500**  
*Society & Environmental Process: Botany Bay*  
School of History and Philosophy of Science  
UOC6 _HPW3_  
Prerequisite: HPSC2500 or HPSC2550 or SCTS2118 or SCTS3106; Excluded: AU/ST2010, SCTS3013, SCTS3020, SCTS3126
Interprets the concept of the social construction of the environment in the specific context of Botany Bay and its region. Environmental issues are identified and examined in the light of historical, sociological, economic and political developments at the regional, national and global levels.

Prospects and processes for intervention. In addition to other work, each student completes a substantial research report.

**Note:** In addition to the prerequisite listed, it is desirable that students have completed two other Upper Level courses listed in the Environmental Studies program.

**HPSC3920**
**Reading Option**
School of History and Philosophy of Science
UOC6  HPW3
Prerequisite: 36 units of credit

Students wishing to work in an area not covered by an existing course may apply to the School to take a reading option. Not more than one such course may be counted towards a degree. Approval of a program for a reading option will depend on its suitability, and the availability of a staff member to undertake supervision.

**Note:** Permission for enrolment in the reading option must be obtained from the Head of School.

**HPSC4000**
**History and Philosophy of Science Honours (Research) Full-Time**
School of History and Philosophy of Science
UOC24  HPW5
Prerequisite: 54 units of credit in HPSC at 65%

Candidates are required to present a thesis and complete coursework as approved by the Head of School.

**Note:** With the approval of the Head of School, courses outside the School carrying up to 12 units of credit may be substituted.

**HPSC4050**
**History and Philosophy of Science Honours (Research) Part-Time**
School of History and Philosophy of Science
UOC12  HPW3
Prerequisite: 54 units of credit in HPSC at 65%

Candidates are required to present a thesis and complete coursework as approved by the Head of School.

**Note:** With the approval of the Head of School, courses outside the School carrying up to 12 units of credit may be substituted.

**HPSC4200**
**History and Philosophy of Science Combined Honours (Research) Full-Time**
School of History and Philosophy of Science
UOC12  HPW2
Prerequisite: 48 units of credit in HPSC at 65%

For Combined Honours, candidates are required to present a thesis and complete coursework as approved by the Heads of the two participating Schools.

**Note:** With the approval of the Head of School, courses outside the School carrying up to 12 units of credit may be substituted.

**HPSC4250**
**History and Philosophy of Science Combined Honours (Research) Part-Time**
School of History and Philosophy of Science
UOC6  HPW2
Prerequisite: 48 units of credit in HPSC at 65%

For Combined Honours, candidates are required to present a thesis and complete coursework as approved by the Heads of the two participating Schools.

**Note:** With the approval of the Head of School, courses outside the School carrying up to 12 units of credit may be substituted.

**HPSC4500**
**Combined Honours (Research) in Environmental Studies Full-Time**
School of History and Philosophy of Science
UOC12  HPW2

The course has three components: thesis (50%); seminar (25%); and either a second seminar, an internship or a project (25%). The project is intended to provide the opportunity for learning experience based on field research involving industry, government, or community activity, in a topic area different from that of the thesis. It could take the form of a radio program, a short film, an environmental action plan or design, a community event, a developed policy proposal, a detailed funding program etc., or elements of several of the foregoing.

**Note:** Students must meet the following requirements: 1. Combined honours prerequisites in a discipline. 2. At least 48 units of credit from the interdisciplinary major in Environmental Studies, including HPSC2500/SCTS2118 and HPSC3500/SCTS3126, with an average of Credit or better. 3. Permission of the Honours Committee of the Environmental Studies Committee.

**HPSC4510**
**Environmental Studies Honours (Research) Full-Time**
School of History and Philosophy of Science
UOC24  HPW5

Normal requirements are a thesis (50%), seminar (25%) and an additional component (25%) which could be a second seminar, an internship or a project.

**Note:** Students must meet the following requirements: At least 54 units of credit from the interdisciplinary major in Environmental Studies, with an average of Credit or better. This must include the core course HPSC3500, at least one other ‘3000’ course, and at least one Fundamental Knowledge course, and may include only two of the Level 1 courses recommended above.

**HPSC4520**
**Environmental Studies Honours (Research) Part-Time**
School of History and Philosophy of Science
UOC12  HPW3

Normal requirements are a thesis (50%), seminar (25%) and an additional component (25%) which could be a second seminar, an internship or a project.

**Note:** Students must meet the following requirements: At least 54 units of credit from the interdisciplinary major in Environmental Studies, with an average of Credit or better. This must include the core course HPSC3500, at least one other ‘3000’ course, and at least one Fundamental Knowledge course, and may include only two of the Level 1 courses recommended above.

**HPSC4550**
**Combined Honours (Research) in Environmental Studies Part-Time**
School of History and Philosophy of Science
UOC6  HPW2

The course has three components: thesis (50%); seminar (25%); and either a second seminar, an internship or a project (25%). The project is intended to provide the opportunity for learning experience based on field research involving industry, government, or community activity, in a topic area different from that of the thesis. It could take the form of a radio program, a short film, an environmental action plan or design, a community event, a developed policy proposal, a detailed funding program etc., or elements of several of the foregoing.

**Note:** Students must meet the following requirements: 1. Combined honours prerequisites in a discipline. 2. At least 48 units of credit from the interdisciplinary major in Environmental Studies, including HPSC2500/SCTS2118 and HPSC3500/SCTS3126, with an average of Credit or better. 3. Permission of the Honours Committee of the Environmental Studies Committee.

**IDES1012**
**Safe Workshop Practices**
Industrial Design Program
UOC3  HPW2

This is a laboratory course for inducting students into the safe operation of hand tools, power tools, stationary machinery, and other equipment for the fabrication and finishing of industrial design models and prototypes. Instructional demonstrations of workshop techniques are followed by “hands-on” student exercises, using a wide variety of modelling materials, including timber, plastics, and metals. Successful completion of this course is required before students will be allowed to use the Industrial Design Laboratory for their design studio projects.

**IDES1031**
**Industrial Design Studio 1**
Industrial Design Program
UOC6  HPW4
Prerequisite: IDES1101
This course aims to introduce students to the basic aspects of Industrial Design in order to develop an ability to solve problems of very low complexity, involving theoretical and project work to introduce design methodologies and their application to three-dimensional design problems. At the same time, the course assists in the final decision at the end of year 1 that industrial design is the appropriate professional career choice for each individual student.

**IDES1071**  
**Materials and Technology Workshop A**  
Industrial Design Program  
UOC 6  HPW4  
This course is designed to provide a platform of understanding of physics, mechanics and materials. Basic concepts of Energy transfer, Electrostatics and electromagnetism, Sound, Mechanics and Materials will be considered in the context of their applications to Industrial Design activity using a project-based approach.

**IDES1101**  
**Industrial Design Fundamentals**  
Industrial Design Program  
UOC 6  HPW4  
This is a studio-based course that provides an introduction to design as fundamental to coherent thought and action in the industrial design discipline. Studies include: Basic elements of two and three-dimensional design, and the development of the analytical and communication skills necessary for their understanding. Development of the creative processes concerned with the exploration and manipulation of the elements of design. The course also takes account of exploration of the influences on design thinking and practice, including the philosophical, historical, social and environmental issues. Studio projects and assignments provide an introduction to a range of representation techniques used by designers to develop and communicate design ideas comprising: colour, freehand drawing, sketching, painting, mixed media and 3D model making.

**IDES1121**  
**History of Industrial Design**  
Industrial Design Program  
UOC 3  HPW2  
This course is a chronological and focused study of the emergence and development of industrial design from 1800 to the present day. It includes products as an aspect of our culture/society/commerce/industry from 1750 to the present day and examines consumer products within the context of the changes taking place in industry and society.

**IDES1161**  
**Industrial Design Communication A**  
Industrial Design Program  
UOC 6  HPW4  
This is a studio-based course providing an introduction to a range of methods used to accurately communicate 3-dimensional design ideas. Studies will focus on orthographic drawing with particular reference to the Australian Engineering Drawing Standard. This course includes practical assignment work using a range geometrical and mechanical drawing techniques. It will also include some experience in model making for industrial design.

**IDES1162**  
**Industrial Design Communication B**  
Industrial Design Program  
UOC 6  HPW4  
Prerequisite: IDES1161  
This course enables students to develop practical skill with the representation of 3-dimensional form using a variety of techniques including free hand drawing and formal pictorial drawing and an introduction to computer-aided techniques with particular reference to industrial design practice. The course will also include some 3-Dimensional model making.

**IDES2072**  
**Materials and Technology Workshop B**  
Industrial Design Program  
UOC 6  HPW3  
Prerequisite: IDES1101  
This course involves the investigation of the properties of engineering materials in the context of manufacturing technology and processes. The relationship between design practice and manufacturing processes is explored with particular reference to: strength and properties of materials, basic metrology and tolerancing, forming and machining processes and joining systems. Metals and alloy materials and manufacturing processes: review of major processes, principles of process selection, design constraints and quality assurance, and advanced manufacturing technologies.

**IDES2092**  
**Industrial Design Theory and Process**  
Industrial Design Program  
UOC 6  HPW3  
This course considers design thinking and clarifies the design process linking the stages with established design methodologies. In addition the nature of form is studied and reviewed against past and current theories. Included also is a consideration of the values associated with the visual language and the signals/tools that reinforce visual appreciation.

**IDES2161**  
**Industrial Design Studio 2A**  
Industrial Design Program  
UOC 6  HPW4  
Prerequisite: IDES1131  
This course introduces students to design problems which require the application of the design process in order to arrive at creative and feasible solutions. The course is based around design projects as well as some critical review of design literature. The projects provide experience working with a restricted range of materials and manufacturing processes in the design and development of fully resolved product proposals. Students will be required to develop a good understanding of their own use of the design process. Skill development will emphasise the area of rapid exploration and communication of design ideas using a range of media.

**IDES2162**  
**Industrial Design Studio 2B**  
Industrial Design Program  
UOC 6  HPW4  
Prerequisite: IDES2161  
This course builds on the knowledge and skills introduced in Industrial Design Studio 2A in order to further students’ understanding and command of the design process. The course is based around design projects as well as some critical review of design publications. Project work provides experience in investigating the requirements of particular groups of end-users and exploring the development of product form to meet these requirements. Students will develop skills in communicating highly resolved design concepts.

**IDES2163**  
**Industrial Design Communication C**  
Industrial Design Program  
UOC 6  HPW4  
This is a studio-based course which reviews approaches to perspective drawing and development of rendering techniques with reference to their applications in product design. This course offers a particular focus on techniques for rapidly generating and communicating design ideas. Students will be exposed to a professional standard of design communications of this type and will work on project tasks using a range of media.

**IDES2171**  
**Computer Applications in Industrial Design**  
Industrial Design Program  
UOC 6  HPW3  
This course is structured around practical computer lab classes which cover various aspects of computer modelling and documentation used in industrial design. The first phase of the course aims to consolidate students’ knowledge of 2-dimensional Computer aided drafting with reference to Engineering Drawing Standards. In the second phase students will gain experience using 3-dimensional surface modelling software to produce computer models of complex, curvilinear forms. Photo-realistic images of these forms will be generated using associated rendering/ray-tracing software. The application of these tools in the industrial design process will be considered.

**IDES2201**  
**Ergonomics**  
Industrial Design Program  
UOC 6  HPW3
This course introduces the physiological and psychological aspects of ergonomics/human factors and their application to product use, work, environment effects and human/machine interface. The course aims to equip students to investigate human-use implications of their design activities with regard to issues such as usability, comfort, efficiency and safety. Project work and workshops will focus on human factors/ergonomics principles and research methods and their application in Industrial Design and product development.

IDES3073 Materials and Technology Workshop C
Industrial Design Program
UOC6  HPW3
Prerequisite: IDES1071

In this course, plastic materials and manufacturing processes are discussed together with the economics of production processes, design constraints, alternate design and manufacturing strategies and material properties and test procedures.

IDES3221 Industrial Design Studio 3A
Industrial Design Program
UOC6  HPW4
Prerequisite: IDES2162, IDES2163

Learning activities build up on work carried out in previous stages of the Industrial Design program, and are intended to increase students-understanding of the complexities of design practice. Projects allow students to gain further experience in applying research and design methodologies to solve problems of moderate complexity. Each undertaking has a strong emphasis on innovation, technical resolution and documentation to a professional standard. A rigorous and responsible approach to product design is fostered by working on projects with “real-world” social, environmental, commercial, technological or industrial constraints.

IDES3222 Industrial Design Studio 3B
Industrial Design Program
UOC6  HPW4
Prerequisite: IDES3221

This course develops the student's understanding of the design process in its application to complex product development problems. The course is based around design projects and will include the compilation, by each student, of a portfolio of design work completed in the Bachelor of Industrial Design program. Project work completed for this course will include the resolution of full design detail and will successfully address manufacturing and materials performance requirements tailored to particular markets and end-user needs. Design and communication skills will be at a level that would be acceptable in professional design practice.

IDES3231 Advanced Computer Aided Product Design
Industrial Design Program
UOC6  HPW4
Prerequisite: IDES2171

This course focuses on 3-dimensional modelling applications used in Computer Aided Design and Manufacture. The course is structured around practical computer lab classes in which students gain experience using parametric 3D modelling and visualisation tools. Project work involves modelling of complex, multi-component 3D forms and production of photo-realistic visuals. 3D computer modelling issues related to Materials and Manufacturing are also considered.

IDES4291 Industrial Design Studio 4
Industrial Design Program
UOC6  HPW4
Prerequisite: IDES3222.

Studies during this unit will be directed to prepare students to work as Industrial Design professionals. Each student is encouraged to direct his/her project program towards minimising any weaknesses that are evident in his/her knowledge and skills, or covering an area of design that they may not have worked in previously. Projects may be orientated towards specific interests that each student has developed in Industrial Design. Each student will finalise their folio during the year, therefore, this requirement should be kept in mind throughout the year when selecting and undertaking projects. The folio should aim at being of professional quality and range.

IDES4301 Project Research
Industrial Design Program
UOC6  HPW4
Prerequisite: IDES2092, IDES2222, MARK1012

This course covers the research techniques applicable to products and product systems, covering problem identification, data gathering and analysis, and synthesis of information into a brief for future product design endeavours. The outcomes of IDES4301 form the basis for the IDES4351 Project in the subsequent semester. Project proposals for IDES4351 research are often aligned with the research interests and activities of the program staff, which include studying the environmental, social, cultural, marketing, engineering, emotional, ergonomic and aesthetic aspects of industrial design. Surveys, focus group discussions, expert interviews, market research, and a comprehensive literature search constitute major activities in the course, with a strong emphasis on ethical research practices being fostered throughout.

IDES4311 Visual Communication Design and Corporate Identity
Industrial Design Program
UOC3  HPW3
Prerequisite: IDES1031

This course covers the major graphic production processes, and their application in graphic design, including type and typesetting systems and involving graphic design projects.

IDES4321 Exhibition Design
Industrial Design Program
UOC3  HPW2
Prerequisite: IDES2162.

This course focuses on understanding the nature of environmental space and spatial ambiene, and the relationship of objects and products to the surrounding space. It involves exhibition design projects.

IDES4352 Industrial Design Project
Industrial Design Program
UOC12  HPW4
Prerequisite: IDES4291, IDES4301

This is the student's final-year project, demonstrating the student's encompassing understanding of the product development process. This major design exercise is normally an application of the research findings in IDES4301. In this course, students attempt to explore the optimum solution to problems identified in the research, using various iterative techniques for concept generation, testing and development until the design is finally resolved. Outcomes of the project are displayed in a public exhibition.

IDES4372 Industrial Design Management and Practice
Industrial Design Program
UOC6  HPW3

This course considers the problem of integrating innovative product design and development within the overall managerial, production and financial structure of industry. Australian and overseas case studies are given. Particular emphasis is placed on the development of appropriate design management structures and methods for the Australian situation that incorporates social ethics, consideration of sustainability and professional practice.

INDC2040 Physical Process Chemistry
School of Chemical Engineering and Industrial Chemistry
UOC6  HPW6
Prerequisite: CHEM1021 or CHEM1041

INDC3051  
Process Chemistry and Operation  
School of Chemical Engineering and Industrial Chemistry  
UOC4   HPW4  
Prerequisite: CHEM2110, INDC2040  

INDC3070  
Instrumentation and Process Control 1  
School of Chemical Engineering and Industrial Chemistry  
UOC3  
Prerequisite: MATH2021, CEIC2010, CEIC2020  
Analog Computation: theory and application of basic analog computing elements; magnitude and time scaling; solution of linear differential equations. Instrumentation: theory and application of transducers and transmitters for measurement of process variables. Process Dynamics: behaviour of linear, lumped parameter dynamics systems; first, second and higher order and integrating systems. Process Control closed loop, block diagrams, controllers and controller tuning.

INDC3071  
Process Control  
School of Chemical Engineering and Industrial Chemistry  
UOC4  
ENROLMENT REQUIRES SCHOOL APPROVAL

INDC3110  
Industrial & Environmental Chemistry  
School of Chemical Engineering and Industrial Chemistry  
UOC6   HPW6  
Prerequisite: CHEM2839, INDC2040  
The qualitative aspects of major unit operations in the chemical process industries. Topics covered include gas absorption, liquid-liquid extraction, distillation, filtration, evaporation, centrifugation, drying and leaching operations, particle size reduction and enlargement. Students are required to attend factory inspections at local and country centres as required and to make a short oral presentation based on information gained during the factory visit.


INDC3120  
Industrial Chemistry Practice  
School of Chemical Engineering and Industrial Chemistry  
UOC6   HPW6  
Prerequisite: CHEM2839, INDC2040  
The production of inorganic industrial chemicals from the standpoint of the application of the basic principles of inorganic and physical chemistry (acid industries, alkali industries, industrial gases electric furnace products, superphosphates, aluminum and glass); a study of some sections of the organic: industrial chemical industry cellulose, industrial alcohols, formaldehyde, phenol, urea, phenolic and urea resins, acetic acid, polymers based on ethylene and acetylene, elastomers.

- A small research project designed to illustrate practical applications of the principles of Industrial Chemistry. Regression analysis. Statistical design of experiments. Two level factorial designs. Screening experiments. Optimisation of process variables. Spread sheet and database utilisation. Basic programming. Industrial applications.

INDC4061  
Process Design A  
School of Chemical Engineering and Industrial Chemistry  
UOC4   HPW4  
Prerequisite: 132 units of credit  
This course will encompass the complete process design of a given (small) chemical plant. In Part A, students will be required to produce a design report which will include plant sizing, process flow sheet, equipment selection and costing.

INDC4062  
Process Design B  
School of Chemical Engineering and Industrial Chemistry  
UOC4   HPW4  
Prerequisite: 132 units of credit  
In Process Design B students will be required to produce an environmental impact statement, and a financial evaluation of the whole process. The report will also discuss the relevant thermodynamic and kinetic aspects of the process.

INDC4091  
Research Project Theory  
School of Chemical Engineering and Industrial Chemistry  
UOC12   HPW11  
Prerequisite: INDC4093  
The course requires that the student elects a topic in Industrial Chemistry, undertake a literature survey on that topic and produce a report.

INDC4092  
Research Project - Practice  
School of Chemical Engineering and Industrial Chemistry  
UOC12   HPW11  
Prerequisite: INDC4091  
The experimental investigation of some aspect of an elected topic area in Industrial Chemistry.

INDC4093  
Small Research Project Theory  
School of Chemical Engineering and Industrial Chemistry  
UOC8  
Prerequisite: 132 units of credit  
The course requires that the student elects a topic in Industrial Chemistry, undertake a literature survey on that topic and produce a report.

INDC4094  
Small Research Project Practice  
School of Chemical Engineering and Industrial Chemistry  
UOC8  
Prerequisite: INDC4093  
The course requires that the student elects a topic in Industrial Chemistry, undertake a literature survey on that topic and produce a report.

INDC4120  
Chemistry of the Industrial Environment  
School of Chemical Engineering and Industrial Chemistry  
UOC3  
Prerequisite: CHEM1011 or CHEM1031, CHEM1201 or CVEN1531  

INDO1001  
Introductory Indonesian 1  
Department of Chinese & Indonesian Studies  
UOC6   HPW6  
Excluded: GENTO428  
An integrated program for beginners, which combines listening, speaking, reading and writing. Speaking and listening skills are emphasised through communicative activities in class. Students will learn some 750 vocabulary items, and will be able to communicate in practical situations across a wide range of topics.

Note: Excluded 2 or 3 Unit HSC Indonesian or equivalent or native speakers of Indonesian and Malay.

INDO1002  
Introductory Indonesian 2  
Department of Chinese & Indonesian Studies  
UOC6   HPW6  
Prerequisite: INDO1001  
Further consolidation and development of language skills acquired in INDO1001.
Note: Excluded 2 or 3 Unit HSC Indonesian or equivalent or native speakers of Indonesian or Malay.

INDO2001
Intermediate Indonesian 1
Department of Chinese & Indonesian Studies
UOC6 HPW5
Prerequisite: INDO1002
Extensive development of skills already acquired in listening, speaking, reading and writing. The course places special emphasis on communicative activities in class. Students will be expected to develop their preferred skills in areas of their own personal interest and future careers.
Note: Excluded HSC Indonesian LBS or equivalent.

INDO2002
Intermediate Indonesian 2
Department of Chinese & Indonesian Studies
UOC6 HPW5
Prerequisite: INDO2001
Further development and consolidation of communicative skills and broad knowledge of contemporary Indonesian society.
Note: Excluded HSC Indonesian LBS or equivalent.

INDO3001
Advanced Indonesian 1
Department of Chinese & Indonesian Studies
UOC6 HPW4
Prerequisite: INDO2002
Advanced learning in the Indonesian language, with special emphasis on professional communication skills, and the analytical discussion of aspects of Australian and Indonesian societies eg cultures of the main islands of the archipelago, technology, trade and Australian-Indonesian relations.
Note: Excluded HSC Indonesian LBS or equivalent.

INDO3002
Advanced Indonesian 2
Department of Chinese & Indonesian Studies
UOC6 HPW4
Prerequisite: INDO3001
Extends and consolidates advanced learning in the Indonesian language, with emphasis on professional skills and analytical discussion. High level speaking and listening skills are combined with advanced reading and writing.
Note: Excluded HSC Indonesian LBS or equivalent.

INDO3035
Indonesian Popular Culture
Department of Chinese & Indonesian Studies
UOC6 HPW3
Prerequisite: INDO3001 or INDO2002
This course builds on students' general proficiency in Indonesian language to examine various aspects of contemporary Indonesian culture. Topics include: popular drama and literature, youth culture, popular music, media, fashion, film and the impact of globalisation. Authentic Indonesian language video, audio and textual materials are used.
Note: Open to native speakers.

INDO3500
Contemporary Indonesian Society
Department of Chinese & Indonesian Studies
UOC6 HPW3
Prerequisite: INDO1102 or INDO2002
The course is taught in Indonesian, and is based on discussion of important issues in modern Indonesian society. Involves the examination of major 20th century Indonesian thinkers. Themes include: nationalism, Islam, East and West, Marxism, the role of students, women, the press.
Note: Open to native speakers.

INDO3502
Islam in Indonesia
Department of Chinese & Indonesian Studies
UOC6 HPW3
Prerequisite: 36 units of credit
Investigates Islamisation in Indonesia and the role of Islam in Indonesian politics and society. Themes include Islam and art, Islam and politics, Islam and women. Students will gain a broader understanding of Islam in general, and the past and likely future of Islam in Indonesia in particular.

INDO3503
Indonesian Political Culture
Department of Chinese & Indonesian Studies
UOC6 HPW3
Prerequisite: 36 units of credit
Examines the building blocks and processes of Indonesia's political culture, where geography, history, ideologies, interests, ethnic and national identities coincide and compete. Considers the role of poor peasants, labour and the military. Case studies are used for analysis.

INDO3900
Introduction to Indonesian Studies
Department of Chinese & Indonesian Studies
UOC6 HPW3
Prerequisite: 36 units of credit overall, including 6 units of credit in INDO at credit level or better
Introduces a range of issues in Indonesian Studies, including insider and outsider views, shifts of emphasis in themes and explanations, linguistic issues, and major topics of history, politics, economy, regional cultures, law, literature and language. Includes critical readings of key Indonesian texts, as well as providing a broad overview of current work in the area.

INDO3901
Indonesian Studies Research Methods
Department of Chinese & Indonesian Studies
UOC6 HPW4
Prerequisite: 36 units of credit overall, including 12 units of credit in INDO at credit level or better
Critical readings of Indonesian and English texts raising key issues in analysing Indonesian society and language; questions, themes and debates which have shaped current perceptions of Indonesia; tools and methods for conducting research in Indonesian Studies.

INDO4000
Indonesian Honours Research Full-Time
Department of Chinese & Indonesian Studies
UOC24 HPW5
Prerequisite: 54 units of credit in INDO with an average of 70%
For Honours (Research) candidates are required to present a thesis of 15,000-20,000 words and complete two seminars as approved by the Head of the Department.

INDO4050
Indonesian Honours Research Part-Time
Department of Chinese & Indonesian Studies
UOC12 HPW5
Prerequisite: 54 units of credit in INDO with an average of 70%
For Honours (Research) candidates are required to present a thesis of 15,000-20,000 words and complete two seminars as approved by the Head of the Department.

INDO4500
Combined Indonesian Honours Full-Time
Department of Chinese & Indonesian Studies
UOC12 HPW2
Prerequisite: 48 units of credit in INDO with an average of 70%
Students are required to present a 15,000 - 20,000 word thesis and complete seminars as approved by the Heads of the participating Schools/Departments.

INDO4550
Combined Indonesian Honours Part-Time
Department of Chinese & Indonesian Studies
UOC6 HPW2
Prerequisite: 48 units of credit in INDO with an average of 70%
Students must present a 15,000 - 20,000 word thesis and attend seminars as approved by the Heads of both participating Schools/Departments.

INF51602
Computer Information Systems
School of Information Systems, Technology & Management
UOC6 HPW3
This course provides students with a basic understanding of the content of information systems; the types of information systems; the current roles of information systems in organisations; and the opportunities for and limitations of information systems within organisations and society. The course also provides an overview of the tools, techniques and frameworks used to analyse information systems; the range of Information Technologies used to support information systems and to explain their use; the alternative approaches for the development and implementation of information systems; the current technologies for the development of personal information systems and for information searches from a range of sources; and the ethical responsibilities of both the Information System professional and the private user of information.

**INFS1603 Business Data Management**
School of Information Systems, Technology & Management
UOC6 HPW3
This course provides an introduction to the concepts, design techniques and technology for the storage and management of data. Students gain the required knowledge and practical skills to model data including the use of entity/relationship models and object models; design simple databases in an organisational environment; understand the role of data in business; and understand the quality assurance issues in collecting, storing and using data. Students acquire and exercise skills in a number of data modelling and design techniques as well as develop a simple system using Microsoft Access.

**INFS1611 Requirements Engineering**
School of Information Systems, Technology & Management
UOC3 HPW1.5
Currently enrolled in Program 3648 or 3651 or 3652 or 3653 or 3749; Excluded: INFS2611
This course trains students how to define system requirements using rapid prototyping techniques. Requirements elicitation, analysis and traceability methods are addressed, with emphasis on the roles of user interface design and object-oriented techniques. Students receive hands-on experience with an automated design tool.

**INFS2603 Systems Analysis and Design**
School of Information Systems, Technology & Management
UOC6 HPW3
Prerequisite: INFS1602 or INFS1611, INFS1603
This course examines system analysis and design: requirements analysis and specification; logical and physical design of business systems. More specifically, the object-oriented (OO) methodology and structured methodology (SDLC) are covered. Hands-on experience with CASE tools used by information systems practitioners is provided (ie MetaEdit and RationalRose).

**INFS2607 Business Data Networks**
School of Information Systems, Technology & Management
UOC6 HPW3
Prerequisite: INFS1602 or INFS1611
This course provides students with an understanding of data communication and distributed data processing in a business environment; and an understanding of the management issues associated with telecommunication systems. Main topics include data communication concepts; computer networks; reference to international standards and common industry communications software packages; local/metropolitan/ wide area networks; network management; telecommunications services; and data security.

**INFS2609 Software Implementation**
School of Information Systems, Technology & Management
UOC6 HPW3
Prerequisite: INFS1602, INFS1603 or COMP1021 or COMP1721 or COMP2811
This course covers programming in the business context with a commercial object-oriented programming language; defining problems and designing structured programs to solve problems; use of data types, selection, iteration, functions, arrays and data structures in procedural programs; and the use of an interactive development environment.

**INFS2611 Requirements Elicitation**
School of Information Systems, Technology & Management
UOC3 HPW1.5
Prerequisite: INFS1602 Excluded: INFS1611
Students learn how to establish and verify user requirements for information systems; become familiar with the instruments for requirements definition and the criteria for requirements quality assessment; and refine analytical skills for the evaluation of customer needs.

**INFS2691 Industrial Training I**
School of Information Systems, Technology & Management
UOC6 HPW3
Prerequisite: INFS1602, INFS1603
A practical treatment of the characteristics of commercial information systems. Topics include analysis of an existing information system; development of overview documentation of the system; evaluation of the interface design; consideration of the role of security and control mechanisms.

**INFS2791 Industrial Training A**
School of Information Systems, Technology & Management
UOC6 HPW3
Prerequisite: INFS1602, INFS1603
Students consider the practical treatment of commercial information systems in business. The topics include: analysis of an existing system in its organisational setting; evaluation of the interface design; consideration of organisational impact of the information system.

**INFS3603 Business Intelligence Systems**
School of Information Systems, Technology & Management
UOC6 HPW3
Prerequisite: INFS1602 or INFS1611, INFS1603
This course examines the process of decision making and work group activity by professional and managerial people; the tools and techniques available in information technology to support these processes and when they can be advantageously used; some of the reasons why so many executive support systems do not achieve their intended objectives; and the cultural and organisational issues involved in the use of Information Technology tools and techniques.

**INFS3604 Information Technology Management**
School of Information Systems, Technology & Management
UOC6 HPW3
Prerequisite: INFS2603
This course introduces the strategic and operational management issues involving information systems and software. Consideration is given to both quantitative and qualitative management techniques, including the practical application of tools and concepts for software project management, as well as material on software metrics and software quality. In addition, techniques are covered for strategic planning of information systems and ensuring business contribution.

**INFS3605 Implementation Workshop**
School of Information Systems, Technology & Management
UOC6 HPW3
Prerequisite: INFS2603, INFS2609
Students implement an information systems project using a commercial object-oriented programming language in a workshop environment. Topics include advanced program design; computer aided software engineering techniques; a comparison of a range of programming languages; test data specification; implementation procedures; interfacing an application with a commercial database such as Oracle; the production of system documentation; and the production of quality software.

**INFS3608 Advanced Database Systems**
School of Information Systems, Technology & Management
UOC6 HPW3
Prerequisite: INFS1602, INFS1603
This course is available only in Program 3971.
This course provides students with an in-depth understanding of database application design and database management for large and small businesses; practical experience using formal database design methodologies in systems development; and an understanding of the technological issues of database systems in a modern IT infrastructure. The main topics include advanced modelling of business applications, database logical design, normalisation through decomposition and synthesis, physical design, concurrency, security, and transaction management issues, contemporary issues of object-oriented databases, advanced database applications, multimedia databases, data warehousing, data mining, OLAP, and client/server design on the Internet.

INFS3611
Design Workshop
School of Information Systems, Technology & Management
UOC6  HPW3
Prerequisite: INFS2603 and 96 units of credit
This course consists of a real-life systems development project, conducted in a workshop environment. It provides practical experience in the specification and design of commercial business systems. Requirements definitions, system specifications and logical designs are developed to a professional standard.

INFS3685
Electronic Commerce Management
School of Information Systems, Technology & Management
UOC6  HPW3
Prerequisite: INFS1602
This course has been designed to help students develop specific skills relating to the management and application of electronic commerce as well as an understanding of essential concepts and technologies. Topics include: types of electronic commerce; Internet and World Wide Web applications; security; payment systems; applications in the banking, retail and manufacturing industries; problems relating to implementations of electronic commerce; and essential concepts/technologies supporting electronic commerce.

INFS3692
Industrial Training 2
School of Information Systems, Technology & Management
UOC12  HPW6
Prerequisite: INFS3605
An in-depth practical exposure to information systems development. Topics include the structure and management of the implementation teams; the roles of users and information staff in implementation; scheduling and control during implementation.
Note: Available only in Program 3971.

INFS3774
Information Systems Security
School of Information Systems, Technology & Management
UOC6  HPW3
Prerequisite: INFS2603.
Information Systems Security is a rapidly evolving field with new technologies, models, methods and paradigms, emerging each year. Recent world events have also heightened public awareness of security issues. This means that people involved in information systems security are required to continually update their knowledge and awareness of developments. This course aims to review concepts, theory, methodologies and techniques discussed in the IS security literature and current practice. You will undertake case study exercises using the University's computing facilities and laboratories to provide you with a better understanding of computerised security techniques used in practice.
A particular emphasis of this course is the development of your critical thinking/awareness skills in order to ensure they are able to contribute, in an informed and flexible way, to discussions during the course and later in your employment. You are encouraged to relate theory to practice, with particular emphasis on reflections on your own experiences.

INFS3792
Industrial Training B
School of Information Systems, Technology & Management
UOC12  HPW6
Prerequisite: INFS2603
Students are provided with in-depth practical work in information systems analysis and design. Topics include: the management of requirements analysis and design activities; the roles of information system clients; managing the software process; managing and using technology.
Note: Available only to BCom ISM Co-op Students.

INFS4693
Industrial Training 3
School of Information Systems, Technology & Management
UOC12  HPW6
In-depth practical work in information systems analysis and design. Topics include the structure and management of analysis and design teams; the roles of users and Information Systems staff in analysis and design; scheduling and control during analysis and design.
Note: Available only in Program 3971.

INFS4793
Industrial Training C
School of Information Systems, Technology & Management
UOC12  HPW6
Prerequisite: INFS3604
Students study, in-depth, the business process and its relationship with information systems. Consideration is given to the impact of the system on the organisation and the suitability of the system to the organisation's needs; planning and re-engineering the business; and writing a business project.
Note: Available only to BCom ISM Co-op Students.

INFS4795
Thesis Part A
School of Information Systems, Technology & Management
UOC6
Prerequisite: Entry to Honours plan majoring in Information Systems in Commerce or Science programs 3971 and 3979.
Thesis A is undertaken in the first session of the Honours year. Students undertake directed research work in an approved area under the guidance of a member of the lecturing staff. This course represents the research literature section of the thesis.
Note: Available only to Year 4 Honours students.

INFS4796
Thesis Part B
School of Information Systems, Technology & Management
UOC18
Prerequisite: Entry to Honours plan majoring in Information Systems in Commerce or Science programs 3971 and 3979.
Thesis B is undertaken in the second session of the Honours year. Students undertake directed research work in an approved area under the guidance of a member of the lecturing staff. This course represents the research literature section of the thesis.
Note: Available only to Year 4 Honours students.

INFS4805
Information Systems Auditing
School of Information Systems, Technology & Management
UOC6  HPW3
Prerequisite: Entry to Honours plan majoring in Information Systems in Commerce or Science programs 3971 and 3979.
Management of information systems audit and the evaluation of IT management. Analysis and review of internal controls in contemporary computer installations and applications. Use of basic and advanced information systems audit techniques and methodologies, including audit software, integrated test facility, and concurrent auditing techniques. Technology audit reviews of the audit requirements for such technologies as LANs, EDI, and expert systems. Legal and professional requirements and computer abuse/fraud auditing. Review of future IS audit techniques, methodologies, research and social implications.

INFS4810
Advanced Data Management
School of Information Systems, Technology & Management
UOC6  HPW3
Prerequisite: Entry to Honours plan majoring in Information Systems in Commerce or Science programs 3971 and 3979.
The principle and practice of data administration in a large organisation. Design, redesign and tuning of database. Distributed databases and database management systems, including reliability, security and integrity of the database.

INFS4811 Knowledge Management Systems and Technology
School of Information Systems, Technology & Management
Prerequisite: Entry to Honours plan majoring in Information Systems in Commerce or Science programs 3971 and 3979.
The objective of this course is to provide the student with an understanding of the business of managing the generation, formulation, dissemination, retention, storage, measurement, application, distribution, archival and disposal of corporate knowledge. It considers various systems and technology supporting knowledge management. It also addresses knowledge discovery in databases and corporate data warehouses, by identifying understandable patterns in data.

INFS4848 Information Systems Project Management
School of Information Systems, Technology & Management
Prerequisite: Entry to Honours plan majoring in Information Systems in Commerce or Science programs 3971 and 3979.
An introduction to the central concepts and issues of project management and the practical benefits of project planning and management together with resource management. Practical sessions in project planning and the use of a computer based management tool. Additional topics include customer focus, lifecycle customisation, work packages, progress monitoring, risk evaluation, quality management, people tools for, and negotiation skills. Case studies of from software development projects will be used as illustrations.

INFS4853 Information Systems Management
School of Information Systems, Technology & Management
Prerequisite: Entry to Honours plan majoring in Information Systems in Commerce or Science programs 3971 and 3979.
This course aims to assist students to develop their knowledge and understanding of important issues involved in the management of information systems in organisations and their ability to critically analyse these issues. Management of information systems will be considered at strategic, tactical and operational levels. Particular emphasis will be given to the management of enterprise-wide and inter-organisational systems and planning for their strategic use. Students without knowledge of and experience in management or the use of IS in organisations, may wish to undertake Information Systems Project Management INFS4848/INFS5848 before enrolling in this course.

INFS4886 Research Topics in Information Systems 1
School of Information Systems, Technology & Management
Prerequisite: Entry to Honours plan majoring in Information Systems in Commerce or Science programs 3971 and 3979.
The development of science. Alternative social science research methodologies - case study, normative, laboratory, field studies and field tests. The research process. Judgement in research. Statistical analysis of research data and interpretation of results. Writing the research report.

INFS4887 Research Topics in Information Systems 2
School of Information Systems, Technology & Management
Prerequisite: Entry to Honours plan majoring in Information Systems in Commerce or Science programs 3971 and 3979.
The objective of this course is to enable the students of information systems research to carry out data analysis using statistical tools and empirical research. It examines both the theoretical aspects of scientific data and statistical analysis and introduces the student to a statistical data analysis package.

INFS4891 Decision Support Systems
School of Information Systems, Technology & Management
Prerequisite: Entry to Honours plan majoring in Information Systems in Commerce or Science programs 3971 and 3979.
This course covers issues in the design, development and implementation of systems designed to support decision-making tasks in organisations. The course reviews models of individual and organisational decision-making and provides an overview of a number of existing and emerging techniques that support decision-making, such as, management science, statistics, expert systems, artificial intelligence, group decision-support systems, data warehousing and data mining. Methodologies for the development and implementation of DSS applications are discussed. Case studies describing organisational experiences with DSS applications will be discussed.

INFS4893 Special Topic in Information Systems
School of Information Systems, Technology & Management
Prerequisite: Entry to Honours plan majoring in Information Systems in Commerce or Science programs 3971 and 3979.
A specially assigned project, program or set of readings relating to information systems research.

INFS4898 Project Seminar
School of Information Systems, Technology & Management
Prerequisite: Entry to Honours plan majoring in Information Systems in Commerce or Science programs 3971 and 3979.

INOV2100 The Innovation Process
Faculty of Science
Currently enrolled in program 3451 Innovation Management
The course gives students a fundamental and practical introduction to the innovation and commercialisation processes of high technology industries. Lecture material includes the psychology and strategies for creativity and idea generation, action, strategic and business planning, technical evaluations, benchmarking, market research, intellectual property, and R&D and business funding. Workshops explore the innovation process in terms of the identification and evaluation of commercial opportunities. Case studies examine examples of successful and unsuccessful scientific innovation. The course material is delivered by a team of university academics and expert industry professionals.

Note: This course is only available to students enrolled in the Diploma in Innovation Management program. Coursework comprises 35 hours during Winter Session.

INOV2110 Business Start Up Skills
Faculty of Science
Currently enrolled in program 3451 Innovation Management
The course enables students to acquire the knowledge, skills and attitudes required to organise and operate a business. Student companies are guided through all the stages of a concentrated business cycle, including: establishing the company organisational structure, electing an executive management team, researching, designing and producing goods or services to fill a profitable market niche in the community. The companies plan, develop and implement quality systems in the key management areas of finance, manufacturing, human resources and marketing. Each company is required to prepare a business plan and an annual report.

Throughout the course, students tackle typical issues and challenges which confront commercial operations and develop skills for decision making, negotiation, creativity, communication, teamwork and networking, leadership, responsibility and accountability, and financial management and planning.

Note: This course is only available to students enrolled in the Diploma in Innovation Management program.

INOV3100 Strategic Communication
Faculty of Science
Currently enrolled in program 3451 Innovation Management
The course provides an in-depth understanding of the principles and practices of strategic communication. The course covers the role of communication in the innovation and commercialisation processes of high technology industries. Lecture material includes the psychology and strategies for creativity and idea generation, action, strategic and business planning, technical evaluations, benchmarking, market research, intellectual property, and R&D and business funding. Workshops explore the innovation process in terms of the identification and evaluation of commercial opportunities. Case studies examine examples of successful and unsuccessful scientific innovation. The course material is delivered by a team of university academics and expert industry professionals.

Note: This course is only available to students enrolled in the Diploma in Innovation Management program.
The course material provides a theoretical and practical instruction in evaluating, communicating and marketing technical information, ideas and opportunities to a variety of audiences. Workshops focus on the development of the student's interpersonal skills including oral presentations, persuasion, negotiation, networking, business ethics and leadership. Other areas covered include analysis of personality and audience types, risk perception, locus of control, negotiation of expert status, effective listening, enquiry and feedback strategies, and meeting facilitation.

**Note:** This course is available to students either enrolled in the Diploma in Innovation Management program or having school approval. Coursework comprises 35 hours in a one-week block towards the end of Summer session.

**INOV3110 Technical Publications**
Faculty of Science
UOC3 HPW2
Prerequisite: INOV2100 or INOV2101

Student teams work with academic mentors to prepare a scientific or technical report suitable for publication. Academic mentors provide data from their research findings, which have been previously documented in the form of research reports, patents and student theses.

Students are allocated projects based on their nominated preferences for potential papers offered from a range of bioscience disciplines. The academic mentor clearly defines the background and scope of the work to be written up and supplies all the relevant raw data and reports. The student drafts the entire content of the paper including the Abstract, Introduction, Materials and Methods, Results, Discussion and Conclusions, Bibliography and associated Tables and Figures.

Each student receives instruction and constructive criticism throughout the project from their academic mentor. At the end of the assignment, the student will be expected to be completely familiar with the scientific foundation and objectives of the work covered in the paper. Students gain experience in the complete publication process from initial identification of target journals through to the preparation and submission of the final draft report.

**Note:** The course is only available to students enrolled in the Diploma in Innovation Management program.

**INOV4001 The Bioentrepreneurial Process**
Faculty of Science
UOC6

The course covers an introduction to accounting, economic and business principles with a focus on the special considerations and parameters particular to the entrepreneurial process involved in the establishment of science-based businesses. Tutorials, workshops and assignments involve the interpretation and preparation of budgets, cost analyses, market projections, project evaluations and financial statements for models of both established and proposed businesses.

**Note:** This course is only available to students enrolled in the Diploma in Innovation Management program. Coursework comprises 35 hours in a one-week block at the beginning of Summer session and performance of assignments throughout the Summer session.

**INOV4101 Innovation in Practice A (6 Units of Credit)**
Faculty of Science
UOC6
Prerequisite: INOV2100 or INOV2101

The course requires the involvement of students in practical projects for 4 weeks via placement in innovative workplaces. Projects may be undertaken on either a part-time or full-time basis.

Generally projects will be with businesses in Australia or overseas, but some projects may be offered at the University or related institutions. Preparation and presentation of a report is required at the end of the placement period.

The placement may be completed during a vacation period or across a session depending on the placement/project undertaken. Students may incur travel costs, particularly if undertaking placements overseas.

The placements are supervised by appropriate academic advisors. Internet-based interactions with the supervisor and other students will assist in the integration of experiences with previous theory and in the preparation of the project report.

**Note:** This course is only available to students enrolled in the Diploma in Innovation Management program.

**INOV4201 Innovation in Practice B (12 Units of Credit)**
Faculty of Science
UOC12
Prerequisite: INOV2100 or INOV2101

The course requires the involvement of students in practical projects for 8 weeks via placement in innovative workplaces. Projects may be undertaken on either a part-time or full-time basis.

Generally projects will be with businesses in Australia or overseas, but some projects may be offered at the University or related institutions. Preparation and presentation of a report is required at the end of the placement period.

The placement may be completed during a vacation period or across a session depending on the placement/project undertaken. Students may incur travel costs, particularly if undertaking placements overseas.

The placements are supervised by appropriate academic advisors. Internet-based interactions with the supervisor and other students will assist in the integration of experiences with previous theory and in the preparation of the project report.

**Note:** This course is only available to students enrolled in the Diploma in Innovation Management program.

**INOV4301 Innovation in Practice C (18 Units of Credit)**
Faculty of Science
UOC18
Prerequisite: INOV2100 or INOV2101

The course requires the involvement of students in practical projects for 12 weeks via placement in innovative workplaces. Projects may be undertaken on either a part-time or full-time basis.

Generally projects will be with businesses in Australia or overseas, but some projects may be offered at the University or related institutions. Preparation and presentation of a report is required at the end of the placement period.

The placement may be completed during a vacation period or across a session depending on the placement/project undertaken. Students may incur travel costs, particularly if undertaking placement overseas.

The placements are supervised by appropriate academic advisors. Internet-based interactions with the supervisor and other students will assist in the integration of experiences with previous theory and in the preparation of the project report.

**Note:** This course is only available to students enrolled in the Diploma in Innovation Management program.

**INST1100 World History A**
School of History
UOC6 HPW3
Prerequisite: Enrolment in International Studies or International Studies/ Law program; Excluded: ASIA1000, HIST1016, HIST1017, INST1000

Focuses on the basic features and forces which have shaped human history from the origins of civilisation to modern times. The first part of the course covers selected major civilisations (eg, Roman Empire, Han China) while the second covers transnational issues such as nomadism, trade between civilisations, disease and climate. The final part covers the origins and nature of modernity, to the 19th century.

**INST1200 World History B**
School of History
UOC6 HPW3
Prerequisite: Enrolment in International Studies or International Studies/ Law program; Excluded: HIST1019, HIST1021, HIST2000, INST1004, INST2001, SPAN2432

Focuses on the major forces and features of twentieth century world history. Includes empires, modernity, nationalism, fascism, decolonisation, communist revolutions, total war, genocide, the growth of the media, social movements, environment, ‘Americanisation’, and terror.

**INST300 International Relations in the 20th Century**
School of Politics and International Relations
UOC6 HPW3
Prerequisite: Enrolment in International Studies or International Studies/ Law program; Excluded: INST1001, POLS1017
Traces the development of international relations and its major concepts and theories through key themes and events in international history over the past century. Examines ways in which international politics is viewed, and the events, forces, and trends that provide context and justification to these theories. Introduces the major theories of international relations, as well as developments such as the Cold War and the arms race, decolonisation and revolution, globalisation, and the rise of international organisations.

**INST1400 International Relations: Continuity & Change**
School of Politics and International Relations
UOC6, HPW3
Prerequisite: Enrolment in International Studies or International Studies/Law program; Excluded: INST1002, POLS1020, POLS2005
An introduction to world politics and its study by scholars of International Relations. The course is in three sections which deal respectively with the key actors in, the dynamics of, and issues currently facing, the system of international politics.

**INST2200 Globalisation and Fragmentation**
School of Sociology and Anthropology
UOC6, HPW3
Prerequisite: Enrolment in International Studies or International Studies/Law programs, 36 units of credit; Excluded: SOCA2103
Examines the effects of globalisation on peoples’ lives in different parts of the world. Explores the impact of transnational flows of culture, goods, technology and power and their impact on local worlds. Explores concepts such as: globalised culture, identity, frontiers, diaspora, de-territorialisation, virtual communities, the commodification of health and bodies, the formation of global multicultural cities, globalised religion, the experience of war and destabilised states, risk and vulnerability, new forms of sociality, human rights as a global discourse and social futures.

**INST2300 International Law: Power, Politics and Ideology**
School of Politics and International Relations
UOC6, HPW3
Prerequisite: Enrolment in International Studies or International Studies/Law programs, 36 units of credit; Excluded: POLS2037
International law is integral to the system of international politics. It is the medium through which states and other actors negotiate their positions on a vast array of subjects and via which politics has, over recent decades, undergone a process of globalisation. Introduces students to the alternative approaches to analysing the political role of international law and examines the role of international law in particular case study scenarios.

**Note:** No prior knowledge of law is assumed.

**INST2301 International Security**
International Studies Unit
UOC6, HPW3
Prerequisite: Enrolment in International Studies or International Studies/Law programs and 36 units of credit; Excluded: GLST2106, POLS2048, POLS3023
Examines the concept and practice of security in international relations. Examines theories of security, before addressing central actors to the security project such as states, institutions and civil society forces. Then considers key issues for security in international politics, including traditional conflict; humanitarian crises; environmental change; population movements and terrorism.

**INST2400 The Theory and Practice of Development**
School of Social Science and Policy
UOC6, HPW3
Prerequisite: Enrolment in International Studies or International Studies/Law programs, 36 units of credit; Excluded: COMD2000, GLST2104, POLS2023, SLS20701
The theories developed to explain the different rate and pattern of economic and social development within and between countries and regions and the policy consequences of these explanations are analysed and compared. The theories covered include explanations for different rates of development internal and external to nation states based on social, market, technological and other factors. Significant cases studies of policy experience from Latin America and Asia, where a variety of economic and social policy approaches have been adopted are examined. The current status of debates about the nature of underdevelopment and its solutions is reviewed.

**INST2401 Sustainable Development, Globalisation and the Third World**
School of History and Philosophy of Science
UOC6, HPW3
Prerequisite: Enrolment in International Studies or International Studies/Law programs, 36 units of credit; Excluded: COMD2050, HPSC2550, SCTS3106
This course is about sustainable development along with the technological and social changes that are involved in achieving it, both at a national and global level. It is divided into three parts: (1) the historical causes of the present global environmental and economic crisis, (2) possible solutions to problems of food production, environmental degradation, industrialisation, energy use, and population growth; (3) ideas for a New World Economic Order and the economic and technological changes required to bridge the ever increasing gap between rich and poor nations.

**INST3101 Individual Study Program A**
International Studies Unit
UOC24
An individual sessional program of study normally at an overseas institution as approved after consultation with the relevant coordinator.

**INST3102 Individual Study Program B**
International Studies Unit
UOC24
An individual sessional program of study normally at an overseas institution as approved after consultation with the relevant coordinator.

**INST3300 Theorising International Political Economy**
School of Politics and International Relations
UOC6, HPW3
Prerequisite: Enrolment in International Studies or International Studies/Law program and 36 units of credit; Excluded: POLS3054
Introduces key perspectives and central issues in the study of international political economy. Establishes links between theories about the relationship of politics and economics, and the analysis of key structures and processes in the world economy. Explores the theories and concepts designed to investigate the expansion and globalisation of a world economy. Key substantive issues include state-firm relations, production, international trade, and monetary relations.

**INST3301 Economic Growth, Technology and Structural Change**
International Studies Unit
UOC6, HPW3
Prerequisite: Enrolment in International Studies or International Studies/Law programs, 36 units of credit; Excluded: ECON3109
The process of economic development is never smooth. It is associated with profound changes in the fundamental structure of economic society. The rate of growth and development varies substantially between different economies. The course seeks to explain the factors that determine how societies grow and develop, with special emphasis on the role of technology and finance. Various approaches will be examined, and attention will be paid to problems associated with growth, including those relating to equity and human rights issues.

**INST3300 Theorising International Political Economy**
School of Politics and International Relations
UOC6, HPW3
Prerequisite: Enrolment in International Studies or International Studies/Law program and 36 units of credit; Excluded: POLS3054
Introduces key perspectives and central issues in the study of international political economy. Establishes links between theories about the relationship of politics and economics, and the analysis of key structures and processes in the world economy. Explores the theories and concepts designed to investigate the expansion and globalisation of a world economy. Key substantive issues include state-firm relations, production, international trade, and monetary relations.

**INST3301 Economic Growth, Technology and Structural Change**
International Studies Unit
UOC6, HPW3
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School of Politics and International Relations
UOC6, HPW3
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**INST3300 Theorising International Political Economy**
School of Politics and International Relations
UOC6, HPW3
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Introduces key perspectives and central issues in the study of international political economy. Establishes links between theories about the relationship of politics and economics, and the analysis of key structures and processes in the world economy. Explores the theories and concepts designed to investigate the expansion and globalisation of a world economy. Key substantive issues include state-firm relations, production, international trade, and monetary relations.
transforming processes often labelled as ‘globalisation’. Explores these competing forces and the responses to them of governments, institutions and peoples.

**INTA2101**
Design Studio 1
Interior Architecture Program
UOC6  HPW5

Introduction to the principles of design and their application in studio-based learning exercises to two- and three-dimensional design. Explorations of many of the influences on design thinking and practice, including the philosophical, historical, social and environmental. Critical thinking and expression in different forms. Studio projects and assignments will attempt in particular to address issues raised in the Theory coursework and to apply skills learned in the Communications coursework. Core considerations: ideation - design as purposeful designation; the development and expression of design ideas in many modes; the role of the ideagram in ideation; the role of analysis in design.

**INTA2102**
Design Studio 2
Interior Architecture Program
UOC6  HPW5

An introduction to the design of space for human habitation. Design projects culminating in the design of a small-scale habitat. Core Considerations: ergonomics and anthropometrics; domestic scale construction systems; principles of structural stability; environmental and energy issues.

**INTA2111**
Theory 1
Interior Architecture Program
UOC3  HPW2

The study of the discipline of design, understood as designation for a purpose, demands an enquiry into the principles that govern its operation. A general theory of design process: aim, possibility, act and fulfilment. Each of these is investigated within the context of the human life that is to be served and the world order that forms the backdrop to the this life. The role of ‘ideas’ in design is discussed in relation to the process of analysis and synthesis that is fundamental to designing.

**INTA2112**
Theory 2
Interior Architecture Program
UOC3  HPW2

An introduction and exploration of the central theme of western European architectural design, modernism, as it emerges from practices such as philosophy, art and architecture, from the European Enlightenment until the late 20th century. Comparison is made between buildings that exhibit modern features and non-modern features to show that the discourse of modernism is more extensive and complex than architectural modernism.

**INTA2121**
History 1
Interior Architecture Program
UOC3  HPW1

An introduction to key aspects of Western architectural and design history, from Antiquity to the mid 19th century. Aspects of Chinese, Japanese and Southeast Asian architectural and design history will also be examined. Major themes, such as tradition and revival, will be explored within specific social, economic and political contexts. Their relevance to contemporary practice will also be considered.

**INTA2122**
History 2
Interior Architecture Program
UOC3  HPW1

An examination of the history of modern design from the mid 19th century to the mid 20th century. This will involve close study of the work of particular architects, interior designers and theorists. Issues to be considered include: design and technology, design and social morality, internationalism and universality and the ‘total work of art’. Feminist and gender critiques of modern design will be discussed.

**INTA2141**
Communications 1
Interior Architecture Program
UOC6  HPW4

An introduction to the communication skills necessary in the study and practice of interior architecture. Students will develop capabilities in life drawing, freehand sketching, colour theory and the principles of perspective in a variety of techniques and media. These skills will be extended in a series of model making workshops using materials such as card, acrylics and timber. An introduction to the technology of computing and information technology as it pertains to the disciplines of the built environment. Topics include basic operation of a computer, information handling, networks and communications, computer graphics, CAD technology and computational processes.

**INIA2142**
Communications 2
Interior Architecture Program
UOC6  HPW4

An extension of fundamental presentation and communications skills established in Communications 1. Explorations of compositional modeling and media techniques will extend into discipline based specific drawing practices and presentation skills for the visual presentations of design based projects. A series of structured workshops will develop skills in freehand and technically constructed perspective, axonometric, isometric and rendering techniques. A component of computer based technical drawing skills is included. Workshops exploring skills for making oral presentations & practical research involving projects based around issues of universal design.

**INTA2171**
Technology 1
Interior Architecture Program
UOC6  HPW4

The course is divided into two distinct components - Ecological Sustainable Design and Structures. Ecological Sustainable Design : Introduction to the ecological and social issues facing society today with a particular focus on their relationship to the built environment. Particular focus on concepts of social responsibility, environmental accountability and ecological sustainability and their implications for the urban and natural environments. The Life Cycle Assessment (LCA) of materials, their use in the built environment as well as national and international case studies and their relationship to ESD will be examined. Structures: Understanding and examining how structures work without the need for mathematical formulas. The concept of forces, load transfer, strength, stability and stiffness will be examined. The course will outline key structural behaviour, concepts and focus upon basic structural elements and systems. The emphasis will be upon general principles and their graphical analysis using case studies throughout history to examine this further.

**INIA2172**
Technology 2
Interior Architecture Program
UOC6  HPW4

The course is an introduction to both the craft and the discipline of architectural drafting and to the principles of construction. There will be an introduction to constructional systems including small-scale and large-scale structures, small-scale masonry construction with a brief analysis of constructional principles. A further study of structural elements, systems and materials with case studies will also be explored. The study will take place in parallel with a study of architectural drafting with emphasis upon the craft and discipline aspects of the practice. There will be an introduction to the Australian Standards dealing with the architectural drafting and to drawing conventions. Consideration will be given to sketching, measuring and documenting buildings. An exploration of the relationship between design and technology and the witness of actual building sites will also form part of this course.

**INIA2201**
Design Studio 3
Interior Architecture Program
UOC6  HPW5

Prerequisite: INTA2101, INTA2102. Design projects centering on the design of small-scale interiors for relatively simple patterns of life. Core Considerations: exploration of the life-event as the origin of human aims in design; clarification of design aims; spatial ordering systems; inside/outside relationships; connections and transitions; the central idea - concept; formal presentation of the concept; ideas as ordering principles in design; translation of ideas into architectural space; natural and artificial lighting; construction detailing as a design activity.
INTA2202
Design Studio 4
Interior Architecture Program
UOC6 HPW5
Prerequisite: INTA2101, INTA2102.
Design projects related to residential patterns of life. Core Considerations: public/private realms; home as hearth; dwelling; sense of place; appropriate materials in the domestic context; sustainability as a general principle; passive energy systems; construction detailing as a design activity.

INTA2211
Theory 3
Interior Architecture Program
UOC3 HPW2
Prerequisite: INTA2111, INTA2112.
Theory of Form. The ontological and causal basis of the antinomical qualities of Form. An investigation of these qualities reflected in the natural world and in art and architecture through the ages. A critical appraisal of current thought and practice in design based on this investigation with a view to postulating improvements to design processes and outcomes that are judged to have shortcomings in relation to the theory of Form.

INTA2212
Theory 4
Interior Architecture Program
UOC3 HPW2
Prerequisite: INTA2111, INTA2112.
In modernism and the critique of modernism there emerge a number of themes. Three of these themes will be briefly investigated in this course. These themes are technology, representation and feminism. The reason for addressing these three themes is that they comprise a common ground between architecture and other current concerns in a more general cultural sense, especially in politics. Each theme is accompanied by readings that offer a range of arguments among which students will apply critical discourse in order to establish their own critical orientation.

INTA2221
History 3
Interior Architecture Program
UOC3 HPW1
Prerequisite: INTA2121, INTA2122.
An examination of the theory and practice of architecture and interior design in the late 20th century in relation to developments in visual culture generally. Issues to be explored include: design as polemic, design and youth, design and popular culture, design and fashion, design and the media. Postmodernist theory and production will provide primary contexts for discussion and debate.

INTA2222
History 4
Interior Architecture Program
UOC3 HPW1
Prerequisite: INTA2121, INTA2122.
A detailed exploration of recent issues in design practice. This will involve close study of the work of particular interior architects and designers. Discussion will be based around three primary themes: public and private spaces; cross-disciplinary and intermedia approaches; cross-cultural interaction and self-determination. There will be a strong Australian emphasis, with guest lecturers providing specialist input.

INTA2241
Communications 3
Interior Architecture Program
UOC3 HPW3
Prerequisite: INTA2141, INTA2142.
This course extends capabilities and techniques in visual presentation. Students will be encouraged to explore a variety of graphic, compositional and media techniques as an extension of design intent. Projects will provide opportunities to develop and refine individual skills in graphic presentation, layout, photography and Photoshop techniques.

INTA2271
Technology 3
Interior Architecture Program
UOC3 HPW2
Prerequisite: INTA2171, INTA2172.
Materials and Detailing. Materials: Materials used within the built environment may be understood with reference to their manufacture, characteristics, ecology and the craft associated with their utilisation. The course will look at both soft and hard materials as the media of interior design. Time shall be given to the finishing aspects of materials. Detailing: The formal study of materials in lectures shall be put into practice in the studio with exercises dealing with the application and documentation of such materials within architecture and interior design. Studies shall look at detailing a small-scale building/interior with emphasis given to construction documentation. Witness to construction sites, manufacturing and various current Sydney designer works will also form part of this course.

INTA2272
Technology 4
Interior Architecture Program
UOC3 HPW2
Prerequisite: INTA2171, INTA2172.
Materials and Detailing: An advanced study of the use of materials in structure, as finishes, the characteristics, ecology and craft associated with their utilization, including case studies of their application. A study of the joining, design and documentation of the detailing of materials for the interior will be thoroughly explored with examples and case studies. An advanced study of materials in lectures shall be put into practice in the studio with exercises dealing with the application and documentation of such materials within architecture and interior design. Studies shall look at detailing a small-scale building/interior with emphasis given to construction documentation, using either AutoCAD or hand drafted drawings. Witness to construction sites, manufacturing and various current Sydney designer works will also form part of this course.

INTA2301
Design Studio 5
Interior Architecture Program
UOC6 HPW5
Prerequisite: INTA2201, INTA2202.
Design projects dealing with small to medium scale commercial, retail or public facilities. Core Considerations: materials and meaning in architecture; furniture and fittings; connections, junctions, mediating elements and tolerances; acoustics; building services, regulations and codes; access and egress; air conditioning and ventilation systems.

INTA2302
Design Studio 6
Interior Architecture Program
UOC6 HPW5
Prerequisite: INTA2201, INTA2202.
Design projects dealing with medium to moderately-large scale commercial, retail or public facilities. Core Considerations: preparing finishes selections; incorporation of textiles into the design; preparing sample boards; space analysis and feasibility of facility and the user requirements; designing through the contract documents; budgeting.

INTA2371
Technology 5
Interior Architecture Program
UOC3 HPW2
Prerequisite: INTA2271, INTA2272.

INTA2372
Technology 6
Interior Architecture Program
UOC3 HPW2
Prerequisite: INTA2271, INTA2272.
Thermal Comfort and Advanced ESD: Integration of passive design strategies into buildings and understanding the concepts of human thermal comfort to integrate without mechanical heating and cooling. Skills for carrying
out a sun analysis. There will be an introduction to thermal evaluation and design tools, correlation and simulation models. Case studies of traditional and more technologically advanced built environments will be discussed. Building Services: Building services, regulations and standards: air-conditioning, plumbing, telecommunications, lighting, electrical and mechanical services. Implications for the design of interior space. Relationship to best practice principles of passive energy design and energy conservation. Fire protection systems and regulations. Working within the parameters of the Building Code of Australia, Standards Association of Australia standards and the requirements of other Statutory body pertaining to buildings in general and to interiors specifically.

INTA2382
Professional Practice 1
Interior Architecture Program
UOC: 3 HPW: Z
Prerequisite: INTA2301.
This is the first of two consecutive courses in the BIA Practice Stream that aim to introduce Interior Architecture students to the principles of management and best practice. The practice notes and contracts used by the various professional bodies will be examined through lectures, tutorials and assignments. A thorough investigation into project management procedures, building authorities, project costing, estimating and specification to project successful project delivery. Allowance has been made for students to undertake between 280 and 490 hours of non-compulsory practical professional experience in approved employment between the two consecutive Professional Practice courses commencing at the end of Session 2, Year 3 and finishing by the beginning of Session 2, Year 4. Those who gain such experience may submit a ‘certified logbook’ (contact lecturer for details) of their work for consideration in the assessment of INTA2482 Professional Practice 2 where, at the discretion of the Head of Program the mark gained may be substituted for one of the assessable components of the course to a maximum value of 40% of the total mark for the course. This does not obviate the necessity for all students to complete all assessable components of this course.

INTA2401
Design Studio 7
Interior Architecture Program
UOC: 6 HPW: 5
Prerequisite: INTA2301, INTA2302.
Design projects dealing with medium to large-scale commercial facilities. Core Considerations: the design concept as an expression of a developed personal theoretical position on design; needs analysis and preparation of client briefs; innovation with technical and pragmatic programs; professional verbal presentation skills; best professional practice and quality assurance measures; health and safety issues; space planning and facilities planning and management; skills for designing to a budget.

INTA2402
Graduation Project
Interior Architecture Program
UOC: 15 HPW: 4
Prerequisite: INTA2401, INTA2441, INTA2411
An approved self-selected large-scale project carefully chosen and executed to demonstrate proficiency in every aspect of the program. The project, though hypothetical, must be based on a real situation with site, client and brief and be carried out under the guidance of an academic supervisor. A mentor scheme running concurrently will seek to align each student with a professional mentor to provide further guidance. The Graduation Project will be examined in a personal presentation made to a jury of professional designers and academics. The theoretical basis for the Graduation Project is established in the Dissertation a précis of which is to form part of the final submission in this course.

INTA2411
Dissertation
Interior Architecture Program
UOC: 6 HPW: 3
Prerequisite: INTA2302.
The dissertation is to be a written work of scholarship of between 8,000 and 10,000 words that deals with the theoretical basis of the student’s proposed Graduation Project to be undertaken in the final session of the program. It will demonstrate the student’s ability to thoroughly research an approved topic and present a well-reasoned argument in support of a clearly stated hypothesis. It is to be completed before the commencement of the Graduation Project. A précis of the dissertation will be submitted as part of the final presentation of the Graduation Project.

INTA2441
Project Research
Interior Architecture Program
UOC: 6 HPW: 3
Prerequisite: INTA2302.
This course is devoted to laying the foundations for the Graduation Project. It incorporates the development of the design brief; a typological study of relevant buildings and contexts, a thorough analysis of the site of the proposed project and a report on the context of the project and the impact of all regulations and standards. The whole is to be submitted in the form of a report.

INTA2482
Professional Practice 2
Interior Architecture Program
UOC: 3 HPW: 2
Prerequisite: INTA2382.
The course will examine practical and legal aspects of design practice, examining legal contracts, company structures, issues of professional indemnity, professional liability. The course will provide in depth discussions on professional ethics and code of conduct; methods of fee structure, advanced issues in the conditions of engagement, contract variations and general project administration systems; preparing fee proposals and marketing a design practice.

IRSH2002
Identity, Culture, Politics: Ireland and Australia in the 20th Century
School of History
UOC: 6 HPW: 3
Prerequisite: 36 units of credit; Excluded: HIST2019
Examines the political, economic and social changes that took place in Ireland and Australia during the course of the 20th century as they became increasingly independent of Great Britain. Compares and contrasts developments in both countries in terms of national identity, constitutional arrangements with Great Britain, the impact of war, politics, economics and social issues.

IRSH2012
Contemporary Irish Literature
School of English
UOC: 6 HPW: 3
Prerequisite: 36 units of credit; Excluded: ENGL2340, ENGL3471
Critically examines the poetry and prose written by Irish writers after WWII in terms of issues of identity, nationality, gender, landscape, language, tradition, and religion. Considers how Irish poets have coped with the legacy of Yeats, Irish novelists with the legacy of Joyce and what their writing tells us about present-day Ireland and the contemporary world.

IRSH2021
Contemporary Theatre
Media, Film and Theatre
UOC: 6 HPW: 3
Prerequisite: 36 units of credit; Excluded: THST2161
Studies recent developments in theatre and drama, in various countries, over the last 40 years.

IRSH2101
Ireland: States of Being, States of Mind
Faculty of Arts and Social Sciences
UOC: 6 HPW: 3
Prerequisite: 36 units of credit
Investigates key aspects of Ireland’s social, political and cultural transformation from being subject to the British Empire, and thus a major source-country for the settlement of Australia, to becoming a wealthy, technologically advanced, highly educated and culturally sophisticated member of the European Community.

IRSH2104
Poetry, Virtue, Corruption: Milton to Burns
School of English
UOC: 6 HPW: 3
Prerequisite: 36 units of credit; Excluded: ENGL2104
Studies how English, Irish, and Scottish poets from 1660-1800 define themselves in relation to a culture which they deem to be corrupt. Moves from Milton as the single just man in a society that has betrayed the godly revolution to the poet as libertine in Rochester and Behn, and the poet as political propagandist in Dryden. Sees how Finch, Swift, Pope, Wortley-
Montague, and Johnson detach themselves and poetry from political life. Later poets show that once you do this, what is left are passion, death, superstition, madness, and small animals.

IRSH2410
Nineteenth Century Europe 1848-1918: Nation, Empire, Revolution
School of History
UOC6 - HPW3
Prerequisite: 36 units of credit; Excluded: EURO2410 and HIST2410
Examines the rise of the explosive social and national tensions in late nineteenth-century Europe which culminated in world war and revolution (Russia, Germany, Hungary, Ireland). Key themes are industrialisation and the rise of the labour movement; urbanisation and its impact on gender roles; the flowering of bourgeois culture and its fin de siecle crisis; the transformation of revolutionary into “integral” nationalism and imperialist jingoism; great power rivalry and the origins of the First World War. Aims to understand how the period laid the foundations for the dramatic events of the “short twentieth century”.

IRSH3472
Modernism - Joyce
School of English
UOC6 - HPW3
Prerequisite: 36 units of credit; Excluded: ENGL2453, ENGL3320, ENGL3472
Intensive study of James Joyce’s ‘Ulysses’ to enquire into selected aspects of modernism. Of particular interest will be the writer’s negotiations with language and with structure, the function of history and/or myth, the role of the comic, and the tensions between innovation and various forms of tradition.

ITAL1001
Introductory Italian 1
School of Modern Language Studies
UOC6 - HPW5
Excluded: GENT0429
Introduces the main structures of Italian language and provides an overview of contemporary Italian history and society. The language component develops all four language skills, with a particular focus on the development of grammatical accuracy. The cultural component consists of a series of lectures which offer insights into some of the salient issues of Italian history from Unification to the present.
Note: Students who have taken HSC Italian and students who have any formal training from another source should apply to enrol as Cross Institutional students at the University of Sydney. Excluded: Students qualified to enter a higher level course.

ITAL1002
Introductory Italian 2
School of Modern Language Studies
UOC6 - HPW5
Prerequisite: ITAL1001
Builds on the structures acquired in ITAL1001. The cultural component explores aspects of twentieth-century Italian cultural, social and political life through weekly lectures that examine major literary and cultural movements and figures, followed by a guided reading and analysis of texts in weekly seminars.

JAPN1000
Japanese Communication 1A
Department of Japanese & Korean Studies
UOC6 - HPW6
Excluded: GENT0430
Introduces some of the basics of modern Japanese through listening, speaking, and reading activities. Covers five broad themes including introducing oneself, talking about university experiences, housing, Japanese geography, and daily routines. Hiragana and katakana are also introduced. Communicating in socio-culturally appropriate ways are stressed throughout the course.

JAPN1001
Japanese Communication 1B
Department of Japanese & Korean Studies
UOC6 - HPW6
Prerequisite: JAPN1000
Introduces more of the basics of modern Japanese through listening, speaking, reading, and writing activities. Covers several broad themes including daily routines, talking about likes and dislikes, how to go shopping, food, and family. 90 kanji are introduced. Communicating in socio-culturally appropriate ways are stressed throughout the course.

JAPN2000
Japanese Communication 2A
Department of Japanese & Korean Studies
UOC6 - HPW5
Prerequisite: JAPN1001
Further development of beginners’ Japanese interactive skills. Prepares students to become competent in anticipated Australia - Japan contact situations and basic survival situations in Japan. Continued emphasis on oral-aural skill acquisition. Approximately 100 new kanji are introduced.

JAPN2001
Japanese Communication 2B
Department of Japanese & Korean Studies
UOC6 - HPW5
Prerequisite: JAPN2000
Consolidation of oral-aural skills up to intermediate level. Development of reading and writing skills, with another 150 kanji introduced.

JAPN2500
Introduction to Japanese Studies
Department of Japanese & Korean Studies
UOC6 - HPW3
Prerequisite: 36 units of credit; Excluded: JAPN3900
Examines Japanese society, culture, politics, and economy. Key themes include: the structure and transformation of Japan’s political system; gender; popular culture; social movements and protest; identity; economic growth and its costs; and social, political, and economic transformation and stagnation in post-bubble Japan.

JAPN2510
Japan and Korea: Cultures in Conflict
Department of Japanese & Korean Studies
UOC6 - HPW3
Prerequisite: 36 units of credit
Examines in comparative perspective cultural changes in Korea and Japan in the late 19th to early 20th centuries. Focus given to how Japan’s response to these changes was interpreted by Koreans and how they in turn attempted to respond to the actions of the Japanese. Special attention given to the relationship between the purposes of Japanese cultural reform in Korea and Korean ‘cultural nationalism’ in its mature form.

JAPN2600
Hospitality Japanese
Department of Japanese & Korean Studies
UOC6 - HPW3
Prerequisite: JAPN2000; Excluded: JAPN4000, JAPN3400, JAPN3401, JAPN37** range of courses
Aims to develop interactive competence in spoken Japanese for the hospitality industry, particularly in professional situations relating to tourism and leisure. Includes finance and banking, hotel, advertising, restaurant and other work situations. Emphasises comparative cultural aspects, covering honorifics and etiquette as well as non-linguistic aspects of interaction between hospitality personnel and tourists.
Note: A formal dinner is a compulsory component of the course and will incur a personal cost.

JAPN2700
Talking Japanese Pop Culture
Department of Japanese & Korean Studies
UOC6 - HPW3
Prerequisite: JAPN2001 or higher
Explores contemporary Japanese culture including Manga, Anime, films, theatre, and J-pop songs. The course combines the studies of culture and language through selected texts, tapes, videos and other materials, and field trips when possible. Different levels of language proficiency are catered for by options in assignments.

JAPN2701
Learning Japanese by Reading Manga
Department of Japanese & Korean Studies
UOC6 - HPW3
Prerequisite: Available to students who have completed at least Japanese 2A. Not available to students who have completed Japanese 4A or higher; Excluded: JAPN37** range of courses
Investigates the vocabulary, grammar and kanji using manga as the primary resource. Socio-cultural aspects of each manga are also studied. Includes reading out loud, the creation of an original manga narrative, and specific language based assignments.

**JAPN3000**

**Japanese Communication 3A**

Department of Japanese & Korean Studies  
UOC 6  HPW5  
Prerequisite: JAPN2001

Equips students with solid linguistic skills at intermediate level, with increasing emphasis on reading and writing. Introduction to a variety of local Australia-Japan contact situations and expanding practical usage of students’ interactive skills. Approximately 200 new kanji are introduced.

**JAPN3001**

**Japanese Communication 3B**

Department of Japanese & Korean Studies  
UOC 6  HPW5  
Prerequisite: JAPN3000

Further development of communicative skills and competence attained in JAPN3000. Students use Japanese in a wider context, thereby increasing vocabulary and knowledge of grammatical structures. Another 200 kanji are introduced.

**JAPN3205**

**Business Japanese**

Department of Japanese & Korean Studies  
UOC 6  HPW3  
Prerequisite: JAPN2001; Excluded: JAPN3500, JAPN37** range of courses

Concentrates on interactive skills for business situations, including reading and writing. Introduction to technical language of accounting, finance, economics and marketing and develops skills needed in typical formal and informal business contact situations, such as business introductions and meetings, business conversation, written channels of communication and business etiquette.

**JAPN3300**

**Discover Japanese Grammar A**

Department of Japanese & Korean Studies  
UOC 6  HPW3  
Prerequisite: JAPN2001

The grammar of modern Japanese will be introduced systematically as interrelated choices Japanese language users make in order to exchange meaning in the context of social communication. Provides students who already have an intermediate to advanced knowledge of Japanese with an opportunity to re/discover the workings of the grammar of Japanese. A wide variety of natural spoken and written text examples will be used holistically in order to illustrate various features of the grammatical system of Japanese.

**Note:** Instruction will be given mainly in Japanese but also in English.

**JAPN3400**

**Japanese Communication 4A**

Department of Japanese & Korean Studies  
UOC 6  HPW5  
Prerequisite: JAPN3001; Excluded: JAPN4000

Concentrates on acquisition of late-intermediate to early-advanced interactive skills in Japanese with continued emphasis on reading and writing. Introduction to basic linguistic features of advanced level Japanese and provides opportunities to practise skills needed in typical formal and informal Australia-Japan contact situations. Approximately 150 Kanji are introduced.

**JAPN3401**

**Japanese Communication 4B**

Department of Japanese & Korean Studies  
UOC 6  HPW5  
Prerequisite: JAPN3400 or JAPN4000; Excluded: JAPN4001

Prepares students in acquisition of well-rounded linguistic and communicative competence necessary for advanced learners. Further extension and systematic practice of interactive skills. Another 150 Kanji are introduced.

**JAPN3601**

**Cultural Studies and Japan**

Department of Japanese & Korean Studies  
UOC 6  HPW3  
Prerequisite: 36 units of credit

Critically explores how popular culture, leisure and consumption are inter-related with identity construction in Japan, as well as how social and cultural ideologies, beliefs and values are produced, reproduced, challenged and changed within the fields of popular culture. Also examines the globalisation of Japanese popular culture both inside and outside of Japan and discusses how this relates to such issues as cultural imperialism, cultural hybridity, transnationality and diaspora.

**JAPN3702**

**Politeness in Interaction with (the) Japanese**

Department of Japanese & Korean Studies  
UOC 6  HPW3  
Prerequisite: JAPN3401 or JAPN4001

Focuses on improving performance in politeness in interaction with Japanese. Deals with the range of theoretical approaches to politeness. Explores the ways in which participants in Contact Situations negotiate and manage the levels and expressions of politeness as scenes develop in the situation.

**JAPN3703**

**Approaches to Japanese Discourse Analysis**

Department of Japanese & Korean Studies  
UOC 6  HPW3  
Prerequisite: JAPN3000

Introduces specific features of Japanese discourse and how they are socio-culturally interpreted. Presents a variety of approaches to Japanese discourse analysis through an application of the structures and strategies of Japanese discourse to daily communication in Japanese.

**JAPN3900**

**Introduction to Japanese Studies (Advanced)**

Department of Japanese & Korean Studies  
UOC 6  HPW3  
Prerequisite: 36 uoc in Level 1 including 6 uoc in JAPN at Distinction level; Excluded: JAPN2500

An in-depth examination into Japanese society, culture, politics, economy, and language. Explores topics ranging from Japan's political and economic system to popular culture, consumer society, gender, and globalisation. Emphasis is given to a critical examination of these issues within a multidisciplinary analytical framework.

**JAPN3901**

**Introduction to Research in Japanese Studies**

Department of Japanese & Korean Studies  
UOC 6  HPW3  
Prerequisite: JAPN2001 plus a Distinction average in JAPN courses

Provides students with a framework for analysing problems in the field of Japanese Studies, including a theoretical framework and types and sources of problems. Where possible, students carry out empirical data collection and are guided through the analysis of and search for possible solutions to these problems.

**JAPN3902**

**Readings in Japanese Studies (Advanced)**

Department of Japanese & Korean Studies  
UOC 6  HPW3  
Prerequisite: JAPN3000 or higher plus a Distinction average in JAPN courses

Students read Japanese and English writings in selected fields of Japanese Studies. Students intending to enter the Honours program read extensively in the area of their research fields. They develop ability to read academic writings proficiently and critically, acquire comprehensive understanding of the fields and produce an annotated bibliography of their reading.

**JAPN4500**

**Japanese Studies Honours (Research)**

Department of Japanese & Korean Studies  
UOC 24  HPW5  
Prerequisite: 54 units of credit in Japanese Studies, including JAPN3901 and JAPN3902, an overall WAM of 65 or higher, Distinction average or higher in all Japanese courses and the completion of a major with a minimum language level of JAPN3001
The Honours program consists of a thesis between 15,000 and 20,000 English words or 32,000 - 40,000 Japanese characters in an approved area of Japanese Studies as well as compulsory language study.

**Note:** Students who complete the honours program with JAPN4101 or a higher level will be regarded as having completed the Japanese Studies Advanced Program.

**JAPN4550**
**Combined Japanese Studies Honours (Research)**
Department of Japanese & Korean Studies
UOC12  HPW3
Prerequisite: 48 units of credit in Japanese Studies, including JAPN3901 and JAPN3902, an overall WAM of 65 or higher, Distinction average or higher in all Japanese courses and the completion of a major with a minimum language level of JAPN3001
The Honours program consists of a thesis between 15,000 and 20,000 words in an approved area of Japanese Studies as well as compulsory language study.

**Note:** Students who complete the honours program with JAPN4101 or a higher level will be regarded as having completed the Japanese Studies Advanced Program.

**JAPN4555**
**Japanese Honours (Research) Part Time**
Department of Japanese & Korean Studies
UOC12  HPW2
Prerequisite: 54 units of credit in Japanese Studies, including JAPN3901 and JAPN3902, an overall WAM of 65 or higher, Distinction average or higher in all Japanese courses and the completion of a major with a minimum language level of JAPN3001
The Honours program consists of a thesis between 15,000 and 20,000 English words or 32,000 - 40,000 Japanese characters in an approved area of Japanese Studies as well as compulsory language study.

**Note:** Students who complete the honours program with JAPN4101 or a higher level will be regarded as having completed the Japanese Studies Advanced Program.

**JWST1000**
**The Modern Jewish Experience: Emancipation to the Holocaust**
School of History
UOC6  HPW3
Excluded: HIST1030
The progress towards emancipation of the Jews in the 18th and 19th centuries was driven not only by Enlightenment ideas of equality and tolerance, but also by highly pragmatic considerations. While initially, for the most part, enthusiastic objects of this process, European Jews grew increasingly aware of the conditions attached to it and of its real and potential dangers. Traces the history of emancipation, its achievements and failures, and the light it sheds on the development of European societies.

**JWST1001**
**The Modern Jewish Experience: Nationalism and Statehood**
School of History
UOC6  HPW3
Excluded: HIST1031
Explores the origins of modern Jewish nationalism, Zionism, in the mid-nineteenth century and charts its development through to the creation of the State of Israel in 1948. Discusses the influence of emancipation, nationalism, socialism and anti-semitism. Concludes by considering the debate on post-Zionism and the challenges it may present for Israel and the Jewish Diaspora.

**JWST2103**
**The German-Jewish Experience**
Faculty of Arts and Social Sciences
UOC6  HPW3
Prerequisite: 36 units of credit; Excluded: EURO2300, HIST2485, SOCA3310
The contribution of 'Jewish Germans' to the social, political and cultural life of Germany and Austria from 1900 to 1933. The impact of attempted integration as reflected in the work of Herzl, Schnitzler, Kafka, Buber, Feuchtwanger, Scholem and others; the failure of the German-Jewish symbiosis as a basis for discussion of the concepts of assimilation, acculturation, ethnicity, identity and nationality.

**KORE1000**
**Korean Communication 1A**
Department of Japanese & Korean Studies
UOC6  HPW6
Excluded: GENT0431
Designed to provide beginners with practical language skills for effective communication. Emphasis is on use of the language in basic survival situations. Communicative methods are used to develop in students the four language skills: listening, speaking, reading and writing, within a cultural context. The Korean script, Han-gu, is taught progressively.

**KORE1001**
**Korean Communication 1B**
Department of Japanese & Korean Studies
UOC6  HPW5
Prerequisite: KORE1000
Further development of communicative skills in introductory Korean, with emphasis on a variety of real life situations. New communicative functions, vocabulary and grammatical structures are progressively added to knowledge and skills acquired in KORE1000.

**KORE2000**
**Korean Communication 2A**
Department of Japanese & Korean Studies
UOC6  HPW5
Prerequisite: KORE1001
Further development of communicative skills on the groundwork covered in introductory-level Korean. Allows students to build upon their spoken and written language skills, enabling them to interact in a wider range of communicative situations.

**KORE2001**
**Korean Communication 2B**
Department of Japanese & Korean Studies
UOC6  HPW5
Prerequisite: KORE2000
Consolidates and further expands knowledge and skills developed in the previous courses as well as laying the foundation for students who wish to proceed to a third year program. A number of selected Hanja, Sino-Korean characters, is introduced to further enhance the students skills to read and comprehend modern Korean mixed script.

**KORE2500**
**Korean Civilisation and Culture**
Department of Japanese & Korean Studies
UOC6  HPW3
Prerequisite: 36 units of credit; Excluded: KORE3900
An introduction to Korean society, culture, politics and economy examined from historical perspectives. Topics include changes in social stratification, family life, role of women, education, religion, arts and popular culture, economy, technological development, role of governments, politics and diplomacy and inter-Korean relations.

**KORE2601**
**Gender/Politics in Korean Literature**
Department of Japanese & Korean Studies
UOC6  HPW3
Prerequisite: 36 units of credit
Examines key Korean literary works and secondary critical writings in English which address the political implications of gender in Korean literature. Three primary questions to be addressed are the ways men and women have imagined their own and alternative worlds, how they have imagined each other, and how political events have shaped gender relations in Korean literature.
KORE3000
Korean Communication 3A
Department of Japanese & Korean Studies
UOC6 HPW5
Prerequisite: KORE2001
Consolidation of students communicative skills in both spoken and written Korean at intermediate level, with increasing emphasis on reading and writing. It introduces a wider range of communicative topics, vocabulary and grammatical structures and further expands practical usage of students knowledge and interactive skills. Approximately 100 new Hanja are also introduced.

KORE3001
Korean Communication 3B
Department of Japanese & Korean Studies
UOC6 HPW5
Prerequisite: KORE3000
Further development of communicative skills attained in KORE3000 and a new orientation to specific needs in everyday business situations. It equips students with a variety of practical language skills and background information necessary not only for everyday conversation but also for Korean-Australian business situation. Includes systematic practice of communicative skills in the classroom and some field work at the real-life situations in the Sydney Korean business community. Another 150 Hanja are introduced.

KORE3400
Advanced Korean A
Department of Japanese & Korean Studies
UOC6 HPW4
Integrated literary course: a variety of writing, including art, music, folktales, dialogues and everyday writing in all its forms is explored for language study. Familiarises students with different genres of Korean discourses and culturally rich texts. Designed for students who have acquired grammatical knowledge and need to enhance their vocabulary, reading and writing skills.

KORE3401
Advanced Korean B
Department of Japanese & Korean Studies
UOC6 HPW4
Prerequisite: KORE3400; Excluded: KORE2101
Continuation of the work done in KORE3400. Designed for students who have acquired literacy skills but still need to develop their vocabulary learning and reading strategies, Focuses on the reading of authentic Korean texts by utilising various reading strategies. Includes participation in a variety of writing, such as song writing, poster creation and literature responses.

KORE3500
Professional Korean A
Department of Japanese & Korean Studies
UOC6 HPW4
Introduces a repertoire of professional discourses along with reading-writing activities. Various genres are introduced, including social commentaries, art reviews, science reports, business documents and literature. Includes the study of the subtleties of grammar, idiomatic expressions and rhetorical structures.

KORE3501
Professional Korean B
Department of Japanese & Korean Studies
UOC6 HPW4
Prerequisite: KORE3500
Designed for students who need enriched language experiences to use their literary skills. Includes the reading of newspaper articles for intensive language study and participation in various writing tasks, such as descriptive, expressive, analytic and persuasive writing for class presentation.

KORE3600
Korean Translation A
Department of Japanese & Korean Studies
UOC6 HPW3
Introduces translation theory and practice in Korean. Focuses on skills of translating English into Korean and provides native-speaker level students with foundations for professional translation. Examines techniques for analysing and rendering texts of different styles and complexity. Addresses cross-linguistic and cross-cultural problems relevant to professional translation, including lexical/grammatical problems and ethical implications. Covers a range of authentic texts and a variety of topics including socio-cultural, educational, commercial, political, medical, etc.

KORE3601
Korean Translation B
Department of Japanese & Korean Studies
UOC6 HPW3
Concentrates on more advanced authentic texts in key areas for professional translation such as public, academic and legal documents and excerpts from media. Includes practical skills and strategies relating to translators' examinations and professional practice.

KORE3900
Introduction to Korean Studies (Advanced)
Department of Japanese & Korean Studies
UOC6 HPW3
Prerequisite: 36 units of credit including 6 units of Korean at credit level; Excluded: KORE2500.
Introduces a wide range of topic areas in Korean Studies, such as history, politics, economics, business, society, culture, language and literature, with a particular focus on the rapid changes in the twentieth century and the strength and continuity of Korean culture. Also focuses on critical examination of research in these areas.

KORE3901
Topics in Korean Studies (Advanced)
Department of Japanese & Korean Studies
UOC6 HPW3
Prerequisite: KORE2001 plus a credit average in all KORE courses
Critically examines a range of research work and familiarises students with the research tools and methods available for research in the field of Korean Studies. Covers various theoretical frameworks and empirical methods available for identification of problems, data collection and analysis, and interpretation of results. Designed primarily for intending Honours students.

KORE4000
Korean Studies Honours (Research) Full-Time
Department of Japanese & Korean Studies
UOC12 HPW5
Prerequisite: 54 units of credit in Korean Studies, including KORE3900 and KORE3901, an overall WAM of 65 or higher, Distinction or higher in all KORE courses and the major with a minimum language level of KORE3001
The Honours program consists of a thesis between 15,000 and 20,000 words in an approved area of Korean Studies as well as compulsory language study.

KORE4050
Korean Studies Honours (Research) Part-Time
Department of Japanese & Korean Studies
UOC12 HPW5
Prerequisite: 54 units of credit in Korean Studies, including KORE3900 and KORE3901, an overall WAM of 65 or higher, Distinction or higher in all KORE courses and the major with a minimum language level of KORE3001
The Honours program consists of a thesis between 15,000 and 20,000 words in an approved area of Korean Studies as well as compulsory language study.

LAND31101
Design Fundamentals: Studio 1
Landscape Architecture Program
UOC9 HPW6
Introduction to design as fundamental to coherent thought and action in your discipline. Exploration of the influences on design thinking and practice, including the philosophical, historical, social and environmental precedent studies. Critical thinking and expression in different forms. Studio projects and assignments to develop skills and understanding of design elements and principles. Introduction to a basic vocabulary of representation techniques used by designers to facilitate the development and communication of design ideas including: colour, freehand drawing, sketching, painting, construction, mixed media, desktop publishing, photomontage techniques, technical drawing and drafting.
LAND1102  
**Landscape Design 2: Design Process**  
Landscape Architecture Program  
UOC: 6  HPW: 4  
Prerequisite: LAND1101  Corequisite: LAND1142.  
An introduction to site design and design process. A number of small-scale projects will allow exploration of design process through site planning, the use of historical precedent and design generation. Studio based projects will be supported by theoretical readings.

LAND1121  
**Introduction to Landscape Architecture**  
Landscape Architecture Program  
UOC: 3  HPW: 2  
Introduction to the principles of design education. Overview of landscape architecture as a practice, as a profession and as an academic discipline. Study of contemporary landscape architecture as a design field and as a creative component of the environmental movement. Introduction to the art and technique of reading the landscape.

LAND1122  
**History of Landscape Architecture**  
Landscape Architecture Program  
UOC: 3  HPW: 2  
Critical analysis of cultural landscapes through the investigation of philosophical, aesthetic and social aspects of landscape architecture and garden art in Eastern and Western traditions.

LAND1142  
**Design Communication**  
Landscape Architecture Program  
UOC: 3  HPW: 2  
Prerequisite: BENV1141; Corequisite: LAND1102.  
This course encourages students to develop a personal vocabulary of representation techniques to facilitate the development and communication of design ideas. Students develop a range of techniques including: perspective, freehand drawing and sketching, colour rendering, advanced creative drawing, the use of different media and graphic thinking.

LAND1151  
**Horticulture**  
Landscape Architecture Program  
UOC: 3  HPW: 2  
This course introduces students to a botanical understanding of plants, their structure and function, taxonomic classification. The relationship between plants and their environments, habitats, communities and life cycle. Introduction to horticultural practice and plant identification.

LAND1152  
**Landscape Analysis**  
Landscape Architecture Program  
UOC: 9  HPW: 6  
Prerequisite: GEOG1701, LAND1151  
Observation and interpretation of both physical, biological and cultural environments and their interrelationships. Landscape character through sensory inputs and historical understanding. Fundamental characteristics of a range of biological systems, with emphasis on relationships with the physical environment. Survey of Australian plant communities and associated fauna with particular emphasis on the Sydney Region. Recording and presentation techniques associated with landscape surveys, field excursions.

LAND1171  
**Landscape Technology 1**  
Landscape Architecture Program  
UOC: 3  HPW: 3  
Developing proficiency in site surveying and mapping techniques. Principles of grading and their application to a variety of site requirements and conditions. Land shaping, contour manipulation, drainage, earthworks.

LAND1201  
**Landscape Design 3: Site Planning**  
Landscape Architecture Program  
UOC: 9  HPW: 6  
Prerequisite: LAND1152, LAND1102, LAND1171  
Response to a specific site with a program of uses, in natural or urban settings. Emphasis is on gaining further skills in site design, effective communication of design concepts and integration of ecological issues with landscape design.

LAND1202  
**Landscape Design 4: Landform and Planting Design**  
Landscape Architecture Program  
UOC: 9  HPW: 6  
Prerequisite: LAND1171, LAND1201, LAND1251  
In this studio students undertake more sophisticated site research and analysis. They will develop an understanding of the relationship between natural systems, constructed environments and ecological sustainability. Focussing on planting and landform manipulation, students will explore techniques for developing and resolving design ideas.

LAND1221  
**Environmental Sociology for Landscape Architects**  
Landscape Architecture Program  
UOC: 3  HPW: 2  
Students will be introduced to the study of people-place relationships and sociological techniques for understanding specific user-group requirements in the design of public spaces. Human perception of shared and personal space and the effect of environmental change on individuals and communities will be explored. Universal design and accessibility in design of public areas is also covered.

LAND1222  
**History and Theory Elective**  
Landscape Architecture Program  
UOC: 3  HPW: 6  
Students are required to select one of the landscape electives listed in the History and Theory elective courses section. These include: BENV2218, BENV2219, BENV2220 and BENV2221.  
**Note:** LAND1222 is not a course and should not appear on your enrolment.

LAND1251  
**Advanced Horticulture**  
Landscape Architecture Program  
UOC: 3  HPW: 2  
Prerequisite: LAND1151  
Based on the knowledge gained in Horticulture, this course will provide students with the horticultural theory and practice necessary for supporting landscape design and documentation.

LAND1271  
**Landscape Technology 2**  
Landscape Architecture Program  
UOC: 3  HPW: 3  
Prerequisite: LAND1171, LAND1102  
Description and selection of materials, their properties, origin and production. Understanding the relationship between materials and design. Use of Australian Standards. Construction principles and methods.

LAND1272  
**Landscape Technology 3**  
Landscape Architecture Program  
UOC: 3  HPW: 3  
Prerequisite: LAND1271  
Preparation of documentation for landscape works including: grading, drainage, earthworks, roads and pavements, planting and structures. Critical analysis of design development and documentation. Design a development of construction documentation and detailing for a wide range of materials, elements and structures.

LAND1301  
**Landscape Design 5: Design Resolution and Documentation**  
Landscape Architecture Program  
UOC: 9  HPW: 6  
Prerequisite: LAND1202, LAND1272, BENV1242  
This studio will focus on design resolution and documentation of one project. Students will develop skills in detailing, use of materials and CAD.
LAND1302
Landscape Design 6: Design with a Complex Program
Landscape Architecture Program
UOC9  HPW6
Prerequisite: LAND1301
This studio will introduce students to projects with more complex programs and different approaches to dealing with them. It will focus on developing skills in the manipulation of architectonic space and form. A personal design portfolio forms part of this studio. A satisfactory portfolio is a requirement for completion of this studio.

LAND1321
Research Methods
Landscape Architecture Program
UOC3  HPW2
Prerequisite: LAND1221, LAND1351
Investigation of various research methods with application to study in landscape architecture. Development of the critical logical and stylistic skills involved in researching, writing, and presenting essays, theses, articles, papers and reports. Each student researches and prepares an approved thesis proposal including a bibliography, chapter outline and first draft chapter.

LAND1351
Landscape Management
Landscape Architecture Program
UOC3  HPW2
Prerequisite: LAND1152
Planning and management of both natural and cultural landscapes. Historical review of landscape planning and management in Australia and overseas. Overview of environmental policy and legislative framework. Examination of a range of landscape management methodologies and processes.

LAND1371
Landscape Engineering
Landscape Architecture Program
UOC3  HPW3
Prerequisite: LAND1272
Understanding structural design and construction techniques for a range of elements including: earthworks, drainage, retaining and freestanding walls, pavements and roads, masonry, steel and timber structures. Structural design and construction techniques applied to a range of difficult site problems.

LAND1381
Landscape Practice 1
Landscape Architecture Program
UOC12
Students are required to obtain a minimum of 40 days of practical industry experience during enrolment in the program. This forms part of a total requirement of 90 days work experience.

LAND1401
Landscape Design 7: Urban Landscape Design
Landscape Architecture Program
UOC12  HPW8
Corequisite: LAND1402; Prerequisite: LAND1302, LAND1382
An exploration of the relationships within the fabric of the urban environment including concepts of city functions and the analysis of disparate parts of the city with physical design being the primary focus. Context and place, history and theory are considered as well as analytical techniques. Design studios, lectures and seminars. This course generates the urban design context for the Graduating Project undertaken in LAND1402 Landscape Design 8.

LAND1402
Landscape Design 8: Graduating Studio
Landscape Architecture Program
UOC12  HPW8
Co: LAND1401 Pre: LAND1302 & LAND 1382
Students are called upon to employ all the knowledge, skill and understanding they have gained in previous years and to explore issues and approaches in design which are of particular interest to them. The graduating design project follows from LAND1401 Landscape Design 7 and involves sketch design and detailed design development. Graduating project is related to the natural, urban or rural environment. The studio will critically assess aspects of theory through design speculation.

LAND1421
Landscape Thesis
Landscape Architecture Program
UOC15  HPW0
Prerequisite: LAND1321
A specialised individual study, enabling each student to gain or extend knowledge and understanding in some aspect of landscape architecture. The proposed topic area and title must be approved by the Course Authority and the Program Head. The thesis is essentially evidence of this individual study, under staff supervision and culminating in a written document deposited in the Faculty library. The course requires each student to carry out the required research, organization of material and writing in order to submit a complete draft of a written thesis in week 7. Each student then refines the draft and undertakes the preparation of illustrative material and completion of all necessary references and bibliography, before the submission of the final unbound manuscript for assessment. The unbound manuscript is assessed by two readers and returned with corrections noted, so that a bound copy of the thesis can be lodged with the Faculty Student Centre. This one session course is graded in accordance with the normal University grading system.

LAND1431
Advanced Research Project in Landscape Architecture
Landscape Architecture Program
UOC9  HPW2
Prerequisite: LAND1321
This course is an alternative to LAND1421 Landscape Thesis. Students in this course prepare a report following professional guidelines and gain further insight into the practice of landscape architecture. Students work closely with the instructor on the development of a set research topic and the preparation of a report. The course work refines skills in research, writing and report production. The course is structured as a combination of lectures and workshops, all of which support specific aspects of report preparation.

LAND1481
Landscape Practice 2
Landscape Architecture Program
UOC12
Students are required to obtain a minimum of 40 days of design office experience during enrolment in the program. This forms part of a total requirement of 90 days work experience.

LAND1583
Professional Practice
Landscape Architecture Program
UOC6
An introduction to the practice of landscape architecture, its scope and potential with a focus on current issues and practices. Topics include the framework of commercial and environmental law; project stages and procedures; contracts, consultancy and client relationships; legal and professional responsibilities with specific reference to ethics, negligence and risk; contract law and tender procedures. Assessment includes case studies, preparation of contract documents, preparation of a professional portfolio and a test.

LA1N0102
Women, the Law and Society in Ancient Rome
School of Modern Language Studies
UOC6  HPW3
Students will read in Latin portions of Cicero’s speech Pro Caelio, and a selection of Catullus’ love poetry and Juvenal’s sixth satire. Through this reading students will gain a good understanding of aspects of Roman legal oratory (and practice) and poetry (both lyric and satire) as they focus on representations of the behaviour of some aristocratic Roman women. At the same time, these demanding texts will improve considerably students’ ability to handle the Latin language. Students will be expected to read in the original, approximately 40 pages of prose and poetry.

Assumed Knowledge: HSC Latin.

LATN1000
Introductory Latin A
School of Modern Language Studies
UOC6  HPW5
Excluded: GENT0432
Provides an introduction to the basic forms of the Latin language and essential grammatical constructions. It will be of particular interest to those who want to acquire a knowledge of Latin to support study in other fields, such as language learning, linguistics, ancient history, mediaeval studies or law, as well as those with a primary interest in Roman literature. The classes will be devoted to practice in translating from English into Latin and from Latin into English, and will also introduce students to some simple examples of Latin literature.

Note: Excluded HSC Latin or equivalent.

LATN1001
Introductory Latin B
School of Modern Language Studies
UOC6 HPW5
Prerequisite: LATN1000

Follows on from LATN1000, extending knowledge of Latin grammatical constructions and reading Latin texts of increasing difficulty. One class per week will be devoted to grammar, the others will be devoted to reading Latin texts. Language assignments will require translation from English into Latin as well as Latin into English.

Note: Excluded HSC Latin or equivalent.

LATN2001
Reinventing the Past: Roman Mythological Epic
School of Modern Language Studies
UOC6 HPW3
Prerequisite: HSC Latin or LATN1001

Students will read in Latin portions of Virgil's Aeneid 4 and Ovid's Metamorphoses 3. Through this reading students will gain a good understanding of how mythology and epic in Rome could be used to shape a vision of the past which problematized (Roman) imperial ideology. Students will also gain a good understanding of the Roman formulation of narrative epic. At the same time these texts will improve considerably students' ability to handle the Latin language. Students will be expected to read, in the original, approximately 1000 lines of poetry.

LATN2002
Mothers and Roman Sons: Suetonius and Tacitus on Families
School of Modern Language Studies
UOC6 HPW3
Prerequisite: HSC Latin or LATN1001

Students will read in Latin portions of Suetonius' life of Nero and Tacitus' Annals 14. Through this exemplary reading students will gain a good understanding of Roman social history and historiography. At the same time, these demanding texts will improve considerably students' ability to handle the Latin language. Students will be expected to read, in the original, approximately forty pages of prose.

LAWS1001
Criminal Law 1
Faculty of Law
UOC6 HPW4
Currently enrolled in a program in the Faculty of Law.

This course examines the principles of criminal law and liability. The aims of the course are: to promote and refine research and social policy analysis skills; develop a rigorous analytical and socially oriented approach to the study of criminalisation and criminal law; investigate the constitution of concepts like crime, criminal and criminal law; question traditional approaches which assume a unified set of principles; suggest an approach to criminal law as a number of diverse fields of regulation; acknowledge the importance of forms of regulation outside the criminal law; examine empirical material on the actual operation of the NSW criminal process such as court statistics and a court observation exercise; and examine the substantive rules developed in selected criminal offence areas. Topics include: the phenomenon of crime, the criminal process, components of criminal offences, drug offences, public order offences.

LAWS1002
Advanced Criminal Law
Faculty of Law
UOC8 HPW4
Prerequisite: LAWS1001, LAWS1011; or LAWS1610; Corequisite: LAWS2311 or LAWS1010.

Builds upon the introduction to criminal law and process in the compulsory core curriculum. Topics vary from year to year depending on current developments. The focus is on recent statute and case law, and current research developments in criminalisation, law and order politics, criminal responsibility, defences, criminal process and sentencing.

LAWS1003
Crime and Society
Faculty of Law
UOC8 HPW4
Prerequisite: LAWS1001, LAWS1011; or LAWS1610; Corequisite: LAWS2311 or LAWS1010.

This subject seeks to provide students with a theoretical framework in which to understand crime as a particular social phenomenon: the criminalisation of particular social activities, who commits crime and whose social activities are more likely to be policed. Through an analysis of selected readings and case studies, we will look at the role of sex, race and class in explaining men's and male adolescents disproportionate participation in crime, men's and women's involvement as victims of specific types of crime and why, when women and female adolescents do commit crime, their criminality disrupts the construction of normative, 'law-abiding' femininity. The case studies we will examine this semester include:

(i) The Trouble with Men and Boys
(ii) The Colour of Crime: race and crime statistics
(iii) The Creation of Crime through Moral Panics: sex crimes and the criminal body.

LAWS1005
Penology
Faculty of Law
UOC8 HPW4
Prerequisite: LAWS1001, LAWS1011; or LAWS1610; Corequisite: LAWS2311 or LAWS1010.

A critical interdisciplinary subject involving historical, sociological, political and legal materials. Topics include: prisoners and the prison movement; discipline and punishment; media issues; the legal regulation of the administration of punishment through imprisonment; privatisation of prisons; reform. The emphasis on different topics may vary from year to year according to contemporary developments.

LAWS1006
The Criminal Appeals Project
Faculty of Law
UOC8 HPW4
Prerequisite: LAWS1001, LAWS1011; or LAWS1610; Corequisite: LAWS2311 or LAWS1010.

This course provides an opportunity for students to combine class work on appellate procedure, client-centred representation on appeal, issue spotting and persuasive writing, with work on an actual criminal trial transcript for the purpose of developing grounds of appeal and an appellate brief.

It is envisaged that there will be one, three hour class per week. The classes will be used to discuss appellate procedure, the ethics of appellate representation, issue spotting and the art of persuasive argument. Classes will also be set aside for discussion and analysis of a trial transcript. An excursion is envisaged to the Court of Criminal Appeal.

LAWS1011
Criminal Law 2
Faculty of Law
UOC6 HPW4
Prerequisite: LAWS1001

This course examines the principles of criminal law and liability. The aims of the course are the same as for Criminal Law 1. Topics include homicide; criminal defences, offences against the person, offences of dishonest acquisition, attempts, complicity, conspiracy, sentencing and penal practices.

LAWS1031
Information Technology Law
Faculty of Law
UOC8 HPW4
Prerequisite: LAWS1001, LAWS1011; or LAWS1610; Corequisite: LAWS2311 or LAWS1010.

This computer law course - known informally as Cyberspace Law - examines the law governing the Internet/cyberspace. Topics may include governance of cyberspace (the role of self-regulation, control of domain names etc), the special significance of encryption technologies;
digital signatures and electronic transactions; property in cyberspace (copyright in hypertexts, liability of ISPs etc), computer crime, privacy and surveillance, internet censorship, and tortious and other civil liability issues. E-commerce issues are discussed. No prior computing knowledge is required. Computing and data communications concepts are explained where necessary. This course may be taught via the Internet, or via a combination of Internet and face-to-face classes. Further details are on the subject web pages (http://www2.austlii.edu.au/flaw/).

**LAWS1033**
**Communications Law**
Faculty of Law
UOC8 HPW4
Prerequisite: LAWS1001, LAWS1011; or LAWS1610; Corequisite: LAWS2311 or LAWS1010.

This course provides an introduction to the two broad areas of law regulating the content and carriage of communications in Australia. These include laws relating to the planning and licensing of telecommunications and broadcasting services; rules about who can establish, own and control media and communications businesses; the regulation of media content - classification and censorship, free speech and defamation, laws affecting journalists, and local content; and consumer protection. It is a very topical course, with current issues including regulation of the internet, the introduction of digital broadcasting, and convergence. The course provides an excellent introduction to areas of media and communications law, which can be studied in more detail in the LL.M program.

**LAWS1052**
**Foundations of Law**
Faculty of Law
UOC6 HPW5
Currently enrolled in a program in the Faculty of Law.

This course considers the legal significance of the arrival of the British in Australia to the original inhabitants and the settlers, the principal institutions of the legal system and their historical roles, interrelationships, and operation. The course considers the State legal institutions' development up to Federation, and the move to independence from British institutions. The course emphasises the doctrine of precedent and statutory interpretation in relation to these institutions. A number of torts are then studied, notably intentional torts and nuisance, as an example of the legal system in action.

This course also includes an integrated research component, which introduces students to the literature relevant to the law in Australia, differentiates primary and secondary materials, and familiarises students with both traditional and electronic research methods.

**LAWS1061**
**Torts**
Faculty of Law
UOC6 HPW4
Prerequisite: LAWS1051 or LAWS1052

The forms of argument used in tort law as exemplified in the law of negligence are examined. There is a detailed discussion of specific issues such as recovery for personal injury, for pure economic loss and the liability of statutory authorities and occupiers. Vicarious liability, defences and assessment of damages are covered as well as breach of statutory duty and some intentional torts. A second strand of the course introduces students to the wide-ranging debates about the appropriate role and function of tort law. This requires developing a working knowledge of feminist, economic and various other theories in an accessible and practical way. The course covers the concept of tort law. In developing this working knowledge students will be exposed to secondary materials which build upon and refer to the cases and statutes which are included in the course.

**LAWS1071**
**Contracts 1**
Faculty of Law
UOC3 HPW2
Currently enrolled in a program in the Faculty of Law.

LAWS1071 Contracts 1 is the first of two compulsory components of the undergraduate curriculum which together examine the law governing the formation and performance of contracts. This course initially examines the distinctive nature of contractual obligations and some contemporary social and economic influences upon it. The course then examines systematically the legal principles governing the formation of contracts. Finally, it gives special attention to the possibility of enforcement by third parties, and the manner in which the law of estoppel can result in enforcement of non-contractual promises.

**LAWS1072**
**Contracts 2**
Faculty of Law
UOC6 HPW4
Prerequisite: LAWS1071

Contracts 2 is the second of the two compulsory contract law components of the undergraduate curriculum. The course presupposes that students have acquired knowledge of the content of LAWS1071 Contracts 1. Topics examined in LAWS1072 Contracts 2 include: the identification and interpretation of contractual terms; factors which may vitiate the formation of a contract, such as misrepresentation, mistake and common law and statutory unconscionability; the effect of exemption clauses; the nature of peremptory obligations; breach of such obligations; circumstances in which contractual obligations are terminated; and remedies for contractual breach. Students are encouraged to examine the role of contract law from an historical and contemporary standpoint.

**LAWS1081**
**Property, Equity and Trusts 1**
Faculty of Law
UOC6 HPW4
Prerequisite: LAWS1071, LAWS1072; or LAWS1420

Property, Equity and Trusts 1 is one of the compulsory "core" courses of the law program. A central objective of the course is to ensure that students gain a sound understanding of basic principles of the law of property, as well as equity and trusts. Course coverage: the conceptual nature of proprietary interests; the nature of possession; remedies to protect possession of goods and possession of land; an introduction to native title; the doctrine of tenancy; fragmentation of proprietary interests and the doctrine of estates; future interests; the history of equity and the nature of equitable interests in land; creation and assignment of proprietary interests in land at law and in equity; the express, implied and constructive trust; express trusts; powers and duties of trustees; estoppel; priority between competing legal and equitable interests in land.

**LAWS1082**
**Property and Equity 2**
Faculty of Law
UOC6 HPW4
Pre-requisite: LAWS1081

Property and Equity 2 is one of the compulsory "core" subjects of the law course. The course builds upon the foundation work covered in Property and Equity 1. Course coverage: the Torrens system of land title; creation of interests under the Torrens system and the resolution of priority conflicts; the caveat system and protection of unregistered interests; alienability of interests in land and the rule against perpetuities; the law of leases; the law of mortgages and securities; co-ownership and statutory trusts for partition and sale; planning the use of land; easements and covenants.

**LAWS1091**
**Business Associations 1**
Faculty of Law
UOC6 HPW4
Prerequisite: LAWS1001, LAWS1011; or LAWS1610; Corequisite: LAWS2311 or LAWS1010.

An introduction to a number of important legal and theoretical aspects of the operation of business corporations. In addition, there is a brief overview of partnership law. The corporate law component of the course falls into two parts. The first deals with the process and incidents of incorporation, including the derivation of the modern corporation and an introduction to regulatory structures; an introduction to the corporate constitution, organs and capital; the separate personality of the corporation and its exceptions. The balance of the course is concerned with the structure and governance of the corporation. It examines the corporate organs (the board of directors and the general meeting) and the division of corporate powers between them; the duties and liabilities of directors and other officers; the remedies available to shareholders for the enforcement of directors' duties and protection against oppression or overreaching by controllers. While much of this legal doctrine is equally applicable to the large corporation as to the small enterprise, the course stresses the problems, processes and transactions typically encountered by small incorporated businesses.

**Note:** If taken as a compulsory course, it is LAWS4010 UOC6.

**LAWS1092**
**Business Associations 2**
Faculty of Law
UOC6 HPW4
Prerequisite: LAWS4010 or LAWS1091
Areas of company law and securities regulation not covered in LAWS1091 Business Associations I, and particularly those of relevance to larger companies. Students who wish to complete a comprehensive study of company law and securities regulation are advised to take this course in addition to LAWS4010 or LAWS1091. The areas of law covered in this course are: The role of the ASX and ASIC as bodies regulating companies and securities markets; The restrictions on the capital structure of the company, ie. the creation of classes of shares and the rights attaching to those shares, the issue of shares at a discount, and the reduction of capital; The restrictions arising out of the various forms of the capital maintenance doctrine, ie. the circumstances in which a company may buy back its own shares, the rules against the giving of financial assistance, and the restrictions on the payment of dividends; The terms and conditions upon which companies may raise funds from the public, ie. the issue and content of prospectuses; The structure and regulation of the market for corporate control (ie. takeovers). The course approaches these topics in two different ways. The first way of approaching each of the topics will be to focus specifically on the scheme of regulation established by that law. The second way of approaching each of the topics will be to establish some themes common to each of these areas of law. In particular, the course will focus on the approaches to regulation adopted in each of these areas.

LAWS1812 Sport and the Law
Faculty of Law
UOC8 HPW4
Prerequisite: LAWS1001, LAWS1011; or LAWS1610; Corequisite: LAWS2311 or LAWS1010.

Sport is a central part of modern Australian society and culture. Not surprisingly, as professionalism has become the norm, those involved with sport, be they players, managers, administrators and supporters, are increasingly looking to the law to protect their rights and/or resolve their problems. How and why has this happened? The course touches on a number of different areas of law such as torts, contracts, criminal law, administrative law, and business associations. The aim is to draw upon specific issues from these various branches of the law and to place them in an historical and modern day context so as to give participants an understanding of the developing role the law is making in the world of sport as well as the policy and ethical issues facing those involved.

LAWS2019 Financial Economics and Law
Faculty of Law
UOC8 HPW4
Prerequisite: LAWS1001, LAWS1011; or LAWS1610; Corequisite: LAWS2311 or LAWS1010.

This course aims to educate students in topics in the theory and applications of Financial Economics relevant to Law. Legal applications include prejudgment interest; analysis of securities fraud (including damages); taxation of new financial products; analysis of liability for negligent investment advice; market efficiency and insider trading; aspects of the business judgment rule.

LAWS2021 Industrial and Intellectual Property
Faculty of Law
UOC8 HPW4
Prerequisite: LAWS1081, LAWS1082; or LAWS3010

Areas of the law relating to concepts of intangible property including the law of patents, trademarks, trade designs, copyright, confidentiality, passing off and the protection of business reputation. This course is a survey of the areas of law relating to the protection of ideas and new technology and is an excellent introduction to further study in communications, information technology and internet law.

LAWS2022 Trade Practices
Faculty of Law
UOC8 HPW3
Prerequisite: LAWS1001, LAWS1011; or LAWS1610; Corequisite: LAWS2311 or LAWS1010.

Analyses the operation of competition law in Australia and the types of conduct and practices that are anti-competitive. The focus is on the restrictive trade practices provisions of the Trade Practices Act 1974, the decisions of the Federal Court and the determinations of the Trade Practices Commission and the Trade Practices Tribunal. Where relevant, US, UK and European decisions are considered.

LAWS2023 Trusts
Faculty of Law
UOC8 HPW4
Prerequisite: LAWS1001, LAWS1011; or LAWS1610; Corequisite: LAWS2311 or LAWS1010.

The nature, history and classification of trusts; the use of trusts in modern law; interaction of the trust and contract; express private trusts; purpose trusts; discretionary and protective trusts; the creation and variation of private trusts; trusts in commerce; resulting and constructive trusts; charitable and public trusts; powers and duties of trustees.

LAWS2024 Commercial Finance
Faculty of Law
UOC8 HPW4
Prerequisite: LAWS1001, LAWS1011; or LAWS1610; Corequisite: LAWS2311 or LAWS1010.

Commercial Finance aims to provide an introduction to some principal areas of commercial law of general relevance to legal practice and of particular relevance to those interested in banking. Topics: 1. Negotiable instruments, including a study of commercial bills against the background of a description of the operation of the commercial bills and money markets. 2. Secured transactions: students are introduced to the law on securities over personal property including priorities; reference is made to credit arrangements in use in the distribution and sale of goods and services. 3. Introduction to law of bankruptcy.

Note/s: This course may be studied on its own but students wishing to complete an introductory study of banking law should take LAWS2013 The Law of Banking as well. Students wishing to complete an introductory study of commercial law are advised to take LAWS2026 Commercial and Consumer Sales. Other areas of commercial law are dealt with in LAWS2037 Consumer Protection Law.

LAWS2025 Advanced Contract Law
Faculty of Law
UOC8 HPW4
Prerequisite: LAWS1071, LAWS1072; or LAWS1420

This course normally covers some significant topics of the law of contract which are usually omitted from the compulsory contract law courses, LAWS1071 Contracts 1 and LAWS1072 Contracts 2 (eg illegality; agency). It then deals in depth with a selection from the following list of topics which are very important in commercial practice, but are dealt with somewhat briefly in the initial courses: uncertainty and incompleteness in contract formation; economic duress; termination for breach and frustration; privity and third party rights; interpretation). The course constantly considers the increasing impact of equitable principles, and of the law of restitution, on the common law of contract. There is likely also to be an examination of some leading theories on the nature and likely development of contract law.

LAWS2026 Commercial and Consumer Sales
Faculty of Law
UOC8 HPW4
Prerequisite: LAWS1001, LAWS1011; or LAWS1610; Corequisite: LAWS2311 or LAWS1010.

This is an introduction to principal areas of commercial law of relevance to legal practice. This course deals primarily with the intersection of property and contract law in the sale of goods, a species of personal property. It includes a study of product liability, including the liability of the sellers, manufacturers and credit providers. It provides a foundation for the study of risk in the rules for the transfer of property in goods. A major component of the course is the study of Trade Practices Law particularly the prohibition against misleading and deceptive conduct. The course examines available statutory remedies.

LAWS2027 Industrial Law
Faculty of Law
UOC8 HPW4
Prerequisite: LAWS1001, LAWS1011; or LAWS1610; Corequisite: LAWS2311 or LAWS1010.
The Commonwealth and New South Wales systems of regulation of industrial disputes. The Commonwealth and New South Wales systems of workplace bargaining. The Commonwealth and New South Wales legislation regulating the activities of trade and industrial unions, including their internal administration. The Commonwealth and New South Wales systems for arbitration of unfair dismissals.

**LAWS2028 The Law of Employment**  
Faculty of Law  
UOC8 HPW4  
Prerequisite: LAWS1001, LAWS1011; or LAWS1610; Corequisite: LAWS2311 or LAWS1010.

The employer-employee relationship with particular attention to the individual contract of employment on which that relationship rests, the legal concept of an employee, incidents of the employment relationship, the mutual rights and duties of the employer and the employee; the termination of the relationship with particular reference to the discharge of the contract of employment by performance, by notice and for cause and the remedies for wrongful termination; individual contracts and workplace agreements; the legislation which is designed to protect wages, hours and various leave entitlements; legislation with respect to unfair dismissal; Anti-Discrimination; programs for Equal Employment Opportunity and Affirmative Action.

**LAWS2031 Occupational Health and Safety Law**  
Faculty of Law  
UOC8 HPW4  
Prerequisite: LAWS1001, LAWS1011; or LAWS1610; Corequisite: LAWS2311 or LAWS1010.

The law relating to compensation for work-related injuries and disabilities and to the regulation of safety standards in workplaces. Topics include: the employer's common law duty of care; the common law duty of care of manufacturers of products for use at work; the development and application of workers' compensation schemes; existing protective legislation in Australia; individual rights under protective legislation.

**LAWS2032 Employment Protection Law**  
Faculty of Law  
UOC8 HPW4  
Prerequisite: LAWS1001, LAWS1011; or LAWS1610; Corequisite: LAWS2311 or LAWS1010.

The law relating to protection against dismissal from employment. Topics include: basic concepts of substantive and procedural fairness; statutory protection against unfair dismissal under Commonwealth and State legislation; the British system; international conventions; directives of European Parliament; regulation of redundancies; employment protection provisions in industrial awards; employment protection through regulation of unfair contracts; employment protection through equitable remedies; the labour market implications of employment protection.

**LAWS2033 Law of Banking**  
Faculty of Law  
UOC8 HPW4  
Prerequisite: LAWS1001, LAWS1011; or LAWS1610; Corequisite: LAWS2311 or LAWS1010.

The Law of Banking provides an introduction to aspects of the practice of banking and to relevant legal principle. Both traditional views and contemporary developments are adverted to. While the central focus is on the relation of banker (in legislation now authorised deposit-taking institution) and customer, not only the cheque but also a range of recently developed and developing banking instruments and processes are considered. Regulation and deregulation are discussed and in that context functionally related activities are traversed.

**Note:** This course may be studied on its own but students interested in a wider view of banking law should also enrol in LAWS2024 Commercial Finance.

**LAWS2035 Land Dealing: Residential and Commercial Contracts**  
Faculty of Law  
UOC8 HPW4  
Prerequisite: LAWS1001, LAWS1011; or LAWS1610; Corequisite: LAWS2311 or LAWS1010.

The law of vendor and purchaser with special emphasis on the standard form contract for sale of land in use in New South Wales. Aims to benefit those intending to practise in any field of land law and property law, whether in large, medium or small legal firms, city, suburban or country. The course focuses upon both commercial and residential contracts. The course will also benefit those at the bar practising in the property and equity area. Topics: whether a binding contract of sale exists, auction contracts; vendor disclosure and anti-gazumping legislation, the requirements of the Statute of Frauds, exchange of contracts, proper preparation of the contract of sale, detailed examination of the standard Law Society approved contract of sale, the law concerning notices to complete and other remedies available to vendor and purchaser, remedies for breach of contract, damages, liquidated and unliquidated, termination, specific performance; the law of deposits.

**LAWS2037 Consumer Protection Law**  
Faculty of Law  
UOC8 HPW4  
Prerequisite: LAWS1001, LAWS1011; or LAWS1610; Corequisite: LAWS2311 or LAWS1010.

Legislative strategies for the protection of consumers and the effect of this legislation upon markets. The following protective strategies are considered: advertising self regulation; statutory regulation of news advertising; the regulation of packaging and labelling; protection against sales promotion techniques; franchising; the licensing of persons dealing with consumers; product liability; statutory regulation of unconscionable conduct; and special procedures for consumer claims.

**LAWS2040 Interests in Securities**  
Faculty of Law  
UOC8 HPW4  
Prerequisite: LAWS1001, LAWS1011; or LAWS1610; Corequisite: LAWS2311 or LAWS1010.

This course focuses primarily on the principles under various strands of law that underlie dealings in securities and in interests in securities. It is a mix of the laws of property (and, in particular, relating to intangibles and secured transactions), contract and corporate insolvency as well as thorny questions of the conflict of laws. We look at these not only from an Anglo-Australian perspective but on a comparative basis examining the analysis in other countries including the United States, Japan and Germany. We also consider international initiatives underway to harmonise law in this area. The course necessarily provides background on the modern clearance and settlement structures used in Australia and around and the variety of holding patterns that are now common place.

**LAWS2041 Financial Services Regulation**  
Faculty of Law  
UOC8 HPW4  
Prerequisite: LAWS1001, LAWS1011; or LAWS1610; Corequisite: LAWS2311 or LAWS1010.

The course provides an analysis of the Financial Services Reform Act 2001 (now in the Corporations Act), Australia’s most thorough reform of financial regulation. It studies the main techniques of financial regulation: disclosure, licensing; prohibitions of market misconduct, self regulation and powers of investigation and enforcement. It does this through considering the rules and practices constituting financial regulation, the market institutions and regulatory context in which it operates and the additional insights we gain from contemporary regulatory studies. The course tackles current issues in financial regulation such as the impact on law of product and market convergence, intermediary conglomeration, globalization, use of computer and telecommunications and responses to recent ethical failures in financial services.

**LAWS2051 Elements of Income Tax Law**  
Faculty of Law  
UOC8 HPW4  
Prerequisite: LAWS1001, LAWS1011; or LAWS1610; Corequisite: LAWS2311 or LAWS1010.

1. Introduction: the policies served by taxation with particular reference to distributional and economic objectives; the uniform tax system: the structure of the current Income Tax Assessment Act and its administration.  
2. A critical analysis of the principal concepts of the law of income taxation and the taxation of capital gains and fringe benefits; the law on income
and deductions as applicable to individuals; the trading stock provisions and tax accounting; concepts of residence and source. 3. The judicial interpretation of taxing statutes; ethical and policy questions concerning tax avoidance.

LAW2052
Advanced Revenue Law
Faculty of Law
UOC8 HPW4
Prerequisite: LAWS2051

Areas of income tax introduced in LAWS2051 Elements of Income Tax Law in greater depth. Several areas of income tax law and other revenue law not touched on in the earlier course. Topics: 1. taxation of partnerships, trusts and companies, including capital gains tax; 2. assignment of income; 3. tax avoidance and evasion - analysis of general, and specific, antavoidance legislation and penalties legislation; 4. an introduction to aspects of international tax including some international tax agreements; 5. tax decisionmaking and review in the context of a mass decision making process; 6. an introduction to goods and services tax.

Note: Students should have completed LAWS4010 Business Associations 1 6UOC or LAWS1091 Business Associations 1 6UOC or be taking that course concurrently with LAWS2052.

LAW2065
Comparative Law
Faculty of Law
UOC6 HPW4
Prerequisite: LAWS1001, LAWS1011; or LAWS1610; Corequisite: LAWS2311 or LAWS1010.

Some of the principal legal systems of the world, and the advantages in looking at legal problems from a perspective broader than that of one's own legal system. Three parts: 1. An introduction to the Modern Civil Law, Roman, Hindu and Islamic legal systems, wherever possible comparing them with the Common Law system, and with each other. The history and uses of Comparative Law, and a discussion of the manner in which the Civil Law and Common Law systems have interacted with the others, and with each other; 2. a more detailed study of the Civil Law system, through the medium of criminal procedure and administrative law in Europe, especially France, against the background of the common law; 3. student-led seminars examining, comparatively, topics of world-wide concern, eg, consumer protection, the role of the corporation in modern society, protection of civil liberties, judicial review of administration action, and environmental protection.

LAW2079
Restitution
Faculty of Law
UOC8 HPW4
Prerequisite: LAWS1001, LAWS1011; or LAWS1610; Corequisite: LAWS2311 or LAWS1010.

Unjust enrichment, along with such subjects as contract and tort, is one of the law's primary sources of rights and obligations. This course examines unjust enrichment, and the law's response to unjust enrichment, called restitution. Liability in unjust enrichment is encapsulated in the phrase "unjust enrichment at the expense of the plaintiff". We commence with enrichment. Not all benefits received by the defendant are enriching and the courts have developed tests to determine whether the defendant is enriched and whether this enrichment is at the plaintiff's expense. The next question is injustice, this question being answered by the unjust factors. We will cover various unjust factors, including mistake, failure of basis, pressure and policy motivated unjust factors. Finally, we will look at two defences: change of position and estoppel.

LAW2081
Public International Law
Faculty of Law
UOC8 HPW4
Prerequisite: LAWS1001, LAWS1011; or LAWS1610; Corequisite: LAWS2311 or LAWS1010.

International law seeks to order human affairs at the international level. It accordingly covers a vast field, extending to issues such as autonomy or otherwise of peoples and territories, the allocation of resources (like land, maritime and air), the preservation of the environment, the regulating of interstate transactions, the resolution of disputes and the maintenance of international peace and security. This course aims to provide a solid introduction to certain central topics within the overall field of international law. Topics covered include: the nature and sources of international law, the relationship between international law and domestic law, international agreements, statehood and title to territory, territorial and maritime jurisdiction, recognition of states and governments, immunities, state responsibility, the use of force, and peaceful settlement of international disputes.

LAW2082
Conflict of Laws
Faculty of Law
UOC8 HPW4
Prerequisite: LAWS1001, LAWS1011; or LAWS1610; Corequisite: LAWS2311 or LAWS1010.

The Conflict of Laws or Private International Law is a species of private law which deals with problems involving a foreign or an interstate element. The introduction of that foreign or interstate element necessitates an examination by a New South Wales court of three main issues: 1. Whether or not the court has jurisdiction to deal with the problem, and even if it does, whether or not it will assume jurisdiction. 2. If it has assumed jurisdiction the court must then ask itself what is the most appropriate law to apply to the problem before it. 3. Or, the court may have to decide whether or not to recognize and enforce a judgment of a foreign court or the court of another state. Those problems which involve interstate elements may be affected by provisions of the Commonwealth Constitution or by some federal legislation. Failing that, the solutions to these interstate problems may call for an approach that is different to the solution of international problems simply on the basis that we are dealing with States of the same Commonwealth. For the purposes of this course the solutions that courts and legislatures have offered to such problems are examined in a few selected areas such as family law, contracts, torts and property. Wherever possible, emphasis is placed on the development of more appropriate solutions to these problems.

LAW2083
International Trade Law: The Law and Policy of the WTO
Faculty of Law
UOC6 HPW4
Prerequisite LAWS1001, LAWS1011; or LAWS1610. Corequisite LAWS2311 or LAWS1010 AND Excluded LAWS9972

This course introduces students to the legal, business and policy aspects of international trade, focusing on the legal framework of the various WTO Agreements. This course analyses the regulatory legal principles of the WTO and how they operate at both the national and international level. More specifically, the course covers issues such as tariffs and tariff negotiations, quotas, most favoured nation, regional trade agreements, national treatment, intellectual property, anti-dumping, export subsidies, countervailing duties, exceptions for environmental, health and safety and other issues of contemporary importance. The course gives participants a sound understanding of key legal issues and principles relating to international trade and a thorough knowledge and understanding of the importance of domestic and international policy issues to the world trading system. There are no prerequisites for this course and no background in economics, international relations or international law is assumed.

LAW2084
Comparative Law
Faculty of Law
UOC8 HPW0
Prerequisite: LAWS1001, LAWS1011; or LAWS1610. Corequisite: LAWS2311 or LAWS1010.

This course will introduce students to some of the major legal systems of the world. Comparative law has an important function in enhancing an understanding of our own system and in raising awareness of alternative solutions to legal issues. Increasingly, comparative law is used for law reform purposes and by judges in their decision-making process. By the end of this course students should be able to apply comparative methodology for law reform purposes, compare legal institutions and substantive laws of foreign legal systems in a meaningful way with similar institutions and laws in the Australian legal system, critically assess the possibilities and limitations in transplanting law from one country to another, and explain and discuss the impact of cultural, political and economic factors on law. Topics include functions and aims of comparative law, comparative methodology, the theory of 'legal families', the 'civil law' - 'common law' dichotomy, introduction to the German legal system, comparative approaches to tort law, reception of foreign laws, comparative human rights jurisprudence, the role of the European Court of Justice, harmonisation and unification of laws, and globalisation.
LAWS2086  
International Law Competitive Moot  
Faculty of Law  
UOC8  HPW0  
Prerequisite: LAWS2088  
The International Moot Program is open to students who have been selected to represent UNSW in one of the following competitions: Jessup International Law Court Competition; Jean Pictet International Humanitarian Law Competition; Manfred Lachs Space Law Moot Competition; and Vis International Commercial Arbitration Moot Competition. Each of these competitions is a prestigious international competition which involves extensive research and writing of case memorials followed by participation in oral mooting rounds and the possibility of representing Australia in final competition rounds overseas. Students will be selected for teams early in Session 2 on the basis of academic merit, research, and/or mootng skills and experience. The majority of the work for each competition will be conducted over the summer months. Application is open to all students who have completed International Advocacy, Public International Law or International Humanitarian Law.

LAWS2088  
International Advocacy  
Faculty of Law  
UOC8  HPW4  
Prerequisites: LAWS1001, LAWS1011; or LAWS1610; Corequisite: LAWS2311 or LAWS1010; Excluded: LAWS4082  
This course has a dual aim: to train students in advocacy before courts and tribunals, and to develop and enhance students’ understanding of litigation in international fora. Students will be provided with an excellent grounding in issues arising in litigation on the international stage, including jurisdiction, admissibility, immunities, principles of state responsibility and remedies. The course will focus on a variety of international courts and tribunals, including the International Court of Justice, the International Criminal Court, international commercial arbitration, the WTO Dispute Panel, the UN Human Rights Committee, and others. The course will also have a practical component aimed at enhancing the advocacy skills of participants and applying the theory to the practical aspects of the conduct of international advocacy. Students will be involved in the preparation and presentation of a hypothetical case before an international tribunal of their choice and will be given the opportunity to develop their advocacy skills, including the preparation of written submissions and delivery of oral submissions, in a non-competitive context. Those students not interested in the advocacy dimension of the course have the option of completing an essay focusing on international courts and tribunals. This course is the preferred prerequisite for the International Moot program.

LAWS2091  
Introduction to Space Law  
Faculty of Law  
UOC4  HPW0  
Prerequisite: LAWS1001, LAWS1011; or LAWS1610; Corequisite: LAWS2311 or LAWS1010.  
This course provides a basic understanding of the legal regime regulating the use of space, which is necessary in order to apply the law to the many space activities currently (and in the future) being undertaken. This course examines the underlying legal principles that specifically regulate the use, exploration and exploitation of space. It examines the evolution, international regime, national laws and legal practices, the legal regime, are also discussed.  

LAWS2123  
Chinese Legal System  
Faculty of Law  
UOC8  HPW0  
Prerequisite: LAWS2331, LAWS2321 or (LAWS1010) and LAWS6210  
This is a two-week intensive course held in Beijing each January. It provides an introduction into the legal system of the People’s Republic of China with particular reference to modern developments in contract and commercial law. China opened up its economy to market forces only in the late 1970s. When it did so, law and the legal system lost the pariah status to which they had been assigned during the Proletarian Cultural Revolution. The course examines the role law is playing in modern China by reference to its historical antecedents. The course examines particular areas of development not only for their own sake but also as indicators of the changing role of law in Chinese society. Areas which are the subject of particular attention include: the elements and institutions of Chinese legal system; the role of law in Chinese society from the perspectives of legal history and philosophy; contract law; intellectual property law; foreign investment law; corporate and securities law; foreign trade law and mediation, arbitration and civil enforcement procedures.

LAWS2140  
Public Law  
Faculty of Law  
UOC3  HPW2  
Currently enrolled in a program in the Faculty of Law.  
This course introduces the students to the study of public law, including its methods of reasoning, history and fundamental principles. It deals with introductory principles and theories of constitutional and administrative law and the essential features of our system of government. Topics include the Westminster System, Federation, Indigenous Peoples and the Question of Sovereignty, the Federal Parliament, the Separation of powers, Human Rights and Bills of Rights and Constitutional Change.  

Note/s: Taken concurrently with LAWS1071 Contracts 1 as a composite course.

LAWS2148  
Sir Harry Gibbs National Moot Competition  
Faculty of Law  
UOC8  HPW0  
The Sir Harry Gibbs National Moot Competition is the only national mooting competition in Federal Constitutional Law. It is organised by the T.C. Beirne School of Law at the University of Queensland and supported by the Australian Association of Constitutional Law. The competition began in 2002 with UNSW as a participant. The competition is held in Brisbane each year in early October. The four team members will receive course credit for their participation.

LAWS2150  
Federal Constitutional Law  
Faculty of Law  
UOC6  HPW4  
Pre-requisite: LAWS2160  
Federal Constitutional Law deals basically with a number of the Commonwealth’s legislative powers and their limitations, as discussed in the case law. In particular, the following powers and limitations: trade and commerce, external affairs, corporations, race, aliens, appropriation, grants and taxation, inconsistency of Commonwealth and State laws, freedom of interstate trade and commerce, excise and implied limitations on Commonwealth and State powers, including implied rights. Larger ideas concerning the nature of constitutional interpretation and the basic values of public law are also discussed. Further study of constitutional law may be undertaken in LAWS2292 The High Court of Australia and LAWS 429 Comparative Constitutional Law.

LAWS2156  
Issues in Australian Constitutional Law  
Faculty of Law  
UOC4  HPW4  
Prerequisite: LAWS2150  
A seven week, 4UOC course on selected topics in Australian constitutional law and conducted in seminar style. The first three weeks of the course centre on discussion and analysis of prepared materials. The remaining four weeks are allocated to student led seminars on topics selected from research essays. Emphasis is on recent constitutional litigation and material not developed in detail in compulsory courses. Issues for inclusion in the prepared materials and/or on the list of suggested research essay topics may include: status of Territories, contemporary problems about State Constitutions, just terms for acquisition of property, re-thinking the conciliation and arbitration power, technology and the Constitution, application of High Court decisions in lower courts, style and method in constitutional argument, developments on Chapter III, viability of proposals for amendment, standing in constitutional cases, amicus curiae, role of special leave in constitutional appeals.

LAWS2158  
Principles of Colonial Constitutional Law  
Faculty of Law  
UOC4  HPW4  
Currently enrolled in a program in the Faculty of Law.
This course focuses on the constitutional law principles which have influenced and continue to influence aspects of contemporary Australian constitutional law and structure. The object of the course is to demonstrate that the substance of many current principles may be traced to developments in the colonial era. The first three weeks of the course centre on discussion and analysis of prepared materials. The remaining four weeks are allocated to student-led seminars on topics selected for research essays. Topics in the prepared materials and/or on the list of suggested research projects may include: Commonwealth Constitution as an instrument of colonial self-government, judicial review in the colonial period, regnancy doctrine, significance of the Colonial Laws Validity Act, the legacy of manner and form, origin of the “peace, order and good government” formula, extra-territoriality, colonies and treaties, colonial Governors and military powers, the Viceroy debate, concept of plenary power, structure of colonial constitutions and charters, influence of the British North America Act, the Federal Council of Australasia experiment, role of the Privy Council, long shadow of English constitutional revolutions, non-citizens and prerogative powers, the British connection and colonial constitutional legacies in the twentieth century, colonial models of responsible government.

**LAW2160 Administrative Law**  
Faculty of Law  
UOC8  HPW4  
Currently enrolled in a program in the Faculty of Law.  
This course considers the law concerning the accountability and control of government officials. Topics covered include: delegated legislation; the duty to give reasons for administrative decisions; freedom of information; the Ombudsman, Administrative Appeals Tribunals; and judicial review of administrative action (the principles of legality and procedural fairness).

**LAW2181 International Humanitarian Law**  
Faculty of Law  
UOC8  HPW4  
Prerequisite: LAWS1001, LAWS1011; or LAWS1610; Corequisite: LAWS2311 or LAWS1010.  
International humanitarian law (also known as the law of war, or the law of armed conflict) consists of the international rules governing the conduct of hostilities, the methods and means of warfare, and international rules designed to protect the victims of armed conflict. It can also be said to cover international rules relating to treatment of displaced persons and refugees where these persons are fleeing from armed conflict. This course will examine the laws relating to the conduct of armed conflicts, including the four 1949 Geneva Conventions and their historical antecedents; the 1977 Protocols; the laws of the Hague; problems of enforcement of humanitarian law; war crimes; humanitarian intervention; protection of refugees; and the role of NGOs, the Red Cross, and the UN. The proliferation of internal conflicts during the last few decades and the increasing threat of international terrorism is forcing us to reexamine many of the traditional axioms of international human rights and humanitarian law. The course will examine the contemporary relevance of international humanitarian law in light of these challenges.

**LAW2182 International Human Rights Law and Advocacy**  
Faculty of Law  
UOC8  HPW4  
Prerequisite: LAWS1001, LAWS1011; or LAWS1610; Corequisite: LAWS2311 or LAWS1010.  
This course introduces students to the fundamental legal principles and institutions of international human rights. It focuses particularly on the application of human rights principles to current issues, including the role of human rights in a rapidly globalising world. Special attention is given to economic, social and cultural rights, human rights and developing countries, the expansion of multinational corporations, trade and investment liberalisation, the rise of terrorism, the rights of women, the “cultural relativism” debate and the rights of Indigenous peoples.

**LAW2183 Australian Journal of Human Rights**  
Faculty of Law  
UOC8  HPW0  
A student may be deemed, on the recommendation of the Head of School and the Faculty Advisers to the Australian Journal of Human Rights, to have satisfactorily completed this course on the basis of work done as Student Editor for a specified number of issues of the Australian Journal of Human Rights.

**LAW2184 Human Rights in the Global Economy**  
Faculty of Law  
UOC8  HPW4  
Prerequisite: LAWS1001, LAWS1011; or LAWS1610; Corequisite: LAWS2311 or LAWS1010.  
This course introduces students to the policies and legal principles operating in the global economy and their relationship with human rights law, with particular emphasis on economic and social rights, and analyses the impact on those rights of the global economic institutions and multinational corporations. Controversial issues will be explored, including the lending policies of the Bretton Woods Institutions (the World Bank and the IMF), the human rights impacts of the law of the World Trade Organisation and liberalisation of foreign investment in the Global South. The course studies and evaluates current initiatives for the regulation (and self-regulation) of transnational corporations in relation to human rights. Cases raising relevant human rights issues before the WTO’s Appellate Body and before selected national and international courts and tribunals are studied in detail.

**LAW2185 Public Interest Litigation: Origins and Strategies**  
Faculty of Law  
UOC8  HPW4  
Prerequisite: LAWS1001, LAWS1011; or LAWS1610; Corequisite: LAWS2311 or LAWS1010.  
Public Interest Litigation: Origins and Strategies will examine how to realise human rights and advance social justice through the practice of law. The course will trace the emergence of the public interest litigation (PIL) movement by reference to the use of law in shaping social policy in America, India and South Africa. Students will evaluate various litigation strategies adopted to advance a public interest in the Australian context. Topics covered will include: test case litigation, amicus curiae interventions, class actions or representative proceedings, and litigating Bills of Rights; barriers to conducting PIL, including standing, resource constraints and the risk of adverse costs orders. A critical aim of the course is to encourage students to recognise both the value and limitations of public interest litigation and to demonstrate a capacity to devise legal strategies, with reference to case and statute law, to promote issues of social importance.

**LAW2186 Human Rights Defender**  
Faculty of Law  
UOC8  HPW0  
Currently enrolled in a program in the Faculty of Law.  
The Human Rights Defender is a semester-long internship with the journal and the Australian Human Rights Centre (AHRC). The Defender is a tri-annual publication which has a long history with the AHRC and is known for providing high-quality, engaging content on human rights issues, both nationally and globally, in an accessible format. Students will be responsible for overseeing the production of at least one edition of the journal. The Editorship will provide students with an understanding of current human rights issues as well as organisations and individuals operating domestically and internationally that advocate and campaign on these issues. Students will be responsible for liaising with these organisations to commission articles for the Defender. In addition, students will liaise with, and coordinate, volunteer student editors and assign tasks accordingly. The Student Editor will be working as part of a team within the Defender and also within the AHRC. They will gain skills in editing and proofreading, writing, working with and coordinating volunteers, and commissioning and forming relationships with other human rights organisations, academics and members of the legal profession.

**LAW2212 Australian Indigenous Law Reporter**  
Faculty of Law  
UOC8  HPW0  
A student may be deemed, on the recommendation of the Head of School and the Faculty Advisers to the AILR, to have satisfactorily completed this course on the basis of work done as Student Editor for two issues of the Australian Indigenous Law Reporter.
The course provides a comprehensive introduction, taught in three sections, to the history, philosophy and principles of Jewish Law. The first section addresses some of the fundamental principles of Talmudic Law, including its role as a legal system, its seat of authority, its flexibility, the place of equity and custom, the relationship between halachah (Talmudic Law) and the State of Israel, and its influence on other legal systems. The second section deals with the main headings of the Talmudic legal system - property, torts, contracts, partnership, agency, trusts, employer and employee, criminal law, privacy, marriage and divorce, inheritance, conflicts and choice of law, international law and legal procedure. The third section introduces text material (in English translation) on Talmudic civil and criminal law.

The course will explore the complicated and fascinating relationship between Christian theology and law. The religious dimension of western law for a long time was forgotten or overlooked. The change started with publication of Harold Berman’s “Law and Revolution. The Formation of the Western Legal Tradition”. The issue of law and religion has long been pushed to the margins of the main trends of jurisprudence, but in the past few years there is a growing number of publications on ‘law and religion’. The aim of the course is to explore that stream of thinking about law and its connection with theology and show the religious sources of many Western legal concepts.

The course will focus on historical and contemporary issues, among them the impact of Christianity and its theology on the western legal tradition from Paul, Augustine of Hippo through to Thomas Aquinas and Luther, Calvin and others. Their impact on changes in the western concept of law will be explored. The reciprocal impact of law on Christianity and its theology will also be investigated. Contemporary scholarship on, and crossing, the borders between Christian theology and law will also be discussed.

One of the themes of this course is the nature of legal historiography. The course also examines the emergence of the rule of law. It charts the role played by law and legal institutions in the division of political power, and falls into three parts: 1. the struggles between the courts, the parliament and the monarchy in seventeenth century England, with special attention to the conflict between Sir Edward Coke and James I, the English Civil War and the Glorious Revolution; 2. the political consolidations of eighteenth century England with special attention to Blackstone, as well as to the assessments of modern historians like E.P. Thompson and Douglas Hay; 3. the reception of legal ideas into the penal colony of New South Wales, and the role played by rule of law in the political formation of a new society.

The course will focus on providing support and sufficient resources to Indigenous LLB students. The course requires students to attend the Kingstand Legal Centre as a group to gain first hand experience of practical legal problem-solving, community legal practice and client interaction. Communication skills, in particular interviewing skills, will be a major focus of this course, along with increasing student’s self-confidence. Students will gain the opportunity to experience law in a practical sense and thus gain an enhanced understanding of the general legal system, the legal aid system and the relevance of legal practice to a community.

This course addresses the law regulating the structure of communications in Australia. This is a very topical course with current issues including digital broadcasting, convergence, and the implications for traditional regulation of broadcasting and telecommunications. Topics include: planning and licensing of telecommunications and broadcasting services; rules about who can establish, own and control media and communications businesses; the introduction of competition into telecommunications in Australia in the 1990s; consumer protection issues in relation to communications; and, rules affecting electronic communications content such as the Australian Content Standard, the Anti-Siphoning rules governing premium sports on free-to-air and pay television; and classification schemes including film censorship guidelines and online content regulation.

This course will seek to introduce students to some of the characteristic features of the post-communist world, to some of its difficulties, problems, challenges and triumphs; and to similarities and differences among the developments in post-communist societies. In particular law students will focus on the attempts to build and rebuild legal institutions to replace or transform those which were inherited from communism, and of the problems and prospects facing such attempts. Among the particular issues discussed are the prerequisites for establishing the rule of law after its prolonged absence, the role of constitutions and constitutional courts, the legal requirements for, and problems associated with, privatizing an economy which long had no private property, the legal impact of the legal standards of the European Union on any countries that want to join it and must satisfy those standards, the moral and legal problems associated with attempts to deal with the legacies of an unsavoury past. These latter problems include questions about the present role of former communists and informers of communist secret services. They also include questions of criminal justice in relation to war crimes and crimes against humanity in the former Yugoslavia.

This course is an extension of Foundations Enrichment 1 in its focus on providing support and sufficient resources to Indigenous LLB students. The course requires students to attend the Kingstand Legal Centre as a group to gain first hand experience of practical legal problem-solving, community legal practice and client interaction. Communication skills, in particular interviewing skills, will be a major focus of this course, along with increasing student’s self-confidence. Students will gain the opportunity to experience law in a practical sense and thus gain an enhanced understanding of the general legal system, the legal aid system and the relevance of legal practice to a community.

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LAW2282
Advanced Administrative Law: Adapting to Regulatory Change
Faculty of Law
UoC  HPW4
Prerequisite: LAW2160 Administrative Law; Co-requisite: LAW2311 Litigation 1

Distinctions between public and private have long troubled administrative lawyers interested in issues of judicial and merits review, regulatory design, and governmental liability in tort and contract. Corporatisation, privatisation, intensified outsourcing, tort law reform, and statutory and Executive compensation schemes in substitution for tort law, have all increased the need to study these issues in depth. Professors Mark Aronson (UNSW) and Carol Harlow (London School of Economics) will conduct the bulk of the course, with additional guest classes by Professors Dennis Pearce and John McMillan (former and current Commonwealth Ombudsmen) and Professor Mike Taggart (Auckland).

LAW2292
The High Court of Australia
Faculty of Law
UoC  HPW4
Prerequisite: LAWS1001, LAWS1011; or LAWS1610; Corequisite: LAWS2311 or LAWS1010.

The role of the High Court of Australia as a legal, political and social institution in the framework of Australian government. Topics include: the relationship of the High Court to the other institutions of government; the relationship of the Court to other courts within the judicial system; the historical development of the Court and its distinctive features through different periods of that development; the Court's composition and internal working, its style of legal reasoning, its contribution to the development of distinctly Australian law in selected areas and the place of its individual members in the Australian judicial tradition. The course is divided broadly into four parts: the history of the Court and its justices; appointment and removal of justices; the jurisdiction and operation of the Court; the Court's role and record in public and private law; and the Court's relations with the political branches of government, including its public accountability. About half of the course is based on discussion of prepared materials, and the other half on research essays by each student presented to the class in the style of a seminar. One or more High Court justices may be invited to address the class. In 2001 former Chief Justices Sir Gerard Brennan and Sir Harry Gibbs addressed the class.

LAW2293
Constitutionalism
Faculty of Law
UoC  HPW4
Prerequisite: LAWS1001, LAWS1011; or LAWS1610; Corequisite: LAWS2311 or LAWS1010.

This course will introduce students to discussion and criticism of the institutional and theoretical underpinnings of a liberal-democratic constitutional order. It will do this by way both of examination of some of the key moments in constitutional development and design, and of discussion of some of the central issues of political and legal theory which constitutionalism raises. Among the topics considered are: 1. Philosophical history of the notion of constitutionalism and of such related ideas as: sovereignty, rights, the rule of law, separation of powers, republicanism, and federalism; 2. Issues in the design of constitutional order: the American Founding Fathers, the nineteenth century idea of the Rechtsstaat (law-governed state), and contemporary constitutional experiments in post-communist Europe; 3. Constitutional interpretation via judicial review, particularly the problem of applying constitutional texts in changing circumstances; 4. The sources of constitutional legitimacy.

LAW2301
Remedies
Faculty of Law
UoC  HPW4
Prerequisite: LAWS1001, LAWS1011; or LAWS1610; Corequisite: LAWS2311 or LAWS1010.

A study of the principal private law remedies at common law and in equity. The course analyses the nominate remedies of Australian law by reference to the remedial goals of the legal system, namely compensation, restitution, punishment and coercion. The relationship between the various remedies is also explored, as are the ways in which remedies are enforced in practice. The course aims to synthesise the law studied in courses, such as Torts, Contracts and Property and Equity from a remedial perspective.

LAW2303
Clinical Legal Experience (Intensive)
Faculty of Law
UoC16  HPW16
Prerequisites: LAWS6210; LAWS2311

Clinical legal education takes students out of the classroom and places them in a legal practice. This enables students to analyse the effect of law in practice and engenders in students an appreciation of the ethical, social and practical complexity of the legal system. Students are required to attend the Faculty's clinic, Kingsford Legal Centre, two full days a week. The clinic is a community legal centre which provides a free legal service to the local community. Students manage clients' files under the supervision of experienced clinical supervisors who are practising solicitors. Students take responsibility for the interviewing of clients and the research, drafting and preparation necessary to resolve legal difficulties by litigation or other means. In addition to two days attendance, students are asked to attend evening advice sessions during which they interview people attending for legal advice with volunteer lawyers. A daily tutorial and a weekly class provide an opportunity for discussion and analysis of students' experiences, and for instruction in legal procedure and skills. There are regular opportunities to attend Court and Tribunals. Major areas of work in which students will be involved include domestic violence, discrimination, consumer credit, victims compensation, family law, employment law, wills, legal aid and criminal justice issues. As well as clients files, students take part in community education, and in policy and reform work. The course is offered in both teaching sessions and over summer. A student who has enrolled in and who has passed or failed LAWS2304 Clinical Legal Experience may not enrol in this course without the approval of the Associate Dean. Students should note that due to requirements of caseloads, students will be required to attend during midsemester holidays and study breaks.

LAW2304
Clinical Legal Experience
Faculty of Law
UoC8  HPW8
Prerequisites: LAWS6210; LAWS2311

Clinical legal education takes students out of the classroom and places them in a law practice. This is both to enable students to analyse the effect of law in practice, and to engender in students an appreciation of the ethical, social and practical complexity of the legal system. Students are required to attend the Faculty's clinic, the Kingsford Legal Centre, one full day a week. The clinic is a community legal centre which provides a free legal service to the local community. Students work on clients' files under the supervision of experienced clinical supervisors who are practising solicitors. This involves interviewing clients, and the research, drafting and preparation necessary to resolve legal difficulties by litigation or other means. Students are also required to attend evening advice sessions during which they interview people attending for legal advice from volunteer solicitors. A daily tutorial and a weekly class provide an opportunity for discussion and analysis of the students' experiences, and for instruction in legal procedure and skills. There are also regular opportunities to attend Court and Tribunals. Major areas of work in which students will be involved include domestic violence, discrimination, consumer credit, victims compensation, family law, employment law, wills, legal aid and criminal justice issues. As well as clients files, students take part in community education, and in policy and reform work. The course is offered in both teaching sessions and over summer. A student who has enrolled in and who has passed or failed LAWS2303 Clinical Legal Experience (Intensive) may not enrol in this course without the approval of the Associate Dean. Students should note that due to requirements of caseloads, students will be required to attend during midsemester holidays and study breaks.

LAW2305
Clinical Program - Employment Law
Faculty of Law
UoC16  HPW16
Prerequisites: LAWS6210; LAWS2311

The Employment Law clinic requires students to undertake work for real clients while providing the student with opportunities to analyse the effect of the law in practice. Through their work for disadvantaged clients on
case, education and policy files students develop their understanding of substantive and procedural law and ethical issues in the area of employment. Students undertaking this Clinic will be working in a legal practice at Kingsford Legal Centre on employment law matters. They will be required to attend the Centre two days a week, 9am to 5pm, attend a weekly seminar of two hours and undertake evening and daytime public advice sessions. Students will be responsible for files under the supervision of the clinical supervisor. Students will conduct interviews with clients, make strategic decisions about conduct of the file, undertake research, draft all documents and where appropriate undertake advocacy in court or tribunals for the client. A daily tutorial and regular lectures provide opportunities for discussion and analysis of students’ experiences and for instruction and development of ethical issues, employment law, legal procedure and skills. The course is offered in both teaching sessions and over summer. Students should note that due to requirements of caseloads, students will be required to attend during midsemester holidays and study breaks.

LAWS2306
Aboriginal and Torres Strait Islander Social Justice Project
Faculty of Law
UOCA8 HPW0
The Aboriginal and Torres Strait Islander (ATS) Social Justice Project provides an opportunity for Indigenous undergraduate students to participate in a special project planned and developed with the Social Justice Unit within the Human Rights and Equal Opportunity Commission. Under the supervision and direction of the Social Justice Unit Indigenous students will conduct research, prepare written material and develop networks of organisations and individuals. This course is assessed on a Satisfactory/Unsatisfactory basis. In addition to the research and writing undertaken within the project, students must submit a journal of their activities to the supervising lecturer.

LAWS2307
Social Justice Intern Program
Faculty of Law
UOCA8 HPW0
This program involves an internship for one day per week at one of the eight specialist centres associated with the Faculty. The principal goal is to provide students with training and practical experience in research, writing and advocacy on aspects of policy and practice relating to social justice (especially the reduction of inequality and exploitation).

LAWS2308
Public Interest Internship Program
Faculty of Law
UOCA8 HPW0
The Law Faculty Public Interest Internship Program affords students the opportunity to undertake, for course credit, internships in selected Public Interest Host Organisations. The focus of the Program is on experiential learning. Students will work under the supervision of both the Host Organisation and the Faculty, and will obtain training and practical experience in research, writing and advocacy on aspects of policy and practice relating to any area of public interest law. This program is only offered to students in the final year of their Law program.

LAWS2311
Litigation 1
Faculty of Law
UOCA6 HPW4
Pre-requisites: LAWS1001 and LAWS1011
Litigation 1 examines civil pre-trial procedure and criminal pre-trial procedure. Civil procedure focuses on Supreme Court actions and topics such as the legal constraints relating to who may be a party to an action, the types of process for initiating a case, pleading rules, serving court process, discovery and exchange of information between parties. Supreme and Federal Court Rules are examined to determine the extent to which they facilitate just, accurate and speedy resolution of disputes. The course examines problems of delay and cost in litigation with particular reference to alternative dispute resolution mechanisms, case management initiatives and the courts increasing control over the pre-trial litigation process.
Criminal pre-trial procedure involves an examination of the law (and related policing issues) associated with arrest, warrants, search of the person and of premises, police questioning of suspects, the admissibility of illegally obtained evidence and the fundamentals of drafting indictments and informations. Comparisons are drawn between the civil and the criminal pre-trial processes on many issues.

LAWS2312
Trial Process
Faculty of Law
UOCA8 HPW4
Prerequisite: LAWS2311, LAWS2321; or LAWS1010
An advocacy training course concerned with the procedural and practical aspects of trial litigation and focusing on the role of the lawyer. Preparation of cases for trial, from initial investigation to final submission. Major emphasis is given to developing skills of interviewing, collecting facts, examining and cross-examining witnesses, and addressing judges. Begins with a series of practice exercises simulating real life litigation problems and students initially play all the courtroom roles: lawyer, witness, orderly and judge. Concludes with a series of mock trials derived from actual cases and presided over by judges and barristers. The course is based upon the conduct of civil trials.

LAWS2313
Evidence and Advocacy
Faculty of Law
UOCA8 HPW4
Prerequisite: (LAWS2311, LAWS2321) or (LAWS1010) and LAWS6210
This course is designed to follow and expand upon the compulsory Litigation courses. Students are expected to know the fundamentals of evidence law and trial procedure. Evidence and Advocacy concentrates on the criminal trial and is designed to allow a hands-on approach to learning evidence law and developing expertise in trial practice and procedure. The advocacy component requires students, working in groups, to prepare cases for trial. Effectively, students will be learning what US advocacy writers have called ‘case theory’. This is the pre-trial preparation of examination-in-chief, cross-examination, opening and closing addresses for trial.

The evidence component builds on students’ basic knowledge of the doctrine, principles and rules relating to criminal litigation. Outside classroom hours students must attend criminal trials in progress to observe the conduct of judges, juries, accused, witnesses and lawyers in real cases. Classroom discussion focuses on commentaries in the course text that examine a variety of issues associated with the dynamics of criminal trials. These commentaries are from a multidisciplinary perspective, incorporating the observations of historians, psychologists, sociologists and linguists. Course assessment includes witness examination exercises, trial presentations and an essay that is a comparative analysis of the conduct and practices of participants in observed trials with what the law expects, requires or assumes exists in relation to those participants.

LAWS2314
Dispute Resolution
Faculty of Law
UOCA8 HPW0
Prerequisite: LAWS2311 or LAWS5101
Most legal education in common law systems scrutinises the interpretation and development of the law via decisions made by courts in the process of litigation. This fosters the assumption that litigation, or legal advice predicting the outcome of litigation, is the normal method of resolving disputes. In fact only a small proportion of disputes are resolved by litigation and there is a growing dissatisfaction with the cost, speed and adversarial character of litigation, and a corresponding interest in alternative forms of dispute resolution. This course review the development of the ADR continuum, identify key processes, analyse their comparative advantages and disadvantages, introduce students to the skills involved. Particular attention is paid to negotiation and mediation and students have the opportunity to participate in role plays using these processes. The course is delivered as an intensive program focussing on experiential learning.
Detailed information on the course is available at www.strategicaction.com.au/unsw

LAWS2315
Strategic Public Advocacy and Civil Society
Faculty of Law
UOCA8 HPW4
Prerequisite: LAWS1001, LAWS1011; or LAWS1610; Corequisite: LAWS2311 or LAWS5101
Legal practitioners, particularly in civil society organisations, are often called upon to lead, or contribute to, public advocacy campaigns. An understanding of the public advocacy process is also valuable for the development and implementation of policy. The course addresses the interface between media, public relations, communications theory,
legislation and litigation in order to further public advocacy. It combines the theory and principles of public advocacy with the practical skills required to develop successful advocacy programs at local, state, national and international levels, and has relevance for advocacy on community development, environment, human rights, etc., without being exclusive to those areas. It is relevant for legal practitioners in civil society, government, semi-government instrumentalities, international agencies and organisations such as the UN.

**LAWS2316**
**Expert Evidence**
Faculty of Law
UOC8 HPW4
Prerequisite: LAWS1001, LAWS1011; or LAWS1610; Corequisite: LAWS2311 or LAWS1010.

**LAWS2317**
**Strategic Public Advocacy for Civil Society**
Faculty of Law
UOC4 HPW0
Prerequisite: LAWS1001, LAWS1011; or LAWS1610; Corequisite: LAWS2311 or LAWS1010.

Legal practitioners, particularly in civil society organisations, are often called upon to lead, or contribute to public advocacy campaigns. An understanding of the public advocacy process is also invaluable for those working in any policy area. The course addresses the interface between public law, media, public relations, marketing, political science, and litigation to further public advocacy. It combines theory and principles with the practical skills required to develop programs at local, state, national and international levels, and has particular interest for community development and social justice issues, without being exclusive to those areas. The course teaches an approach combining both project management and flexible creativity, and is relevant for legal practitioners in civil society, government, semi-government instrumentalities, and international agencies.

**LAWS2318**
**The Principles & Practice of Trial & Appellate Advocacy**
Faculty of Law
UOC4 HPW0
Prerequisite: LAWS2321; Excluded: LAWS2313

This 4 uoc course is designed for undergraduate students in their final year who have an interest in advocacy and/or litigation. It concentrates on the principles and practice of advocacy in the context of the rules of evidence, and follows on from the treatment of evidence and procedure in Litigation 2. The course has 2 aspects. After initial direction, the student will spend 2 days observing criminal trial advocacy and prepare firstly a synopsis (250 words), and then a course essay (2,500 - 3,000 words). The second aspect is classroom based and involves 7 three hour seminars addressing the constituent elements of case preparation and advocacy. Students will take part in practical advocacy exercises designed to reinforce teaching in key areas. On assessment, the essay, including its synopsis, will attract 40%, class participation 30% and practical advocacy exercises 30%. The course will be limited to 30-32 students.

**LAWS2321**
**Litigation 2**
Faculty of Law
UOC6 HPW4
Prerequisite: LAWS2311

Litigation 2 introduces students to the legal principles and rules relating to the presentation of evidence in court. The course provides a comprehensive examination of the rules of evidence (the accused at trial, prosecutorial obligations, relevance, the rule against hearsay, the treatment of unreliable evidence, proof, witness questioning, protections for vulnerable witnesses, tendency and character evidence). Litigation 2 emphasises the context of evidence law and procedure - including for example an examination of the role of the trial judge, the impact of adversarialism and the difficulties faced by the accused (particularly the unrepresented accused) and certain witnesses in the courtroom. The Evidence Acts 1995 (Cth) and (NSW) form the backbone to the course.

**LAWS2323**
**The Criminal Trial**
Faculty of Law
UOC4 HPW4
Prerequisite: LAWS1001, LAWS1011; or LAWS1610; Corequisite: LAWS2311 or LAWS1010.

The Criminal Trial builds on students' basic knowledge of the doctrine, principles and rules relating to criminal litigation. Outside classroom hours students must attend criminal trials in progress to observe the conduct of judges, juries, accused, witnesses and lawyers in real cases. Classroom discussion focuses on commentaries in the course text that examine a variety of issues associated with the dynamics of criminal trials. These commentaries are from a multidisciplinary perspective, incorporating the observations of historians, psychologists, sociologists and linguists. Assessment is an essay that is a comparative analysis of the conduct and practices of participants in observed trials with what the law expects, requires or assumes exists in relation to those participants.

**LAWS2331**
**Legal Theory**
Faculty of Law
UOC8 HPW4
Prerequisite: LAWS1001, LAWS1011; or LAWS1610; Corequisite: LAWS2311 or LAWS1010.

For details, see LAWS8320 Legal Theory earlier in the compulsory course section.

**LAWS2332**
**Law and Social Theory**
Faculty of Law
UOC8 HPW4
Prerequisite: LAWS1001, LAWS1011; or LAWS1610; Corequisite: LAWS2311 or LAWS1010.

For details, see LAWS8820 Law and Social Theory earlier in the compulsory course section.

**LAWS2335**
**Economic Analysis of Law**
Faculty of Law
UOC8 HPW4
Prerequisite: LAWS1001, LAWS1011; or LAWS1610; Corequisite: LAWS2311 or LAWS1010.

The use of concepts of economics as a means of evaluating the appropriateness of legal rules. The concepts drawn from microeconomic theory and public economics (dealt with at a comparatively elementary level) are used to analyse existing and hypothetical legal rules within selected areas of law, such as property, tort, contract, constitutional law, environmental law, trade practices and business regulation, consumer protection and crime. Prior training in economics is not essential for students taking the course.

**LAWS2341**
**Feminist Legal Theory**
Faculty of Law
UOC8 HPW4
Prerequisite: LAWS1001, LAWS1011; or LAWS1610; Corequisite: LAWS2311 or LAWS1010.

Feminist analyses of law provide some of the most significant and challenging explanatory frameworks for understanding the practice and organisation of laws and legal institutions. This course examines the development of feminist legal thought, including a critical examination of feminist theorising about equality, power, the public/private divide, intersections between categories such as race, gender, disability, class and sexuality, and the representation of gendered identities within legal and popular culture.

This course explores the ways theory enhances our understanding of the potential of law to create and perpetuate inequalities, and the potential of theory to effect social transformation by creating new knowledge and understandings. It will also consider the usefulness and limits of feminist legal theory as an explanatory and transformative tool, with a focus on a range of substantive issues of particular relevance to Australian society. The course will encourage students to take a cross-disciplinary approach to the study of law, drawing on feminist work from disciplines such as sociology, criminology, philosophy, and cultural studies.

**LAWS2361**
**Environmental Law**
Faculty of Law
UOC8 HPW4
Prerequisite: LAWS1001, LAWS1011; or LAWS1610; Corequisite: LAWS2311 or LAWS1010.

This course examines environmental law in both a theoretical and a practical sense. From the theoretical point of view, environmental law is
considered through interdisciplinary perspectives in a policy setting. The non-legal perspectives in terms of which environmental law is considered include ecology, economics and philosophy. The practical orientation of the course is toward developing an understanding of the legal framework for environmental decision making in Australia, particularly in N.S.W. Topics to be covered include the relevance of ecology to environmental law, environmental ethics, international environmental law, Commonwealth powers with respect to the environment, a range of Commonwealth and NSW legislation relating to the environment, and different legal techniques for enhancing protection of the environment (eg. regulation through the criminal law, through traditional common law techniques such as nuisance and private covenants, through economic incentive schemes, and through systems of consent and licenses). Litigation and alternative dispute resolution techniques are examined. Attention is also given to: (1) the part played by political and administrative discretion in the field of environmental decision-making, with some emphasis on the tensions which exist between various levels and bodies of government; (2) the role of public participation in the decision making process; and (3) environmental law in other countries, particularly the U.S. Students are encouraged to take an interest in topical environmental issues.

LAWS2391
Family Law
Faculty of Law
UOC8 HPW4
Prerequisite: LAWS1001, LAWS1011; or LAWS1610; Corequisite: LAWS2311 or LAWS1010.

This course examines the constitutional framework of family law; marriage and divorce; the legal recognition and regulation of different types of domestic relationships and families, including de facto and gay and lesbian relationships; the resolution of disputes between married and unmarried domestic partners relating to care and custody of children, personal protection, property and maintenance; child support; legal status of children (including legal issues arising from artificial insemination and current techniques of assisted reproduction), and the rights and responsibilities of parents and others relating to children; adoption of children; and procedural aspects of family law, including the roles of lawyers and court counsellors.

LAWS2392
Children and the Law
Faculty of Law
UOC8 HPW4
Prerequisite: LAWS1001, LAWS1011; or LAWS1610; Corequisite: LAWS2311 or LAWS1010.

The course is intended both for students who are interested in legal practice relating to children, and those who wish to broaden their understanding of the legal system by a critical examination of how it operates in a controversial and rapidly changing area. The present law in New South Wales is considered as well as the historical development of law relating to children, proposed reforms, and comparative material from other jurisdictions. The materials draw on disciplines other than law (such as sociology, child development theory) so that legal developments can be related to the position of children in society and different perspectives on their rights and interests. There may be some variation in the topics to be covered, according to the interests of the particular teacher and students, but in general the course deals with the concept of children's rights; child welfare laws; the application of the criminal law to children and the jurisdiction and procedures in children's courts; education; foster care, and other forms of alternative care. It is desirable that students have completed LAWS2391 Family Law.

LAWS2393
Succession
Faculty of Law
UOC8 HPW4
Prerequisite: LAWS1081, LAWS1082; or LAWS1010

The law governing succession to property on death including the rules relating to wills, administration of assets, family provision and intestate succession. The law relating to death and the body is also part of this course. Equitable doctrines relating to the law of wills and administration of estates, including construction of wills, marshalling, satisfaction, and ademption are also studied. Emphasis is placed on Australia, but there is a significant comparative aspect to this course: Civil law systems, Aboriginal customary law and Islamic law of inheritance, inter alia. This is both an illuminating way of considering the relevant doctrines, and also is appropriate for practitioners in a multicultural country.

LAWS2394
Families, Property & Death
Faculty of Law
UOC4 HPW0
Prerequisite: LAWS1081, LAWS1082; or LAWS1010

This course covers some academic aspects of the law of Succession, that is, the law regarding the transmission of property from one generation to another, usually on death. It will not equip students to draft wills, but it will ensure their understanding of the framework within which will-drafting operates. It offers a fascinating insight into the impact of this area of the law on relationships, property and death.

LAWS2401
Health and Medical Law
Faculty of Law
UOC8 HPW4
Prerequisite: LAWS1001, LAWS1011; or LAWS1610; Corequisite: LAWS2311 or LAWS1010.

Health and Medical Law is a relatively new and growing discipline in Australia. This subject aims to provide a sound introduction to the law relevant to the health system, the delivery of health services and related scientific and technological developments. There is no one discrete area of law involved. Rather, several different areas of law apply, including torts, contract, discrimination law, criminal law, trade practices, equity, administrative law as well as substantial statutory provisions. As law is just one of the forces impacting on the delivery of health services social, ethical, political and economic issues will also be considered.

An important aim of the course is to encourage and develop critical thinking and to challenge participants to consider the interaction between law and society. Hence, a range of carefully chosen relevant theory will be considered in relation to each topic.

Topics covered include patient rights, medical negligence, confidentiality and privacy, access to medical records, tissue transplantation, HIV/AIDS, genetics, assisted reproductive technology and surrogacy, end of life decision-making/euthanasia, research and experimentation, drugs and mental health. Although the subject will concentrate on the Australian jurisdiction, comparisons and contrasts will be made with other jurisdictions.

LAWS2411
Disability, Rights and the Law
Faculty of Law
UOC8 HPW4
Prerequisite: LAWS1001, LAWS1011; or LAWS1610; Corequisite: LAWS2311 or LAWS1010.

Real concerns have arisen in recent years about the rights of people with disabilities. This has resulted in the enactment of the Disability Discrimination Act 1992 (Cth) and in a number of legislative reforms at State level including the Guardianship Act 1987 (NSW) and amendments to the Anti-Discrimination Act 1977 (NSW). In order to understand these developments, this course examines the legislation in the light of the historical treatment of disability, both physical and intellectual, and critically evaluates the social construction of disability and the ensuing policies and practices. A variety of models explaining disability will be discussed and evaluated. The theoretical and legal context for disabilities will then be tested by an examination of a number of case studies. These may include case studies on integration in education, sexuality, medical treatment, employment and treatment in the criminal justice system. Finally, the role of law and social policy in facilitating change for people with disabilities will be considered.

LAWS2412
Discrimination and the Law
Faculty of Law
UOC8 HPW4
Prerequisite: LAWS1001, LAWS1011; or LAWS1610; Corequisite: LAWS2311 or LAWS1010.

This course deals with the law and policy of anti-discrimination and equal opportunity. The problem of arbitrary denials of equality to many different sorts of groups, in many different aspects of life, is one which is increasingly recognised. The law has an important role as an instrument of public policy in this area. The course examines legal mechanisms, particularly those in Australia, which seek to end or control discrimination. Some aims of the course are to provide a good working knowledge of Australian anti-discrimination law (broadly understood, and covering legislation), as well as informal means of dispute resolution and to encourage a critical assessment of the relevant law and its limits.
LAW2413 Housing Law
Faculty of Law
UOC8 HPW4
Prerequisite: LAW1001, LAW1011; or LAW1610; Corequisite: LAW2311 or LAW1010.

This course examines residential tenancy law, practice and procedure with particular reference to the Residential Tenancies Act. Other relevant statutory provisions contained in the Strata Schemes legislation and Landlord and Tenant (Amendment) Act will also be examined. In addition, attention will be given to housing policies, the provision of public housing, strategies for dealing with homelessness, and tenancy law reform. There will be some focus on residential tenancy law and policy in other jurisdictions, as well as social theories of the built environment. Part of the assessment scheme will include attendance at, and a report on, the Consumer, Trader and Tenancy Tribunal.

LAW2414 Social Security Law
Faculty of Law
UOC8 HPW4
Prerequisite: LAW1001, LAW1011; or LAW1610; Corequisite: LAW2311 or LAW1010.

The role of the state in the provision of community resources, in particular in the redistribution of taxation revenue through the income maintenance system, and the role of law in the redistribution process. The major focus is an examination of the law, policy and practices of the Australian Social Security system. Other matters covered include: an examination of the causes and extent of poverty in Australia; the role of the state in the alleviation of poverty; the relationship between the Social Security Act 1991 (Cth) and other Commonwealth and State laws, such as the Income Tax Assessment Act 1936 (Cth); the Family Law Act 1975 (Cth) the Child Support legislation and common law and statutory compensation systems; the role of law in effecting social change in general and redistribution in particular. Some of these topics will be dealt with in outline only.

LAW2421 Research Project
Faculty of Law
UOC2 HPW0

This course permits individual students to undertake a research project upon a legal topic of their choice. The project will be undertaken in a topic area in which the student has studied or is already studying and where the research topic is undertaken in addition to assessment for that course. The indicative length of the Research Project is 2,500 words. The Research Project must have a clearly defined topic which has been approved by the academic supervisor of the project. The supervisor shall also examine the project. Unless the supervisor agrees otherwise, the final date of submission shall be the last day of the session in which the student is enrolled in the Research Project.

LAW2422 Research Thesis: 16 uoc
Faculty of Law
UOC16 HPW0

Enrolment in a Research Thesis shall be approved by the School of Law if: 1. A clearly defined project is proposed; the thesis topic must be approved at the outset but may be modified at a later stage. 2. The student has a sufficient academic background in legal study to enable the thesis to be completed in a satisfactory manner. (An average mark of 65% in previous law courses is normally required). 3. Adequate supervision is available: supervision may be conjoint but at least one supervisor should be a full-time member of the School of Law’s academic staff. A group research project may be undertaken (but no more than three students) if a statement of the proposed division of work among members of the group is approved in advance by the supervisor or supervisors.

The School of Law will initially limit its approval for a Research Thesis to the 8UOC enrolment (LAW2423). A student who has received approval for the 8UOC enrolment may be given subsequent approval to transfer to a 16UOC enrolment (LAW2422). Similarly a student who has received approval for a 16UOC enrolment may be given retrospective approval for transfer to the 8UOC enrolment.

Thesis: The thesis must be typed on A4 bond paper and two copies must be prepared in a cover (spring back folder or bound). References may appear at the foot of each page or at the end of each chapter. As a general rule the thesis shall be a maximum of 12,500 words for an 8UOC enrolment or 25,000 words for a 16UOC enrolment.

Examination: Each thesis shall have two examiners, one of whom may be the supervisor or one of the supervisors. Unless the supervisor or supervisors otherwise agree, the final date for submission shall be the last day of the session in which the student is enrolled in the Research Thesis. Examiners may require a candidate or group of candidates to attend an oral examination on the subject matter of the thesis; examiners may require a thesis to be resubmitted under such conditions as the examiners may determine.

* These electives permit selected students to obtain credit for approved research projects undertaken individually or in groups. No student shall be permitted to obtain more than 16 UOC in any combination of the subjects LAWS2422 and LAWS2423.

LAW2423 Research Thesis
Faculty of Law
UOC8 HPW0

LAW2424 Research Thesis: Two Session Elective
Faculty of Law
UOC8 HPW0

LAW2425 Research Thesis
Faculty of Law
UOC4 HPW0

LAW2441 Law Journal
Faculty of Law
UOC8 HPW0

A student may be deemed, on the recommendation of the Dean and the Faculty Advisers to the Law Journal, to have satisfactorily completed this course on the basis of work done as an editor of the University of New South Wales Law Journal.

LAW2731 Comparative Criminal Justice: From Investigation To Trial
Faculty of Law
UOC8 HPW0
Prerequisite: (LAW2311, LAW2321) or (LAW51010) and LAW56210
This course introduces students to the aims and objectives of comparative law study, and the strengths and limitations of such an enquiry by focusing on aspects of criminal trial practice in various jurisdictions. Students will critically evaluate our criminal trial process by focusing on a number of themes, including: confessions and the right to silence, plea bargaining in different legal cultures, double jeopardy, adversarialism and the role of accusatorial justice etc.

LAW54010 Business Associations 1
Faculty of Law
UOC6 HPW4
Pre-requisite: LAW1081

An introduction to a number of important legal and theoretical aspects of the operation of business corporations. In addition, there is a brief overview of partnership law. The corporate law component of the course falls into two parts. The first deals with the process and incidents of incorporation, including the derivation of the modern corporation and an introduction to regulatory structures; an introduction to the corporate constitution, organs and capital; the separate personality of the corporation and its exceptions. The balance of the course is concerned with the structure and governance of the corporation. It examines the corporate organs (the board of directors and the general meeting) and the division of corporate powers between them; the duties and liabilities of directors and other officers; the remedies available to shareholders for the enforcement of directors’ duties and protection against oppression or overreaching by controllers. While much of this legal doctrine is equally applicable to the large corporation as to the small enterprise, the course stresses the problems, processes and transactions typically encountered by small incorporated businesses.

Note: If taken as an elective, it is LAW51091 UOC8.

LAW56210 Law, Lawyers and Society
Faculty of Law
UOC6 HPW4

Currently enrolled in a program in the Faculty of Law.
This course is a course in applied legal ethics. It examines the different values, rules and regulation that affect legal practice. Students will (1) learn to identify the values, rules and norms that lawyers should apply in practice; (2) judge what roles lawyers do play in society and the justice system, and what roles lawyers ought to play; (3) identify and begin to develop the skills necessary for ethical practice. The course considers the lawyer-client relationship, the regulatory framework governing legal practice including the role of self-regulation, the role of lawyers as advocates including the responsibility of lawyers for access to justice and the special duties and roles of the criminal defence lawyer, the prosecutor, and the public interest lawyer.

**LAW75420**
**Advanced Legal Research**
Faculty of Law
UOC2 HPW2
Co-requisite: LAWS2311 Litigation 1

This subject revises and expands upon students' legal research skills. It introduces students to more specialised legal research tools such as digest and loose leaf services, and also introduces students to some of the tools used in researching foreign and international law. There is considerable emphasis in this subject on the use of electronic research tools.

**LAW80008**
**Law and Bioethics**
Faculty of Law
UOC8 HPW0

**LAW83210**
**Legal Theory**
Faculty of Law
UOC6 HPW4
Pre-requisite: LAWS2160

The course is composed of two parts. In part one we discuss a number of basic notions associated with contemporary legal philosophy. These include - the nature of legal analysis, the separation of law from other areas of social life, the character of legal positivism, the role of the legal decision-maker, legal practice as an interpretive activity, the character of moral judgment, the difference in moral theory between the right and the good, liberalism as a political theory and its opponents, and liberalism's attitude to rights and to cultural difference.

In part two we apply some of these ideas to a number of ‘problems’ in contemporary legal practice. Just which problems varies from semester to semester, but typical areas of study would be - human rights in East Asia, the legal response to cultural diversity, feminism and difference, legal responsibility, punishment, rights and judicial power, citizenship, the character of legal decision-making.

Note/s: If taken as an elective, it is LAWS2331 (UOC8)

**LAW88220**
**Law and Social Theory**
Faculty of Law
UOC6 HPW4
Pre-requisite: LAWS2160

This course has to do primarily with interrelationships between law and other institutions and practices in society, particularly modern society: with what law does in society and what other elements of society do to it. These questions are approached, first, by examination of the great social theorists - especially Marx, Durkheim and Weber - who sought to explain the distinctive character of modern societie, and then by examination of transformations in contemporary law and society and of different theoretical attempts to understand that law and those transformations. Those attempts include feminist and post-modernists analyses. LAWS8320 and LAW88220 form part of the compulsory core of the LLB and BJuris degree courses with respect to students who entered the Faculty in 1981 or later. Students are required to take one of these two courses to fulfill compulsory requirements and are permitted to take the other as an elective.

Note/s: If taken as an elective, it is LAWS2332 (UOC8)

**LEGT7111**
**Legal Environment of Commerce**
School of Business Law and Tax
UOC6 HPW3

The entire fabric of commerce is woven from a complex legal regime, judicial and statutory, which regulates all commercial activity. This subject deals with the Australian legal system; the Constitution and Commonwealth/State relations; Parliament and statute law; the courts and case law; the executive and administrative law; the legal process and alternative dispute resolution. Areas of substantive law relevant to commerce are examined including property law (with particular reference to intellectual property), torts law (with particular reference to negligence), contract law, criminal law, commercial entities and transactions, competition and consumer protection.

**LEGT7212**
**Business, Ethics and the Law**
School of Business Law and Tax
UOC6 HPW3
Prerequisite: LEGT1711 or 12UOC offered by Commerce and Economics or approval of the Head of School

Society increasingly demands ethical and social responsibility. This course provides an ethical dimension to the conduct of contemporary commerce in Australia. Although ethics exist independently of the law, legislative and common law developments are increasingly imposing higher standards of commercial morality. This course examines the conceptual basis of ethical behaviour, and the increasing attempts by the law to prescribe ethical behaviour, through a series of case studies drawn from disciplines within the Faculty’s jurisdiction.

**LEGT7221**
**Business Transactions**
School of Business Law and Tax
UOC6 HPW3
Prerequisite: LEGT1711

Contract law forms the basis of all important commercial transactions and is essential to a proper understanding of more specialised areas of commercial law. This course examines the general principles of contract law and how they are developed and expanded in relation to specialised commercial transactions including agency, contracts for the sale of goods, guarantees, bankruptcy, negotiable instruments, securities and insurance law. Relevant areas of consumer protection and competition law are also discussed. The common contractual themes in which these areas are grounded will be highlighted, along with the different requirements attaching to the rights and obligations of parties to the transaction in such areas.

**LEGT7231**
**Marketing and Distribution Law**
School of Business Law and Tax
UOC6 HPW3
Prerequisite: LEGT1711 or 12UOC offered by Commerce and Economics or approval of the Head of School

The marketing and distribution of goods and services operates within a comprehensive regulatory framework. This course examines that framework. Topics include restrictive trade practices implications of distribution with special reference to collusive activity, exclusive dealing resale price maintenance and abuse of market power; consumer protection and fair trading implications of sales promotion with particular reference to misleading or deceptive conduct and other unfair practices; advertising self regulation; product liability; protection of intellectual property; franchising, licensing and character merchandising.

**LEGT7232**
**Franchising**
School of Business Law and Tax
UOC6 HPW3
Prerequisite: LEGT1711 or 12UOC offered by Commerce and Economics or the approval of Head of School

Franchising is rapidly becoming the dominant force in the distribution of goods and services. This course examines the nature, development and significance of franchising in the Australian and international economies and addresses relevant legal and commercial issues. The legal nature and commercial implications of licensing arrangements to commercialise intellectual property are also examined.

**LEGT7241**
**Business Entities**
School of Business Law and Tax
UOC6 HPW4
Prerequisite: LEGT7221

The law relating to the legal structures available for business including partnerships, joint ventures, trusts and companies. The primary focus is
on the modern company and its operation under the Corporations Act. Topics include the nature of the corporate entity; establishing the company and fund raising; shares and dividends; the rights and duties of directors; the position of management; shareholders' rights and remedies for their enforcement; insolvency and liquidation.

**LEGT2744**  
**Corporate Fraud and Crime**  
School of Business Law and Tax  
UOC6   HPW3  
Prerequisite: LEGT1711 or 12 UOC offered by Commerce and Economics or the approval of Head of School.  
Corporate fraud costs Australian business billions of dollars every year. This course examines aspects of fraud and corporate crime in their legal and commercial contexts. Topics include the analysis of the various laws relating to theft, fraud and other white collar crimes; the detection and investigation of fraud and associated issues including the powers of employers and law enforcement agencies, surveillance, and privacy; strategies for minimising legal exposure to fraud.

**LEGT2751**  
**Business Taxation**  
School of Business Law and Tax  
UOC6   HPW4  
Prerequisite: LEGT2721  
The complexity and comprehensiveness of the Australian taxation system demands that tax considerations must be taken into account in most business decisions. An understanding of the structure of the Australian taxation system and of the policy factors that guide legislators is essential to professional business advisors. This subject concentrates on income taxation in Australia. Topics include: concepts of income; allowable deductions; tax accounting; taxation of partnerships, trusts and corporations; anti-avoidance provisions; tax administration; capital gains tax; fringe benefits tax.

**LEGT2756**  
**International Business Tax.**  
School of Business Law and Tax  
UOC6   HPW3  
Prerequisite: LEGT1711 or the permission of the Head of School  
This course discusses the principles relevant to international taxation and uses Australian international tax rules to highlight possible international tax policy choices and problems. Special emphasis is given to tax strategies relevant to international direct investment.

**LEGT2761**  
**Law of Banking and Finance**  
School of Business Law and Tax  
UOC6   HPW3  
Prerequisite: LEGT1711 or 12 UOC offered by Commerce and Economics or the approval of the Head of School  
This course examines the regulatory environment for banking and finance with particular reference to lending transactions and the securities taken by all financial institutions that lend for profit. Topics include legal concepts underlying the bank-customer relationship and duties of banker and customer; foreign currency loans; consumer issues in lending; electronic banking; use and regulation of negotiable instruments (cheques, promissory notes and bills of exchange); corporate fund raising; domestic and international methods of fund raising.

**LEGT2771**  
**Information Technology Law**  
School of Business Law and Tax  
UOC6   HPW3  
Prerequisite: LEGT1711 or INFS1602  
This course examines the laws governing information technology. The topics examined include intellectual property law; patents, copyright and confidential information; licensing; technology contracts; tortious liability; product liability; computer crimes; data protection and privacy; and current issues.

**LEGT2791**  
**International Business Law**  
School of Business Law and Tax  
UOC6   HPW3  
Prerequisite: LEGT1711 or 12 UOC offered by Commerce and Economics or the approval of the Head of School  
Business today increasingly operates in an international market place. This course provides an introduction to the legal and commercial considerations affecting the conduct of business at an international level. Various types of international business activities and the more appropriate structures for them are considered, as are basic questions of finance, transport, property, intellectual property, fair trading and dispute resolution.

**LEGT3001**  
**Legal Aspects of Tourism**  
School of Business Law and Tax  
UOC6   HPW3  
Prerequisite: SERV1001; Excluded: TAHM3001  
The tourism and hospitality industry operates within a comprehensive domestic, and international, legal and regulatory framework. This course examines that framework. Topics include: national and international regulation of the travel and hospitality industry; consumer contracts law; the law of carriers and inns; the duties of travel operators and agents; travel insurance law; the law of bailment; the responsibilities of travel agents and tour operators; hotel management law; liquor licensing law; catering law; gaming law; marketing law; consumer rights and complaints; the law regulating payments (including international credit card payments); the finance of carriers and inns; criminal and civil liability of people working in the travel and tourism industry.

This course also examines the law regulating the issue of visa and travel documentation, and considers the liability of the operators, agents, carriers and government instrumentalities in relation to health and safety issues (including acts of terrorism).

**LEGT3752**  
**Capital Gains Tax**  
School of Business Law and Tax  
UOC6   HPW3  
Prerequisite: LEGT12751  
Capital Gains Tax in Australia potentially applies to an exceptionally wide range of transactions. The disposal of assets, the creation of rights, the granting of leases and options, and the forfeiture and surrender of rights all involve Capital Gains Tax issues. This course examines the basic structural features of Capital Gains Tax in Australia. Issues concerning the scope of Capital Gains Tax and the boundaries between Capital Gains Tax and ordinary income are then examined through a series of business related case studies. The Australian approach to taxing capital gains is compared with the approach taken by some of our major trading partners and reform options are discussed.

**LEGT3753**  
**GST and FBT**  
School of Business Law and Tax  
UOC6   HPW3  
Prerequisite: LEGT2751  
The first part of this course examines Goods and Services Tax (GST). Emphasis is placed on the practical operation of GST. Topics discussed include: registration; taxable supplies; input tax credits; adjustments; accounting for and documenting GST; treatment of GST free supplies; treatment of input taxed supplies; and anti-avoidance provisions. The second part of this course deals with Fringe Benefits Tax (FBT). Topics include: the calculation of FBT liability; the rationale behind grossing up the taxable value of fringe benefits; definition of fringe benefit; valuation rules for fringe benefits; exempt fringe benefits; reconciliation with income tax; treatment of income tax exempt employers; and the use of fringe benefits in salary packaging.

**LEGT3755**  
**Taxation of Business Entities**  
School of Business Law and Tax  
UOC6   HPW3  
Prerequisite: LEGT2751  
Australia currently taxes the different types of business entities in ways that are consistent with their legal form. It follows that some economically equivalent business structures are treated quite differently from each other for tax purposes. Issues relating to the choice of a particular type of business entity and its operation produce tax planning opportunities and tax policy challenges. This course examines tax issues relevant to the creation, operation and termination of partnerships, trusts and companies. It places particular emphasis on a detailed examination of the dividend imputation system and on issues arising when dividend income moves...
through a partnership, a trust or an interposed company. It also examines tax issues relevant to other selected business entities such as joint ventures, cooperatives, and superannuation funds.

**LEGT3757**  
**Corporate Tax Strategy**  
School of Business Law and Tax  
UOC6  HPW3  
Prerequisite: LEGT2751

What are the tax implications of the different financing alternatives available to corporations? Are all the different methods of profit distribution from a company equally tax effective? How should a merger or a demerger be structured from a tax perspective? Why are the tax consequences of restructuring the capital of corporations? What are the implications of the tax consolidation provisions for corporate groups? What tax considerations might be relevant when undertaking a corporate restructuruing? This course will examine these and similar questions through a series of case studies and simulation games.

**LEGT3758**  
**Taxation of Financial Products**  
School of Business Law and Tax  
UOC6  HPW3  
Prerequisite: LEGT2751

This course deals with the taxation treatment of financial products. It examines the current classifications of financial products for tax purposes and the tax consequences that flow from those classifications. Topics dealt with include: public offers of equity and debt instruments; hybrid securities; discounted and deferred interest securities; derivatives; foreign exchange gains and losses; asset financing; lease financing; and international taxation issues associated with financial products.

**LEGT4721**  
**Special Topic in Business Law**  
School of Business Law and Tax  
UOC6  
Prerequisite: LEGT1711 and approval from the Head of School

A specially assigned project, program or set of readings relating to research in business law.

**LEGT4722**  
**Special Topic in Taxation**  
School of Business Law and Tax  
UOC6  
Prerequisite: LEGT2751 and approval from Head of School

A specially assigned project, program or set of readings relating to research in taxation.

**LEGT4725**  
**Contemporary Issues in Taxation**  
School of Business Law and Tax  
UOC6  HPW3  
Prerequisite: LEGT2751 and approval from Head of School

This course examines selected contemporary issues in taxation research. Students are exposed to relevant research literature on the issues and researchers discuss the current and possible future directions of research in relation to those issues.

**LEGT4726**  
**Research Methods in Taxation**  
School of Business Law and Tax  
UOC6  HPW3  
Prerequisite: LEGT2751 and approval from Head of School

This course aims to familiarise students with techniques and methods used in taxation research. The course examines electronic and hard copy resources for finding primary and secondary sources of taxation law. It also introduces students to the use of empirical methods in taxation research. The conventions of the discipline regarding the presentation of research findings in written form are also discussed.

**LEGT4900**  
**Taxation Honours Thesis**  
School of Business Law and Tax  
UOC6  
Prerequisite: LEGT2751 and approval from Head of School

**Note:** Only available to students undertaking B Com (Honours) in taxation.

**LIFE1001**  
**Life Science Advanced Seminar 1**  
Faculty of Science  
UOC3  HPW2

An introduction to the professional abilities underlying key advances in research across the Life Sciences, and insights into how these advances impact on their fields and on society.

Examples of the latest research and future directions from a broad range of disciplines are examined critically, with fields covered including biomedical science, environmental science, biotechnology, and psychology. Library and WWW searches consolidate material, which focuses on research activities and facilities within the University, including laboratory visits and discussions with laboratory staff.

**Note:** Restricted to Advanced Science students.

**LIFE2001**  
**Life Science Advanced Seminar 2**  
Faculty of Science  
UOC3  HPW2

An introduction to the nature of research in the life sciences, theories of research process, research ethics, the nature of creativity in research, and the concepts of discovery and innovation. Literature and electronic information resources for research, collaboration, and written communication of science are introduced. Critical evaluation of scientific data and its presentation is discussed. Small group analysis of a specialised and innovative aspect of research.

**Note:** Restricted to Advanced Science students.

**LIFE2101**  
**Introductory Biochemistry & Microbiology**  
School of Biotechnology and Biomolecular Science  
UOC6  HPW6

Prerequisite: BIOS1201 and (CHEM1011 or CHEM1031) and (BIOS1101 or CHEM1021 or CHEM1041 or BIOS2021 or BIOS2621); Excluded: BIOC2101, BIOC2181, MICR2201.

Introduces modern biochemistry and the fascinating world of microorganisms covering functional aspects of the structure and function of proteins; the biology, diversity and function of bacteria; and intermediary metabolism in micro- and higher organisms. Major topics include: the three domains of life (i.e. Eubacteria, Archaea and Eucarya) and viruses; the nature and function of enzymes; the metabolic working of cells, tissues and organs; the interrelationships between pathways of carbohydrate, lipid and amino acid metabolism; the vital roles of enzymes in catalysis and metabolic regulation; the energy-trapping mechanisms of micro-organisms, animals and plants; comparative aspects of microbial growth; bacteria biosynthetic pathways; bacteria and disease; the action of antimicrobial agents.

**Note:** Restricted to Bioinformatics Program

**LING1000**  
**The Structure of Language**  
Linguistics  
UOC6  HPW3

An introduction to general linguistics, focusing on the traditional core areas of language structure (phonology, morphology, grammar and semantics) and on the acquisition of language. This course is particularly recommended not only for those interested in the nature and structure of the English language, but also for those studying ESL or a foreign language.

**LING1500**  
**The Use of Language**  
Linguistics  
UOC6  HPW3

Examines how contemporary linguists deal with issues of language use, such as the nature of human communication, the influence of social attitudes on language, the principles of pragmatics, the historical development of languages, language universals and language typology,
the nature and evolution of writing, regional and situational variation in language.

LING2400  
Language, Text and Context  
Linguistics  
UOCC HPW3  
Prerequisite: LING1000 or LING1500; Excluded: ENGL2503, ENGL2820, LING2902  
How does language make meaning? How can we critique and evaluate meanings made in texts? What is the role of ideology and social context in the construction of meaning? We will develop a set of analytical tools which focus on the lexis, grammar, and discourse patterns of a variety of texts from different genres and registers, including literary, academic, media, and everyday texts. Explores how language in use constructs social interpretations of our worlds and positions readers in various ways.

LING2510  
Analysing Talk  
Linguistics  
UOCC HPW3  
Prerequisite: LING1000 or LING1500  
Explores conversation and other forms of talk from an ethnomethodological perspective, with the main focus on how participants in conversation structure and organise their contributions and interactively construct meanings and activities in their talk. Special attention will be paid to methods speakers employ to distribute turns at talk, the ways in which the actions performed in these turns are coherently sequenced, how speakers and listeners deal with disagreements and disaligning talk (preference organisation) and with troubles in hearing, speaking and understanding (repair). Students will be required to transcribe a short conversation, and then analyse it in terms of one or more features of the talk that have been discussed in the class.

LING2530  
Visual Communication  
Linguistics  
UOCC HPW3  
Prerequisite: LING1000 or LING1500  
Excludes an investigation of how the elements of language (grammar, information packaging, the definition of word classes, and the basic properties of signed languages with those of spoken languages in order to see in which ways signed languages are similar to spoken languages and in which ways they differ. Examines signed languages in terms of their acquisition as first and second languages, and some sociolinguistic issues that arise for users of signed languages.  
Note: Students do not need to be able to sign in order to take this course.

LING2540  
Semantics and Pragmatics  
Linguistics  
UOCC HPW3  
Prerequisite: LING1000 or LING1500; Excluded: LING2603  
Considers the nature and scope of semantics and pragmatics and their place within linguistics. Begins with an examination of the nature of linguistic meaning. Particular attention is paid to the different theoretical approaches to lexical semantics, the relationship between semantics and grammar, and semantic change. Considers how the way language is used in real world contexts and how meanings are shaped by contextual factors, such as who is speaking to whom, in what kinds of spatio-temporal and sociocultural situations. Includes an exploration of speech act theory, conversational maxims, politeness theory, and notions of context and culture.

LING2550  
Contemporary English Grammar  
Linguistics  
UOCC HPW3  
Prerequisite: LING1000 or LING1500; Excluded: LING2200, LING2550  
Introduces the concepts, categories and terminology of English grammar, beginning with the parts of speech and progressing, through phrases and clauses, to the sentence and beyond. While the approach is traditional, it is informed by the work of contemporary grammarians. Applies the analytical methods presented to the analysis of texts representing a range of genres, to issues of ‘good’ and ‘bad’ usage, and to the development of writing.
LING3003
Theoretical and Descriptive Linguistics
Linguistics
UOC6  HPW3
Prerequisite: 12 units of credit at the LING2000 level; Excluded: LING2500 and LING3900
Examines the various schools and movements in linguistics, including traditional approaches to language study, structural linguistics, generative linguistics, typological linguistics, functional linguistics and cognitive linguistics. Introduces students to some of the main theoretical and descriptive issues in contemporary linguistics.

LING4000
Linguistics Honours (Research) Full-Time
Linguistics
UOC24  HPW5
Prerequisite: 54 units of credit in LING at an average of 70%, including two of LING3900, LING3901, LING3902, LING3903 and permission of Head of Department
Honours (Research) students are required to prepare a thesis of between 15,000 and 20,000 words, which must be submitted by a date specified by the Department, and to complete two courses. Please refer to the list of courses under the entry for MA (Pass) in Linguistics (Applied).

LING4050
Linguistics Honours (Research) Part-Time
Linguistics
UOC12  HPW3
Prerequisite: 54 units of credit in LING at an average of 70%, including two of LING3900, LING3901, LING3902, LING3903 and permission of Head of Department
Honours (Research) students are required to prepare a thesis of between 15,000 and 20,000 words, which must be submitted by a date specified by the Department, and to complete two courses. Please refer to the list of courses under the entry for MA (Pass) in Linguistics (Applied).

LING4500
Combined Linguistics Honours Full-Time
Linguistics
UOC12  HPW2
Prerequisite: 48 units of credit in LING at an average of 70%, including two of LING3900, LING3901, LING3902, LING3903
This program is undertaken in conjunction with one of the other Schools/Departments in the Faculty. Students are required to complete a research and seminar program acceptable to both the Linguistics Department and the other School/Department.

LING4550
Combined Linguistics Honours Part-Time
Linguistics
UOC6  HPW2
Prerequisite: 48 units of credit in LING at an average of 70%, including two of LING3900, LING3901, LING3902, LING3903
This program is undertaken in conjunction with one of the other Schools/Departments in the Faculty. Students are required to complete a research and seminar program acceptable to both the Linguistics Department and the other School/Department.

MANF1130
Introduction to Manufacturing
School of Mechanical and Manufacturing Engineering
UOC6  HPW7
Excluded: MANF1100, MANF1110, MANF1120
The relationship between product design and manufacturing processes is introduced with theoretical and practical classes. Description and elementary analysis of manufacturing processes such as forming from liquid or solid and material removal. Introduction to non-metallic materials processing. Introduction to drawing techniques for engineering communication which includes freehand sketching and orthogonal projections. Use of computer graphics for modelling and production of detailed drawings of components. Elementary functional analysis of product design for manufacturing and performance. Practical training of approximately 33 hours will involve processes such as welding, fitting and machining as well as introduction to safety in a manufacturing environment.
Note: Protective items e.g. safety glasses, safety boots, overalls or dustcoat, etc are required for the practical training in order to comply with the Occupational Health and Safety Act. Students must possess these items before commencing this course. Students who have done appropriate technology-based courses at school or who have an appropriate trade or certificate qualification or are suitably employed, may seek an exemption for the practical training classes.

MANF3210
Product Manufacture
School of Mechanical and Manufacturing Engineering
UOC6  HPW6
Prerequisite: MANF1120 or MANF1130 Corequisite: MECH2101, MECH2411
Design for economic manufacture. Geometric analysis of product designs and the technology and economics of manufacturing and assembly processes. The principle and technology underlying dimensional metrology for quality product manufacture. The analysis provides a basis for rational process selection and the refinement of product design to suit the chosen manufacturing methods.

MANF3300
Design of Manufacturing Facilities 1
School of Mechanical and Manufacturing Engineering
UOC6  HPW4
Corequisite: MANF3210, MANF3420, MANF3500, MATH2839
The design of workplaces including jigs and fixtures where operations such as assembly and measurement are performed by a human operator or robot. Documentation of manufacturing processes, characteristics of human operators and robots, workplace and methods design. Measurement of workplace element characteristics.

MANF3420
Industrial Experimentation
School of Mechanical and Manufacturing Engineering
UOC3  HPW2
Prerequisite: MAH2839
Statistical design and analysis of experiments to investigate the quality of products and the performance of manufacturing processes. Experiments of comparison, classical correlation and regression analysis, multiple linear regression analysis, accelerated experiments, analysis of variance.

MANF3500
Computers in Manufacturing 1
School of Mechanical and Manufacturing Engineering
UOC3  HPW3
Prerequisite: ELEC0807, MANF1130, MECH1500
Selection and use of computer-controlled devices such as robots and machine tools in manufacturing systems: principles of numerical control and PLCs, NC machine tools, NC programming, CNC/AC/DNC computer controls, accuracy of NC machines, fundamentals and applications of robots.

MANF3601
Manufacturing Operations Analysis A
School of Mechanical and Manufacturing Engineering
UOC3  HPW3
Prerequisite: MATH2839, MECH1500
Principles and techniques of Operations Research and Analysis including linear and non-linear programming; basic queuing theory and stochastic processes; heuristic techniques; applications to manufacturing.

MANF3602
Manufacturing Operation Analysis B
School of Mechanical and Manufacturing Engineering
UOC3    HPW3
Prerequisite: MATH2839, MECH1500
Introduction to simulation; use of simulation packages; experimental design in simulation. Simple data modelling and information systems design; running an information system in conjunction with a factory simulation model.

MANF4011
Analysis of Manufacturing Systems A
School of Mechanical and Manufacturing Engineering
UOC3    HPW2
Students will work in project teams to perform a complete manufacturing system design and analysis, involving activities such as: design for manufacture, process selection, tolerance optimisation, workplace design, factory layout, production control system, detailed budget. A satisfactory grade in this course is provisional pending successful completion of MANF4012.

MANF4012
Analysis of Manufacturing Systems B
School of Mechanical and Manufacturing Engineering
UOC3    HPW2
Prerequisite: MANF4011
Further project work, continuing from activities in MANF4011 Manufacturing Systems A.

MANF4300
Design of Manufacturing Facilities 2
School of Mechanical and Manufacturing Engineering
UOC6.5    HPW4
Corequisite: MANF3300
Introduction to plant layout design, materials handling and assembly systems. Use of ergonomic design for man/machine tasks. Analysis and simulation of various types of manufacturing facilities.

MANF4430
Management for Engineers
School of Mechanical and Manufacturing Engineering
UOC6    HPW6
Excluded: MANF0420
General principles of management: an overview of the basic ideas and issues of management including the functions and roles of a manager, strategic and operational planning and monitoring systems with an emphasis on production and operations management; classical and modern organisation theories; overview of human and cultural issues in organisations; issues of project management. Quantitative techniques for management: engineering economic analysis including the analysis of investment decisions under risk and uncertainty. Modern techniques of statistical quality control and its extensions to statistical process control. Project management and control using network analysis. Human and cultural aspects of management: motivation and leadership theory; organisational cultures; organisational change and development; TQM cultures and the “internal customer”.

MANF4440
Strategic Manufacturing Management
School of Mechanical and Manufacturing Engineering
UOC3    HPW3
Prerequisite: MANF3420, MANF3602
Industry dynamics: Porters model, the value chain and forms of competitive advantage; matching manufacturing strategy to the market; core competencies and process positioning; focused manufacturing; vertical vs horizontal integration; supply chain management, global manufacturing and the virtual corporation; matching performance measures to strategy.

MANF4500
Computers in Manufacturing 2
School of Mechanical and Manufacturing Engineering
UOC3    HPW3
Prerequisite: MANF3500
Integration of the basic elements of manufacturing facilities into systems: selection of automation equipment; principles of group technology and cellular manufacturing, Flexible Manufacturing Cells, planning and layout of Flexible Manufacturing Systems, integration of CAD and CAM, computer integrated manufacturing, computer aided process planning.

MANF4601
Computer Aided Production Management A
School of Mechanical and Manufacturing Engineering
UOC3    HPW3
Prerequisite: MANF4602
The dynamics of material flow through a manufacturing system; basic and advanced techniques of production planning and control and their realisation within a factory simulation model; matching different approaches to different types of manufacturing situations.

MANF4602
Computer Aided Production Management B
School of Mechanical and Manufacturing Engineering
UOC3.5    HPW3
Prerequisite: MANF4602
Use of decision support and knowledge based systems in production management; designing a production management database; types of integration and integrated decision making; implementation of these concepts with a factory simulation model.

MARK1012
Marketing Fundamentals
School of Marketing
UOC6    HPW3.5
Major concepts and theories relevant to the study and practice of marketing are introduced. Topics include the changing global marketplace, marketing processes and planning, the use of market research, an understanding of consumers and customers, decision making and the marketing mix, market segmentation, positioning and product differentiation. This introductory subject prepares students for further study across the broad spectrum of product, service, consumer, business-to-business, industrial, global and social marketing.

MARK1014
Customer Relationship Management
School of Marketing
UOC6    HPW3
Customer Relationship Management (CRM) lies at the heart of marketing and management consulting. It has long been the backbone of industrial, trade, purchasing and services marketing, and the trend in recent years has been to use CRM techniques in dealing with final consumers as well. A purpose of the course is to develop relationship-building skills, in areas such as personal selling, direct marketing and commercial negotiations. Another goal is to demonstrate the role of new technology in widening the scope and potential of CRM, especially through the use of interactive and personalisation technologies. Topics include: CRM, loyalty and retention marketing; traditional methods of direct marketing and personal selling; commercial negotiations for lasting results; technology-based methods of relationship-building with customers, including interactive and e-customer management; permission marketing, data protection and privacy concerns. Exercises and cases are an integral part of the course, and this may require some flexibility with the timing of classes.

MARK2051
Consumer Behaviour
School of Marketing
UOC6    HPW3.5
Prerequisite: MARK1012; Corequisite: MARK2052
The need for marketers to understand why consumers act as they do in the marketplace is the crux of this subject. Students are equipped with theoretical and conceptual knowledge of consumer behaviour, drawing heavily on both psychological and sociological viewpoints. This includes the psychology of individual decision-making and choice, patterns of behaviour exhibited by aggregate groups of consumers, and also the sociological and cultural influences on consumer attitudes and behaviour. This prepares students for making informed decisions about how to manage and respond to the needs and wants of consumers.

MARK2052
Marketing Research
School of Marketing
UOC6    HPW3.5
Prerequisite: MARK1012; Corequisite: MARK2051
The sources and types of marketing information relevant to marketing management are examined, with the aim of developing an informed analytical approach to the study of consumers and markets. Topics include problem definition, research design, questionnaire design, sampling, basic numeracy, analysis and interpretation of data, reporting, and also management control of research, including briefing, evaluation of proposals and the distinction between research results and marketing implications. The use of continuous research and new developments such as automated and interactive forms of data gathering are discussed as well.

MARK2053
Marketing Communications and Promotions Management
School of Marketing
UOC6  HPW3.5
Prerequisite: MARK2051; Corequisite: MARK2054
The aim is to offer insights into the various decisions and principles that marketing managers have to consider when developing an overall communications and promotions strategy. Key topics are the promotional mix, the design, implementation and evaluation of communications strategies and the need to make use of both creative and reasoning processes. An integrated approach is adopted, including an understanding of the role of media advertising, promotions, public relations, direct marketing and new interactive media. The course builds on knowledge of consumer behaviour and the analytical skills of marketing research.

MARK2054
Market Analysis
School of Marketing
UOC6  HPW3.5
Prerequisite: MARK2052; Corequisite: MARK2053
This course links the analytical material of MARK2052 with practical issues in marketing management, including the analysis of competitive markets, product positioning, strategic analysis, demand forecasting and financial and budgetary aspects. The course is practical and data driven, with students exposed to specific tools and techniques using computer-based software. The importance of contemporary business of numbers, problem-solving, measurement and analysis is a central theme, and is explored through exercises and tutorials.

MARK2055
Service Marketing & Management
School of Marketing
UOC6  HPW3
Prerequisite or corequisite: MARK1012.
Service industries now account for 70% of GDP and around 85% of all new employment. Intangible service products including professional (e.g. engineering, accounting, management consulting services) and other services (e.g. tourism, hotels, telcos, theatre, sport) possess a set of unique characteristics that require a different approach to the development & execution of marketing strategy. The course builds upon key frameworks and theories in marketing management and adapts them to the service sector. Key themes include the service encounter, service failure and recovery, the notion of the servicescape or service factory, customer service issues, core and supplementary service elements, service quality and customer satisfaction, and customer relationship management, and yield management as a pricing tool.

MARK2099
Industrial Training 1 (Co-op)
School of Marketing
UOC6  HPW3
Prerequisite: MARK1012; Corequisite: MARK2052, MARK2053
Students consider the practical application of the fundamental principles of marketing in an industry environment.

MARK3071
International and Global Marketing
School of Marketing
UOC6  HPW3
Prerequisite: MARK1012
The purpose of this course is to develop a thorough appreciation of the international aspects of contemporary marketing. Topics include: conceptual and environmental aspects of international marketing; market entry strategies; managing marketing across borders; globalisation strategies, including global branding; developing practical marketing strategies for different world markets; how marketing theory needs to be adjusted or extended for application in an international setting. Skills will be acquired through case analysis, teamwork and creative problem-solving.

MARK3072
Advanced Consumer Behaviour
School of Marketing
UOC6  HPW3
Prerequisite: MARK2051, MARK2052
The principles covered in MARK2051 are explored in a deeper and more questioning way. Content is focused on critical issues in consumer behaviour thought and practice, including an understanding of consumer choice processes, the effects of experience and learning, attitude formation, social networks and their impact on consumption, segmentation, brand management and communications processes. Issues are explored through theoretical frameworks, market research, experiments and detailed case studies.

MARK3081
Distribution Strategy & Retail Channels
School of Marketing
UOC6  HPW3.5
Prerequisite: MARK2053, MARK2054
This course presents an integrated approach to distribution strategy and retail channel management. It addresses analytic, strategic and managerial aspects of distribution (the creation of product and service availability through marketing channels) and retail marketing (the management and marketing assortments of merchandise for direct sale to the consumer). Typically, topics include: marketing channel structure and functions, the retailing industry, channel design, channel structure, channel power and conflict, distribution intensity, retail product selection, assortment planning, retail buying, retailer’s own brands, channel integration, wholesaling, franchising, strategic alliances in distribution, international retailing, non-store retailing, electronic retailing and electronic distribution channels.

MARK3082
Strategic Marketing Management
School of Marketing
UOC6  HPW3
Prerequisite: MARK2054, MARK3081
A course that integrates knowledge of market analysis with strategic business considerations, to achieve superior performance in sales growth, market share and profit contribution. Topics include: business definition, organisational strategy, and corporate policy; competitive and life-cycle strategies at the level of the business unit; portfolio analysis, diversification, and differentiation; social, ethical, technological, legal and global issues as they impact on marketing performance. Students draw on materials from all previous marketing courses and practical case studies.

MARK3091
New Product and New Service Development
School of Marketing
UOC6  HPW3
Prerequisite: MARK1012, MARK2051, MARK2052
A course focused on how to develop a business plan for a new product or service launch, having diagnosed a market opportunity. This involves an understanding of product-based competition and an appreciation of strategic options available to firms that are adept at development. Themes include: NPD processes, from setting a strategic framework for the development effort through to monitoring post-launch success; methods of market research and the use of analytical approaches such as perceptual mapping, benefit segmentation, trends unbundling and morphological analysis; screening and ranking processes to set priorities for development; converting concepts into prototypes; developing strategies and plans for the commercial launch. Some exercises may require flexibility with the timing of classes.

MARK3092
Brand Management
School of Marketing
UOC6  HPW3
Prerequisite: MARK2053, MARK2054
What brands are, how they are created and managed, and how they add value to consumers and the firm. Topics include: the importance of product, service and corporate brands; how awareness, loyalty, perceived quality, design, legal protection and the name itself combine to produce
MARK7209
Marketing Internship
School of Marketing
UOC6
Refer to School of Marketing for more information.

MARK3999
Industrial Training 2 (Co-op)
School of Marketing
UOC18
Prerequisite: MARK3081
Students consider the practical application of the fundamental principles of marketing in an industry environment.

MARK7204
Thesis (Marketing) Part A
School of Marketing
UOC6
Prerequisite: Admission to BCom Honours in Marketing.

MARK7205
Thesis (Marketing) Part B
School of Marketing
UOC18
Note: Admission to BCom Honours in Marketing is required.

MARK7210
Business Research Methods in Marketing
School of Marketing
UOC6 HPW2
Prerequisite: Admission to BCom Honours in Marketing.

MARK7211
Research Seminar in Marketing
School of Marketing
UOC6 HPW2
Prerequisite: Admission to BCom Honours in Marketing.

MARK7212
Advanced Quantitative Methods in Marketing
School of Marketing
UOC6 HPW2
Prerequisite: Admission to BCom Honours in Marketing.

MARK7213
Contemporary Research Methods in Marketing
School of Marketing
UOC6 HPW2
Prerequisite: Admission to BCom Honours in Marketing.

MATH1000
Modelling Real World Phenomena
School of Mathematics
UOC3 HPW2
Introduction to the process of constructing mathematical models of real-world processes and situations. The emphasis is on seeking reasonable solutions to open-ended problems, not on the application of particular mathematical techniques. Examples will be taken from biology, finance, operations management, computer science, meteorology and other fields. Students will research a large project in teams and present a written and oral report on their results.

MATH1011
General Mathematics 1B
School of Mathematics
UOC6 HPW6
Note: Restricted to students in Advanced Science.

MATH1031
Mathematics for Life Sciences
School of Mathematics
UOC6 HPW6
Excluded: MATH1031, MATH1131, MATH1141, MATH1151, ECON1202, ECON2291
Functions (and their inverses), limits, asymptotes, continuity; differentiation and applications; integration, the definite integral and applications; inverse trigonometric functions; the logarithmic and exponential functions and applications; sequences and series; mathematical induction; the binomial theorem and applications; introduction to probability theory; introduction to 3-dimensional geometry; introduction to linear algebra.

Assumed knowledge: A level of knowledge equivalent to achieving a mark of at least 60 in HSC Mathematics. Students who have taken General Mathematics will not have achieved the level of knowledge which is assumed in this course.

Note: This course is not intended for students who propose to study a substantial amount of Mathematics beyond first year level. Many later year courses in Mathematics have completion of MATH1231, MATH1241 or MATH1251 as a prerequisite. This course can be taken as a preparatory course by students who need to take MATH1131 but do not meet the assumed knowledge requirement.
Assumed knowledge: A level of knowledge equivalent to achieving a mark of at least 60 in HSC Mathematics. Students who have taken General Mathematics will not have achieved the level of knowledge which is assumed in this course.

Note: This course is not intended for students who propose to study a substantial amount of Mathematics beyond first year level. Many later year courses in Mathematics have completion of MATH1231, MATH1241 or MATH1251 as a prerequisite.

MATH1041
Statistics for Life and Social Sciences
School of Mathematics
UOC6 HPW6
Excluded: MATH1049, MATH1059, MATH2829, MATH2839, MATH2841, MATH2859, MATH2899, ECON1203, ECON292


Assumed knowledge: As for MATH1011

Note: This course is not intended for students who propose to study a substantial amount of Mathematics beyond first year level. Many later year courses in Mathematics have completion of MATH1231, MATH1241 or MATH1251 as a prerequisite.

MATH1081
Discrete Mathematics
School of Mathematics
UOC6 HPW6
Corequisite: MATH1131 or MATH1141 or MATH1151; Excluded: MATH1090.


Assumed knowledge: HSC Mathematics Extension 1. Students will be expected to have achieved a combined mark of at least 100 in Mathematics and Mathematics Extension 1.

MATH1131
Mathematics 1A
School of Mathematics
UOC6 HPW6
Excluded: MATH1011, MATH1031, MATH1141, MATH1151, ECON1202, ECON292

Complex numbers, vectors and vector geometry, linear equations, matrices and matrix algebra, determinants. Functions, limits, continuity and differentiability, integration, polar coordinates, logarithms and exponentials, hyperbolic functions, functions of several variables. Introduction to computing and the Maple symbolic algebra package.

Assumed knowledge: HSC Mathematics Extension 1. Students will be expected to have achieved a combined mark of at least 100 in Mathematics and Mathematics Extension 1.

MATH1141
Higher Mathematics 1A
School of Mathematics
UOC6 HPW6
Excluded: MATH1011, MATH1031, MATH1131, MATH1151, ECON1202, ECON292

As for MATH1131 but in greater depth.

Assumed knowledge: HSC Mathematics Extension 1 and Extension 2. Students will be expected to have achieved a combined mark of at least 186 in Mathematics Extension 1 and Extension 2.

MATH1153
Mathematics for Actuarial Studies and Finance 1A
School of Mathematics
UOC6 HPW6
Excluded: MATH1011, MATH1031, MATH1131, MATH1141, ECON1202, ECON292

Vectors and vector geometry, linear equations, matrices and matrix algebra, basic input-output linear models, determinants, least squares approximation, probability and statistics. Limits, continuous and differentiable functions, mean value theorem, fundamental theorem of calculus, numerical integration, functions of several variables, introduction to Matlab.

Assumed knowledge: HSC Mathematics Extension 1. Students will be expected to have achieved a combined mark of at least 140 in Mathematics and Mathematics Extension 1 or 180 in Mathematics Extension 1 and Extension 2.

MATH1231
Mathematics 1B
School of Mathematics
UOC6 HPW6
Prerequisite: MATH1131 or MATH1141; Excluded: MATH1021, MATH1031, MATH1241, MATH1251, ECON1202, ECON292.

Vector spaces, linear transformations, eigenvalues and eigenvectors. Introduction to probability and statistics. Integration techniques, solution of ordinary differential equations, sequences, series, applications of integration.

MATH1241
Higher Mathematics 1B
School of Mathematics
UOC6 HPW6
Prerequisite: MATH1131 CR or MATH1141CR; Excluded: MATH1021, MATH1031, MATH1231, MATH1241, MATH1251, ECON1202, ECON292.

As for MATH1231 but in greater depth.

MATH1251
Mathematics for Actuarial Studies and Finance 1B
School of Mathematics
UOC6 HPW6
Prerequisite: MATH1131 CR or MATH1141CR; Excluded: MATH1021, MATH1031, MATH1231, MATH1241, MATH1251, ECON1202, ECON292.

Complex numbers, vector spaces, polynomial interpolation, linear transformations, Markov processes, eigenvalues and eigenvectors. Exact and numerical solution of ordinary differential equations, sequences, double integrals, Lagrange multipliers.

MATH2011
Several Variable Calculus
School of Mathematics
UOC6 HPW5
Prerequisite: MATH1231 or MATH1241 or MATH1251; Excluded: MATH2019, MATH2039, MATH2049, MATH2100, MATH2110, MATH2111, MATH2510, MATH2610.

Functions of several variables, limits and continuity, differentiability, gradients, surfaces, maxima and minima, Taylor series, Lagrange multipliers, chain rules, inverse function theorem, Jacobian derivatives, double and triple integrals, iterated integrals, Riemann sums, cylindrical and spherical coordinates, change of variables, centre of mass, curves in space, line integrals, parametrised surfaces, surface integrals, del, divergence and curl, Stokes’ theorem, Green’s theorem in the plane, applications to fluid dynamics and electrodynamics, orthogonal curvilinear coordinates, arc length and volume elements, gradient, divergence and curl in curvilinear coordinates.

MATH2019
Engineering Mathematics 2CE
School of Mathematics
UOC6 HPW5
Prerequisite: MATH1231 or MATH1241; Excluded: MATH2011, MATH2111, MATH2510, MATH2610, MATH2120, MATH2130.


Note: Available only to students for whom it is specifically required as part of their program.

MATH2020
Mathematics 2A
School of Mathematics
UOC3 HPW2
Prerequisite: MATH1021(CR) or MATH1031(CR) or MATH1231 or MATH1241

**Note:** MATH2020 and MATH2030 are intended for students who want to take no more than 6 units of credit in Level II Mathematics. If any other Level II courses in Mathematics other than Statistics courses are taken then neither MATH2020 nor MATH2030 will be counted.

**MATH2029**

**Engineering Mathematics 2A**
School of Mathematics
UOC3, HPW2
Prerequisite: MATH1231 or MATH1241; Excluded: MATH2120, MATH2130.

**Note:** Available only to students for whom it is specifically required as part of their program.

**MATH2030**

**Mathematics 2B**
School of Mathematics
UOC3, HPW2
Prerequisite: MATH1021(CR) or MATH1231 or MATH1241
Fourier series; multiple integrals, matrices and their applications to the theory of linear equations, eigenvalues; introduction to numerical methods.

**Note:** MATH2020 and MATH2030 are intended for students who want to take no more than 6 units of credit in Level II Mathematics. If any other Level II courses in Mathematics other than Statistics courses are taken then neither MATH2020 nor MATH2030 will be counted.

**MATH2039**

**Engineering Mathematics 2B**
School of Mathematics
UOC3, HPW3
Prerequisite: MATH1231 or MATH1241; Excluded: MATH2011, MATH2110, MATH2510, MATH2610.
Multiple integrals, vector calculus, extrema of functions of several variables.

**Note:** Available only to students for whom it is specifically required as part of their program.

**MATH2049**

**Mathematics and Statistics for Materials Science A**
School of Mathematics
UOC3, HPW3
Prerequisite: MATH1231 or MATH1241; Excluded: MATH2011, MATH2110, MATH2510, MATH2610.
Statistics: graphical data analysis, random variables and their properties, normal and binomial distributions, functions of random variables and their simulation using computers, one and two sample inference methods, simple and multiple linear regression. Mathematics: functions of two variables, double integrals.

**Note:** Available only to students for whom it is specifically required as part of their program.

**MATH2059**

**Mathematics for Materials Science B**
School of Mathematics
UOC3, HPW3
Prerequisite: MATH1231 or MATH1241; Excluded: MATH2120, MATH2130.

**Note:** Available only to students for whom it is specifically required as part of their program.

**MATH2060**

**Professional Issues and Ethics in Mathematics**
School of Mathematics
UOC3, HPW2
Prerequisite: 24 units of credit in Math courses.
Professional and ethical issues and social responsibility in mathematics.

The place of mathematics in the wider sphere of knowledge. Principles and case studies in the ethics and responsible use of mathematics. Communicating mathematics effectively.

**MATH2111**

**Higher Several Variable Calculus**
School of Mathematics
UOC6, HPW5
Prerequisite: MATH1231 or MATH1241 or MATH1251 each with a mark of at least 70; Excluded: MATH2019, MATH2029, MATH2049, MATH2101, MATH2110, MATH2510, MATH2610.
As for MATH2011 but in greater depth.

**MATH2120**

**Mathematical Methods for Differential Equations**
School of Mathematics
UOC3, HPW2.5
Prerequisite: MATH1231 or MATH1241 or MATH1251; Excluded: MATH2019, MATH2029, MATH2059, MATH2130.

**MATH2130**

**Higher Mathematical Methods for Differential Equations**
School of Mathematics
UOC6, HPW2.5
Prerequisite: MATH1231 or MATH1241 or MATH1251 each with a mark of 70; Excluded: MATH2019, MATH2029, MATH2059, MATH2120.
As for MATH2120, but in greater depth, and with additional material on Green’s function methods, nonlinear partial differential equations, Lie group methods and symmetry reduction.

**MATH2140**

**Operations Research: Methods and Applications**
School of Mathematics
UOC6, HPW2
Prerequisite: MATH1031(CR) or MATH1231 or MATH1241 or MATH1251; Excluded: MATH2160, MATH2180, ECON2208.
An introduction to modelling and solution techniques for linear optimization problems and their application to business and industry. Formulation of problems, the simplex method, duality and sensitivity analysis, integer programming using branch and bound, networks, transportation and assignment problems. Matlab will be used to solve realistic problems.

**MATH2240**

**Introduction to Oceanography and Meteorology**
School of Mathematics
UOC6, HPW2
Prerequisite: MATH1031(CR) or MATH1231 or MATH1241 or MATH1251
An introduction to mathematical models for the circulation of the atmosphere and oceans. The equations of motion are exploited so as to provide simplified models for phenomena including: waves, the effects of the Earth’s rotation, the geostrophic wind, upwelling, storm surges. Feedback mechanisms are also modelled: the land/sea breeze, tornadoes, tropical cyclones. Models for large-scale phenomena including El Nino and the East Australian Current will be discussed as well as the role of the atmosphere-ocean system in climate change.

**MATH2250**

**Dynamical Systems**
School of Mathematics
UOC6, HPW2
Prerequisite: MATH1031(CR) or MATH1231 or MATH1241 or MATH1251
A comprehensive introduction to continuous time and discrete time dynamical systems. Differential equations and difference equations. Linear systems. Linearization of nonlinear systems Phase plane analysis.
Equational fixed points and cycles, stability analysis and bifurcations. Dynamical modelling techniques with applications selected from environmental, physical, social and economic contexts.

**MAH12281**

**Biomathematics**

School of Mathematics  
UOC: 6  
HPW: 4  
Prerequisites: MATH1031 (DN) or MATH1231 or MATH1241 or MATH1251. Exclusions: MATH2280

Introduction to mathematical modelling and data analysis for biological and biomedical systems. Examples include: the formation of animal coat patterns, the spread of diseases through the community, the interaction between pathogens and the immune system of the body, the growth of tumours, nerve cell signalling, population dynamics, pharmacokinetics and bacterial growth. The emphasis in this course is on the development of the governing model equations and on computer simulations of the model equations rather than on mathematical methods for solving the model equations.

**Note:** Exclusions: MATH2280

**MAH12301**

**Mathematical Computing**

School of Mathematics  
UOC: 6  
HPW: 4  
Prerequisite: MATH1031(CR) or MATH1231 or MATH1241 or MATH1251

An introduction to mathematical computing, programming and visualization using Matlab, with a focus on mathematical modelling and simulation. Introduction to Matlab, floating point arithmetic, difference equations, nonlinear equations, numerical differentiation and integration, initial value problems.

**MAH2400**

**Finite Mathematics**

School of Mathematics  
UOC: 3  
HPW: 2  
Prerequisite: MATH1081 or MATH1231 or MATH1241 or MATH1251

This is an introduction to those areas of Mathematics which underpin parts of computing. The main topics are integer and modulo arithmetic (including tests for primeness of integers), polynomial algebra (including factorization of polynomials and creation of new fields) and an introduction to cryptography and error correcting codes.

**Note:** MATH1081 Discrete Mathematics is recommended.

**MAH2501**

**Linear Algebra**

School of Mathematics  
UOC: 6  
HPW: 5  
Prerequisite: MATH1231 or MATH1241 or MATH1251; Excluded: MATH2509, MATH2601.


**MAH2509**

**Linear Algebra for Engineers**

School of Mathematics  
UOC: 3  
HPW: 3  
Prerequisite: MATH1231 or MATH1241; Excluded: MATH2501, MATH2601.


**Note:** Available only to students for whom it is specifically required as part of their program.

**MAH2510**

**Real Analysis**

School of Mathematics  
UOC: 3  
HPW: 2.5  
Prerequisite: MATH1231 or MATH1241 or MATH1251; Excluded: MATH2509, MATH2601, MATH2610.

Multiple integrals, partial differentiation. Analysis of real valued functions of one and several variables. Fourier series.

**MAH2520**

**Complex Analysis**

School of Mathematics  
UOC: 3  
HPW: 2.5  
Prerequisite: MATH1231 or MATH1241 or MATH1251; Excluded: MATH2620.

Analytic functions, Taylor and Laurent series, integrals. Cauchy’s theorem, residues, evaluation of certain real integrals.

**MAH2601**

**Higher Linear Algebra**

School of Mathematics  
UOC: 6  
HPW: 5  
Prerequisite: MATH1231 or MATH1241 or MATH1251 each with a mark of 70 or greater; Excluded: MATH2501

As for MATH2501, but in greater depth, and with additional material on unitary, self-adjoint and normal transformations.

**MAH2620**

**Higher Complex Analysis**

School of Mathematics  
UOC: 6  
HPW: 5  
Prerequisite: MATH1231 or MATH1241 or MATH1251 each with a mark of at least 70; Excluded: MATH2520.

As for MATH2520 but in greater depth.

**MAH2801**

**Theory of Statistics**

School of Mathematics  
UOC: 6  
HPW: 4  
Prerequisite: MATH1021(CR) or MATH1231 or MATH1241 or MATH1251 each with a mark of at least 70; Excluded: MATH2829, MATH2839, MATH2841, MATH2859, MATH2899, MATH2901, BIOS2041, BEES2041, ECON2215.

Probability, random variables, standard distributions, bivariate distributions, transformations, central limit theorem, sampling distributions, point estimation, interval estimation, hypothesis testing.

**MAH2829**

**Statistics SU**

School of Mathematics  
UOC: 3  
HPW: 3  
Prerequisite: MATH1231 or MATH1241; Excluded: MATH1041, MATH2841, MATH2801, MATH2901, BIOS2041, BEES2041.

Introduction to probability theory, random variables and distribution functions, sampling distributions, including those of chi-square, t and F. Estimation procedures, including confidence interval estimation with an emphasis on least squares and surveying problems, and computer based exercises.

**Note:** Available only to students for whom it is specifically required as part of their program.

**MAH2831**

**Linear Models**

School of Mathematics  
UOC: 6  
HPW: 4  
Prerequisite: MATH2801 or MATH2901; Excluded: MATH2931, BIOS2041, BEES2041.


**MAH2839**

**Statistics SM**

School of Mathematics  
UOC: 3  
HPW: 3  
Prerequisite: MATH1021 or MATH1231 or MATH1241 or MATH1011 if in Program 3385; Excluded: MATH1041, MATH2841, MATH2801, MATH2901, BIOS2041, BEES2041.
Graphical data analysis. Review of probability, random variables and their properties. The normal and binomial distributions, the central limit theorem. Applications to statistical quality control. Theory of statistical inference including confidence intervals and hypothesis testing with applications to one and two sample problems based on the t- and F-test. Simple and multiple linear regression including data transformations to normality. Design and analysis of experiments, analysis of variance, introduction to factorial designs. Applications will be drawn primarily from the fields of mechanical and mining engineering and industrial design.

Note: Available only to students for whom it is specifically required as part of their program.

MATH2841
Statistics SS
School of Mathematics
UOC6 HPW4
Prerequisite: MATH1021 or MATH1031 or MATH1231 or MATH1241 or MATH1251; Excluded: MATH2049, MATH2801, MATH2829, MATH2839, MATH1041, MATH2859, MATH2899, MATH2901, BIOS2041, BEE2041, ECON2215.

The goal in this course is to develop skills that are fundamental to data collection and analysis. These general skills are useful for anyone who needs to understand data, particularly science and information systems students. We focus on practical problem solving and the media that involve one or two variables. For such problems students should be able to: recognise what analysis procedures are appropriate, describe how to conduct a valid study, apply principles of probability theory, apply and interpret statistical procedures on a computer using SPSS, use a hand calculator for simple statistical procedures.

Note: This course is intended for students who want to take no more than 6 units of credit in Level II Statistics. It does not satisfy the prerequisites for any Level III Statistics course.

MATH2859
Probability, Statistics and Information
School of Mathematics
UOC3 HPW3
Prerequisite: MATH1231 or MATH1241 (or, in program 3648 or 3651 or 3652 or 3653 or 3749, MATH1131 or MATH1141); Excluded: MATH1041, MATH2841, MATH2801, MATH2901, BIOS2041, BEE2041.

Sample spaces, probability, random variables and probability distributions; examples of discrete and continuous distributions; Central Limit Theorem; statistical inference, confidence intervals and hypothesis testing; bivariate normal distribution, optimal mean square estimation, introduction to the multivariate normal distribution; linear regression and least squares estimation; inference in the linear model; one-line, band off-line estimation; statistical quality control; models, applications and statistical algorithms relevant to the fields of computer, electrical, software and telecommunications engineering.

Note: Available only to students for whom it is specifically required as part of their program.

MATH2871
Data Management for Statistical Analysis
School of Mathematics
UOC6 HPW4
Prerequisite: MATH1041 or ECON1203 or ECON2292 or PSYC2001 or MATH1231 or MATH1241 or MATH1251 or equivalent.

The course covers the use of database and spreadsheet tools to organise and query statistical data, programming in an advanced statistical package for file management, data manipulation and cleaning; methods for data screening, cleaning, graphical displays and data analysis using a range of statistical procedures; creation of data analysis reports using modern statistical and graphical methods.

The course is based around Microsoft Access and Excel as well as the SAS statistical analysis system and programming tools. Knowledge and skills developed will be generic and applicable to a range of modern statistical software tools.

MATH2899
Applied Statistics for Chemical Engineers
School of Mathematics
UOC3 HPW3
Prerequisite: MATH1231 or MATH1241; Excluded: MATH1041, MATH2841, MATH2801, MATH2901, BIOS2041, BEE2041.

Graphical data analysis. Review of probability, random variables and their properties. The normal and binomial distributions, the central limit theorem. Applications to statistical quality control. Theory of statistical inference including confidence intervals and hypothesis testing with applications to one and two sample problems based on the t- and F-test. Simple and multiple linear regression including data transformations to normality. Design and analysis of experiments, analysis of variance, introduction to factorial designs. Applications will be drawn primarily from the fields of chemical, bioprocess and petroleum engineering. Statistical computing will be based on Matlab.

Note: Available only to students for whom it is specifically required as part of their program.

MATH2901
Higher Theory of Statistics
School of Mathematics
UOC6 HPW4
Prerequisite: MATH1251 or MATH1241 or MATH1221; Excluded: MATH2801, MATH2829, MATH2839, MATH2841, MATH2859, MATH2899, BIOS2041, BEE2041, ECON2215.

Aims: As for MATH2801 but in greater depth.

MATH2931
Higher Linear Models
School of Mathematics
UOC6 HPW4
Prerequisite: MATH2901; Excluded: MATH2831, BIOS2041, BEE2041.

Aims: As for MATH2831 but in greater depth.

MATH3000
Mathematics/Statistics Project
School of Mathematics
UOC3 HPW2
Prerequisite: 12 units of credit in Level 2 Maths courses.

Under supervision of an academic staff member of the School of Mathematics a student will undertake a course in reading and/or research on a topic in mathematics or statistics or on applications of mathematics or statistics to other disciplines such as physical, biological or social sciences, economics, finance, computing, etc. The student is expected to write an essay summarising the results of their project.

MATH3001
Mathematics/Statistics Project
School of Mathematics
UOC6 HPW4
Prerequisite: 12 units of credit in Level 2 Maths courses.

Under supervision of an academic staff member of the School of Mathematics a student will undertake a course in reading and/or research on a topic in mathematics or statistics or on applications of mathematics or statistics to other disciplines such as physical, biological or social sciences, economics, finance, computing, etc. The student is expected to write an essay summarising the results of their project.

MATH3002
Mathematics/Statistics Project
School of Mathematics
UOC12 HPW8
Prerequisite: 12 units of credit in Level 2 Maths courses.

Under supervision of an academic staff member of the School of Mathematics a student will undertake a course in reading and/or research on a topic in mathematics or statistics or on applications of mathematics or statistics to other disciplines such as physical, biological or social sciences, economics, finance, computing, etc. The student is expected to write an essay summarising the results of their project.

MATH3040
Mathematical Modelling for Real World Systems
School of Mathematics
UOC6 HPW4
Prerequisite: 12 units of credit in Level 2 Maths courses.

Why are there no snowflakes alike? When will the next major stock market collapse occur? Which is the greatest sporting nation on earth? Addressing real world problems involves the steps of formulating a mathematical description of the problem, solving the mathematical model, interpreting
the mathematical solution and critically evaluating the model. Motivated by real world problems, the course will survey mathematical techniques for achieving the best possible outcomes, predicting future events and dealing with uncertainties. The course will provide introductions to popular mathematical resources for algebraic manipulation, numerical simulation and presentation. As part of the course requirements, students will be expected to work in groups on mathematical modelling projects and they will be expected to prepare a group report, both written and oral, describing the project. The course aims to equip students with the modelling skills and presentation skills for dealing with real world problems.

MAH3101
Computational Mathematics
School of Mathematics
UOC:6  HPW:4
Prerequisite: 12 units of credit in Level 2 Mathematics courses including MATH2011 or MATH2111 or MATH2510, and MATH2501 or MATH2601; Excluded: MATH3301.

Most mathematical models in engineering, finance and science are based on differential equations. In general these equations cannot be readily solved analytically. This course introduces computational methods for solving, to high accuracy, systems of both initial and boundary value problems for ordinary differential equations. There is a substantial computing component involving implementation of the methods and simulation of some mathematical models using the MATLAB software package on UNIX and Windows-based computer systems. Introduction to approximation of functions based on global interpolation and splines. Explicit and implicit computer methods for non-stiff and stiff initial value problems for ordinary differential equations. Introduction to the shooting, finite difference and orthogonal collocation numerical methods for boundary value problems. Direct computer algebra methods for matrix equations. Implementation of the modern computer methods using MATLAB Spline Toolbox and Ode Suite Package.

Note: This course includes a substantial computing component, and assumes some familiarity with Matlab.

MAH3121
Mathematical Methods and Partial Differential Equations
School of Mathematics
UOC:6  HPW:4
Prerequisite: 12 units of credit in Level 2 Mathematics courses including MATH2011 or MATH2111, and MATH2120 or MATH2130.


Note: MATH2320 or MATH2620 is recommended.

MAH3161
Optimization
School of Mathematics
UOC:6  HPW:4
Prerequisite: 12 units of credit in Level 2 Mathematics courses including MATH2011 or MATH2111 or MATH2510, and MATH2501 or MATH2601; Excluded: MATH3181.

Development, analysis and application of methods for optimisation problems. Theory of multivariable optimisation; including necessary and sufficient optimality conditions, stationary points, Lagrange multipliers, Kuhn-Tucker conditions, convexity and duality. Numerical methods for one dimensional minimisation, unconstrained multivariable minimisation (including steepest descent, Newton, quasi-Newton and conjugate gradient methods) and constrained multi-variable minimisation (including linear programming and quadratic programming).

MAH3201
Dynamical Systems and Chaos
School of Mathematics
UOC:6  HPW:4
Prerequisite: 12 units of credit in Level 2 Mathematics courses including MATH2120 or MATH2130, and MATH2501 or MATH2601.

Regular and irregular behaviour of nonlinear dynamical systems. A selection from topics developing the theory of nonlinear differential and difference equations, with applications to physical, biological and ecological systems. Topics from: stability and bifurcation theory, Floquet theory, perturbation methods, Hamiltonian dynamics, resonant oscillations, chaotic systems, Lyapunov exponents, Poincare maps, homoclinic tangles.

MAH3261
Fluids, Oceans & Climate
School of Mathematics
UOC:6  HPW:4
Prerequisite: 12 units of credit in Level 2 Mathematics courses including MATH2011 or MATH2111, and MATH2120 or MATH2130; Excluded: MATH3241.

The dynamics underlying the circulation of the atmosphere and oceans are detailed using key concepts such as geostrophy, the deformation radius and the conservation of potential vorticity. The role of Rossby waves, shelf waves, turbulent boundary layers and stratification is discussed. The atmosphere-ocean system as a global heat engine for climate variability is examined using models for buoyant forcing, quasi-geostrophy and baroclinic instability.

MAH3311
Mathematical Computing for Finance
School of Mathematics
UOC:6  HPW:4
Prerequisite: MATH2120 or MATH2130 and MATH2501 or MATH2601 and 6 units of credit in Level 2 Statistics.

In the end, finance is concerned with making definite numerical recommendations which frequently can only be made by analysing sophisticated models using high-speed computers. This course studies the design, implementation and use of computer programs to solve practical mathematical problems of relevance to finance, insurance and risk management. A review of MATLAB, floating point numbers, rounding error and computational complexity. A selection of topics from: approximation and parameter estimation, Fourier series and the FFT, finite difference approximations, partial differential equations (heat equation), sparse linear systems, non-linear algebraic equations, trees, Monte-Carlo methods and simulation, random numbers and variance reduction, numerical integration. Computing environments for mathematical finance. Practical examples and programming assignments using MATLAB.

MAH3411
Information, Codes and Ciphers
School of Mathematics
UOC:6  HPW:4
Prerequisite: MATH1081 or MATH1090.

Discrete communication channels: information theory, compression and error control coding, cryptography.

MAH3521
Algebraic Techniques in Number Theory
School of Mathematics
UOC:6  HPW:4
Prerequisite: 12 units of credit in Level 2 Math courses; Excluded: MAH15710, MAH15740.

The integers, residue class arithmetic, theorems of Lagrange, Fermat and Euler, groups of units, Chinese remainder theorem, primitive roots, Gaussian integers, division algorithm and principal ideals in Z[i], quadratic residues, algebraic number fields, extensions, Eisenstein’s test, ruler and compass constructions.

MAH3531
Topology and Differential Geometry
School of Mathematics
UOC:6  HPW:4
Prerequisite: 12 units of credit in Level 2 Math courses including MATH2011 or MATH2111 or MATH2510 or MATH2601; Excluded: MAH35760.

Curves in the plane and what it means to be curved rather than straight. Curves in space and how they curve and twist. Surfaces and how they bend both internally and externally. Soap bubbles and minimal surfaces. Why a map of the earth must be distorted: Gauss’ “Remarkable Theorem” and the Gauss-Bonnet Theorem. Euler characteristic and the platonic solids. Mobius bands and other surfaces. Classification and elementary combinatorial topology of surfaces. Topological spaces, fixed point theorems, Hairy Ball, Pancake and Ham Sandwich Theorems.

Note: Offered in odd numbered years only.
MATH3610
History of Mathematics
School of Mathematics
UOC6   HPW4
Prerequisite: 6 units of credit of Level 2 Mathematics courses

The development of mathematical ideas has often been very slow and at
times tortuous, but nearly always interesting. The finished product which is
presented at secondary school and in University courses often hides much
of the story which led to the development of the subject. This course is a
potpourri of episodes from the long and fascinating history of the subject.
It is of interest to anyone studying mathematics for its own sake, and is of
special relevance to those planning a career in secondary teaching.

MATH3701
Foundations of Calculus
School of Mathematics
UOC6   HPW4
Prerequisite: 12 units of credit in Level 2 Math courses; Excluded:
MATH3610.

What does it mean for a limit to exist? What does it mean for a function to
be continuous or differentiable? There are functions which are continuous
everywhere but differentiable nowhere! Are there functions whose integral
does not exist? In this course, we look again at the essential concepts of
limit, continuity, differentiability and integrability and try to place them
on a sure footing. The syllabus includes material on sequences and series of
real numbers and also of real valued functions. Although of general
interest to those studying mathematics for its own sake, this course is of
special relevance to those planning a career in secondary teaching.

MATH3811
Higher Analysis
School of Mathematics
UOC6   HPW4
Prerequisite: 12 UOC of Level 2 Mathematics with an average mark of at
least 70, including MATH2111 or MATH2011 (CR) or MATH2510 (CR),
or permission from the Head of Department; Exclusions: MATH3570,
MATH3610, MATH3620.

Limits and continuity are the central concepts of calculus in one and
several variables. These concepts can be extended to quite general
situations. The simplest of these is when there is some way of measuring
the distance between two objects. Some of the most important examples of
these 'metric spaces' occur as sets of functions, so this course looks at
ways in which one might say that a sequence of functions converges.
Taking these ideas one step further, we look at convergence which does not
come from a generalized distance function. These are the ideas of point set
topology. The course will include topics such as countability, continuity,
uniform convergence and compactness, as well as an introduction to the
core areas of function analysis. This will include the notions of Banach
and Hilbert spaces, including Reproducing Kernel Hilbert Spaces which
are important in Applied Mathematics, Statistics and elsewhere.

MATH3901
Higher Topology and Differential Geometry
School of Mathematics
UOC6   HPW4
Prerequisite: 12 UOC of Level 2 Mathematics with an average mark of at
least 70, including MATH2111 or MATH2011 (CR) or MATH2510 (CR)
and MATH2601 or MATH2501 (CR), or permission from the Head of Department;
Exclusion: MATH3690, MATH3700, MATH3531, MATH3760.

This course begins with a study of curves in space and how they bend and
twist. It then considers surfaces, studying the first and second fundamental
forms introduced by Gauss, the various measures of curvature and what
they mean for the external and internal appearance and properties of
surfaces. It continues by examining topological properties of surfaces,
such as the Euler Characteristic, and proves the Gauss-Bonnet theorem
relating the differential geometry to the topology. The final topics treated
are chosen from homotopy, the Poincare-Hopf theorem, Riemanian
geometry, and the hyperbolic plane.

MATH3711
Higher Algebra 1: Group Theory
School of Mathematics
UOC6   HPW4
Prerequisite: 12 UOC of Level 2 Mathematics with an average mark of at
least 70, including MATH2601 or MATH2501 (CR), or permission from
the Head of Department; Exclusions: MATH3710, MATH3720.

In Higher Algebra, we will examine some of the basic notions of modern
algebra that arose in the late 19th and early 20th century. The most
fundamental notion is that of a group, which is how mathematicians
study symmetry. These will be studied in detail both from an abstract point
of view and also to study symmetry in 3-dimensional space. The other
important concept studied is that of a ring. The algebra of adding and
multiplying matrices has many similarities with the algebra of numbers.
The notion of rings generalise both these two examples.

Note: Students wishing to enrol in Level III Higher Pure Mathematics
courses should consult with the Pure Mathematics Department before
enrolling

MATH3801
Probability and Stochastic Processes
School of Mathematics
UOC6   HPW4
Prerequisite: MATH2501 or MATH2601 and MATH2011 or MATH2111
or MATH2510 or MATH2610 and MATH2801 or MATH2901; Excluded:
MATH3901.

Probability theory and random variables, convergence of random
variables. Poisson processes, Markov chains. Continuous time Markov
chains. Brownian motion and its applications, simulation of stochastic
processes.

MATH3811
Statistical Inference
School of Mathematics
UOC6   HPW4
Prerequisite: MATH2831 or MATH2931, MATH2810 or MATH2910;
Excluded: MATH3840, MATH3850, MATH3911, MATH3940, MATH3950.

Coverage of the main parametric and non-parametric and techniques
used in statistics. Uniformly minimum variance estimation. Cramer-
Rao inequality, Lehmann-Scheffe theorem. Monotone likelihood ratio
distributions and uniformly most powerful unbiased tests. Generalised
likelihood ratio tests, exact tests and large sample tests. Bayesian point
estimation, interval estimation and hypothesis testing. Robustness and
bootstrap resampling. Order statistics, goodness of fit, contingency
tables. Statistical inference based on ranks. One sample, two sample and
k-sample problems, blocked data, independence and association.
Nonparametric regression.

MATH3821
Statistical Modelling and Computing
School of Mathematics
UOC6   HPW4
Prerequisite: MATH2831 or MATH2931, MATH2810 or MATH2910;
Excluded: MATH3800, MATH3810.

Use of major statistical packages such as Splus, SAS, Matlab. Model
selection and regression diagnostics in multiple linear regression. Theory
and application of generalised linear model and nonlinear regression.
Applications of simulation in statistical inference. Resampling techniques.
Nonparametric curve and density estimation.

MATH3831
Statistical Methods in Social and Market Research
School of Mathematics
UOC6   HPW4
Prerequisite: MATH2801 or MATH2901; Excluded: MATH2840,
MATH2940, MATH3911.

Development of statistical methods for design and analysis of data for
social and market research. Review of research methodology. Sample
survey design. Statistical aspects of survey design. Statistical aspects of
questionnaire design and analysis. Estimation of means, totals, proportions
and ratios. Estimation using auxiliary information. Methods for analysing
cross-classified data, binary and ordinal responses, assessment, control
and quantification of errors in survey research.

MATH3841
Statistical Analysis of Dependent Data
School of Mathematics
UOC6   HPW4
Prerequisite: MATH3811 or MATH3911; Excluded: MATH3820,
MATH3870, MATH3920, MATH3941, MATH3970.

Development of statistical methods for analysis of dependent data arising
in multivariate observations, time series and spatial processes. Multivariate
normal distribution, Hotelling’s T-squared, Wishart distribution.
Discriminant analysis, principle component analysis, canonical analysis
and factor analysis. Classification methods. Stationary and non-stationary
time series models, autocorrelation, linear time series models, forecasting.
Models for spatial processes.
MATH3851
Experimental Design and Categorical Data
School of Mathematics
UOC6 HPW4
Prerequisite: MATH2801 OR MATH2901 AND MATH2831 OR MATH2931; Excluded: MATH2810, MATH2910, MATH3830, MATH3930
This course focuses on the principles of good experimental design and the statistical tools appropriate for discrete valued data. Topics include factorial designs and their analysis, response surface designs for product and process optimization, random effects models and components of variance, exploratory and graphical analysis of data using modern statistical packages, data visualization, analysis of cross-tabulated data, logistic and Poisson regression for analysis of binary and count data and log-linear models for contingency tables.

MATH3901
Higher Probability and Stochastic Processes
School of Mathematics
UOC6 HPW4
Prerequisite: MATH2501 or MATH2601 and MATH2111 or MATH2510 or MATH2610 and MATH2901; Excluded: MATH3801.
As for MATH3801 but in greater depth.

MATH3911
Higher Statistical Inference
School of Mathematics
UOC6 HPW4
Prerequisite: MATH2931; Excluded: MATH3811, MATH3840, MATH3850, MATH3940, MATH3950.
As for MATH3811 but in greater depth.

MATH3931
Higher Statistical Methods in Social and Market Research
School of Mathematics
UOC6 HPW4
Prerequisite: MATH2901; Excluded: MATH2840, MATH2940, MATH3831.
As for MATH3831 but in greater depth.

MATH3941
Higher Statistical Analysis of Dependent Data
School of Mathematics
UOC6 HPW4
Prerequisite: MATH3911; Excluded: MATH3820, MATH3870, MATH3841, MATH3920, MATH3970.
As for MATH3841 but in greater depth.

MATH4003
Mathematics and Computer Science Honours (Full Time)
School of Mathematics
UOC24 HPW24
Undergraduate thesis in Applied Mathematics or Pure Mathematics together with advanced lectures on topics chosen from MATH4003 or MATH4603, and half from Computer Science.
Note: To enter Mathematics Level IV, students must have completed a MATH major in the Science program, including at least 30 units of credit in Level III Mathematics, or have completed Stage 3 of one of the MATH plans in the Advanced Science program. In addition, students must have permission from the Head of the appropriate Department.
Students will normally be required to have a credit average in their Level III Mathematics courses and to have shown some evidence of the ability to undertake independent study. In special cases, other courses may be substituted for the Mathematics courses. Students should discuss their selection of Level III courses with the Head of the appropriate Department. Students must complete 48 units of credit of Honours Mathematics in order to be awarded an Honours degree.

MATH4004
Mathematics and Computer Science Honours (Part Time)
School of Mathematics
UOC12 HPW12
Undergraduate thesis in Applied Mathematics or Pure Mathematics together with advanced lectures on topics chosen from MATH4003 or MATH4603, and half from Computer Science.
Note: See notes for MATH4003.

MATH4012
Mathematics and Finance Thesis Project
School of Mathematics
UOC12 HPW5
Under the supervision of a member of the academic staff of the School of Mathematics a student will undertake a major project in mathematics and finance. The project could range from reading and/or research on theoretical aspects to financial engineering involving implementation of a practical model in C++. Research interaction with the finance industry is encouraged. The student will write a thesis summarising the result of their project and make a presentation of it.

MATH4103
Applied Mathematics Honours (Full Time)
School of Mathematics
UOC24 HPW24
Skill in practical numerical computing is highly recommended for students taking this course. Those students who have not already taken a suitable computing course may be required to take a short bridging course. Undergraduate thesis together with advanced lectures on topics chosen from the following fields: advanced mathematical methods for applied mathematics, advanced optimization, numerical analysis, theory of linear and non linear dynamical systems, optimal control, operations research, functional analysis and applications, mathematics of economic models and of economic prediction, fluid mechanics, oceanography, micro- hydrodynamics, and analytical and numerical solution of partial differential equations. May also include advanced lectures given by other Departments or Schools.
Note: See notes for MATH4003.

MATH4104
Applied Mathematics Honours (Part Time)
School of Mathematics
UOC12 HPW12
Skill in practical numerical computing is highly recommended for students taking this course. Those students who have not already taken a suitable computing course may be required to take a short bridging course. Undergraduate thesis together with advanced lectures on topics chosen from the following fields: advanced mathematical methods for applied mathematics, advanced optimization, numerical analysis, theory of linear and non linear dynamical systems, optimal control, operations research, functional analysis and applications, mathematics of economic models and of economic prediction, fluid mechanics, oceanography, micro- hydrodynamics, and analytical and numerical solution of partial differential equations. May also include advanced lectures given by other Departments or Schools.
Note: See notes for MATH4003.

MATH4603
Pure Mathematics Honours(Full Time)
School of Mathematics
UOC24 HPW24
Undergraduate thesis together with advanced lectures on topics chosen from the fields of current interest in Pure Mathematics. May also include advanced lectures given by other Departments or Schools.
Note: See notes for MATH4003. Some Higher level Mathematics courses should normally be included at Levels II and III.

MATH4604
Pure Mathematics Honours (Part Time)
School of Mathematics
UOC12 HPW12
Undergraduate thesis together with advanced lectures on topics chosen from the fields of current interest in Pure Mathematics. May also include advanced lectures given by other Departments or Schools.
Note: See notes for MATH4003. Some Higher level Mathematics courses should normally be included at Levels II and III.

MATH4903
Statistics Honours (Full Time)
School of Mathematics
UOC24 HPW24
Undergraduate thesis together with advanced lectures on topics chosen from the following fields: mathematical basis, experimental design, response surfaces, stochastic processes, theories of inference, sequential analysis, nonparametric methods, multivariate analysis, mathematical
programming, information theory, discrete distributions. May also include advanced lectures given by other Departments or Schools.

Note: See notes for MATH4003.

MATS1002 Microstructure Analysis
School of Materials Science and Engineering
UOC3 HPW3
Specimen preparation techniques; Principles of optical microscopy; Image analysis; Quantitative microscopy and stereology; Electron microscopy; Microchemical analysis.

MATS1013 Diffusion and Kinetics
School of Materials Science and Engineering
UOC3 HPW2
Unit 1 Diffusion
Staff Contact: Dr Nagarajan Valanoor
Fick’s first and second laws; Solutions for short and long times by analytical and numerical methods; Boundary conditions for solid-fluid and solid-solid interfaces; Diffusion couples; Atomic level diffusion theory; Diffusion with variable D values, phase boundary migration and Kirkendall effect.

Unit 2 Kinetics
Staff Contact: Dr Haiping Sun
Elementary and non-elementary reactions; Reaction order; Activation energy; Irreversible and reversible reactions; Heterogeneous reactions; Kinetics of solid state-gas (fluid) reactions; Elementary steps; Rate-controlling step; Intrinsic kinetics; Chemisorption; Mass transfer in the gas phase and fluid; Multicomponent system; Knudsen diffusion; Shrinking core model.

MATS1021 Computing in Materials Science
School of Materials Science and Engineering
UOC3 HPW3
The aim of the course is to gain a basic understanding of the computing applications and practices that are relevant to materials engineering degrees and industry practice. Topics covered are: a brief overview of the place of computing in materials engineering; use of common materials software packages; using the internet as a part of the degree; search engines; email; website composition; and computer programming to solve materials based problems.

MATS1092 Materials and Design 1
School of Materials Science and Engineering
UOC3 HPW2
An appreciation of the relationships between the properties of materials, component design, manufacturing and product performance. Materials selection as an integral part of successful design. Long-term potential for materials improvement and substitution.

MATS1111 Materials Science 1
School of Materials Science and Engineering
UOC3 HPW3

MATS1112 Phase Equilibria
School of Materials Science and Engineering
UOC3 HPW2

MATS1142 Crystallography and X-Ray Diffraction
School of Materials Science and Engineering
UOC3 HPW3

MATS1152 Materials Engineering 1B
School of Materials Science and Engineering
UOC6 HPW4
Materials process principles and engineering application. Steady and unsteady state material and energy balances. Heat transfer mechanisms such as conduction, convection and radiation. Principles of steady and unsteady heat transfer and application in the production and application of materials. Materials and heat flow involving high temperature solid, liquid and gaseous phases. Computer programming and application. Course examples are drawn from materials engineering practice in the broadest sense.

MATS1163 Chemistry of the Solid State
School of Materials Science and Engineering
UOC3 HPW2
Crystal chemistry, nature of bonding in solids, silicate structures, and structure-composition relationships. Glass and glass-ceramics. Reactions with solids, grain boundary and interfacial effects, ceramic reactions, and polymorphic transformations (oxides, non-oxides, aluminosilicates).

MATS1172 Physical Properties of Materials
School of Materials Science and Engineering
UOC3 HPW3
The particle and wave nature of matter; The Schrodinger equation; Electrons in a crystal: Zone and band theory; Fermi energy, Fermi surface and density of states; Electrical conduction in materials; Intrinsic and extrinsic semiconductors; Band-gap engineering; Basic semiconductor devices; Superconductivity and superconducting materials; Thermal properties of a solid: Heat capacity and thermal conduction. Magnetic behaviour: Basic concepts, modern theory and types of magnetism; Magnetic materials and applications.

MATS1214 Welding and Other Joining Processes
School of Materials Science and Engineering
UOC3 HPW2
Fusion welding. Capabilities, advantages and limitations. Metallurgical aspects of fusion welding. Cause of welding defects and weldability of carbon and alloy steels, stainless steels, aluminium and other common non-ferrous alloys. Design of welded fabrications to reduce distortion and the risk of failure by fatigue, brittle fracture, etc. Soldering, brazing, adhesive bonding.

MATS1223 Corrosion Control
School of Materials Science and Engineering
UOC3 HPW2
Topics covered: cost of corrosion; basic principles and classifications of corrosion; thermodynamics of corrosion; electrode kinetics; passivity and pitting; atmospheric corrosion; corrosion in soil and biological corrosion; corrosion under stress; liquid erosion failure and liquid metal embrittlement; high temperature corrosion and oxidation; designing against corrosion.
MATS1232
Materials Engineering 1A
School of Materials Science and Engineering
UOC3  HPW3
Fluid flows in materials processing. Application of the principles of fluid flow in the production and application of materials. Examples are drawn from ceramic, materials and metallurgical engineering practices in the broadest sense.

MATS1244
Materials Industry Management A
School of Materials Science and Engineering
UOC6  HPW4
Project Management: the stages of a project; planning; scheduling; personal dynamics; reporting; stakeholders; development of a project plan pertinent to the materials industry.
Accounting: financial accounting; development and analysis of financial statements; ratio analysis; financial planning; finance; management accounting.
Career Development: self-promotion to gain employment; development of job applications and resumes; goal setting; performance appraisal; reward structures.
Marketing: market analysis; marketing concepts; product development.
Professional ethics

MATS1262
Mechanical Properties of Materials
School of Materials Science and Engineering
UOC6  HPW5

MATS1282
Thermodynamic Materials
School of Materials Science and Engineering
UOC6  HPW4
Pre-requisite/s: CHEM2718

MATS1343
Materials Industry Management B
School of Materials Science and Engineering
UOC3  HPW3
Legal issues in management & business: structure of the Australian legal system; the legal process and alternative dispute resolution; business law; contract law; restrictive trade practises; consumer protection; protection and exploitation of intellectual property.
Micro- and macro-economics: economic principles; supply and demand analysis; market structures; pricing and production; market failures and regulation; the business cycle and government policy; inflation and unemployment.
People management issues: diversity in the workplace; racial, gender, age, educational; leadership styles: leaders and managers, generic vs. trained, motivation, emotional intelligence; group behaviour and intergroup conflict.
Operations management: management principles; operational management; risk management and AS 4360; quality management and ISO 9000; continual improvement, environmental management and ISO 14000
Occupational Health and Safety: OHS management and AS 4801.
Course includes pertinent case studies and guest lecturers from industry.

MATS1354
Design Project
School of Materials Science and Engineering
UOC3  HPW3
This project will cover the design of a selected piece of processing equipment or an engineering component. It will involve selection and specification of materials and other relevant aspects covered within the undergraduate program.

MATS1414
Surface Treatment and Wear
School of Materials Science and Engineering
UOC3  HPW2

MAIS1464
Professional Communication and Presentation
School of Materials Science and Engineering
UOC3  HPW2

MAIS1902
Industrial Training A
School of Materials Science and Engineering
UOC24
Industrial Training (Co-op IT. 2)

MAIS1903
Industrial Training B
School of Materials Science and Engineering
UOC24
Industrial Training (Co-op IT. 3)

MATS2013
Ceramic Materials
School of Materials Science and Engineering
UOC3  HPW3
Excluded: MATS2313.
Geological origin and classification of ceramic raw materials. Composition, crystal structures, chemical and physical properties, and physical aspects of the production of ceramics and related materials. Chemical and physical reactions during processing and firing of traditional and advanced ceramics, cement, glass, refractories, and composites. Fabrication routes of commercial ceramic materials.

MAIS2153
Ceramic Processing Laboratory
School of Materials Science and Engineering
UOC3  HPW3
Laboratory program illustrating processing and engineering aspects of ceramic technology. Students are required to take part in a series of factory inspections.

MAIS2183
Refractories
School of Materials Science and Engineering
UOC3  HPW2
Classification of refractories. Chemical and physical properties of refractories. Introduction to raw materials and manufacturing technology. Description of chemical reactions occurring between refractories and solid, liquid, and gas phases in ferrous and nonferrous metal industries. Review of phase equilibria.

MAIS2203
Physico-Chemical Ceramics Laboratory
School of Materials Science and Engineering
UOC3  HPW3
Laboratory program illustrating the physical and chemical properties associated with the processing and performance of ceramic materials. Students are required to take part in a series of factory inspections.
MATS2263  
Sintering of Ceramics  
School of Materials Science and Engineering  
UOC3  HPW2  

MATS2294  
Thermal and Mechanical Properties of Ceramics  
School of Materials Science and Engineering  
UOC3  HPW3  
Heat capacity, measurement of heat capacity, and factors affecting heat capacity. Thermal expansion, measurement of thermal expansion, and factors affecting thermal expansion. Thermal conductivity, thermal diffusivity, measurement of thermal conductivity and thermal diffusivity, factors affecting thermal transport, phonon and photon conductivity, and factors affecting phonon and photon conductivity. Thermal stresses and thermal shock. Influence of structure and composition of pure materials on thermal conductivity of multiphase materials. Effects of composition, microstructure, and physical properties on the mechanical properties of ceramics, design approaches for ceramics, inspection and non-destructive testing of ceramics, and case studies.

MATS2314  
Glass-Based Ceramics  
School of Materials Science and Engineering  
UOC3  HPW2  

MATS2363  
Ceramic Processing and Design  
School of Materials Science and Engineering  
UOC3  HPW3  
Prerequisite: MATS5013.  

MATS3064  
Composite Materials  
School of Materials Science and Engineering  
UOC3  HPW2  

MATS3443  
Polymer Science and Engineering  
School of Materials Science and Engineering  
UOC3  HPW3  
Polymer structure, monomers, bond strength, addition/condensation polymerisation, amorphous, crystalline, conformation, chain branching, co-polymer, additives in plastics, glass transition. Effect of molecular structure on performance, orientation, structure-property correlation, commodity and specialty plastics; application of polymers in ceramic industry, rheological behaviour.

MATS3524  
Materials Engineering Project  
School of Materials Science and Engineering  
UOC12  
An experimental or technical investigation or design related to some aspects of materials engineering in the specific discipline (ceramic engineering, metallurgical engineering or materials engineering).

MATS3564  
Polymer Engineering 1  
School of Materials Science and Engineering  
UOC3  HPW3  
Critical effects of temperature on behaviour of thermoplastics under load; Comparisons with thermostats; Factors contributing to strength and toughness; Yield, deformation and fracture; Crazing; Effects of environment.

MATS3574  
Polymer Engineering 2  
School of Materials Science and Engineering  
UOC3  HPW3  

MATS3624  
Materials Engineering Project  
School of Materials Science and Engineering  
UOC9  
An experimental or technical investigation or design related to materials engineering in the specific discipline (metallurgical engineering, materials engineering or ceramic engineering). Students with an average mark above 70 will be allowed to do the 24 UOC Project MATS3724, with approval from the Head of School.  
Note: This course is 18 UOC in total: 9 UOC per semester over two semesters

MATS3724  
Material Engineering Projects  
School of Materials Science and Engineering  
UOC12  
An experimental or technical investigation or design related to materials engineering in the specific discipline (metallurgical engineering, materials engineering or ceramic engineering). Only students with an average mark above 70 will be allowed to do this 24 UOC Project, with approval from the Head of School. Students with an average mark below 70 do the 18 UOC project MATS3624 AND ADDITIONAL 6 UOC Elective courses in Materials Science and Engineering.  
Note: This course is 24 UOC in total: 12 UOC per semester over two semesters

MATS4013  
Physical Metallurgy  
School of Materials Science and Engineering  
UOC3  HPW3  
Unit 1 Dislocations  
Deformation of metals. Atomic and molecular description of deformation. Introduction to dislocation theory and its application to mechanical properties.  
Unit 2 Phase Transformations  
Solidification. Solid state transformations; diffusional and diffusionless transformations. Kinetics of phase transformations  
Unit 3 Alloys  
Steels and nonferrous alloys. Development of microstructure.

MATS4023  
Phase Transformations  
School of Materials Science and Engineering  
UOC3  HPW2

**MATS4064**
Thermomechanical Processing
School of Materials Science and Engineering
UOCS HPW2
Polycrystalline plasticity and origin of deformation microstructure; stored energy; mechanisms of dynamic and static restoration in materials; flow stress; superplasticity; nucleation and growth of new grains; kinetics; effect of purity, solutes and particles; control of grain size; grain growth and secondary recrystallization; deformation and annealing textures; anisotropy of mechanical and physical properties; case studies.

**MATS4083**
Physical Metallurgy of Alloys
School of Materials Science and Engineering
UOCS HPW3

**MATS4084**
Specialty Alloys
School of Materials Science and Engineering
UOCS HPW3
Prerequisite: MATS4013
Unit 3 Alloy Steels. Effects of alloying elements on phase equilibrium, kinetics of transformation and microstructure. Hardenability, tempering and embrittlement of quenched steels. Alloy engineering (constructional) steels, tool and die steels, corrosion and heat resistant steels, high strength low alloy steels.

**MATS4133**
Deformation and Strengthening Mechanisms
School of Materials Science and Engineering
UOCS HPW2
Prerequisite: MATS4013
Grain size dependence of strength, solute strengthening, work-hardening, age-hardening, strain ageing. Point defects and the role of point defects in strengthening. Creep, fatigue and high temperature deformation. Twinning, Interfaces.

**MATS4213**
Fractographic Analysis
School of Materials Science and Engineering
UOCS HPW3
Prerequisite: MATS4013

**MATS4333**
Fracture Mechanics
School of Materials Science and Engineering
UOCS HPW2
Linear elastic fracture mechanics: modes of loading, stress intensity factor concept, effect of finite boundaries, energy release rate concept, Fracture toughness testing and evaluation; ASTM E399 and alternative specimen types. Subcritical fracture mechanics; fatigue, stress corrosion cracking, Elastic-plastic fracture mechanics; crack opening displacement, J-integral. Interface mechanics.

**MATS5013**
Materials Processing
School of Materials Science and Engineering
UOCS HPW6
Unit 1: Pyrometallurgical Processes
Staff Contact: Dr Haiping Sun
Unit 2: Metal Forming Processes
Staff Contact: A/Professor Alan Crosby
Deformation and workability. Hot working, cold working, recrystallisation. Casting, forging, rolling, extrusion, wire drawing. Processing defects and their avoidance.
Unit 3: Ceramic Processing Technologies
Staff Contact: Dr Owen Standard

**MATS5033**
Extractive Metallurgy
School of Materials Science and Engineering
UOCS HPW2
Prerequisite: MATS5013.
Unit 1 Hydrometallurgical Processes
Staff Contact: Dr Haiping Sun.
Application of principles of aqueous thermodynamics, electrochemistry, chemical and electrochemical kinetics to hydrometallurgical processes: leaching of minerals and concentrates, solution purification, precipitation, and other separation processes, ion-exchange and liquid-liquid extraction, electrowinning and electrorefining. Unit 2 Light Metals Production

**MATS5043**
Heat, Fluid and Mass Flow in Materials Processing
School of Materials Science and Engineering
UOCS HPW2
Prerequisite: MATS1232, MATS1152.
In-depth understanding of fundamental principles dictating transport phenomena in materials processing. Development of governing equations related to the transfer of fluid, energy and mass and their inter-dependence based upon fundamentals to analyse and solve problems encountered in current metallurgical operating environments. Application of the understanding developed to the emerging new technologies for metals processing such as direct reduction and smelting for iron making and near net shape casting.

**MATS5113**
Materials Engineering Laboratory
School of Materials Science and Engineering
UOCS HPW4
A laboratory program designed to illustrate property-structure-processing relationships in materials science and engineering through experimentation and analysis. Laboratory experiments are linked directly to lecture materials taught in MATS1013 Diffusion and Kinetics. MATS2013 Ceramic Materials, MATS3443 Polymer Science and Engineering, MATS4013 Physical Metallurgy, and MATS5013 Materials Processing. Students will be exposed to experimental methods and instruments used for materials characterization as well as processing techniques. Implicit
in this course is the cultivation of safe laboratory practices and good experimental techniques, and training in routine property measurements, methods of literature search, reliable data collection, data representation, elementary statistical analysis of data, and writing of technical reports. Two visits to selected manufacturing plants in the Sydney region are compulsory in the course.

MATS5253
Metallurgical Reaction Engineering
School of Materials Science and Engineering
UOC3 HPW2

MATS5323
Modelling in Materials Engineering 1
School of Materials Science and Engineering
UOC3 HPW2
Prerequisite: MATH1131 or MATH1231 or MATH2049 or MATH2059
The course introduces a range of numerical and analytical modelling techniques and applies them in situations related to materials science and engineering. Initially the prerequisite knowledge is reviewed. Topics then covered are finite difference modelling and finite element modelling. These techniques are then applied to stress analysis, and heat transfer. A number of commercial software packages are introduced as well as designing computer programs to suit specific situations.

MATS5394
Pollution Control in Materials Processing
School of Materials Science and Engineering
UOC3 HPW2
Pollutants from the different industrial processes. Technical principles and equipment to control the emission of pollutants. Examples of various processes in the metallurgical, ceramic and chemical industries. Pollution control legislation specific to industry and compliance case studies.

MATS5413
Kinetics of Metallurgical Processes
School of Materials Science and Engineering
UOC3 HPW2
Prerequisite: MATS1013

MATS5423
Pyrometallurgy 1
School of Materials Science and Engineering
UOC3 HPW4
Prerequisite: MATS5013.
Staff contact: Dr Haiping Sun
The course includes two units:
Unit 1: Extractive Metallurgy Laboratory, and
Unit 2: Metallurgical Plant Practice.

MATS5424
Modelling in Materials Engineering 2
School of Materials Science and Engineering
UOC3 HPW2
Principles of mathematical modeling, Types of mathematical models and their main components, Governing equations and boundary/initial conditions, Numerical techniques and computational fluid flow analysis. Application of commercial software packages. Dimensional analysis and application in physical modelling, Surface response methodology. Course examples are drawn from materials engineering practice in a broadest sense.

MATS5524
Pyrometallurgy 2 - Casting
School of Materials Science and Engineering
UOC3 HPW2
Prerequisite: MATS5013; Excluded: MATS1334.

Selected topics in ironmaking, steelmaking and nonferrous metallurgy. Electrometallurgy of steel. Ferrous alloy making, Casting and solidification.

MATS9410
Materials for Mining Engineers
School of Materials Science and Engineering
UOC3 HPW3
Microstructure and structure-property relationships of the main types of engineering materials (metals, polymers, ceramics and composites). Micromechanisms of elastic and plastic deformation. Fracture mechanisms for ductile, brittle, creep and fatigue modes of failure in service; corrosion. Metal forming by casting and wrought processes. Phase equilibria of alloys; microstructural control by thermomechanical processing and application to commercial engineering materials. Laboratory and tutorial work includes experiments on mechanical testing, cast and recrystallised structures, ferrous and non-ferrous microstructures, wear, fracture and failure analysis.

MATS9520
Engineering Materials
School of Materials Science and Engineering
UOC3 HPW3
Microstructure and structure-property relationships of the main types of engineering materials (metals, polymers, ceramics and composites). Micromechanisms of elastic and plastic deformation. Fracture mechanisms for ductile, brittle, creep and fatigue modes of failure in service; corrosion. Metal forming by casting and wrought processes. Phase equilibria of alloys; microstructural control by thermomechanical processing and application to commercial engineering materials. Laboratory and tutorial work includes experiments on mechanical testing, cast and recrystallised structures, ferrous and non-ferrous microstructures, and fracture and failure analysis.

MATS9530
Materials Science for Mechanical Engineering
School of Materials Science and Engineering
UOC3 HPW3
Prerequisite: MATS9520
Materials used in Mechanical Engineering and related fields (Manufacturing Engineering Management, Aerospace Engineering, Naval Architecture) are discussed with emphasis on the development of properties and performance on microstructure. Aspects of materials selection during the design of engineering components that affect the service performance in applications, where failure can occur by brittle fracture, corrosion, creep or fatigue, will also be discussed.

MDCM1000
New Media Technologies A
School of Media, Film and Theatre
UOC6 HPW3
Prerequisite: Enrolment in program 3402 or 3994 or 4764
Introduces students to the field of media and communications through a consideration of the terms of its title, addressing notions of ‘the new’, ‘media’, and ‘technology’ in specific contexts. The history and technology of particular media forms, their spatiality and domestication, and issues of mediation and representation will be examined in relation to: photographic media, TV, and new computer-based media.

MDCM1001
New Media Technologies B
School of Media, Film and Theatre
UOCR HPW3
Prerequisite: MDCM1000
Introduces students to multimedia production: text - and image-based. Students complete a series of short exercises using the resources of the multimedia laboratories and examine the cultural and social context of multimedia.

MDCM2000
Researching and Writing for New Media
School of Media, Film and Theatre
UOC6 HPW3
Prerequisite: MLR.M1001
Studies formative innovative audiovisual texts and multimedia works. Introduces practices of researching and writing for audiovisual media and multimedia. Students concentrate on one area related to their
By the end of Year 4, students will be expected to have mastered the skills in communication, history taking, and physical examination. Students will be able to generate a list of the patient’s problems which includes the physical, emotional and psychosocial aspects of the case. For each problem, students will develop a plan for problem resolution. Students will learn much about management and drug treatment during Year 4 but only the principles of management and introductory aspects of therapeutics will be assessed at the end of Year 4. Students will be expected to interpret symptoms and signs in terms of disorders of structure and function; to understand the pathological basis of symptoms and signs; to know what special investigations are appropriate for the investigation of a problem and how to interpret the results; and to understand the social and preventative aspects of disease. The major component of the Year 4 program is the clinical attachments. While students will necessarily be assigned to subspecialty units (e.g. cardiology, neurology, etc.), the attachment is not designed primarily to teach the student the details of that discipline, but rather, the approach to a patient’s problems and their resolutions, is to be emphasised. Structured teaching during clinical weeks will be limited. Pathology tutorials will be held each week, and one medical and one surgical lecture may be provided. A number of skills are to be acquired during the year and will be integrated with clinical teaching. The program includes one tutorial per week based on prepared clinical protocols (case presentations) which will explore the pathogenesis of those systematic diseases which were not covered in the context of Year 3 teaching in Pathology, which require greater depth of coverage. Students will be required to prepare and expand on the topics listed, by reference to their own ward cases, by consultation with staff of the various departments in Pathology, as well as by reference to their recommended textbooks and specialised text or journal articles. Each student will be expected to attend a minimum number of autopsy demonstrations during the year. Additional exposure to Pathology will be attained by student attendance at Grand Rounds and Clinico-Pathological Conferences. Campus Weeks: All students will attend the University campus for three weeks throughout the year and will be integrated with clinical teaching. The program includes introductory aspects of therapeutics will be assessed at the end of Year 4. Students will be able to generate a list of the patient’s problems which includes the physical, emotional and psychosocial aspects of the case. For each problem, students will develop a plan for problem resolution. Students will learn much about management and drug treatment during Year 4 but only the principles of management and introductory aspects of therapeutics will be assessed at the end of Year 4. Students will be expected to interpret symptoms and signs in terms of disorders of structure and function; to understand the pathological basis of symptoms and signs; to know what special investigations are appropriate for the investigation of a problem and how to interpret the results; and to understand the social and preventative aspects of disease. The major component of the Year 4 program is the clinical attachments. While students will necessarily be assigned to subspecialty units (e.g. cardiology, neurology, etc.), the attachment is not designed primarily to teach the student the details of that discipline, but rather, the approach to a patient’s problems and their resolutions, is to be emphasised. Structured teaching during clinical weeks will be limited. Pathology tutorials will be held each week, and one medical and one surgical lecture may be provided. A number of skills are to be acquired during the year and will be integrated with clinical teaching. The program includes one tutorial per week based on prepared clinical protocols (case presentations) which will explore the pathogenesis of those systematic diseases which were not covered in the context of Year 3 teaching in Pathology, which require greater depth of coverage. Students will be required to prepare and expand on the topics listed, by reference to their own ward cases, by consultation with staff of the various departments in Pathology, as well as by reference to their recommended textbooks and specialised text or journal articles. Each student will be expected to attend a minimum number of autopsy demonstrations during the year. Additional exposure to Pathology will be attained by student attendance at Grand Rounds and Clinico-Pathological Conferences. Campus Weeks: All students will attend the University campus for three weeks throughout the year, during which lectures in Medicine, Surgery, Clinical Pharmacology, Pathology, and Population Health will be provided. Population Health teaching will utilise the knowledge and experience gained during clinical attachments to elucidate basic principles of epidemiology, public health, and continuing care. The Pathology lectures and demonstrations will concentrate on the pathogenesis of complex disease processes which cannot be effectively covered in a tutorial format. An excursion to the NSW State Government Forensic Laboratory and Coronial Courts is a compulsory activity. Where possible, days will be arranged so that a particular subject is approached in a multi-disciplinary way. A series of correlation clinics, held during campus weeks, will further emphasise the interdisciplinary approach to understanding a subject. Assessment: A multiple choice examination and a short answer paper will be given at the end of the year and will examine knowledge of Medicine, Surgery, Population Health, Clinical Pharmacology and Pathology discussed during the campus program and from the directed reading section in the syllabus. There will be two assessment tasks in the Population and Community Health program. Assessment of Pathology will also involve the submission of a project report and a viva examination. In addition to the written papers, a clinical short case examination will be held. Assessment will be based on the approach to clinical examination, eliciting of abnormal signs and the interpretation of their significance.
Objectives: To build on the student's experiences in Years 4 and 5 of the course. To ensure that during clinical attachments in Year 6 students are capable of accepting additional responsibility within clinical teams. To ensure a smooth transition from medical student to Intern. To integrate knowledge and skills gained in the previous three years, so that the student's assessment, documentation and management of clinical problems is sufficiently mature and rounded to warrant graduation and provisional registration. To have students leave medical school committed to the importance of continued medical education. Year 6 of the new curriculum is fully integrated with the fourth year of the program. There are two campus weeks held during the year. The lecture, tutorial and correlation clinic programs build on knowledge of the disease processes gained in Year 4 and a special emphasis is placed on management, therapeutics and practical information needed for students who will soon commence work as Interns. Individual Principal Teaching Hospitals may strengthen the structured learning experience by providing additional lectures. However, the time available for such additional programs will be strictly limited so that students are not diverted from their principal work on the wards. Five 6-week attachments complete the year. For one of the six weeks, students will be attached to an emergency room and an intensive care unit at a Principal Teaching Hospital, or a selected rural hospital. The remaining weeks assigned to students will be complemented by terms completed in Year 4. One medical and one surgical attachment will be provided at the students' Principal Hospital and a further term will be provided at a rural hospital. Students may request a specific program during the flexible fifth term of Year 6, providing their progress has been satisfactory. As in Year 4, clinical attachments provide an opportunity for learning on the job and the steady increase in the responsibility for patient management will be given to students as their experience and proven performance suggests that this is appropriate. On the wards, a significant emphasis will be placed on mastering procedural skills, therapeutics and such practical matters as interaction with ancillary medical staff and discharge planning. Assessment: For students to be eligible to sit the final examinations they must have performed satisfactorily in each of the Year 6 clinical attachments. At the end of Year 6, students will be assessed by means of a focused clinical case examination, a free ranging viva voce examination and a Multiple Choice Examination involving questions related to medicine, surgery, population health and clinical pharmacology. All three components of this examination must be passed.

MECH0440
Engineering Statics
School of Mechanical and Manufacturing Engineering
UOC3  HPW3
Excluded: CECI020, IDES1082, MECH1300

MECH1120
Design and the Engineering Profession
School of Mechanical and Manufacturing Engineering
UOC3  HPW3
To introduce the engineering profession; to assess abilities in written expression, to develop a consciousness of the importance of written, pictorial and oral expression in engineering life and to begin to develop these skills; to begin to develop an awareness of the professional attitude. Introduction to engineering hardware and components; geometry, function, manufacture and reasons for various configurations. The design process, problem identification, search for solution concepts, non-technical considerations in design, decision techniques, detail.

MECH1300
Engineering Mechanics 1
School of Mechanical and Manufacturing Engineering
UOC6  HPW4
Corequisite: MATH1131 or MATH1141 Excluded: MECH0330

MECH1400
Mechanics of Solids 1
School of Mechanical and Manufacturing Engineering
UOC6  HPW4
Corequisite: MECH1300 or MECH0330 or MECH0440 Excluded: MECH0430
Resultants and equilibrium in three-dimensions; stress and strain; internal forces; stresses, deformation and strain energy due to axial loading, bending and torsion; helical springs.

MECH1500
Computing 1M
School of Mechanical and Manufacturing Engineering
UOC3  HPW3
Introduction: history, applications, hardware, software, a model of a computer system, editors, operating systems. Networking and the internet. Program design and development: programming objectives, data structures, algorithms, symbolic names, translation of algorithms, steps in programming, programming style, errors and debugging. Data: data types, declarations, input output, file control. Programming constructs: arithmetic expressions, assignments, relational and logical expressions, selection. Application in sorting, word processing, graphics and plotting, simultaneous linear algebraic equations.

MECH2101
Machine Design A
School of Mechanical and Manufacturing Engineering
UOC3  HPW3
Prerequisite: MANF1130, MECH1400 Corequisite: MECH1120
Selection and specification of materials and manufacturing processes for engineering items. Communication by means of engineering drawing (including tolerances) of manufacturing information for simple components structures and assemblies. Application of standards and trade literature to design.

MECH2102
Machine Design B
School of Mechanical and Manufacturing Engineering
UOC3  HPW3
Prerequisite: MECH1120, MECH2101 Corequisite: MECH2411
Design of common engineering components and systems. Simple design and-build project to meet a published specification and to demonstrate achieved performance.

MECH2300
Engineering Mechanics 2
School of Mechanical and Manufacturing Engineering
UOC3  HPW3
Prerequisite: MATH1211 or MATH1241, MECH1300
Kinetics of systems of particles; steady mass flow. Plane kinematics and kinetics of rigid bodies: moment of inertia; motion relative to translating and rotating frames of reference; equations of motion; work and energy, impulse and momentum. Virtual work for static and dynamic systems. Engineering applications.

MECH2411
Mechanics of Solids 2A
School of Mechanical and Manufacturing Engineering
UOC3  HPW3
Prerequisite: MATH1231 or MATH1241 Corequisite: MECH1400
Revision of Statics. The variation with orientation of stress at a point in 2D, Mohr’s circle. The variation with orientation of stress at a point in 3D given one principal stress. The variation with orientation of strain at a point, Mohr’s circle, strain gauges. The relationships between stress and strain during linear elastic deformation. The interdependence of elastic moduli. The variation with orientation of stress at a point in the general 3D case. Octahedral stresses. Strain energy stored in a linearly elastic body resulting from volume change and from distortion. Yield criteria. Fatigue, stress concentrations, Miner’s rule. Material properties and testing.

MECH2412
Mechanics of Solids 2B
School of Mechanical and Manufacturing Engineering
UOC3 HPW3
Prerequisite: MECH2411

MECH2612
Fluid Mechanics B
School of Mechanical and Manufacturing Engineering
UOC3 HPW2
Prerequisite: MECH2611 or MECH2601
Incompressible laminar and turbulent flow in pipes; friction factor. Laminar flow between parallel plates and in ducts. Elementary boundary layer flow; skin friction and drag. Pumps and turbines. Pump and pipeline system characteristics.

MECH2711
Thermodynamics A
School of Mechanical and Manufacturing Engineering
UOC3 HPW2
Prerequisite: MATH1131 or MATH1141, Corequisite: PHYS1169

MECH2712
Thermodynamics B
School of Mechanical and Manufacturing Engineering
UOC3 HPW2
Prerequisite: MECH2711 or MECH2601

MECH3000
Professional Responsibilities
School of Mechanical and Manufacturing Engineering
UOC3 HPW3
Professional ethics, responsibility, the environment, liability and intellectual property. Written communication and oral reporting.

MECH3091
Co-Operative Training A
School of Mechanical and Manufacturing Engineering
UOC24
Prerequisite: 144 units of credit
Co-op scholars are required to do a 25 week period of industrial training in Session 1 of their Year 4. The location of the training is at the site of one of the sponsors of scholarships for that year. At the end of the training, they are required to submit a report on the training, which is evaluated by their academic mentor, and normally make a presentation on this topic at the company to company representatives and the academic mentor.

MECH3092
Co-Operative Training B
School of Mechanical and Manufacturing Engineering
UOC24
Prerequisite: 144 units of credit
Co-op scholars are required to do a 25 week period of industrial training in Session 2 of their Year 4. The location of the training is at the site of one of the sponsors of scholarships for that year. At the end of the training, they are required to submit a report on the training, which is evaluated by their academic mentor, and normally make a presentation on this topic at the company to company representatives and the academic mentor.

MECH3101
Machine Systems Design A
School of Mechanical and Manufacturing Engineering
UOC3 HPW3
Prerequisite: MECH2102, MECH3300, MECH2412
Corequisite: MECH3400
Mathematical modelling for design applications. Force flow through components and assemblies. Dynamically loaded bolted connections and welded joint design. Design of more engineering components and systems.

MECH3102
Machine Systems Design B
School of Mechanical and Manufacturing Engineering
UOC3 HPW3
Prerequisite: MECH2102, MECH3300, MECH2412
Corequisite: MECH3300
Design of mechanical power transmission systems. Major design project involving broad engineering aspects, concurrent design and the interaction with other group members.

MECH3203
Engineering Experimentation A
School of Mechanical and Manufacturing Engineering
UOC3 HPW2
Prerequisite: ELCT8007, MECH2411, MECH2612, MECH2712
Scientific method, engineering method; experimental program; report writing; error analysis; principles of transducers; selection of instruments.

MECH3204
Engineering Experimentation B
School of Mechanical and Manufacturing Engineering
UOC3 HPW2
Prerequisite: ELCT8007, MECH2411, MECH2612, MECH2712
Dynamic response of instruments; signal processing; digital data acquisition; interfacing transducers to computers; computer control of experiments; smart transducers.

MECH3211
Linear Systems Analysis
School of Mechanical and Manufacturing Engineering
UOC3 HPW3
Prerequisite: MATH2029, MECH1300
Models of physical systems: differential equations for physical systems including mechanical, electrical, hydraulic, thermal and pneumatic systems; linearisation. System analysis techniques: solution by Laplace transform method. Transfer functions and block diagrams. System response: response of first and second order systems to impulse step, ramp, sinusoidal and periodic inputs; higher order system response; system stability, applications.

MECH3300
Engineering Mechanics 3
School of Mechanical and Manufacturing Engineering
UOC3 HPW3
Prerequisite: MATH2029, MECH1300

MECH3330
Vibration Analysis
School of Mechanical and Manufacturing Engineering
UOC3 HPW3
Prerequisite: MATH2029, MECH2300
Excluded: MECH2310, MECH3310, MECH9311
Communications for Professional Engineers. Each student is guided by project work at a thesis conference which is organised under MECH4001 communications for professional engineering. Each student is also required to report on their project work at a thesis conference. Reporting on an approved engineering project within a stipulated time limit. Each student is also required to report on their project work at a thesis conference which is organised under MECH4001 Communications for Professional Engineers. Each student is guided by a supervisor, but successfully planning, executing and reporting on the project is the sole responsibility of each student. Thesis A does not require the submission of a thesis document. A satisfactory grade in this course is provisional pending successful completion of MECH4004.

MECH4004  
Thesis B  
School of Mechanical and Manufacturing Engineering UOC9  
Prerequisite: MECH4003 Corequisite: MECH4001 Excluded: MECH4000  
To be taken in the last session required for the completion of all requirements for the award of the degree, i.e., in the session immediately following that in which MECH4003 Thesis A is taken. This course, together with MECH4003 Thesis A, requires each student to demonstrate managerial, technical and professional skills in planning, executing and reporting on an approved engineering project within a stipulated time limit. Each student is also required to report on their project work at a thesis conference which is organised under MECH4001 Communications for Professional Engineers. The project, on which each student works, will be a direct continuation of the project on which that student worked in MECH4003 Thesis A. Each student is guided by a supervisor, but successfully completing the project, writing the thesis and submitting two bound copies by specified deadlines are the sole responsibility of each student.

MECH3520  
Programming and Numerical Methods  
School of Mechanical and Manufacturing Engineering UOC3  HPW3  
Prerequisite: MECH4100 Excluded: MAN1300, MECH3800  
Programming language features essential to complex engineering calculations. Logic, control, arrays, functions and subroutines in FORTRAN. Application of numerical methods to solve non-linear equations, linear and non-linear systems, differencing schemes, ordinary and partial differential equations in mechanical engineering applications.

MECH3601  
Thermofluid System Design  
School of Mechanical and Manufacturing Engineering UOC3  HPW3  
Prerequisite: MECH2612, MECH2712  

MECH3602  
Advanced Thermodynamics  
School of Mechanical and Manufacturing Engineering UOC3  HPW3  
Prerequisite: MECH2612, MECH2712  
Utilisation of energy, availability - open and closed systems; generalised thermodynamic relations; kinetic theory of gases; non-reactive ideal gas mixtures. Combustion, chemical equilibrium, chemical kinetics and emission control. Compressible flow.

MECH4001  
Communications for Professional Engineers  
School of Mechanical and Manufacturing Engineering UOC3  HPW3  
Corequisite: MECH4003 or BIOM5001  
Development of skills in the use of various media of communication. Communication within the organisational and social context of engineering. Presenting oral and written reports. Conference organisation and participation. Group projects in communications. Report on industrial training  
Note: Corequisites may be adjusted for some mid-course entry plans.

MECH4003  
Thesis A  
School of Mechanical and Manufacturing Engineering UOC6  
Prerequisite: MECH3000 Excluded: MECH4000  
To be taken in the second last session required for the completion of all requirements for the award of the degree. This course, together with MECH4004 Thesis B, which is to be taken in the following session, requires each student to demonstrate managerial, technical and professional skills in planning and executing an approved engineering project within a stipulated time limit. Each student is also required to report on their project work at a thesis conference which is organised under MECH4001 Communications for Professional Engineers. Each student is guided by a supervisor, but successfully planning, executing and reporting on the project is the sole responsibility of each student. Thesis A does not require the submission of a thesis document. A satisfactory grade in this course is provisional pending successful completion of MECH4004.

MECH4004  
Thesis B  
School of Mechanical and Manufacturing Engineering UOC9  
Prerequisite: MECH4003 Corequisite: MECH4001 Excluded: MECH4000  
To be taken in the last session required for the completion of all requirements for the award of the degree, i.e., in the session immediately following that in which MECH4003 Thesis A is taken. This course, together with MECH4003 Thesis A, requires each student to demonstrate managerial, technical and professional skills in planning, executing and reporting on an approved engineering project within a stipulated time limit. Each student is also required to report on their project work at a thesis conference which is organised under MECH4001 Communications for Professional Engineers. Each student is guided by a supervisor, but successfully planning, executing and reporting on the project is the sole responsibility of each student. Thesis A does not require the submission of a thesis document. A satisfactory grade in this course is provisional pending successful completion of MECH4004.

MECH8312  
Fundamentals of Noise and Vibration Measurement  
School of Mechanical and Manufacturing Engineering UOC6  
Excluded: MECH3912  

MECH9142  
Land Transport Vehicle Engineering  
School of Mechanical and Manufacturing Engineering UOC6  HPW3  
This course outlines the context of the task for land transport vehicles, develops its technical mechanical engineering aspects and enables students to explore in depth an area of their choice (decided in consultation with the lecturer in charge). Topics covered include: the land transport task; local/global. Modes of land transportation; guided/non-guided, passenger/merchant, public/private, practical/functional. Analysis of land transport systems covering; infrasstructure, types of vehicles, power systems, structure, vehicle dynamics, manufacture, reliability, economics, safety, sustainability. Recreational land vehicles.

MECH9310  
Advanced Vibration Analysis  
School of Mechanical and Manufacturing Engineering UOC6  HPW3  
Excluded: MECH4310, MECH8310  

MECH9325  
Fundamentals of Noise  
School of Mechanical and Manufacturing Engineering UOC6  HPW3  
Excluded: MECH4321, MECH8325  
MECH9361  
Lubrication Theory and Design  
School of Mechanical and Manufacturing Engineering  
UOC6  HPW3  
Excluded: MECH94400  
Types of hydrodynamic bearings and bearing operation; properties of lubricants; theory of steady state hydrodynamic lubrication; hydrostatic and squeeze film lubrication applied to slider and journal bearings; bearing design with side leakage; thermal balance. Journal bearing dynamics; instability analysis. Elastohydrodynamic lubrication. Bearing materials; friction and wear. Grease lubrication.

MECH9400  
Mechanics of Fracture and Fatigue  
School of Mechanical and Manufacturing Engineering  
UOC6  HPW3  
Excluded: MECH94400  

MECH9410  
Finite Element Applications  
School of Mechanical and Manufacturing Engineering  
UOC6  HPW3  
Excluded: AERO4401, AERO9415, MECH4410, NAVL4401  
Introduction to finite element and associated graphics packages. Principles of mesh design and validation. Specification of boundary conditions including use of symmetry. Estimation of the cost of solution. Interpretation of results. Assessment of the accuracy of the results. Convergence to the exact solution. Selection of applications from linear and non-linear elasticity; three dimensional solids, plates and shells, plasticity; buckling and post-buckling behaviour, thermal stresses, dynamics including natural and forced vibration.

MECH9520  
Computational Fluid Dynamics  
School of Mechanical and Manufacturing Engineering  
UOC6  HPW3  
Prerequisite: MECH2612, MECH2712  

MECH9720  
Solar Thermal Energy Design  
School of Mechanical and Manufacturing Engineering  
UOC6  HPW3  
Prerequisite: MECH2612, MECH2712  

MECH9730  
Two Phase Flow and Heat Transfer  
School of Mechanical and Manufacturing Engineering  
UOC6  HPW3  
Excluded: MECH4730  

MECH9740  
Power Plant Engineering  
School of Mechanical and Manufacturing Engineering  
UOC6  HPW3  
Excluded: MECH4740  

MECH9751  
Refrigeration and Air Conditioning 1  
School of Mechanical and Manufacturing Engineering  
UOC6  HPW3  
Excluded: MECH4751, MECH8751  

MECH9758  
Air Conditioning Design  
School of Mechanical and Manufacturing Engineering  
UOC6  HPW3  
Prerequisite: MECH2612, MECH2712  
Pipe and duct design, air conditioning systems, plant room design, cooling towers and evaporative condensers, heat and mass transfer equipment, load calculations, building thermal simulation, life cycle cost minimisation.

MECH9761  
Internal Combustion Engines 1  
School of Mechanical and Manufacturing Engineering  
UOC6  HPW3  
Excluded: MECH4700  

MECH9920  
Special Topic in Mechanical Engineering  
School of Mechanical and Manufacturing Engineering  
UOC6  HPW3  
The syllabus changes to allow presentation of a special topic of current interest particularly by visitors with recognised expertise in the topic.

MEDM8001  
Principles of Medicine for Optometry Students  
Faculty of Medicine  
UOC3  HPW3  
An overview of historical, epidemiological, pathophysiological, diagnostic, therapeutic and public health aspects of disease in man and the various clinical categories of practice. Specific topics in eye health are also covered with emphasis on diagnosis and appropriate referral.  
Note: Students normally take the course in Year 4 of course 3950. Restricted to program 3950.

MEFT1100  
Introduction to Media: Television, Telephones and Everyday Life  
School of Media, Film and Theatre  
UOC6  HPW3  
Introduces students to the breadth of contemporary media studies from television and the tradition of mass media studies to telephony and the study of networked media and communication technologies. Explains how media and communication technologies have transformed the rhythms of everyday life and the organisation of domestic space.
MEFT1201
*Working with Image and Sound*
School of Media, Film and Theatre
UOC6, HPW3
Excluded: FILM1105

Explores the creative and communicative possibilities of film, video and other audio-visual technologies. Presents a wide range of examples, from classics of experimental film to the latest music videos and television advertisements: preparing outlines and storyboards, capturing and generating images and sounds, experimenting with existing images and sounds - the editing process. Explores the creative potential of audio-visual media and deals with the practical problems.

MEFT1300
*Reading Performance*
School of Media, Film and Theatre
UOC6, HPW3
Excluded: THFI1000, THFI1001, THFI1002

Introduces different ways of analysing performance and performance bodies. Focuses on cultural performance, hybridity, authenticity, carnival, liminality, ritual, possession-trance, fieldwork and ethnography, cultural display, tourist performance, everyday life, performance art and avant-garde genres.

MEFT1103
*Introduction to Theatre and Performance Studies*
School of Media, Film and Theatre
UOC6, HPW3
Excluded: THFI1000, THFI1001, THST1101

Introduces the basic principles of and analytic vocabulary for the study of theatrical performance.

MEFT2100
*Global Media: Markets, Flows and Cultures*
School of Media, Film and Theatre
UOC6, HPW3
Prerequisite: 36 units of credit; Excluded: MDCM2102

Explores the balance between globalisation and localisation in different media systems. Identifies key global players. Surveys current and emerging trends, technologies and regulatory regimes. Studies local uses and adaptations of global media and their implications for the nation state.

MEFT2102
*Media Technologies and Cultural Change*
School of Media, Film and Theatre
UOC6, HPW3
Prerequisite: 36 units of credit

Examines key contemporary themes and figures in conceptualising society/technology relations; the specific nature of media technologies in relation to cultural change; the history of ideas surrounding media technologies; the diversity of social and cultural practices engaged with media technologies; the convergence of cultural technologies; new media means of artistic expression and as new modes of cultural manufacture.

MEFT1200
*Contemporary Approaches to the Cinema*
School of Media, Film and Theatre
UOC6, HPW3
Prerequisite: 36 units of credit

Analyses and tests a number of contemporary theoretical approaches to the cinema.

Note: Excluded FILM2001.

MEFT2201
*Australian Cinema and Television*
School of Media, Film and Theatre
UOC6, HPW4
Prerequisite: 36 units of credit; Excluded: AUST2028

Traces the emergence and significance of Australian screen cultures. Studies the development of the Australian film industry, including analysis of the economic, social and political factors and the myths which have shaped the industry. Studies the role of television in shaping the experience of modern Australia and its place in the world. Looks at a number of non-mainstream forms of audio-visual production in Australia.

Note: Excluded FILM2002.

MEFT2202
*Movie World: National Cinemas*
School of Media, Film and Theatre
UOC6, HPW4
Prerequisite: 36 units of credit

Examines both the experience of the global cinema industry in particular places, and also the power of the cinema to articulate compelling visions of collectivity in different places at particular times and considers the following questions: What is the relationship between ‘world cinema’ and ‘national cinemas’? Is it an economic question, a cultural question, or both? Is ‘world cinema’ anything more than all those films that are not made in Hollywood? What is ‘national’ about national cinemas? How are films supposed to speak for, as well as to, a mass of strangers who happen to share national citizenship?

Note: Excluded FILM2007.

MEFT1203
*The Hollywood System*
School of Media, Film and Theatre
UOC6, HPW4
Prerequisite: 36 units of credit; Excluded: FILM2005, FILM2006

Traces the history of Hollywood as an industry, a cultural institution and a global supplier of stories, images and myths from its beginnings through the studio system to today's adaptations to globalisation and new technologies. Introduces different approaches to the study of film history, and includes screenings and analysis of key films.

Note: Excluded FILM2021.

MEFT2300
*Staging Australia*
School of Media, Film and Theatre
UOC6, HPW3
Prerequisite: DANCI1002 or DANCI1103 or FILM1101 or PST1102 or THFI1002 or THST1101 or 48 units of credit in Arts and Social Sciences; Excluded: AU/ST2027, THST2163

Broadly-based study of the rise of Australian theatre since the 1960s, with the focus on recent performance. The emphasis is on wide theatrical movements, including the larrikin theatre of the 1970s, alternative/community theatre; Aboriginal theatre; women's and multicultural performance; and current trends in playwriting and contemporary performance.

MEFT1204
*Theories of Acting and Performing*
School of Media, Film and Theatre
UOC6, HPW3
Prerequisite: 36 units of credit; Excluded: THST2143, THST2147

Studies theories and practices of acting and performing in text and non-text based theatre. Combines traditional academic and workshop teaching. Topic areas include: acting as cultural and political expression; relationships between actor/character/persona/spectator; approaches to text and training; analysis of the performing body; performance and performativity; intersections with modernism and postmodernism.

MEFT2351
*Live Entertainment & Popular Culture*
School of Media, Film and Theatre
UOC6, HPW3
Prerequisite: 36 units of credit; Excluded: PFST2109, THFI2010

Tracks the influence of popular performance genres on contemporary culture, looking at vaudeville, burlesque, radio and 1950s television. Develops theories of popular culture including the discourse of value and applies these to a variety of case studies in contemporary culture and media.

MEFT3102
*Electronic and Digital Aesthetics*
School of Media, Film and Theatre
UOC6, HPW3
Prerequisite: 72 units of credit; Excluded: MDCM3102

Investigates the role of the senses in the way that people engage with electronic and digital media in a variety of contexts, including electronic and digital art, everyday and domestic media technologies, and popular cultural uses such as electronic music, computer games and digital image technologies. Considers how the traditional relation of aesthetics to culture might be changing as the result of electronic and digital media technologies.
MEFT3104
Transnational Media in the Asia Pacific
School of Media, Film and Theatre
UOC6   HPW3
Prerequisite: 72 units of credit
Explores debates concerning transnationalism, regionalisation and globalisation in the context of Asia Pacific media systems. Considers examples of how nations within the Asia Pacific use media to resist cultural homogenization and provides local resistance to the forces of globalisation. Taking as a point of reference the rise of Asian modernities and especially China’s recent market liberalisation, examines the increasing regional integration of the Asia Pacific through the flows of the media and popular cultural products.

MEFT3200
Video Exercise
School of Media, Film and Theatre
UOC6   HPW4
Prerequisite: 12 units of credit in Level 2 FILM courses
Introduces the basic concepts that underlie a video production, from script to final cut, plus some practical experience of video-making.
Note: Excluded FILM3001.

MEFT3201
Aspects of Film History
School of Media, Film and Theatre
UOC6   HPW4
Prerequisite: 12 units of credit in Level 2 FILM courses; Excluded: FILM2000
Introduces case studies in film history and brings into focus different perspectives, traditions, and methodologies in the historiography of cinema. Involves analysis of key texts, and viewing of a wide range of relevant films. Possible topics include cinema and popular memory; the cinema, modernism and modernity; changing performance styles in American cinema; cinema and the city.
Note: Excluded FILM3002.

MEFT3202
Explorations in Contemporary Film Theory
School of Media, Film and Theatre
UOC6   HPW4
Prerequisite: 12 units of credit in Level 2 FILM courses; Excluded: FILM2013
Engages with specific debates in contemporary film theory at an advanced level. Involves critical analysis of key texts, and viewing of a wide range of relevant films. Possible topics include theories of film spectatorship; psychoanalysis and the study of cinema; feminist film theory; time, history and realism; film sound.
Note: Excluded FILM3003.

MEFT3203
Film Genres and Styles
School of Media, Film and Theatre
UOC6   HPW4
Prerequisite: 12 units of credit in Level 2 FILM courses; Excluded: FILM2008
Examines the development, production and exploitation of various styles of film-making and film genres. Involves critical analysis of key texts, and viewing of a wide range of relevant films. Possible topics include film comedy; the musical: song and dance on film; fantasy and the cinema; film noir in social and historical context.
Note: Excluded FILM3004.

MEFT3204
Special Program in Film Studies
School of Media, Film and Theatre
UOC6   HPW3
Prerequisite: 12 units of credit in Level 2 FILM courses
Suitably qualified students wishing either to take more than one topic offered under the rubric of a Level 3 course in the Film Studies program or to work in an area not covered by an existing course may apply to the School to take this option. Approval of an independent study program will depend on its suitability, and the availability of a staff member to undertake supervision.

MEFT3205
Cinemas and Cultures
School of Media, Film and Theatre
UOC6   HPW4
Prerequisite: 12 units of credit in Level 2 FILM courses
Introduces case studies in regional, local, and national cinemas. Critical analysis of key texts and a wide range of relevant films. Topics may include French cinema: issues of aesthetics and representation; Japanese cinema; cinemas of Asia and the Pacific Rim.
Note: Excluded FILM3006.

MEFT3300
Aspects of Theatre and Performance History
School of Media, Film and Theatre
UOC6   HPW3
Prerequisite: 72 units of credit; Excluded: THFI3900
Introduces students to ways of investigating and interpreting the theatrical and performance past. Analyses performance evidence and representations as well as history texts and historiographical theories. Topics include: documentary evidence and iconography; periodisation, historiography and historicasisation, biography and autobiography, social history and the performing body, and performance history and methodology from fields such as gender and postcolonial studies.

MEFT3302
Production Exercise
School of Media, Film and Theatre
UOC6   HPW3
Prerequisite: 72 units of credit; Excluded: THST2135
Practical work on a theatrical presentation within the School aimed at providing direct experience of the production process and its evaluation.
Note: Before enrolling in this course students must study the detailed course outline available from the Io Myers Studio and complete a Production Selection Form. Students should note that rehearsals will commence four weeks before the beginning of Session, and they must be available in the evenings for technical rehearsals in Week 1 of Session and for the performances in Week 2.

MEFT3303
Workshop Exercise
School of Media, Film and Theatre
UOC6   HPW5
Prerequisite: 72 units of credit; Excluded: THST2137
Practical work on a small-scale theatrical presentation within the School. This is timetabled on a weekly basis with more intensive rehearsal close to presentation.

MEFT3351
Live Art and Physical Theatres
School of Media, Film and Theatre
UOC6   HPW3
Prerequisite: 72 units of credit; Excluded: PFST2015, THFI2011, THST2161
Examines the function and significance of the body in non-text based forms of performance from twentieth century experimental performance to contemporary dance theatre and physical theatre. Studies the various ways in which physical performance practices are constructed and interpreted across disciplines such as visual arts, dance, circus and time-based arts. Examines the kinds of effects produced in, on, and through bodies in theatre and visual culture in different cultural and historical contexts.

MEFT3352
Studies in World Theatre
School of Media, Film and Theatre
UOC6   HPW3
Prerequisite: 72 units of credit; Excluded: PFST2201, THST2161
A comparative study of world theatre genres looking at vernacular, traditional, ritual, national and ethnic performance traditions of Asia, Africa, the Americas, and Europe.
MFT3353
Performance in a Mediatised Culture
School of Media, Film and Theatre
UOC6, HPW3
Prerequisite: 72 units of credit; Excluded: PFST2149
Examines the place of technology in contemporary performance culture from MTV to performance art. Considers the rise of video literacy and the expanding field of digital culture in terms of the ways in which such technologies have shifted the parameters of performance and representation. Looks at questions such as the convergence of performance genres and the remediation of art works and theoretical concepts such as posthumanism and cybernetics. Critics have termed these technologies such that live performance forms are discrete and unmediated and therefore cut off from contemporary cultural change.

MFT3354
Performance Making
School of Media, Film and Theatre
UOC6, HPW3
Prerequisite: 72 units of credit; Excluded: PFST2149
Explores performer/artist-generated and community-oriented work, covering the making of performance works that neither derive from a traditional dramatist script, nor have the creation of a play as their end product. Combines a practical project with critical and theoretical inquiry.

MF14000
Media, Film and Theatre Honours (Research) Full-Time
School of Media, Film and Theatre
UOC24, HPW5
Prerequisite: 54 units of credit in FILM/PFST/THFI/THST courses at 70% including THFI3902, THFI3903 and either THFI3900 or THFI3901 and permission of Head of School
Students are required (a) to undertake either an original piece of research extending throughout the year and submit a thesis based upon it or a practical project and report, and (b) to complete two seminars, one of which is compulsory, the other chosen from two alternatives (see School Honours Handbook for further details). The choice of seminars enables students to pursue a specialisation in theatre, or in film, or in theatre/film. In addition to seminar and practical project/thesis work, students are required to attend and contribute to regular thesis workshops.

MF14050
Media, Film and Theatre Honours (Research) Part-Time
School of Media, Film and Theatre
UOC12, HPW1
Prerequisite: 54 units of credit in FILM/PFST/THFI/THST courses at 70% including THFI3902, THFI3903 and either THFI3900 or THFI3901 and permission of Head of School
Students are required (a) to undertake either an original piece of research extending throughout the year and submit a thesis based upon it or a practical project and report, and (b) to complete two seminars, one of which is compulsory, the other chosen from two alternatives (see School Honours Handbook for further details). The choice of seminars enables students to pursue a specialisation in theatre, or in film, or in theatre/film. In addition to seminar and practical project/thesis work, students are required to attend and contribute to regular thesis workshops.

MFAC1501
Beginnings, Growth & Development 1
Faculty of Medicine
UOC12, HPW15
Prerequisite: MFAC1501
The two courses, Beginnings and Growth 1 & 2 are complementary vertically integrated components in phase 1 of the Medicine program. The following description refers to the areas of study students will encounter upon completion of both courses. Depending upon the year of enrolment, the exact content allocated to either component may vary.
Objectives: - To gain an understanding of the inter-relationships between the health of individuals or populations and the environment in which they live. The major themes include the societal determinants of health, the diversity of society focusing both on culture and genetics, systems that provide health care and the relationship between health and human rights. These themes will be studied taking global, community and individual perspectives on health.
Infectious diseases will be used as an example of how the environment influences the health of individuals and populations. Areas to be explored will include relevant aspects of genetics, microbiology, cell biology, immunology and inflammation. In one year there will also be a focus on the haematopoietic and lymphoid tissues, as well as skin and structural elements of human tissues, while in the alternate year the focus will be on the respiratory system. Each course will consider the health status of populations, as well as aspects of normal human behaviour.
A series of learning activities focusing on communication skills and clinical communication operates throughout phase 1 of the Medicine program. It involves learning within clinical environments and will be integrated with content topics specific to individual courses.
Assessment will involve performance in two projects/assignments and an end of course written examination.

MFAC1503
Beginnings, Growth & Development 1
Faculty of Medicine
UOC12, HPW15
Prerequisite: MFAC1501
The two courses, Beginnings, Growth and Development 1 & 2 are complementary vertically integrated components in phase 1 of the Medicine program. The following description refers to the areas of study students will encounter upon completion of both courses. Depending upon the year of enrolment, the exact content allocated to either component may vary.
Objectives: - To gain an understanding of the inter-relationships between the health of individuals or populations and the environment in which they live. The major themes include the societal determinants of health, the diversity of society focusing both on culture and genetics, systems that provide health care and the relationship between health and human rights. These themes will be studied taking global, community and individual perspectives on health.
Infectious diseases will be used as an example of how the environment influences the health of individuals and populations. Areas to be explored will include relevant aspects of genetics, microbiology, cell biology, immunology and inflammation. In one year there will also be a focus on the haematopoietic and lymphoid tissues, as well as skin and structural elements of human tissues, while in the alternate year the focus will be on the respiratory system. Each course will consider the health status of populations, as well as aspects of normal human behaviour.
A series of learning activities focusing on communication skills and clinical communication operates throughout phase 1 of the Medicine program. It involves learning within clinical environments and will be integrated with content topics specific to individual courses.
Assessment will involve performance in two projects/assignments and an end of course written examination.

MFAC1504
Health Maintenance 1
Faculty of Medicine
UOC12, HPW15
The two courses, Health Maintenance 1 & 2 are complementary vertically integrated components in phase 1 of the Medicine program. The following description refers to the areas of study students will encounter during both courses. Depending upon the year of enrolment, the exact content allocated to either component will vary.
Objectives: - To gain an understanding of the internal and external mechanisms that maintain a state of health, primarily in adults. The key themes to be studied are homeostasis, sustenance and equilibrium; education, health promotion and disease prevention; host defence; and lifestyle factors that risk health.
In one of the two years, these themes will be explored by a detailed study of the cardiovascular system, including its key role in maintaining internal bodily health, mechanisms leading to cardiovascular disease including relevant lifestyle factors, and basic pharmacological principles, using drugs acting on the cardiovascular system as an example. Additional topic areas will include mechanisms that maintain body temperature, fundamentals of host defence, and physical and psychological responses to stress. Learning of clinical skills will focus on examination of the cardiovascular system and on health promotion. In the other year, the themes will be illustrated by study of digestion, metabolism and excretion, including problems of overnutrition and diabetes. Other topic areas are hepatobiliary structure and function, and its disorders, the renal system, the pharmacology of drug metabolism, and the consequences of failure of these vital organs. Clinical skills will focus on examination of the gastrointestinal and urinary systems.

A series of learning activities focusing on communication skills and clinical communication operates throughout phase 1 of the Medicine program. It involves learning within clinical environments and will be integrated with content topics specific to individual courses.

Assessment will involve performance in two projects/assignments and an end of course written examination.

MFAC1505
Ageing and Endings 1
Faculty of Medicine
UOC12 HPW15

The two courses, Ageing and Endings 1 & 2 are complementary vertically integrated components in phase 1 of the Medicine program. The following description refers to the areas of study students will encounter upon completion of both courses. Depending upon the year of enrolment, the exact content allocated to either component will vary.

Objectives: - To gain an understanding of particular health issues that arise in elders, building upon learning done in previous courses. The themes are menopause; the ageing process; degenerative diseases; and death, dying and palliative care.

In one of the two years, breast cancer and neurological disease will be used to explore these themes. Students will study the structure and function of the brain and central nervous system, and the pathology of stroke, dementia and neoplasia. Relevant aspects of public health, including clinical epidemiology and community resources will be explored, whilst learning of clinical skills will involve examination of the central nervous system and breast examination. In the other year, the focus will shift to the peripheral nervous system and musculoskeletal system, including the cellular and molecular aspects of nerve transmission, membrane physiology and relevant pharmacology. The biological, psychological and behavioural aspects of pain will be used as an integrating concept to link many of these topics. Clinical skills will focus on examination of the musculoskeletal and peripheral nervous system. A second major topic area will be further study of neoplasia, focusing on colorectal cancer.

A series of learning activities focusing on communication skills and clinical communication operates throughout phase 1 of the Medicine program. It involves learning within clinical environments and will be integrated with content topics specific to individual courses.

Assessment will involve performance in two projects/assignments and an end of course written examination.

MFAC1506
Society and Health 2
Faculty of Medicine
UOC10 HPW15

The two courses, Society and Health 1 & 2 are complementary vertically integrated components in phase 1 of the Medicine program. The following description refers to the areas of study students will encounter upon completion of both courses. Depending upon the year of enrolment, the exact content allocated to either component will vary.

Objectives: - To gain an understanding of the inter-relationships between the health of individuals or populations and the environment in which they live. The major themes include the societal determinants of health, the diversity of society focusing both on culture and genetics, systems that provide health care and the relationship between health and human rights. These themes will be studied taking global, community and individual perspectives on health.

Infectious diseases will be used as an example of how the environment influences the health of individuals and populations. Areas to be explored will include relevant aspects of genetics, microbiology, cell biology, immunology and inflammation. In one year there will also be a focus on the haematopoietic and lymphoid tissues, as well as skin and structural elements of human tissues, while in the alternate year the focus will be on the respiratory system. Each course will consider the health status of populations, as well as aspects of normal human behaviour. A series of learning activities focusing on communication skills and clinical communication operates throughout phase 1 of the Medicine program. It involves learning within clinical environments and will be integrated with content topics specific to individual courses.

Assessment will involve performance in two projects/assignments and an end of course written examination.

MFAC1507
Beginnings, Growth and Development 2
Faculty of Medicine
UOC10 HPW15

The two courses, Beginnings, Growth and Development 1 & 2 are complementary vertically integrated components in phase 1 of the Medicine program. The following description refers to the areas of study students will encounter upon completion of both courses. Depending upon the year of enrolment, the exact content allocated to either component will vary.

Objectives: - To gain an understanding of events in the first stages of the human life cycle, through study of conception, pregnancy and birth; childhood growth and development; puberty and adolescence. These themes will be explored by further studies of relevant aspects of cell biology focusing on growth, differentiation, and developmental biology, as well as the biology of reproduction. In the alternate year, there will be an emphasis on upper GIT and aerodigestive tract structure and function, and common childhood illness, as well as the endocrine system, sexuality and common psychiatric conditions. Clinical skills will focus on antenatal care as well as the examination of children, assessment of nutritional status and the psychological state.

A series of learning activities focusing on communication skills and clinical communication operates throughout phase 1 of the Medicine program. It involves learning within clinical environments and will be integrated with content topics specific to individual courses.

Assessment will involve performance in two projects/assignments and an end of course written examination.

MFAC1508
Health Maintenance 2
Faculty of Medicine
UOC11 HPW15

The two courses, Health Maintenance 1 & 2 are complementary vertically integrated components in phase 1 of the Medicine program. The following description refers to the areas of study students will encounter during both courses. Depending upon the year of enrolment, the exact content allocated to either component will vary.

Objectives: - To gain an understanding of the internal and external mechanisms that maintain a state of health, primarily in adults. The key themes to be studied are homeostasis, sustenance and equilibrium; education, health promotion and disease prevention; host defence; and lifestyle factors that risk health.

In one of the two years, these themes will be explored by a detailed study of the cardiovascular system, including its key role in maintaining internal bodily health, mechanisms leading to cardiovascular disease including relevant lifestyle factors, and basic pharmacological principles, using drugs acting on the cardiovascular system as an example. Additional topic areas will include mechanisms that maintain body temperature, fundamentals of host defence, and physical and psychological responses to stress. Learning of clinical skills will focus on examination of the cardiovascular system and on health promotion. In the other year, the themes will be illustrated by study of digestion, metabolism and excretion including problems of overnutrition and diabetes. Other topic areas are hepatobiliary structure and function and its disorders, the renal system, the pharmacology of drug metabolism, and the consequences of failure of these vital organs. Clinical skills will focus on examination of the gastrointestinal and urinary systems.

A series of learning activities focusing on communication skills and clinical communication operates throughout phase 1 of the Medicine program. It involves learning within clinical environments and will be integrated with content topics specific to individual courses.

Assessment will involve performance in two projects/assignments and an end of course written examination.
MFAC1509
Ageing and Endings 2
Faculty of Medicine
UOC10 HPW15

The two courses, Ageing and Endings 1 & 2 are complementary vertically integrated components in phase 1 of the Medicine program. The following description refers to the areas of study students will encounter upon completion of both courses. Depending upon the year of enrolment, the exact content allocated to either component will vary.

Objectives: To gain an understanding of the particular health issues that arise in elders, building upon learning done in previous courses. The themes are menopause; the ageing process; degenerative diseases; and death, dying and palliative care. In one of the two years, breast cancer and neurological disease will be used to explore these themes. Students will study the structure and function of the brain and central nervous system, and the pathology of stroke, dementia and neoplasia. Relevant aspects of public health, including clinical epidemiology and community resources will be explored, whilst learning of clinical skills will involve examination of the central nervous system and breast examination. In the other year, the focus will shift to the peripheral nervous system and musculoskeletal system, including the cellular and molecular aspects of nerve transmission, membrane physiology and relevant pharmacology. The biological, psychological and behavioural aspects of pain will be used as an integrating concept to link many of these topics. Clinical skills will focus on examination of the musculoskeletal and peripheral nervous system. A second major topic area will be further study of neoplasia, focusing on colorectal cancer.

A series of learning activities focusing on communication skills and clinical communication operates throughout phase 1 of the Medicine program. It involves learning within clinical environments and will be integrated with content topics specific to individual courses.

Assessment will involve performance in two projects/assignments and an end of course written examination.

MFAC1510
Ageing and Endings 2 plus extension
Faculty of Medicine
UOC12 HPW15

In addition to the standard course content for Ageing and Endings 2, students will receive training in library and information skills relevant to the Arts & Social Sciences, to facilitate completion of their concurrent/consecutive BA program.

Assessment of the extension work will be by evidence of satisfactory participation in each of the various activities.

MFAC2501
Society and Health 3
Faculty of Medicine
UOC10 HPW15

Objectives: By using authentic clinical and practical experiences in the community in both urban and rural areas as the basis for learning, students will build upon their understanding (developed in phase 1) of the relationship between the health of an individual or population and the social and physical environment. In addition, students will develop understandings of the population health aspects of relevant illnesses and the role of other health professionals and community based services in prevention of illness and addressing the social and environmental determinants of health. Students will also extend their capabilities in communication with, and assessment of, individual patients and population groups with specific health issues. A case-based teaching methodology is employed to link acquisition of clinical capabilities with the learning of mechanisms and principles underlying health and illness. Approximately 60% of available time will be spent in clinical environments associated with the Faculty of Medicine, in which students will encounter patients or health issues relevant to the domain themes. These will typically include acute disturbances of health leading to hospitalisation including critically ill patients and conditions requiring surgical treatment, patients with acute and chronic conditions cared for in ambulatory settings, as well as learning in some community-based practices. Clinical experiences will be augmented by a range of tutorials, laboratory classes, and face-to-face and/or electronic resources. Assessment will include submission of a project/assignment report, demonstrating integration/correlation of prior and current learning with linkage to basic biomedical sciences; medical imaging and diagnostic tests; ethics; or population health issues.

In addition, the student's clinical performance during the module will be graded as satisfactory/unsatisfactory.

MFAC2503
Health Maintenance 3
Faculty of Medicine
UOC10 HPW15

Objectives: By using authentic clinical or practical experiences as the basis for learning, students will build upon their understanding (developed in phase 1) of the internal and external mechanisms that maintain health or lead to disease. In addition, students will develop understandings of the clinical aspects of relevant illnesses, whilst extending their capabilities in communication with, and physical examination of, patients with specified health issues.

A case-based teaching methodology is employed to link acquisition of clinical capabilities with the learning of mechanisms and principles underlying health and illness. Approximately 60% of available time will be spent in clinical environments associated with the Faculty of Medicine, in which students will encounter patients or health issues relevant to the domain themes. These will typically include acute disturbances of health leading to hospitalisation including critically ill patients and conditions requiring surgical treatment, patients with acute and chronic conditions cared for in ambulatory settings, as well as learning in some community-based practices. Clinical experiences will be augmented by a range of tutorials, laboratory classes, and face-to-face and/or electronic resources. Assessment will include submission of a project/assignment report, demonstrating integration/correlation of prior and current learning with linkage to basic biomedical sciences; medical imaging and diagnostic tests; ethics; or population health issues. In addition, the student's clinical performance during the module will be graded as satisfactory/unsatisfactory.

MFAC2504
Ageing and Endings 3
Faculty of Medicine
UOC10 HPW15

Objectives: By using authentic clinical or practical experiences as the basis for learning, students will build upon their understanding of the specific health issues faced by elders that they established in phase 1. In addition, students will develop understandings of the clinical aspects of illnesses occurring in elders, whilst extending their capabilities in
communication with, and physical examination of, patients with specified health issues.

A case-based teaching methodology is employed to link acquisition of clinical capabilities with the learning of mechanisms and principles underlying health and illness. Approximately 60% of available time will be spent in clinical environments associated with the Faculty of Medicine, in which students will encounter patients or health issues relevant to the domain themes. Typical clinical issues encountered will include complex co-morbidity problems in elders, chronic illness and disability, degenerative diseases including arthritis and dementia, rehabilitation, palliative care and cancer medicine, stroke, vascular disease, and terminal illness. These experiences will be augmented by a range of tutorials, laboratory classes, and face-to-face and/or electronic resources. Assessment will include submission of a project/assignment report, demonstrating integration/ correlation of prior and current learning with linkage to basic biomedical sciences; medical imaging and diagnostic tests; ethics; or population health issues. In addition, the student’s clinical performance during the module will be graded as satisfactory/ unsatisfactory.

**MFAC4501**

**Independent Learning Project 1**

Faculty of Medicine  
UOC8  HPW12

The three courses [MFAC 4501, MFAC 4502, MFAC 4503] collectively comprise the Independent Learning Project and must be taken consecutively. After completing Phase 1, all students (unless exempt) will be required to undertake an Independent Learning Project (ILP) equivalent to 3 x 8-week blocks. During the course of the ILP period the students will also complete 12 units of credit (UoC) in courses offered by Faculties other than the Faculty of Medicine (the Flexible course). In order to complete both of these requirements, the 24 week ILP enrolment will be staggered, as 16 weeks full-time and 16 weeks part-time, over 32 weeks.

**Objectives:** To enhance students’ abilities for independent learning, critical analysis and research. During the course of their ILP the students will be expected to achieve the following specific goals:

1. An ability and inclination to question the basis of current scientific thinking in relation to medical and public health practice.
2. To retrieve literature on a topic and demonstrate a familiarity with the use of medical databases.
3. To evaluate current knowledge in a field and to provide a critical appraisal of that body of knowledge.
4. To identify a problem in their chosen field and to understand and participate in the process of designing a scientific investigation of the problem.
5. To be aware of the ethical issues involved in medical research and be able to write an ethics proposal for their proposed study.
6. To critically evaluate data including the appropriate use and interpretation of statistics.
7. To communicate findings and interpretations in their chosen field, both orally and in writing with experts, peers, the media and general public.
8. To appreciate the implications of research findings in health decision making and medical practice.

The ILP will offer scope for in-depth study in a variety of possible settings and fields of study. Some examples include laboratory-based work in the biomedical sciences, audits of clinical practice, projects dealing with cross-cultural issues, as well as projects dealing with medical law or ethics and health economics. Projects may be undertaken outside the Faculty, or subject to approval, in another institution.

Although there is considerable flexibility in the choice of topic, all projects must involve:

1. Identification of an issue and related questions relevant to the field or environment where learning will occur;
2. A review and critical analysis of literature or practice relevant to the issue;
3. Articulation of an approach to address the issue, including consideration of ethical issues;
4. A period of research or scholarship in which the issue is explored or investigated; and
5. Evaluation, communication and presentation of the results of in-depth study.

Assessment will include the components of progressive assessment (on completion of each of the first two 8-week modules i.e. MFAC 4501 and 4502) and a report submitted at the conclusion of the project (i.e. on completion of MFAC 4503).

**MFAC4502**

**Independent Learning Project 2**

Faculty of Medicine  
UOC8  HPW12

The three courses [MFAC 4501, MFAC 4502, MFAC 4503] collectively comprise the Independent Learning Project and must be taken consecutively. After completing Phase 1, all students (unless exempt) will be required to undertake an Independent Learning Project (ILP) equivalent to 3 x 8-week blocks. During the course of the ILP period the students will also complete 12 units of credit (UoC) in courses offered by Faculties other than the Faculty of Medicine (the Flexible course). In order to complete both of these requirements, the 24 week ILP enrolment will be staggered, as 16 weeks full-time and 16 weeks part-time, over 32 weeks.

**Objectives:** To enhance students’ abilities for independent learning, critical analysis and research. During the course of their ILP the students will be expected to achieve the following specific goals:

1. An ability and inclination to question the basis of current scientific thinking in relation to medical and public health practice.
2. To retrieve literature on a topic and demonstrate a familiarity with the use of medical databases.
3. To evaluate current knowledge in a field and to provide a critical appraisal of that body of knowledge.
4. To identify a problem in their chosen field and to understand and participate in the process of designing a scientific investigation of the problem.
5. To be aware of the ethical issues involved in medical research and be able to write an ethics proposal for their proposed study.
6. To critically evaluate data including the appropriate use and interpretation of statistics.
7. To communicate findings and interpretations in their chosen field, both orally and in writing with experts, peers, the media and general public.
8. To appreciate the implications of research findings in health decision making and medical practice.

The ILP will offer scope for in-depth study in a variety of possible settings and fields of study. Some examples include laboratory-based work in the biomedical sciences, audits of clinical practice, projects dealing with cross-cultural issues, as well as projects dealing with medical law or ethics and health economics. Projects may be undertaken outside the Faculty, or subject to approval, in another institution.

Although there is considerable flexibility in the choice of topic, all projects must involve:

1. Identification of an issue and related questions relevant to the field or environment where learning will occur;
2. A review and critical analysis of literature or practice relevant to the issue;
3. Articulation of an approach to address the issue, including consideration of ethical issues;
4. A period of research or scholarship in which the issue is explored or investigated; and
5. Evaluation, communication and presentation of the results of in-depth study.

Assessment will include the components of progressive assessment (on completion of each of the first two 8-week modules i.e. MFAC 4501 and 4502) and a report submitted at the conclusion of the project (i.e. on completion of MFAC 4503).

**MFAC5001**

Geriatrics/General Practice/Subspecialities  
Sch Public Hlth and Comm Med  
UOC10

**Prerequisite:** MDLS4001

This nine week term commences with an introductory week of tutorials in Geriatrics, Dermatology, Otorhinolaryngology and General Practice. The remainder of the term consists of four-week teaching blocks in urban general practice and specialty outpatient clinics, 2 weeks in geriatrics and 2 weeks in rural general practice. General Practice Aims:
By the end of the course the students should have acquired: 1. An understanding of the principles and approach in primary health care. 2. An understanding of the knowledge, attitudes and skills required by a competent general practitioner. 3. Skills in communicating with patients especially in history taking and patient education. 4. Skills in identifying and managing common problems and preventive care in general practice.

5. Knowledge of the principles of assessment and management in general practice. 6. An understanding of rural general practice and health issues in rural communities. Tutorials: During the teaching sessions on campus or clinical sites and during the attachments, students are introduced to: principles of primary care; assessment and management GP consultation; management of common problems and preventive care; rural practice and issues in rural health. Assessment: Students will identify 4 cases for presentation at the tutorial day, a written assignment on a rural health issue during their rural GP attachment, and a final viva assessment. Geriatrics Objective: 1. To gain an understanding of diagnosis and assessment in geriatric medicine. 2. To address the management of certain specific disorders in the elderly such as dementia, falls, incontinence, stroke, mobility disorders, d ying and terminal care; 3. To gain information on appropriate drug therapy; 4. To gain insight into the roles of workers involved in caring for the elderly including physiotherapists, occupational therapists, speech therapists, community nurses and nurses in nursing homes; 5. To become familiar with the broad spectrum of geriatric services including the day hospital, the acute hospital, the rehabilitation centre, the nursing home, community nursing and hospital care; 6. To stimulate thought concerning future directions for an ageing Australia. Educational activities: The course consists of tutorials and practice experience in a range of health care facilities. Assessment: Students are assessed on a viva voce, written and log book completion. Otorhinolaryngology

Objectives: 1. To learn the basic skills of the assessment of diseases and conditions affecting the ears, nose and throat. 2. To learn the management of the common diseases of the ear, nose and throat and the management of these conditions. Educational activities: Lectures at beginning of Year 5 and skills transfer tutorial in week 1. Students will also attend approximately 4-6 sessions in specialists rooms or clinics. Assessment: Students will be assessed through completion of a log attendance and final written objective structured clinical examination. Dermatology Objectives: 1. To learn the clinical symptoms and signs of the major conditions affecting the skin. 2. To learn the diagnosis of common skin diseases and conditions and their management. Educational activities: Tutorials in week 1. Students will attend approximately 4-6 sessions in dermatology clinics for a week attached to a dermatology registrar or dermatologist in their rooms. Assessment: Students will be assessed through completion of a log attendance and final written objective structured clinical examination. MFACS001

Final Year Elective Term
Faculty of Medicine
UOC: 4
Prerequisite: MFACS001, OBST5001, PAEDS5101, PSCYS001

Objectives: These include one or more of the following: to further develop knowledge and skills in Medicine and/or Surgery; to acquire preliminary training for a career in a specialty of medicine; to experience a different pattern of health care delivery from that practised in Australia; to obtain experience which may influence subsequent career orientation; to reinforce an area of study already covered in the undergraduate program; to obtain a short introduction to research methods and philosophy.

The elective term may include work in one of the following areas: in any school or department within the Faculty of Medicine; in a hospital or medical institution either in Australia or in another country; with a medical practitioner either in Australia or in another country. Students should make individual arrangements for electives and are advised that some overseas universities, governments, health authorities and/or hospitals require very early applications, accompanied by certification that the applicant is an enrolled medical student of the University who is eligible to undertake the specified term. When making the arrangements, students should specifically request that an appropriate person is willing to act as a supervisor. The supervisor is asked to submit a report to the Office of the Dean by the end of the term. Assessment: Each student is required to produce a report which describes the nature of the work done during the Elective Term. This should be approximately 1000 words in length. The reports from the student and the supervisor must be submitted to the Office of the Dean no later than the last day of the Elective Term. The reports are forwarded to the relevant Clinical Associate Dean for a decision as to whether the student has completed a satisfactory Term, and thence to the Assessment Committee. It is the student’s responsibility to ensure that both reports (including the supervisor’s report) are received by the due date and in time for consideration by the Assessment Committee.

MGMT1001

Fundamentals of Management
School of Organisation and Management
UOC6 HPW3

This course provides an introduction to the fundamental principles, practices, issues and debates associated with the management of public, business and third sector organisations. The frameworks, concepts and theories covered in the course are introduced to explain how managers deal with the diversity of issues faced in the effective management of contemporary organisations. The underpinning themes of the course centre on how managers can deal with the multiple demands of complex and turbulent environments, promote and sustain competitive advantage, manage changing social, political and technological factors inside and outside the organisation, ensure ethical and social responsibility, develop global organisations and manage diversity in the workforce. How management goes about its principal tasks of managing strategy, structures, people and systems are the key focus issues of the course. The main roles of modern management - planning, leading, innovating, organising and controlling - are also examined. Topics include the emergence, evolution and structure of management, conceptions of managerial work; management fads, fashions and knowledge; the task and internal environment; regulating people; the nature of organising; change and innovation; decision-making; influence processes; power and politics; ethical issues and professionalism in management; performance management; control and planning; and current trends.

MGMT1002

Managing Organisational Behaviour
School of Organisation and Management
UOC6 HPW3

Prerequisite: MGMT1001; Exclusion: IROB1712

This course provides a detailed analysis of macro and micro dimensions of organisational behaviour. It draws on the inter-disciplinary foundations of organisation and practice, and all organisational behaviour in the context of the management of public, private and third organisations. The course offers a critical introduction to the range of frameworks on organisational structures, processes and modes of organising. Central themes include power and resource dependence, the management of culture and meaning, the role of control, gender, social responsibility, organisational performance, and professional and ethical dimensions of management practice. Topics include; organisational design, management environments, organisational learning, managing individuals, motivation, leadership, group and teamwork; decision-making, conflict and negotiations, organisational change. Case studies and exercises are used to illustrate organisational and behavioural issues.

MGMT1101

Global Business Environment
School of Organisation and Management
UOC6 HPW3

Excluded: IBUS1107

This course examines key global environmental factors and issues impacting on the development of international business. Major topics include: globalisation of business; national differences in the political, social and legal environment; political and country risk; cultural differences and their impact on international business; ethical issues in international business; international trade issues; theory and politics of foreign direct investment; international competitiveness; the internationalisation of business activities and the development of multinational enterprises; foreign exchange markets; the international monetary system and development of the global capital market.

MGMT1102

Managing Across Cultures
School of Organisation and Management
UOC6 HPW3

The aim of this course is to develop a conceptual and practical understanding of how people differ across cultures, how these cultural differences impact on international business interactions, and how organisations can recognise and value cultural differences, aspects that are critical to the international business environment. Topics include the nature and dimensions of culture, managing cultural differences, the dynamics of intercultural communication, negotiating across cultures, working with multi-cultural teams, managing cross-border conflicts,
and global perspectives to leadership, motivation and decision making. Further topics include human resource development across cultures and issues unique to global management including cross cultural entry and re-entry transitions, problems relating to expatriation and repatriation, and the challenges of managing global careers. Central to this course is the integration of theory and practice, analyses of international business case studies, role plays, interactive and experiential learning activities, and the critical evaluation of relevant readings and journal articles.

MGMT1701 Industrial Relations
School of Organisation and Management
UOC6 HPW3
Provides a multi-disciplinary introduction to a range of important concepts and issues in Australian industrial relations. Topics include: political, social, economic, legal, historical and psychological aspects of the evolution and operation of modern industrial relations; the nature and implications of strikes, lockouts and other forms of industrial conflict and alienation; the structure and policies of State and Federal trade unions, the State labor councils and such peak organisations as the Australian Council of Trade Unions; the employer industrial relations function, management strategies and the structure and policies of employer associations; processes of work rule determination, such as collective bargaining, mediation, conciliation and compulsory arbitration; labour movements; and the role of the various industrial tribunals and government instrumentalities with respect to industrial relations.

MGMT1702 Labour Organisation
School of Organisation and Management
UOC6 HPW3
Prerequisite: IROB1717
Covers the formation and development of Australian unions; analysis of economic, legal, political and social framework within which unions operate; the role of unions; the structure and government of unions; union democracy and politics; union strategies; and unions and the balance of power. The course will discuss the policies and operation of unions generally, and of State labor councils and the Australian Council of Trade Unions.

MGMT1712 Management of Organisations
School of Organisation and Management
UOC6 HPW3
Provides an interdisciplinary approach to the field of organisational behaviour and management. It introduces students to a range of perspectives on organisational structures and processes, and considers how they help us understand various management theories and practices. On this basis, issues of power, control, conflict and culture are explored. Other topics include: changing approaches to work; social and political influences on group behaviour; teamwork and other managerial interventions; leadership and motivation; gender, EEO and human resource management.

MGMT2001 Managing Innovation and Organisational Change
School of Organisation and Management
UOC6 HPW3
Prerequisite: MGMT1001, MGMT1002
This course examines the role of the innovation process in the management of organisations and change managing change. It explores the role of innovation in creativity and the nature and processes of organisational change. It focuses on technological, administrative and process innovation as well as contemporary techniques and procedures used to understand, initiate, plan and implement change. The course is shaped by contemporary concerns over the need to combine consistent structures and predictable and efficient operations with flexibility and timely adaptability to respond to the environment. It adopts a critical perspective and uses a multi-disciplinary framework drawing on several disciplinary areas as they contribute to the theory and practice of innovation and change. Topics encompassed include: features of organisation design; types and phases of change; nonlinear dynamics; managerial and organisational cognition; interpretative systems and sense-making; culture and intervention for change; organisation development; techniques for process change; (eg. TQM, business processes); the role of entrepreneurship, creativity, leadership and managerialism; and change agency. Case studies and exercises are used to explore central issues.

MGMT2002 Managing Business Communication
School of Organisation and Management
UOC6 HPW3
Prerequisite: MGMT1001
Effective communication management, at both individual and organisational levels, is essential in business and professional contexts. This course facilitates understanding of how people manage their communication processes, considers ‘best practice’ for successful organisational communication, and provides opportunities for students to carry out projects in discussion with business organizations. Topics include: the theories and principles of communication management; the dynamics of interpersonal communication; the significance of interpersonal and international business communication; the use of language and non-verbal communication; managing communication in small groups and teams; communication in negotiations; creating communication networks; managing ethical issues in business communication; conducting communication audits and developing benchmarks; and strategies for improving organisational communication. The course also includes practical components for improving individual and small group communication.

MGMT2101 International Business and Multinational Operations
School of Organisation and Management
UOC6 HPW3
Prerequisite or corequisite: IBUS1101 or IBUS1107 Excluded: IBUS2107
The focus of this course is on the multinational enterprise and the management of cross-border operations. Major topics include: multinational enterprises and the internationalisation process; motives for foreign investment; strategy of international business; organisation of international business; foreign market selection and entry strategy; exporting, importing and countertrade; the management of international business operations including an introduction to international human resource management, learning and knowledge management, manufacturing and materials management, marketing management, and accounting and financial management.

MGMT2105 Chinese Business Enterprise
School of Organisation and Management
UOC6 HPW3
Prerequisite: 48UOC in Arts or Law or Commerce & Economics; Exclusion: CHIN2501

MGMT2106 Comparative Management Systems in East Asia
School of Organisation and Management
UOC6 HPW3
Prerequisite: IBUS1101 or MGMT1101
An introduction to the comparative management systems in Northeast Asia including Japan, Korea, and China. Topics include: recent business performance in East Asia; comparative analysis of business systems, including Japanese Keiretsu, Korean Chaebol and Chinese family business; State enterprises and government-business relations in China; comparative analysis of organisational structures, corporate strategy and human resource management practices; impact of culture on management style and decision making; sub-contracting and buyer-supplier networks; and the globalisation of business.

MGMT2702 Industrial Law
School of Organisation and Management
UOC6 HPW3
Prerequisite: IROB1717 or IROB1712 or IROB1717 or MGMT1101 or MGMT1102 or MGMT1102
Looks at the nature and purposes of the legal system and industrial law; the law concerning the contract of employment; trade unions; industrial
MGMT3708
Research Methods in Employment and Management
School of Organisation and Management
UOC6    HPW3
This course is designed as an advanced level course for students intending to undertake the fourth year Honours program in the areas of Employment and Management. It examines the philosophical foundations of the various approaches and the contributions of basic social science disciplines to the study of employment and management studies. The course will provide students with research philosophy, strategy, design, and execution skills. Topics include disciplinary perspectives on employment and management, the foundations of social science and competing paradigms used in research, identifying research topic, strategy, design and a variety of research methods - case-study and field research, comparative method, historical analysis, interviewing, focus groups, survey design and analysis.

MGMT3721
Negotiation Skills
School of Organisation and Management
UOC6    HPW3
This course provides a set of generic concepts and skills for negotiation and resolving interpersonal and inter-group conflicts. Students gain the opportunity to work with theory, skills and processes of negotiation relevant to a wide range of contexts: commercial; organisational; community; political and public policy; legal; and industrial relations. This course will provide an analytical understanding of negotiations, including negotiation planning, strategy and tactics, as well as the development of the practical skills necessary for implementation of this knowledge. Students will gain these practical skills through participation in negotiation seminars. The seminar programme is made up of negotiation role play exercises which develop in complexity as the course progresses.

MGMT3724
Strategic Human Resource Management
School of Organisation and Management
UOC6    HPW3
Prerequisite: IROB2718 or MGMT2718
This course deals with the ways in which strategic thinking can be applied to Human Resource Management. It aims to provide students with opportunities to synthesise managerial strategy issues with HRM processes, in a considered and reflective manner. The course focuses on the way strategies can be formed and enacted in organisations, and on the internal and external environmental contexts from which human resource strategies emerge. It also deals with a range of contemporary issues in human resource management against a backdrop of new and changing people management practices. In this course how can people manage and enhance organisational performance? How can we integrate stakeholder concerns into organisational decisions and strategies? How can strategic thinking underpin HRM activities? What are the barriers to strategic thinking in organisations? What does it mean to be a HR professional? Students are given the opportunity to enhance their skills in teamwork, organisational analysis, problem solving and strategic thinking - through fieldwork, case studies and seminars.

MGMT3728
Managing Pay and Performance
School of Organisation and Management
UOC6    HPW3
Prerequisite: IROB1701 or IROB1702 or IROB1712 or MGMT1701 or MGMT1702 or MGMT1712
This course introduces students to the theory and practice of workplace training, and to the public policies and regulations that shape such training. It is designed to build on and complement the content of nationally recognised training qualifications in Assessment and Workplace Training. Issues covered include - the context of training; learning in theory and practice; the nature of skill; training needs analysis, delivery and evaluation; competency-based training; the National Training Framework; training and employment policies; management education and development.

MGMT4731
Theory in Organisation & Management Studies
School of Organisation and Management
UOC6    HPW3
This course introduces students to the theoretical literature, debates, controversies and empirical studies in the disciplinary areas of strategic management, employment relations, human resource management, organisational behaviour and international business. The course emphasises the multi-disciplinary nature and evolution of management and organisational research.

MGMT4732
Methodology in Organisation and Management Studies
School of Organisation and Management
UOC6    HPW3
This course introduces students to the variety of social science research methods applicable to employment and management. Particular focus is given to the major qualitative and quantitative methodologies adopted by scholars in their studies of strategic management, employment relations, human resource management, organisational behaviour and international business. These are explored through seminars and project-based applications.

MGMT4738
Thesis (Human Resource Management)
School of Organisation and Management
UOC12    HPW3
Prerequisite: IROB3708 or MGMT3708, admission to Honours in Human Resource Management.

MICR2011
Microbiology 1
School of Biotechnology and Biomolecular Science
UOC6    HPW6
Prerequisite: MICR2201; Corequisite: BIOC2201, BIOS2021 or BIOS2621.
This course is designed to give undergraduate and postgraduate students a solid background in fundamentals of microbiology & Immunology or equivalent courses at other institutions. The biology, diversity and function of bacteria. Modern approaches to bacterial diversity through the use of bioinformatics. Comparative aspects of microbial growth. Bacterial nutritional and biosynthetic pathways. Microbial survival and global responses to environmental stimuli. Theory and practice of sterilization. Action of antimicrobial agents. Introduction to microbial ecology, medical and industrial microbiology.

MK2020
Fundamentals of Microbiology and Immunology
School of Biotechnology and Biomolecular Science
UOC6    HPW6
Prerequisite: BIOS1201 (Except for Postgraduate Students).
This course is designed to give undergraduate and postgraduate students a solid background in fundamentals of microbiology and immunology. The course introduces the student to the fascinating world of microorganisms: their ubiquity, peculiarities and the three domains of life i.e. Bacteria, Archaea and Eucarya. Most of the course will consider bacteria, fungi, yeasts and viruses in our everyday life and how their activities impinge on our well being. Metabolism and growth, microbial death & microbial genetics will be introduced to the students. Practical aspects of microbiology will be considered such as fermentation, spoilage and food spoilage. The immune system & the study of immunology will also be covered. Immune system & the study of immunology will also be covered.
This course takes students to the frontiers of immunological knowledge, exploring conflicting theories of immunological function and regulation, and highlighting new therapeutic strategies that build upon a knowledge of immunology. Students are also introduced to research techniques ranging from the use of knockout and transgenic animals to mathematical modelling. In addition, major topics of study include the immunogenetics of the molecules of recognition, cytokines and their regulation and lymphocyte biology. Issues arising from the public debate surrounding vaccination are an additional major focus of this course.

**MICR3061**

**Viruses and Disease**

School of Biotechnology and Biomolecular Science

UOC6  HPW6

Prerequisite: MICR2011

The course explores the biology of viruses and their unique strategic properties that enable their persistence. We will examine virus structure, classification and replication strategies, epidemiology, molecular virology, laboratory diagnosis, and applications of viruses in biotechnology, including gene therapy. The pathogenesis of a number of human, animal and plant diseases is discussed in the context of virus-host interactions, as well as the persistence, transfer and control of virus infections in the community. A WebCT component of the course allows students to engage in on-line computer activities including virtual experiments, electron micrograph identification, group discussions and research for the final consultancy brief project. The final “consultancy brief” project provides students with an opportunity to gain experience in working in consultancy teams, utilise the WebCT platform for discussions to facilitate research on a current topic in virology for a “client”, and produce a professional report and a short seminar.

**Note:** Highly recommended: BIOC2201

**MICR3071**

**Environmental Microbiology**

School of Biotechnology and Biomolecular Science

UOC6  HPW6

Prerequisite: MICR2201

The field of Environmental Microbiology offers great potential for the development of new and innovative strategies and products for the management and protection of the environment. In this course, students learn of the vital role of microbes in marine, freshwater and terrestrial ecosystems by exploring the dynamic interactions that take place between microbial communities, the surroundings and higher organisms. A series of lectures and practical sessions cover key themes in contemporary environmental microbiology including sensing and adaptive responses of bacteria, biogeochemical cycling and microbial communities and interactions. Laboratory sessions allow students to gain experience in the experimental design and practical skills of research in the context of mini-research projects into modern environmental issues. Students will gain theoretical and practical experience in modern molecular techniques for the detection, phylogeny and tracking of microbial communities. A WebCT component of the course is used to support laboratory activities and to help students track their own progress and understanding of the course content. This course emphasises how the principles and techniques of Environmental Microbiology can be applied to a range of environmental problems and lead to the development of sustainable resources and commercial applications, as expanded in Environmental Biotechnology (BIOT3081).

**Note:** Highly recommended: MICR2011, BIOC2201, BIOS2021 or BIOS2621.
MICR3611
Microbial Physiology: A Molecular Approach
School of Biotechnology and Biomolecular Science
UOC6  HPW6
Prerequisite/s: MICR3201 or MICR3621 Excluded: MICR3011

The goal of this course is to combine theory introduced in previous courses with an understanding of how modern research endeavours are approached. This goal will be achieved by linking lectures and laboratories to contemporary research in molecular aspects of microbial physiology. Lectures will address molecular mechanisms involved in: determining microbial cell shape; cell division, sensing and responding to environmental signals, strategies for survival in extreme and stressful environments, and regulation of the synthesis of gene products. The lecture series also contains a module outlining the commercialisation of scientific discoveries. The practical program involves planning and implementing a research project in consultation with the course supervisor. Students will be challenged to identify relevant research problems, to generate feasible solutions to these problems, and to carry out critical peer review. The research training through lectures and practicals provides a solid basis for undertaking research in the Honours year.

MICR3621
Microbial Genetics (Advanced)
School of Biotechnology and Biomolecular Science
UOC6  HPW6
Prerequisite(s): 12 Units of Credit from MICR2011 or MICR2611 or BIOS2521 or BIOS2521 or MICR2201; Excluded: BIOT3031, MICR3021.

Course available to Advanced Science students, or as an advanced option to non-Advanced Science students. This advanced course differs from MICR3021 Microbial Genetics by providing additional laboratory practicals, laboratory tutorials and laboratory assessment, a number of advanced level lectures (presently two), and different questions (both in content and number) in lecture based assessment. The course aims to extend fundamental concepts and principles of microbial genetics to an advanced level. The course is intended to be particularly useful for students interested in molecular biology/ genetics and those considering Molecular Biology and Microbiology majors.

Main topics include genetics of bacteriophage, bacteria and yeasts, mutation and repair, plasmids, gene transfer, transposable genetic elements, gene cloning (genetic engineering) and two component regulatory systems. The practical component includes a range of contemporary microbial genetics experiments that complement lecture material. They may include experiments involving bacteria, archaea or yeast, involving transposon mutagenesis, gene library construction, gene complementation using recombinant plasmids, gene expression and regulation studies, UV mutagenesis and DNA repair, restriction/ modification systems, promoter rescue experiments, and a variety of gene exchange techniques. The socioeconomic impact of microbial genetics is also discussed.

Note: Replaces BIOT3031

MICR3641
Immunology 1 (Advanced)
School of Biotechnology and Biomolecular Science
UOC6  HPW6
Prerequisite: BIOC2101 or (BIOC2181 and MICR2201); Excluded: MICR3011, MICR3021.

This advanced course differs from MICR3041 Immunology 1 by providing advanced level laboratory practicals incorporating design and performance of experiments, advanced level problem-solving tutorials, and different questions (both in content and number) in examinations. There is also a significant component of self-directed learning, including internet-based tutorials and assignments. The course aims to extend fundamental concepts and principles of immunology to an advanced level, and to promote both theoretical and practical problem solving skills. The course will be particularly useful for students considering Immunology and Microbiology majors.

Topics addressed include the multiple components of the immune response and how they interact; an introduction to the concepts behind the regulation of the immune response; and introduction to the applied and clinical aspects of immunology. There will be an emphasis on experimental design and performance as applied to solving immunological problems, and students will be expected to apply their basic knowledge to various research and “real-life” scenarios. An element of choice in assessment tasks enables students to pursue, in some depth, an area of immunology which particularly interests them.

This course is available to Advanced Science and Medical Science students, and to students form other degree programs with a particular interest in Immunology and a Credit average in relevant courses.

Note: Maximum enrolment limited to 25 students.

MICR4013
Microbiology Honours Full-Time
School of Biotechnology and Biomolecular Science
UOC24

Advanced training in selected areas of Microbiology and Immunology: a formal component consisting of seminars, tutorials, use of information science in biology and written assignments, plus a supervised research program in a specific area of microbiology or immunology. Choice of research projects in laboratories that provide extensive training in one or more of the following: biotechnology, bioinformatics, molecular biology, cell biology, cell culture, immunogenetics, clinical microbiology, medical microbiology, microbial genetics, diagnostics, bioremediation, environmental microbiology, flow cytometry and confocal laser microscopy.

MINE1010
Introduction to Mining Engineering
School of Mining Engineering
UOC6  HPW4

This course provides the basic introduction to the profession of mining engineering for all new students. Bearing this in mind, at the completion of this course a student should: appreciate the range of roles and responsibilities a mining engineer encounters in the workplace, and the broad range of career paths available; have a basic understanding of underground and open cut mining methods and an introductory appreciation of the importance and relevance of the science and other engineering disciplines to mining; be familiar with basic mine ventilation, explosives and blasting; understand and appreciate the importance of safety and risk management in the workplace; be confident in appreciating the history and current status of mining in Australia with a particular understanding of economic, social and environmental issues; be prepared for what you may encounter in your first industrial training period.

Note: Site visits and industry lectures are a requirement of this course and may involve additional personal expense.

MINE1020
Mining Industry Practice
School of Mining Engineering
UOC6  HPW4

The course aims to build on the students earlier introduction by developing their understanding in areas associated with processes and practices in the minerals industry. The course covers: mineral economics and markets; environmental responsibilities, management and rehabilitation; communication needs within the industry and society; and common techniques used to convey information. These include computer-based packages, web pages, internet, email, role plays, presentation skills, technical drawing and graphical presentation, report writing, resume preparation, research methodologies. An overview of engineering drawing fundamentals. Risk management. Note: Site visits and industry lectures are a requirement of this course and may involve additional personal expense.

Assumed Knowledge: MINE1010

MINE1300
Applied Mechanics
School of Mining Engineering
UOC6  HPW4

To provide students with an understanding of the basic engineering principles governing the statics, kinematics and dynamics of rigid bodies as applied to mechanical components. Statics: definition of force and moment, static equilibrium of rigid bodies, statical equivalence of systems of forces, centre of mass, centroid, centre of pressure, frictional forces. Kinematics: linear and angular motion, motion in a plane, relative displacement, velocity and acceleration. Dynamics: equations of motion for rigid body, work and energy, impulse and momentum, strain energy. Upon successful completion of the course, the student will be able to apply the principles of statics and dynamics outlined above to the analysis of systems of forces, the motion of mechanisms and the relation between forces applied to an object and the resulting motion.

MINE2010
Mining Project Development
School of Mining Engineering
UOC6  HPW4
The course covers the interaction between the core processes of the mining system. Exploration, planning and the development of mines, infrastructure requirements; environmental assessment. Ore body parameters for surface and underground mines; stratified and non-stratified deposits; mine layout for surface and underground operations; underground access; introduction of techniques of rock breakage and support for coal and metal mines; processing of minerals; disposal of overburden and rejects rehabilitation.

The course also includes an introduction to the principles of project management.

On completion of the course the student should have an understanding of the different processes involved in a mining project providing the context for the various specialist courses offered in subsequent years of the mining engineering program.

Note: Visits to mines and related undertakings are a requirement of this course.

Assumed Knowledge: 1020

MINE2310
Structural Mechanics
School of Mining Engineering
UOC6: HPW4

To provide students with an understanding of the principles of analysis and design of structures and the concepts of stress and strain. Basic definition of force, displacement, stress, strain and elastic material properties. Forces and stresses in pin jointed frames; bending moment, shear force in beams; stress due to bending of beams; deflection of beams; buckling of struts; stress due to torsion of shafts; combined axial and bending stress; stress in thin walled pressure vessels. Shear stresses in beams. Continuous beams: Slope-deflection equations, stiffness matrix and nodal force vector, computer analysis. Definition of stress in three dimensions. Stress transformation in two dimensions; principal stresses in two dimensions. Mohr's circle of stress. Definition of strain and strain-displacement relations in two dimensions; strain transformation and principal strains in two dimensions; isotropic elasticity.

Upon successful completion of the course, the student will be able to calculate stresses and displacements of simple skeletal structures according to the theory generally applied in engineering practice, and will be aware of the circumstances in which that theory may not yield results of adequate accuracy. The student will also be able to carry out some analyses of the states of stress and strain in a material, for the cases of plane strain and plane stress.

Assumed Knowledge: 1300

MINE2320
Mining Stress Analysis
School of Mining Engineering
UOC3: HPW3

To provide an understanding of stress analysis that can be applied to geotechnical engineering. Stress transformation and principal stresses in three dimensions; strain-displacement relations in three dimensions; strain transformation and principal strains in three dimensions; equations of equilibrium, boundary conditions; strain compatibility and the Airy stress function; stress in thick walled tubes under pressure; stresses around circular tunnel; anisotropic elasticity; the equivalent continuum; elastoplasticity.

Upon successful completion of the course, the student will be able to analyse the states of stress and strain in a material for the general three dimensional case, solve simple boundary value problems of plane strain for an elastic material, and idealise a mass of rock or soil as an anisotropic or elastoplastic material as required in the application of computational methods of stress analysis.

Assumed Knowledge: MINE2310

MINE2500
Fluids & Thermodynamics
School of Mining Engineering
UOC6: HPW4

To give students the underpinning knowledge that is applied to the physical environments encountered in mines and the behaviour of liquids and gases in mine services and mineral processing. Fluid mechanics: properties, fluid statics, steady and unsteady flow, laminar and turbulent flow, Reynolds's number, acceleration of a fluid particle, continuity equation, steady flow for stream-tube, momentum equation, Bernoulli's equation, measurement of flow, laminar flow between parallel plates, flow in pipelines, open channels, head losses at enlargements, contractions, bends. Thermodynamics: states, ideal gas, definition of temperature scale, real gases, equilibrium diagram, p-v diagram, steam tables. Systems, processes and cycles, first law of thermodynamics, internal energy, mechanical work, polytropic processes, steady flow systems, enthalpy, the Rankine cycle, heat engines, heat pumps, entropy, gaseous mixtures, psychrometry.

Assumed Knowledge: MINE1300

MINE2700
Mining Data Analysis
School of Mining Engineering
UOC3: HPW2

Mining and minerals processing involves materials which are variable in composition and physical characteristics. Mining Engineers are required to make decisions and projections on the basis of incomplete information and experimentation. They need to manage a range of risks on the basis of probability and levels of confidence. These activities require the use of statistical tools developed to provide quantitative information from variable data with known levels of confidence. This subject provides the basis for designing investigations, presenting data, and forming statistically valid engineering conclusions. Precision, accuracy, approximation, bias. Samples and sampling. Averages (mean, median, mode), Graphical data analysis. Arithmetic, logarithmic and exponential relationships. Correlation coefficients (r). Index numbers and time series. Review of probability, random variables and their properties. Quartiles and percentiles. The normal and binomial distribution. Applications to statistical quality control. Theory of statistical inference including confidence intervals and hypothesis testing with applications to one and two sample problems based on the t- and F- tests. Simple and multiple linear regression. Design and analysis of investigations, analysis of variance and introduction to factorial designs. Applications will be drawn primarily from the fields of mining and minerals engineering.

Assumed Knowledge: MATH1231.

MINE3210
Resource Mining Control Systems
School of Mining Engineering
UOC3: HPW2

Resource mining control systems exist in order to ensure optimum exploitation of the in situ economic resource. This course covers the various elements necessary in designing appropriate control systems including estimation of the distribution and grade of economic minerals, and of the tonnes and grade of ore/coal as mined; alternate feedback mechanisms used in forecasting; grade control; sampling theory, calculation of fundamental sampling error, design of sampling protocols; the use of univariate and bivariate statistics in evaluating the quality of sample analytical data; geostatistical modelling including spatial statistics, continuity and variography; grade interpolation and block modelling; and, reconciliation and other feedback mechanisms.

On completion of this course the student should be able to design or review the effectiveness of resource control systems used in a mining operation.

MINE3300
Mining Geomechanics
School of Mining Engineering
UOC6: HPW4

This course provides an understanding of the principles of soil and rock mechanics and the impacts of these disciplines in mining engineering practice. Soil Mechanics: nature of soil, groundwater flow, stability of slopes, tailings storage facilities, earth retaining structures, shallow foundations, consolidation, compaction, liquefaction. Rock Mechanics: principles applied to mining: stress, strain, deformational behaviour and stiffness; time dependency and stress in rock; rock properties, rock failure criteria, discontinuities in rock, rock mass classification, stresses around excavations, laboratory techniques and experiments.

Assumed Knowledge: MINE2320

MINE3410
Coal Mining Systems
School of Mining Engineering
UOC6: HPW4

This course provides a comprehensive understanding of mining systems that are used in the underground and surface coal mining sector. History, significance and characteristics of the global and the Australian mining...
industry. Detailed descriptions and selection criteria for various coal mining methods including surface and underground techniques. Introductory mine planning and scheduling. Focus will be on the examination of the core risk of each mining method including safety, environmental and economic. Case studies are a feature of the course. On completion of this course the student should be able to demonstrate a sound working knowledge of mining techniques used in the Australian coal mining industry and be able to apply that knowledge to enable the safe, economic and responsible recovery of ores from any type of coal deposit.

NB: Site visits and industry lectures are a requirement of the course and may involve additional expense.

MINE3420 Metal Mining Systems
School of Mining Engineering
UOC6 HPW4
This course provides a comprehensive understanding of mining systems that are used in metal mines and extractive industries. History, significance and characteristics of the global and the Australian mining industry. Detailed descriptions and selection criteria for various metalliferous mining methods including surface and underground techniques. Introductory mine planning and scheduling. Focus will be on the examination of the core risk of each mining method including safety, environmental and economic. Case studies are a feature of the course. On completion of this course the student should be able to demonstrate a sound working knowledge of mining techniques used in the Australian mining industry and be able to apply that knowledge to enable the safe, economic and responsible recovery of ores from any type of orebody.

NB: Site visits and industry lectures are a requirement of the course and may involve additional expense.

MINE3500 Mine Workplace Environment
School of Mining Engineering
UOC6 HPW5

Note: Site visits and industry lectures are a requirement of this course and may involve additional personal expense.

Assumed Knowledge: MINE2500

MINE3610 Excavation Engineering
School of Mining Engineering
UOC6 HPW5
The course provides an understanding of the various rock breakage technologies used in mining and tunnelling excavations and the various systems for access, development and operations. The course covers: Rock drilling techniques (percussive, rotary and hydraulic), drilling equipment & drill pattern design for headings, stopes and surfaces in surface and underground mining operations; Types of explosives and their properties; Theories of rock fragmentation by blasting; Various initiation systems; Blasting accessories and their applications; Blast design in underground and surface operations; Blasting hazards and precautionary methods; Design to control blast induced ground vibrations and airblasts; Special blasting techniques including presplitting, smooth wall blasting, trenching, cast blasting and padlock blasting; Environmental considerations, handling and storage of explosives; Principles of rock cutting; Performance of picks and free rolling cutters; Cutter tool interaction; Design of cutting arrays for machine mining and tunnelling; Cutting tool materials and effect of tool metallurgy on wear and fracture resistance; Methods of assessing rock cuttability; Site investigation and site preparation; Tunneling methods; Conventional and mechanical excavation systems including drilling and blasting, roadheader, tunnel boring machines, pipe-jacking; Excavation in difficult ground; Shaft sinking methods (both vertical and inclined shafts), conventional and mechanical boring.

On completion of the course the student should have an understanding of the various methods, issues and design principles associated with the main forms of rock breakage (drill & blast and machines mining) and the application of these processes to mining and tunnelling.

Note: Site visits and industry lectures are a requirement of this course and may involve additional personal expense.

MINE3620 Mine Infrastructure and Services
School of Mining Engineering
UOC3 HPW3
The course provides an understanding of material handling systems used in mining and the various infrastructure needs to support mining operations including power reticulation and control systems. The course covers: Transport systems for minerals, waste rock, people and materials; Design of conveyor systems; Trackless methods of haulage - shovels, loaders and trucks; Track mounted methods; Mechanics of hoisting and design of hoisting systems; Winding cycle diagrams and power requirements for hoisting; Winding ropes; Safety aspects, maintenance of haulage and winding systems; Mine power requirements and reticulation; Electrical power distribution in surface and underground operations; Mine cables and switch gear; Explosion-protected electrical devices; Fault protection and risk analysis; Design and operational characteristics of electric, diesel, hydraulic and pneumatic motors and drive systems; Speed and torque control; Fluid characteristics; Mine control systems; Signalling and communications; Types and designs of control systems.

On completion of the course the student should have an understanding of the design principles related to principles methods of bulk materials haulage used in and about mine sites and the services required to support a mining operation.

Note: Site visits and industry lectures are a requirement of this course and may involve additional personal expense.

MINE3710 Mine Economics and Business Systems
School of Mining Engineering
UOC6 HPW4
The course provides an understanding of management principles and perspectives that can be applied in mining. The Mine Economics component of this course reflects the fact that mining is an economic activity. It will cover the principles and techniques of project evaluation and the construction of fully integrated and internally consistent technical/financial computer models of mining projects. The Business Systems component will cover issues vital to a mine manager’s successful running of a mining enterprise.

On completion of the course the student should be able to demonstrate a sound working knowledge of: the time value of money; discounted cash flow evaluation techniques; technical/financial model examples and assignments; commodity markets, revenue estimation, risk analysis and project financing; company financial statements and underlying accounting principles; the feasibility study process; determination of economic cut-off grades and resources and reserves estimation; legal aspects of managing a mine; and, theory and processes of management including human behaviour, industrial relations, contracts & contractors, financial statements & financial ratios, and management in an international context.

MINE3800 Mineral Processing
School of Mining Engineering
UOC3 HPW3
Minerals Engineering is the link between mining and the utilisation of mineral resources, and is a key operation in the minerals industry. By a combination of breakage, sizing, separation, and dewatering processes, valuable components in mined material are concentrated into products suitable for subsequent hydrometallurgical or pyrometallurgical processing or direct utilisation. Minerals engineering processes are applied in the treatment of precious metal and gemstone deposits, base
metal ores, heavy mineral beach sands, coal, and industrial minerals such as clays and aggregates. This introductory course provides a description of the principal unit processes and their applicability, and of the mineral properties and characteristics of mined materials on which they are based. On completion, you will be able to carry out calculations relating to the characterisation of mined materials, carry out materials balance calculations for simple mineral processing circuits, and nominate appropriate processes for their beneficiation. For many of those processes you will also be able to determine equipment sizes for specified duties.


Assumed Knowledge: PHYS1169, CHEM1817, MINE2500 (or equivalents)

MIN4210
Mine Planning
School of Mining Engineering
UOC6 HPW5

The course provides an understanding of the fundamentals of the mine planning process including design, scheduling and evaluation, and the tools available to assist in the planning process. The course covers: the mine planning process; strategic planning and tactical planning; mine design; economic cut-off grade and optimisation; resource estimation; scheduling; feasibility studies; economic modelling; equipment selection; mine systems selection; performance benchmarks for operations; project risks; environment and mine site rehabilitation planning; government regulations; and an introduction to computer tools to assist in mine planning.

On completion of the course a student should have an understanding of the process to derive an optimum mine plan including an appreciation the various factors and constraints to be considered in the mine planning process; an ability to design a pit shell; construction of a production schedule and creation of an economic model to analyse a mining scenario.

Assumed Knowledge: MINE3710, MINE3400

MIN4220
Coal Mine Design and Evaluation Project
School of Mining Engineering
UOC9 HPW7

The course provides the means of integrating the technical, economic and management knowledge as presented within the mining engineering program whilst conforming to industry and community expectations. Technical design and project evaluation of a coal deposit is a core focus of the course. The work draws on the subject content from previous courses and is undertaken in teams. The teams are required to prepare and present a feasibility study of a mining project. Teamwork, project management and presentations skills are assessed in addition to the technical analysis and content of the final feasibility study.

Those students who successfully complete the course should achieve: a well rounded understanding of both the theoretical principles and practical methodologies associated with mine planning and feasibility study projects; an ability to recognise and be capable of managing the inter-relationships and dependencies of the previously taught coursework subjects within the Mining Engineering undergraduate degree course; a demonstrated capability to work on a project within a self-managed team environment and to provide quality communication (written and oral) of progress and final outcomes; a basic working knowledge and ability to use state-of-the-art mining software (proficiency in the use of this specialised software is not expected - the software is a tool to assist you in your project).

A minimum of 80 days of approved industrial training is required for successful completion of this course.

Assumed Knowledge: MINE4210

MIN4300
Geotechnical Engineering
School of Mining Engineering
UOC6 HPW4

Course content includes the following components across the range of coal and metalliferous mining systems: core geotechnical risks inherent in major mining methods and risk management criteria; hazard recognition, mapping and ground control management plans; underground mining excavation design; rock mass classification; surface mining geomechanics; application of numerical stress analysis modelling; geotechnical instrumentation; pillar and roadway design; principles and practice in ground control; geotechnical role of mine fill systems; rock reinforcement principles and systems; subsidence engineering; roadway and pillar design; caving mechanics, outbursts, rockbursts, wind/airblasts. Case studies, group work and problem-based learning projects will form a major component of this course.

Successful completion of this course will equip the student with the ability to recognise the major geotechnical applications and their significance within the mainstream mining systems and conditions. Students will also have a sound working knowledge of fundamental mechanisms and mining geotechnical principles within the context of practical mining applications.
Note: Site visits and Industry lectures are a requirement of this course and may involve additional personal expense.
Assumed Knowledge: MINE3300

MINE4410  
Industry Applications  
School of Mining Engineering  
UOC6  HPW4

The course provides the student with an awareness of current issues facing the mining industry. A series of seminars are presented by invited speakers from within the university, other research establishments and selected industrial operations covering topics of special interest.

The course also covers the processes associated with initiating a research project. Candidates are select a research topic related to mining, minerals engineering or other approved topic approved by the Head of School. It is strongly suggested that candidates evaluate various topic options in the period prior to commencement of the course, preferably during the period of Industrial Training. The research project may take the form of an engineering analysis, experimental investigation, theoretical study or design project. Candidates are required to carry out a literature review of the chosen research topic and submit a project plan.

On completion of the course a student should be capable of preparing a report which critically evaluates social and technical issues. In addition, students will develop the knowledge and skills to assimilate current understanding and knowledge on a topic and synthesise this into a written document in support of a major investigation that also includes a formal project plan and risk management plan.

MINE4420  
Thesis A  
School of Mining Engineering  
UOC6  HPW4

The course provides the opportunity for the student to undertake a research project on a mining, minerals engineering or other topic approved by the Course Authority. Candidates are required to submit a dissertation or thesis, a conference paper and make a presentation. The work may take the form of an engineering analysis, experimental investigation, theoretical study or design project.

On completion of the course a student will be capable of carrying out and report on a research project and prepare a draft document for submission to technical conference.

Assumed Knowledge: MINE4410

MINE4430  
Thesis B  
School of Mining Engineering  
UOC6  HPW4

The course provides the opportunity for the student to undertake a research project on a mining, minerals engineering or other topic approved by the Course Authority. Candidates are required to submit a dissertation or thesis, a conference paper and make a presentation. The work may take the form of an engineering analysis, experimental investigation, theoretical study or design project.

On completion of the course a student will be capable of carrying out and report on a research project and prepare a draft document for submission to technical conference.

This course is restricted to students who are eligible and enrolled in either the BE(Mining)/MCom or the BE/MEM combined program.

Assumed Knowledge: MINE4410

MINE4500  
Sustainable Mining Practices  
School of Mining Engineering  
UOC3  HPW2

This course provides a comprehensive understanding of the impacts both positive and negative that mining may have on society. International perspective and treaties; sustainable development; corporate responsibility; legislative and regulatory framework; environmental impact assessment; environmental management systems; ISO 14001; corporate reporting; code for environmental management; environmental auditing; risk management; best practice environmental management techniques - exploration; waste disposal; tailings; quarries; water management; air pollution; rehabilitation and mine closure; social impact.

On completion of this course the student should be able to demonstrate a sound working knowledge of the legal and political context; company-based initiatives in environmental management; and state of the art techniques in environmental management on mine sites. They should also be able to describe the major issues associated with the social/community impacts of mining in Australia and internationally.

MINE4700  
Mining Law  
School of Mining Engineering  
UOC6  HPW5

The course provides an understanding of certain critical management issues of fundamental importance to the mining industry. The course is divided into two main parts. The first is concerned with advanced applications in risk management, in particular the human behavioural side of risk taking, making errors, accident occurrence, ergonomics, as well as application of risk management to some of the major hazards in the coal and metalliferous mining industry. The analysis of mining disasters is covered in the course. The second part of the course covers modern mining law including safety, environment and exploitation of mineral deposits.

On completion of the course the student should be able to demonstrate a sound working knowledge of: the latest concepts in mining law; the fundamentals of risk management; the adoption of risk management tools in the regulatory environment; risk management in specific mining-related processes; environmental risk management; mining and other disasters and the application of risk management techniques; emergency preparedness in the mining industry.

MINE4800  
Mine Simulation and Modelling  
School of Mining Engineering  
UOC3  HPW3

The course aims to equip students with knowledge and skills in two dimensional (2D) and three dimensional (3D) computer simulation software used in the mining industry. Students undertake a critical analysis of simulation software and technology and discuss their findings through an online discussion group with the aim of identifying when, where and how to apply either 2D or 3D computer simulation technology to mine planning or mine operations. A model of a mining system is then designed, built and evaluated using simulation techniques. An informed report is written and presented that discusses the model developed in the course and the conclusions drawn on the application of 2D and 3D simulation to mining operations.

On successful completion of the course students should be able to: identify and select appropriate computer simulation software tools that are available to the mining industry; design, develop and evaluate an interactive computer model of a mining system using 2D and 3D simulation software; visualise disparate mine data within a 3D model and appraise their role in ore deposit modelling; make an informed assessment of when it is appropriate to apply 2D and 3D modelling techniques to mining operations.

MINE4805  
Mineral Process Technology  
School of Mining Engineering  
UOC3  HPW3


Assumed Knowledge: MINE3800
MINE4810
Computational Methods in Geomechanics
School of Mining Engineering
UOC6 HPW3
To provide students with an understanding of the theory and practice of finite difference, finite element and boundary element methods applied to problems of geomechanics. Boundary value problems, solution of Poisson's equation by finite differences, variational principle for Poisson's equation, stiffness matrix and equivalent nodal force vector, finite elements and matrix assembly, variational statement and finite elements for elasticity, isoparametric elements, modelling techniques, elastoplastic finite element analysis. Indirect and direct boundary element methods for Poisson's equation, isoparametric boundary elements, direct method for elasticity.
Upon successful completion of the course, the student will be able to carry out elastic and elastoplastic analyses of stress in rock, soil and other materials. The student will know for any given problem what input data including material properties are required, which is the most suitable method of analysis, and how to obtain the best possible accuracy with available computing resources.
Assumed Knowledge: MINE2320

MODL2000
Intercultural Communication
School of Modern Language Studies
UOC6 HPW3
Prerequisite: 36 Level 1 units of credit in Arts, including at least 12 units of credit in a language course or equivalent
Examines the factors which determine our use of verbal and non-verbal language in social interaction across different cultures. Aims to identity and compare the factors which lead to communication breakdown; the expressions of formality, politeness and emotion in a variety of languages. Also considers the issues involved in intercultural adaptation and the impact on one's identity. Designed to complement courses offered in the School of Modern Language Studies by developing learners' intercultural communications skills.
Note: Lectures will be in English with language specific work offered in tutorials.

MOJL2002
Introduction to Professional Interpreting
School of Modern Language Studies
UOC6 HPW3
Prerequisite: 36 Level 1 units of credit in Arts, including at least 12 units of credit in a language course or equivalent
Aims at providing students with foundations of professional interpreting. Essentially a practical course, it deals with subject areas most common in Australia and international contexts. Involves tasks such as dialogue and consecutive interpreting and deals with thematic areas such as welfare, social security, medical and legal. Addresses crucial interpreting and linguistic problems relevant to interpreting: problems of vocabulary, equivalents, syntax, grammar and speech register. Includes the acquisition of interpreter's practical skills and looks at socio cultural aspects of interpreting and professional ethics.
Note: High level of skills in English and a language other than English is a prerequisite. This course is available to students who have completed at least 12 units of credit or equivalent in French, German, Indonesian, Russian or Spanish and students who have completed JAPN3001 or KORE3001 or equivalent.

MSCI2051
Coral Reef: Environment and Ecology
School of Biological, Earth and Environmental Sciences
UOC6
Basic oceanographic processes and how these apply in the Great Barrier Reef, the characteristics of the waters of the Great Barrier Reef; the types and development of reefs, corals and reef communities, environmental damage to corals and exploitation of the reef, management by Great Barrier Reef Marine Park Authority. Laboratory classes include a study of the reef flat, its inhabitants, their distributions and interactions, the reef environment and its measurement.
Note: Available February and July. Personal expenses will be incurred.

MSCI3001
Physical Oceanography
School of Mathematics
UOC6 HPW4
An introduction to the physical properties and circulation of the oceans. The geography of the sea and properties of seawater. Understanding what controls coastal ocean currents, water-mass formation, upwelling, storm surges and large-scale ocean flow. The dynamics of a range of ocean processes, including waves, tides, beach currents and the El-Nino/Southern Oscillation. Oceanographic instrumentation and the design of ocean measuring programs.
Note: Laboratory and field work.
Assumed knowledge: Any 6 Units of Credit of Level I Mathematics.

MSCI4003
Marine Science 4 Honours Full-Time
School of Biological, Earth and Environmental Sciences
UOC24 HPW30

MSCI6200
Coastal Monitoring Techniques
School of Biological, Earth and Environmental Sciences
UOC6 HPW5
Note: Field work of up to 4 days is a compulsory part of this course. Students will incur personal costs.

MSCI6300
Coastal Environmental Assessment
School of Biological, Earth and Environmental Sciences
UOC6 HPW5
The interaction of water masses, bottom sediments and benthic organisms. Sampling techniques, analytical methodology and statistical data evaluation. Environmental assessment of Australia and overseas areas. An important aspect of this course is its practical approach: from data gathering, data evaluation and environmental assessment report writing. Practical work in the course involves each student as an active member of a project team.
Note: Field work of up to 3 days is a compulsory part of this course. Students will incur personal costs. Details will be provided in the first week of the course.

MTRN3201
Digital Logic for Mechatronics
School of Mechanical and Manufacturing Engineering
UOC6 HPW3
Excluded: MECH4201, MECH9201, MTRN9201

MTRN3202
Microprocessor Control
School of Mechanical and Manufacturing Engineering
UOC3 HPW3
Prerequisite: ELEC0807 Excluded: MECH3202, MECH9202, MTRN9202
Microprocessor architecture; introduction to microprocessor programming in assembler and high level languages and specific aspects of programming of a single board/chip microcomputer; programming concepts. Instruction sets and addressing modes; instruction timing; interrupts. Laboratory complement to lectures based on the use of single board computers.

**MTRN3212 Principles of Control of Mechanical Systems**
School of Mechanical and Manufacturing Engineering
UOC3  HPW3
Prerequisite: MECH3211

Introduction to modern systems analysis. Review of modelling, simulation and non-linear systems. Stability criteria; use of Root Locus and Bode for system analysis and modification. The matrix exponential and state space notation. The transfer matrix. Pole and state feedback, controllability and observability. Use of MATLAB as a simulation environment.

**MTRN3230 Computing Applications in Mechanical Systems**
School of Mechanical and Manufacturing Engineering
UOC3  HPW3
Prerequisite: MECH1500 Excluded: MECH3510

Development of programming skills in the C++ language for applications in Mechanical Engineering, Object Oriented Programming for developing software models of mechanical systems such as open kinematic chains. Development of user machine interfaces for instrumentation, interfacing and measurement. Interrupt service routines and introduction to real-time programming. Development of C++ routines for integration with MATLAB for data acquisition.

**MTRN4221 Industrial Robotics**
School of Mechanical and Manufacturing Engineering
UOC3  HPW3
Prerequisite: MECH3200 or MECH3204, MECH3212 or MTRN3212, MECH3530 or MTRN3530

Automation types; introduction to industrial robots; end effectors. Robotic history, populations and main use; laboratory and PC environments. Kinematics of multidegree of freedom systems; simulation with open systems software. Safety standards; design of installations. Anatomy of an industrial robot as an intelligent machine; robot languages; work cell design. Projects.

**MTRN9211 Modelling and Control of Mechatronic Systems 1**
School of Mechanical and Manufacturing Engineering
UOC6  HPW3
Excluded: MECH9211

Development of modelling technique and design of controllers using digital computers, with special emphasis on digital control systems for motion control. Typical examples of mechatronic systems.

**MTRN9222 Artificially Intelligent Machines**
School of Mechanical and Manufacturing Engineering
UOC6  HPW3
Excluded: MECH4222, MECH9222

The principles of operation of machines into which limited powers of decision making have been delegated. The grouping of intelligent machines. Cognition; sensor technology; parsing; information representation; convolutions; software and hardware environments.

**MTRN9223 Machine Condition Monitoring**
School of Mechanical and Manufacturing Engineering
UOC6  HPW3
Excluded: MECH4223, MTRN8223

Sensors and transducer interfacing to computers. Vibration signatures of faults in rotating and reciprocating machines; detection and diagnosis of faults; characterisation of signatures; prediction of service life and maintenance procedures. Project on measuring a parameter indicating possible failure.

**MTRN9224 Robot Design**
School of Mechanical and Manufacturing Engineering
UOC6  HPW3
Prerequisite: MTRN3212

The course is aimed at developing skills on how to design and build a robot from scratch. The course primarily contains the following contents: Introduction to robot design. Mechanisms and dynamics of animals. Mechanical design of wheeled, legged and manipulator robots. Calculation of torques and selection of motors. Environment and selection of sensors. Integration of mechatronic systems. Motion planning and control. Design of a robot using CAD. Simulation of a robot using MATLAB/C/C++.

**MUSC1001 Music Fundamentals**
School of Music and Music Education
UOC6  HPW3
Excluded: MUSI1103, MUSI1301, MUSI1414, MUSI1142

Provides an opportunity for students to develop musicianship through the study of Western music literature, participation in an approved ensemble and attendance at workshops and concerts. Enables students to develop skills such as music literacy, analysis and aural awareness.

**MUSC1101 Music Reinvented**
School of Music and Music Education
UOC6  HPW3
Excluded: MUSC1001, MUSI1141, MUSI1241, MUSI1003

Designed as an introduction to a wide range of musical styles, techniques and circumstances as well as methods of study in music. Enables students to acquire insight into compositional processes and the place music occupies in different societies. Includes study of early 20th century music and ethnomusicology.

Assumed knowledge: A satisfactory standard in HSC music or in AMEB 7th grade practical (pass) plus 5th grade theory or musicianship.

**MUSC1302 Musicianship A**
School of Music and Music Education
UOC6  HPW3
Prerequisite: MUSC1101; Excluded: MUSI1241

Examines the structures and processes of music, focussing on analysis of diatonic harmony in various styles and periods, the observation of harmonic and melodic practices in musical composition and the acquisition of aural and keyboard skills, covering basic musical structures and sight-reading. Requires the successful completion of music literature tests.

Assumed knowledge: A satisfactory standard in HSC music or in AMEB 7th grade practical (pass) plus 5th grade theory or musicianship.

**MUSC1312 BA Musicianship A**
School of Music and Music Education
UOC6  HPW3
Prerequisite: MUSC1001 or MUSC1101; Excluded: MUSI1241

Examines the structures and processes of music, focussing on analysis of diatonic harmony in various styles and periods, the observation of harmonic and melodic practices in musical composition and the acquisition of aural skills covering basic musical structures and sight-reading. Requires the successful completion of music literature tests and participation in a performance ensemble.

**MUSC1401 Professional Practices A**
School of Music and Music Education
UOC6  HPW5
Prerequisite: Enrolment in Program 3425 or 3427; Excluded: MUSI1401

Includes private tuition and examination on major instrument, participation in university ensembles, plus classes in performance studies and electives in composing, jazz studies or musicology.

**MUSC1402 Professional Practices B**
School of Music and Music Education
UOC6  HPW5
Prerequisite: MUSC1401; Excluded: MUSI1402

Continuation of MUSC1401.
MUSC1501
Music Performance 1A
School of Music and Music Education
UOC6 HPW3
Prerequisite: Enrolment in Program 3426; Excluded: MUSI1501
Includes private tuition on major instrument and participation in university ensembles, plus tutorials on minor studies instruments (guitar and percussion).

MUSC1502
Music Performance 1B
School of Music and Music Education
UOC6 HPW3
Prerequisite: MUSC1501 or MUSI1501; Excluded: MUSI1502
Continuation of MUSC1501.

MUSC1601
Introduction to Music Education
School of Music and Music Education
UOC6 HPW3
Prerequisite: Enrolment in Program 3426; Excluded: MUSI1801
Covers basic issues in music education, theory and practice and develops a range of skills, knowledge and understandings associated with classroom teaching at the K-6 level. Also introduces basic teaching skills with opportunities to observe, critically evaluate and practise a variety of music lessons in varying formats. Deals with issues related to the responsibility of a music teacher in relation to the expectations of pupils, parents and employers.
Note: Includes three weeks of practice teaching in primary schools.

MUSC2101
Music of the Baroque
School of Music and Music Education
UOC6 HPW3
Prerequisite: MUSC1302 or MUSC1312 or MUSC2111; Excluded: MUSI1142
A detailed study of 17th and 18th century baroque music. Includes an historical introduction to the issues of performance practice.

MUSC2111
Introduction to Musicology
School of Music and Music Education
UOC6 HPW3
Prerequisite: MUSC1001, MUSC1312; Excluded: MUSI1141, MUSI2311
Designed as an introduction to a wide range of musical styles, techniques and circumstances as well as methods of study in music. Enables students to acquire insight into compositional processes and the place music occupies in different societies. Includes study of early 20th music and ethnomusicology.

MUSC2112
Music of the 18th and 19th Centuries
School of Music and Music Education
UOC6 HPW3
Prerequisite: MUSC1101 and MUSC1302 or MUSC2111 or MUSI1142; Excluded: MUSI2141
A study of Classical and Romantic music in their historical, social and cultural contexts. Includes a seminar in musicological research techniques.

MUSC2132
Music of the late Middle Ages and Renaissance
School of Music and Music Education
UOC6 HPW3
Prerequisite: MUSC1302 or MUSC1312 or MUSC2111 or MUSI1142; Excluded: MUSI2141
An introduction to Medieval and Renaissance music in its social, historical and cultural contexts.

MUSC2201
Music of Aboriginal Australians
School of Music and Music Education
UOC6 HPW3
Prerequisite: MUSC1302 or MUSC1312 or MUSC2111 or MUSI1142; Excluded: MUSI2141, AUST2026
A study of traditional and contemporary Aboriginal music in its social, historical and cultural contexts.

MUSC2301
Musicianship B
School of Music and Music Education
UOC6 HPW3
Prerequisite: MUSC1302 or MUSC1242; Excluded: MUSI2241
Extends MUSC1302 by furthering students’ knowledge of harmonic vocabulary through the analysis of both diatonic and chromatic harmony and the observation of harmonic and melodic practices in musical composition. Also includes further development of aural skills and a keyboard tutorial which covers score reading and figured bass and completion of music literature tests.

MUSC2302
Musicianship C
School of Music and Music Education
UOC6 HPW3
Prerequisite: MUSC1302 or MUSC1242
Extends MUSC2301 by furthering students’ knowledge of chromatic harmony, analysis and counterpoint. Includes further development of aural, sight-reading and keyboard skills such as improvising an accompaniment and realising figured bass, plus the completion of music literature tests.

MUSC2311
BA Musicianship B
School of Music and Music Education
UOC6 HPW3
Prerequisite: MUSC1312 or MUSI2142
Extends MUSC1312 by furthering students’ knowledge of harmonic vocabulary through the analysis of both diatonic and chromatic harmony and the observation of harmonic and melodic practices in musical composition. Also includes further development of aural skills, completion of music literature tests and one hour participation in a performance ensemble.

MUSC2312
BA Musicianship C
School of Music and Music Education
UOC6 HPW3
Prerequisite: MUSC2311 or MUSI2242; Excluded: MUSI2242, MUSI3312
Extends MUSC2311 by furthering students’ knowledge of chromatic harmony, analysis and counterpoint. Includes further development of aural, sight-reading and keyboard skills such as improvising an accompaniment and realising figured bass, plus the completion of music literature tests.

Note: Includes one hour of performance ensemble participation.

MUSC2332
Electronic Music
School of Music and Music Education
UOC6 HPW3
Prerequisite: MUSC2301 or MUSC2311 or MUSI2242; Excluded: MUSC3311, MUSI141, MUSI2142
Examines psychosounds and historical foundations of electronic music with practical experiences on a range of software and hardware. Includes use of internet resources.

MUSC2401
Professional Practices C
School of Music and Music Education
UOC6 HPW5
Prerequisite: MUSC1101, MUSC1302, MUSC1402 or MUSI1142, MUSI1242, MUSI142; Excluded: MUSI2401
Includes private tuition and examination on major instrument, participation in university ensembles, plus classes in performance studies and electives in composing, jazz studies or musicology.

MUSC2402
Professional Practices D
School of Music and Music Education
UOC6 HPW5
Prerequisite: MUSC2401 or MUSI2401; Excluded: MUSI2402
Continuation of MUSC2401.
MUSC2501  
Music Performance 2A  
School of Music and Music Education  
UOC6  HPW5  
Prerequisite: (MUSC1502, MUSC1101, MUSC1302) or (MUSI1502, MUSI1142, MUSI1312); Excluded: MUSI2501  
Includes private tuition on major instrument and participation in university ensembles, plus tutorials on minor studies instruments (brass or woodwind).

MUSC2502  
Music Performance 2B  
School of Music and Music Education  
UOC6  HPW5  
Prerequisite: MUSC2501  
Continuation of MUSC2501.

MUSC2601  
Introduction to Secondary Music Education  
School of Music and Music Education  
UOC6  HPW3  
Prerequisite: MUSC1601 or MUS11802; Excluded: MUSI1801, MUSI2801, MUSI2802  
Emphasises high school general classroom music methods for years 7 and 8, by developing strategies for listening, aural and literacy development, music appreciation, performance and creativity (improvisation and composition). Special attention is given to the new curriculum guide and includes techniques for introducing popular music, jazz, and music from other cultures, and evaluating selected documents concerned with professional ethics, and the theory and practice of classroom management. Includes three week practice teaching in a secondary school.

MUSC3101  
Professional and Ethical Practices in Music  
School of Music and Music Education  
UOC6  HPW3  
Prerequisite: MUSC2302 or MUSC2312 or MUSI2242; Excluded: MUSI3111  
Requires active participation in a seminar devoted to developing an understanding of research methodologies in music across a range of topics. Individually chosen topics provide the subject areas for the class and these lead to detailed discussions of professional and ethical issues.

MUSC3112  
Seminar in Musicolesy  
School of Music and Music Education  
UOC6  HPW3  
Prerequisite: MUSC3101; Excluded: MUSI3112  
Continuation of MUSC3101, a seminar devoted to exploring the processes in research on music through discussion, and the development of individually chosen research projects on a wide range of topics in musicolesy and ethnomolesy. The seminar culminates in the preparation and submission of a formal research project on an approved topic.

MUSC3131  
Jazz and Popular Music  
School of Music and Music Education  
UOC6  HPW3  
Prerequisite: MUSC2302 or MUSC2312  
Study of the elements that have shaped and enriched 20th century jazz and popular musics through a chronological study of musical trends within the broad category of jazz. Applies methods drawn from ethnomolesy and cultural studies in order to develop an understanding of the social ecology of each genre studied.

MUSC3162  
Twentieth Century Music  
School of Music and Music Education  
UOC6  HPW3  
Prerequisite: MUSC1101 and MUSC1302 or MUSC2111 or MUSI1142; Excluded: MUSI3142  
Focuses on the major trends and developments in 20th century concert music through a study of technical processes in a wide range of listening examples. Includes recent Australian music.

MUSC3212  
Music of India  
School of Music and Music Education  
UOC6  HPW3  
Prerequisite: MUSC1302 or MUSC1312 or MUSC2111 or MUSI1142; Excluded: MUSI3141  
Introduces the musical traditions of India in their socio-cultural contexts. Students apply and refine their understanding of aspects of ethnomolesyical theory, methods and issues.

MUSC3301  
Music Analysis  
School of Music and Music Education  
UOC6  HPW3  
Prerequisite: MUSC2302 or MUSI2312; Excluded: MUSI2241, MUSI2242  
Examines the structure and processes of music, focussing on the study of a range of analytical techniques and their application in various styles and periods.

MUSC3302  
Orchestration and Arrangement  
School of Music and Music Education  
UOC6  HPW3  
Prerequisite: MUSC2302 or MUSC2312; Excluded: MUSI2241, MUSI2242  
Develops skills in arranging, orchestration and preparation of music scores through the study of instrumental techniques, a historically wide range of orchestral scores, listening and practical exercises.

MUSC3331  
Advanced Electronic Music  
School of Music and Music Education  
UOC6  HPW3  
Prerequisite: MUSC3311 or MUSC2332; Excluded: MUSI3141, MUSI3142  
Continuation of MUSC3311/MUSC2332 with a specialisation in selected techniques, sound recording, studio work, software and hardware, plus methods of using technology in music composition.

MUSC3401  
Advanced Professional Practices A  
School of Music and Music Education  
UOC6  HPW5  
Prerequisite: MUSC2402 or MUSI2402; Excluded: MUSI3401  
Includes private tuition and examination on major instrument, participation in university ensembles, plus classes in performance studies and electives in composing, jazz studies or musicolesy.

MUSC3402  
Advanced Professional Practices B  
School of Music and Music Education  
UOC6  HPW5  
Prerequisite: (MUSC2302, MUSC3401) or (MUSI2242, MUSI3401); Excluded: MUSI3402  
Continuation of MUSC3401, but also includes preparation for public recital, and opportunities for further specialisation.

MUSC3501  
Advanced Music Performance 3A  
School of Music and Music Education  
UOC6  HPW5  
Prerequisite: MUSC2502 or MUSI2502; Excluded: MUSI3501  
Includes private tuition on major instrument and participation in university ensembles, plus lectures and masterclasses on performance practice, pedagogy and conducting, to refine individual performance skills, and to develop competencies for teaching performance at all levels of the school curriculum.

MUSC3502  
Advanced Music Performance 3B  
School of Music and Music Education  
UOC6  HPW5  
Prerequisite: MUSC2302 and MUSC3501 or MUSI3501  
Continuation of MUSC3501, plus masterclasses on performance practice and preparation for recital at end of semester.
MUSC3601
Specialist Studies in Music Education
School of Music and Music Education
UOC6; HPW3
Prerequisite: MUSC2601 or MUSI2802; Excluded: MUSI2801, MUSI3801
Focuses on the elective secondary curriculum and teaching strategies involved in effectively meeting syllabus requirements. Content includes performance, aural perception, literacy development, creativity (improvisation and composition), listening, and a critical evaluation of selected documents concerned with educational policy and practice. Extends previous work by developing effective strategies for classroom management and learning how to cater for the needs of individual learners. Includes three weeks of practice teaching in a secondary school.

MUSC3602
Creativity and Special Topics in Music Education
School of Music and Music Education
UOC6; HPW4
Prerequisite: MUSC3601; Excluded: MUSI3801, MUSI3802
Examine the scope of recent research in music education and surveys the field of music psychology and sociology, and the methodological approaches to and sources for further investigation specifically related to music teaching and learning. Focuses on the application of these areas in the Australian environment, and examines theories and current research concerned with creativity, musical ability and current issues in studies of music perception and cognition. Aims to expose students to a variety of ideas and trends which confirm or contradict established norms and attitudes on effective music teaching.

MUSC3612
Principles and Processes of Music Education
School of Music and Music Education
UOC6; HPW3
Corequisite: MUSC4602
Appropriate seminars in musicology, further development of performance skills and musical leadership, together with a thesis of 15,000 - 20,000 words on a musico-logical topic, an extended recital or other approved special project.

MUSC4000
Bachelor of Music Honours Full-Time
School of Music and Music Education
UOC24; HPW5
Prerequisite: Completion of the requirements for the Pass degree with an average of at least Credit
Appropriate seminars in musicology, further development of performance skills and musical leadership, together with a thesis of 15,000 - 20,000 words on a musico-logical topic, an extended recital or other approved special project.

MUSC4001
Music Honours (BA)
School of Music and Music Education
UOC24; HPW5
Prerequisite: 54 units of credit in Music courses, including MUSC3101 and MUSC3112, with an average of at least Credit
Appropriate seminars in musicology, further development of performance skills and musical leadership, music literature study, together with a thesis of 15,000 - 20,000 words on a musico-logical topic.

MUSC4002
Music Education Honours
School of Music and Music Education
UOC24; HPW5
Prerequisite: Completion of the requirements for the Pass degree with an average of at least Credit
Seminars on research methods in music education culminating in a thesis of 15,000-20,000 words on a topic in music education or other approved special project and further study of music.

MUSC4601
Advanced Studies in Music Education
School of Music and Music Education
UOC6; HPW3
Prerequisite: MUSC2302 and either MUSI3802 or MUSC3602; Excluded: MUSI4801
Develops competencies for teaching music in years 11 and 12 and covers requirements for the Higher School Certificate examinations in music. Lesson styles are examined and methods for designing programs are also considered. An additional component deals with current developments in educational policy and practice plus issues concerned with the professional responsibilities of teachers. Administrative arrangements for the practicum in Session 2, professional ethics, legal responsibilities of teachers, and programming address Objective 5 of the General Education program.

MUSC4602
Music Teaching Experience
School of Music and Music Education
UOC6; HPW3
Corequisite: MUSC3612
Consists of 35 days experience in a secondary school which allows the observation of lessons conducted by experienced teachers and the planning and delivery of lessons under the direction of supervising teachers, plus the knowledge concerned with the organisational aspects of a high school and activities other than those related to subject delivery, especially school policies and general supervision of school students.

MUSC4650
Conducting
School of Music and Music Education
UOC6; HPW3
Corequisite: MUSC3612
Covers three weeks of practice teaching in a secondary school.

NANO1001
Nanotechnology 1
School of Materials Science and Engineering
UOC3; HPW3
This course provides students with an overall view of nanotechnology. The course is composed of self-learning modules and a weekly seminar. The seminars will primarily be given by outside speakers discussing different aspects of Nanotechnology including device manufacture, the Nanotech industry, intellectual property and establishing start-up companies. The major component of the topic will be two projects to study the connection between the underlying nanoscience of various nanotechnology devices. Students, in small groups, will undertake studies chosen from each of the major themes of biosensors and nanostructures. Examples from major nanotechnology initiatives will include quantum computing, DNA chips, nanogears, quantum dots, DNA sequencing, nanoparticles, ion-channel biosensors and other examples. Students will prepare written reports and oral presentations of their material.

NANO32002
Nanotechnology 2
School of Materials Science and Engineering
UOC3; HPW3
This course will concentrate on specific issues relating to the production of nanostructures, nanostructured materials and nanoscale devices. The production of nanostructures will deal with methods for synthesizing and assembling nanostructures, the concept of self-assembly and methods of characterizing their composition and structure. The second and third themes will use contemporary examples to illustrate the unique mechanical and electronic properties of nanoscale materials and devices and their application to, for example, quantum computing.

NANO33003
Nanotechnology 3
School of Materials Science and Engineering
UOC3; HPW3
This course will concentrate on specific issues relating to the production of nanostructures, nanostructured materials and nanoscale devices. The production of nanostructures will deal with methods for synthesizing and assembling nanostructures, the concept of self-assembly and methods of characterizing their composition and structure. The second and third themes will use contemporary examples to illustrate the unique mechanical and electronic properties of nanoscale materials and devices and their application to, for example, quantum computing.
This course will concentrate on the evolution of nanodevices from concept to commercialisation. Specific issues dealt with will include approaches to fabrication, engineering or bioengineering aspects, putting the whole device together, commercialization aspects, protection of intellectual property and the raising venture capital.

NANO3410
Chemistry of Surfaces
School of Chemistry
UOC3 HPW3
Prerequisite: NANO2002, or approval from the course authority
Vacuum, surface analysis techniques (XPS etc), STM, AFM, surface spectroscopy and solution surface chemistry (micelles, self-assembly, colloids and nanoparticles etc).

NANO3420
Fabrication of Nanostructured Devices
School of Materials Science and Engineering
UOC3 HPW2
Material processes used in the fabrication of electronic devices such as single crystal growth, implantation, lithography, etching and thin film growth. Methods of device packaging. Sources of failure and methods of fault diagnosis in devices.

NANO3440
Biosensors and Biodevices for Nanotechnology
School of Chemistry
UOC3 HPW3
Prerequisite: NANO2002, or approval from the course authority
Principles of transduction, immobilisation of biomolecules, affinity sensors, catalytic sensors, practical realities of their construction, electrochemical sensors, evanescent wave and other optical sensors.

NANO4004
Nanotechnology Project
School of Materials Science and Engineering
UOC18 HPW18
This course requires a major piece of research to be undertaken by students in Stage 4 of the Nanotechnology program 3617.
A range of interdisciplinary projects is offered by contributing schools - Chemistry, Physics, Materials Science and Biochemistry - enabling students to carry out experimental investigations in an area of nanotechnology.
This course is 36 UOC in total: 18 UOC per semester over two semesters.
Note: To be eligible for entry to this course students must be enrolled in program 3617 Nanotechnology, and have successfully completed Stages 1-3.

NAVL3100
Principles of Ship Design
School of Mechanical and Manufacturing Engineering
UOC3 HPW3
Prerequisite: NA VL3601 or NA VL3603

NAVL3110
Ship Practice
School of Mechanical and Manufacturing Engineering
UOC3 HPW3
Corequisite: NA VL3601 or NA VL3603

NAVL3400
Ship Structures 1
School of Mechanical and Manufacturing Engineering
UOC3 HPW3
Prerequisite: MATH2009 or MATH2029, MATS9520, MECH2412, MECH3400

NAVL3603
Ship Hydromechanics A
School of Mechanical and Manufacturing Engineering
UOC6 HPW6
Prerequisite: MATH2029, MECH2300, MECH2612

NAVL3604
Ship Hydromechanics B
School of Mechanical and Manufacturing Engineering
UOC3 HPW3
Prerequisite: NA VL3601 or NA VL3603

NAVL3700
Ship Propulsion
School of Mechanical and Manufacturing Engineering
UOC3 HPW3
Prerequisite: NA VL3601 or NA VL3603
Propeller and waterjet terminology, theories of action, interaction with the hull, cavitation, propeller, waterjet and engine data, practical details and drawing, strength, estimation of polar moment of inertia and entrained water.

NAVL4101
Design of High Speed Craft
School of Mechanical and Manufacturing Engineering
UOC3 HPW3
Prerequisite: NA VL3100, NA VL3602 or NA VL3604 Corequisite: NA VL4401
Practical design and layout of modern high-speed vessels. Principal characteristics of monohulls and catamarans in terms of, passenger accommodation, vehicles, and cargo handling. Impact of safety considerations and classification society rules. Hydrodynamics, resistance, propulsion and motions specific to monohulls, catamarans, hydrofoils and hovercraft.

NAVL4102
Design of Yachts
School of Mechanical and Manufacturing Engineering
UOC3 HPW3
Prerequisite: NA VL3100, NA VL3604 Corequisite: NA VL4402

NAVL4111
Ship Design Project A
School of Mechanical and Manufacturing Engineering
UOC3 HPW3
Prerequisite: NA VL3700 Corequisite: NA VL4101, NA VL4710
Each student is required to perform the following design tasks for a vessel of their choice and submit the results: 1. Rationale, specification, weights, inboard profile. 2. Power, capacities, freeboard, trim, stability, stern gear. 3. Sectional area curve, lines plan, preliminary midship section.

**NAVL4112**  
*Ship Design Project B*  
School of Mechanical and Manufacturing Engineering  
UOC3  HPW3  
Prerequisite: NAVL4111 Corequisite: NAVL4102, NAVL4720  
Each student is required to perform the following design tasks for a vessel of their choice and submit the results: 4. Hydrostatics, stability and subdivision analysis. 5. Powering, propeller, systems - schematic drawing, detailed capacities. 6. Section modulus calculation, bulkhead, midship section, module concept. 7. Final weights, capacity drawing, operational data and evaluation. 8. Specification.

**NAVL4401**  
*Ship Structures 2A*  
School of Mechanical and Manufacturing Engineering  
UOC3  HPW3  
Prerequisite: NAVL3400, MECH3400 Excluded: AERO4401, AERO9415, MECH9410  
Application of MSC/PATRAN and MSC/NASTRAN to structural analysis. Structural modelling, mesh generation, resources required for solution, evaluation of results. Applications to analysis of practical structures including structural vibrations and prediction of stiffness and ultimate strength.

**NAVL4402**  
*Ship Structures 2B*  
School of Mechanical and Manufacturing Engineering  
UOC3  HPW3  
Prerequisite: NAVL4401  

**NAVL4710**  
*Ship Standards*  
School of Mechanical and Manufacturing Engineering  
UOC3  HPW3  
Prerequisite: NAVL3602 or NAVL3604  

**NAVL4720**  
*Marine Engineering*  
School of Mechanical and Manufacturing Engineering  
UOC3  HPW3  
Prerequisite: NAVL3602 or NAVL3604  

**OB15001**  
*Obstetrics and Gynaecology*  
School of Women's and Children's Health  
UOC10  
Prerequisite: MDG4001  
Objectives: To be able to take a history and perform a physical examination relevant to the female reproductive system; to recognise common disorders of the female reproductive system; to manage common medical gynaecological disorders likely to be encountered in primary care practice; to provide antenatal and postnatal care for normal women and to recognise deviations from normal; to be able to provide emergency care when indicated and to know the indications for referral. The program consists of tutorials in core subjects, clinical, physiological and pathological conferences and simulated patient management problem exercises. Students are taught in small tutorial groups. Supervised clinical experience is gained in outpatient clinics, inpatient services and the labour wards of The Royal Hospital for Women, St George, Bankstown, and Liverpool hospitals. Some undergraduates currently spend six months in the hospitals in Wagga Wagga and Albury in a combined Paediatric Obstetrics & Gynaecology term. From 2004, hospitals in Coffs Harbour & Port Macquarie will provide teaching for students who will spend the whole nine week term at the School of Rural Health sites. Neonatal paediatric experience is integrated with the teaching of Obstetrics and Gynaecology. Full details are described in a booklet published by the School. Assessment: Continuing evaluation of clinical work, a multiple choice examination and an objective, structured clinical examination in the last week of term.

**OPTM1105**  
*Optics and the Eye 1*  
School of Optometry and Vision Science  
UOC8  HPW8  
Objectives: Understanding of physical and geometrical optics, the eye and ametropia, the measurement of optical radiation preliminary to ocular hazard assessment, colour measurement and specification and lighting design.

Brief Curriculum: Geometrical optics; rectilinear propagation of light, reflection and refraction at plane and spherical surfaces, prisms, thin lenses, simple magnifiers, compound magnifiers, stops, pupils and windows.

Physical optics: Wave nature of light, superposition of waves, interference, diffraction, polarisation. The eye and ametropia: Models of the eye, spherical refractive errors of the eye and their correction with lenses. Measurement of light and colour: Sources of optical radiation, sunlight and daylight, detectors, the eye as a detector, principles and practise of photometry, principles and practise of colour measurement and specification, uniform colour scales, colour rendering, metamerism, colour atlases and order systems.

**OPTM1201**  
*Ocular and Visual Science 1*  
School of Optometry and Vision Science  
UOC4  HPW4  
Prerequisite: OPTM1105, BIOS1401  
Objectives: An understanding of the anatomy and physiology of the eye (particularly the anterior eye), the adnexa and visual system, and detailed information on some aspects of vision that form the foundation of Clinical Optometry. These subjects are studied in greater depth in later years.

Brief Curriculum: Introduction to the gross anatomy of the eye, orbit and adnexa; the microscopic anatomy of the cornea, lens, uvea, eyelids, lacrimal apparatus and retina. The physiology of the cornea, of tear and aqueous production, along with the physiology of the crystalline lens, are also covered.

**OPTM1202**  
*Clinical Optometry 1*  
School of Optometry and Vision Science  
UOC6  HPW6  
Objectives: Familiarity with basic clinical optometric goals, skills and techniques.

Brief Curriculum: Role of the optometrist, history of optometry, verbal and written communication in optometry, practice structure and organisation, clinical measurement of visual function including vision and visual acuity, colour vision, binocular vision and visual fields, examination of the internal and external eye (including biomicroscopy), and introduction to soft and rigid contact lenses. Dispensing: introduction to frames, lenses and the fabrication of optical appliances.

**OPTM1205**  
*Optics and the Eye 2*  
School of Optometry and Vision Science  
UOC4  HPW4  
Prerequisite: OPTM1105, PHYS1199; Corequisite: OPTM1201  
Objectives: Understanding of the optics of the eye and visual performance, measurement and correction of refractive errors, spectacle lenses and their subsidiary effects.

Brief Curriculum: Optics of the measurement and correction of the errors of refraction of the eye, accommodation, retinal image analysis, visual acuity, contrast sensitivity, modulation transfer function, limits to visual resolution, higher order aberrations of the eye, astigmatism, near correction, subjective refraction, ocular correction of ametropia (contact and implant lenses), spectacle magnification and prismatic effects, entoptic phenomena.
OPTM2107
Foundations of Hygiene & Infectious Disease in Optometric Practice
School of Optometry and Vision Science
UOC 4    HPW4
Prerequisite: BIOS1401, CHEM1819 Corequisite: CHEM1829
Objectives: An understanding of basic microbiology applied to optometric practice.

OPTM2101
Ocular and Visual Science 2A
School of Optometry and Vision Science
UOC 6    HPW6
Prerequisite: OPTM2101, CHEM1829 Corequisite: PHPH2121
Objectives: Understanding of the anatomical, physiological and psychophysical fundamentals of visual perception, as they underlie the practice of modern clinical optometry.

OPTM2102
Clinical Optometry 2A
School of Optometry and Vision Science
UOC 6    HPW6
Prerequisite: OPTM1201, OPTM1202, OPTM1205 Corequisite: OPTM2101, OPTM2105
Objectives: An analysis of the primary care optometric consultation. The development of good communication skills. Appreciation of the breadth of presentation of normal vision and ocular status. Acquisition of technical skills to carry out an evaluation of the health of the ocular and visual system and of refractive status with a view to prescribing spectacles for the uncomplicated patient.
Brief Curriculum: Ocular health: history and symptoms, introduction to diagnostic drugs, slit lamp biomicroscopy, tonometry, direct ophthalmoscopy, external eye examination. Ametropia: aetiology and management of refractive errors, objective and subjective refraction, cycloplegic refraction and prescribing lenses, special populations.

OPTM2105
Optics and the Eye 3
School of Optometry and Vision Science
UOC 3    HPW3
Prerequisite: OPTM1202, OPTM1205 Corequisite: OPTM2101.
Objectives: Understanding the optics of ophthalmic instruments and clinical applications. Understanding the optics of the devices and components of refraction. Understanding the subsidiary effects and the basic design principles of ophthalmic lenses. Understanding the aberrations of the human eye.
Brief Curriculum: Ophthalmic instruments and clinical applications: direct ophthalmoscope, indirect ophthalmoscope, retinoscope, keratometry, the radiuscope, tonometry, pachometry, projectors, bio-microscopy, stereoscopy, low vision aids, devices and components of refraction: ophthalmometers (subjective/objective), Stokes lens, Scheiner disc, astigmatic decomposition, photorefraction and remote refraction. Ophthalmic lenses: near astigmatism, horizontal and vertical prismatic effects, anisometropia, aberrations, oblique astigmatism, curvature error, distortion & chromatic aberration, best form lenses, and design of contact lenses. Aberrations of the eye; measurement and correction of the monochromatic wave aberrations of the eye.

Objectives: Acquisition of the technical skills needed to refract and assess the ocular health of an uncomplicated normal patient; development of clinical synthesis and problem solving abilities.
Brief Curriculum: Ocular health: history and symptoms, introduction to diagnostic drugs; Ametropia: measurement of visual acuity, aetiology and management of refractive error, objective and subjective refraction, retinoscopy, cycloplegic refraction, prescribing and dispensing prescription lenses, clinical aspects of lens design, special populations. Clinical skills: problem based consultations, interviewing skills, clinical decision making, case analysis.

OPTM2201
Ocular and Visual Science 2B
School of Optometry and Vision Science
UOC 6    HPW6
Prerequisite: OPTM2101, OPTM2102 Corequisite: PHPH2201.
Objectives: To develop an understanding of the structure and function of the human visual system, in adults and during development. Brief Curriculum: The structure and function of the visual pathway from the optic nerve to visual areas of the cerebral cortex. Basic embryology, and the normal and abnormal development of the visual pathway, from eye to brain. The assessment of visual function using electrophysiological techniques. The assessment of visual function in non-verbal patients, using psychophysical techniques. The normal and abnormal development of the visual system; the way in which the human visual system assesses relative depth of objects within the visual scene.

OPTM2202
Clinical Optometry 2B
School of Optometry and Vision Science
UOC 6    HPW6
Prerequisite: OPTM2101, OPTM2102, OPTM2105 Corequisite: OPTM2201, OPTM2206
Objectives: To build on OPTM2102 in equipping the student to be professional in manner with good communication and technical skills and able to carry out a logically sequenced primary care evaluation of the health of the ocular and visual system, refractive status and binocular coordination with a view to prescribing spectacles for the uncomplicated patient.

OPTM2206
Pathology for Optometry
School of Optometry and Vision Science
UOC 3    HPW3
Prerequisite: OPTM1207, OPTM1202.
Objectives: A basic understanding of general and systemic pathophysiology. Brief Curriculum: Cell injury and adaptation, pathogenesis of cell injury, inflammation, edema, thrombosis, embolism, arteriosclerosis, neoplasia, environmental disease, diabetes, hypertension, myocardial infarction, intracranial pathology, cerebral disease. Practical examples of ocular disease shall be discussed.

OPTM2211
Optometry 2B
School of Optometry and Vision Science
UOC 6    HPW6
Prerequisites: VISN2111, VISN2131; Corequisites: VISN2211, VISN2231, PHPH2201
Objectives: To build on Optometry 2A in equipping students with the technical skills needed to assess the ocular health of an uncomplicated patient.
Brief Curriculum: the normal fundus, direct and indirect ophthalmoscopy, slit lamp biomicroscopy, fundus lenses, tonometry, gonioscopy, opthalmic projectors, visual field assessment, colour vision assessment, external eye examination.

OPTM3102
Clinical Optometry 3A
School of Optometry and Vision Science
UOC 12    HPW12
Prerequisite: OPTM2201, OPTM2202, OPTM2206; Corequisite: OPTM3108, PSYC3516.
Objectives: To produce a student with a professional attitude and good communication skills who has the ability to integrate scientific and clinical aspects of optometry and make well-reasoned decisions while undertaking patient care at the UNSW Optometry Clinic under supervision of a registered optometrist. To advance student knowledge in dispensing, refraction, colour vision, ocular health assessment, paediatric vision and contact lenses. To advance student abilities in case analysis by integrating all aspects of optometry. To stimulate students' interest in optometric subspecialties such as colour vision, paediatric vision care and contact lenses.

Brief Curriculum: Lectures, tutorials and practical classes will deal with: refraction - practical aspects; contact lenses - soft and rigid contact lens design and manufacture, fitting techniques and evaluation, care and maintenance of contact lenses; paediatric optometry - child development and role of vision, behavioural optometry, visual perceptual dysfunction and learning difficulties, contact lenses and special needs children; dispensing - practical aspects; advanced ocular assessment - colour vision, visual fields and other techniques of assessing ocular and visual function.

OPTM3108
Ocular Disease
School of Optometry and Vision Science
UOC6 HPW6
Prerequisite: OPTM2102, OPTM2106
Objectives: to introduce the diagnosis and optometric management of diseases of the anterior and the posterior eye and visual system. Brief curriculum: diseases of the lids, conjunctiva, lacrimal system, sclera, cornea, vitreous body, crystalline lens, uvea, retina, optic nerve, pupils, cranial nerves and visual pathway. Glaucoma, diplopia, effects of systemic disease and ocular trauma will also be discussed.

OPTM3111
Optometry 3A
School of Optometry and Vision Science
UOC6 HPW6
Prerequisites: VSN2211, VSN2231, OPTM2211; Corequisites: VSN3111, OPTM3111
Objectives: To produce a student with a professional attitude and good communication skills who can integrate scientific and clinical aspects of optometry. To advance student knowledge and stimulate interest in dispensing, contact lenses and binocular vision.

Brief Curriculum: Dispensing: lens types, tints, ophthalmic prism, lens materials, neutralising lenses, interpreting a prescription, selecting spectacles frames, patient management, case studies; Contact lenses: terminology, lens design, contact lens biophysics, rigid lenses, soft lenses, optics of contact lenses, lens care, fitting children; Binocular vision: interviewing, ocular motility, accommodation, vergence eye movements, heterophoria measurement, the stereoscope, graphical analysis, case analysis.

OPTM3131
Ocular Disease 3A
School of Optometry and Vision Science
UOC6 HPW6
Prerequisite: VSN2231, OPTM2211, PHPH2201; Corequisites: VSN3111, OPTM3111
Objectives: To introduce students to the diagnosis and optometric management of diseases of the anterior eye.
Brief Curriculum: Diseases of the eyelids, ocular adnexa, conjunctiva, lacrimal system, cornea, vitreous body and lens; Case analysis.

OPTM3203
Clinical Optometry 3B
School of Optometry and Vision Science
UOC6 HPW3
Prerequisite: OPTM3102, OPTM3108, PSYC3516; Corequisite: OPTM3209, PHPH3302
Objectives: To produce a student with professional attitude and good communication skills who has the ability to integrate scientific and clinical aspects of optometry and make well-reasoned decisions while undertaking patient care at the UNSW Optometry Clinic under supervision of a registered optometrist. To advance student abilities in case analysis by integrating all aspects of optometry. Brief Curriculum: Students will examine patients in the Optometry Clinic and satellite clinics and participate in tutorials.

OPTM3204
Clinical Optometry 3C
School of Optometry and Vision Science
UOC8 HPW8
Prerequisite: OPTM3102, OPTM3108, PSYC3516; Corequisite: OPTM3203, OPTM3209, PHPH3302
Objectives: To produce a student with professional attitude and good communication skills who has the ability to integrate scientific and clinical aspects of optometry and make well-reasoned decisions while undertaking patient care at the UNSW Optometry Clinic under supervision of a registered optometrist. To advance student knowledge in and to stimulate students' interest in optometric subspecialties such as low vision, binocular vision and contact lenses. Brief Curriculum: Lectures, tutorials, and practical classes will deal with: contact lenses - complications, clinical management, special applications and advanced topics; binocular vision - case analysis, diagnosis and management of strabismus and amblyopia, aniseikonia and related topics; low vision rehabilitation - epidemiology of visual impairment, the low vision examination, survey of current low vision aids, adaptive technology, the multidisciplinary model.

OPTM3209
Environmental Optometry
School of Optometry and Vision Science
UOC6 HPW6
Prerequisite: OPTM2202, OPTM3102.

OPTM3211
Optometry 3B
School of Optometry and Vision Science
UOC6 HPW6
Objectives: To build on OPTM3103 and to advance student knowledge and stimulate interest in primary care optometry, contact lenses and binocular vision.

Brief Curriculum: Primary care: clinical laboratories that practice clinical skills in the assessment of normal subjects; Contact lenses: corneal physiology relating to contact lens wear, advanced contact lens fitting, management of the contact lens patient; Binocular vision: assessment of strabismus, amblyopia and anomalous correspondence, AC/A ratio, correspondence and fusion, fixation disparity, stereopsis, control systems analysis; Management of anomalies; Case analysis.

OPTM3231
Ocular Disease 3B
School of Optometry and Vision Science
UOC6 HPW6
Prerequisite: OPTM3131; Corequisite: OPTM3211
Objectives: To introduce students to the diagnosis and optometric management of diseases of the posterior eye and visual system.
Brief Curriculum: Diseases of the uvea, retina, optic nerve, pupils, cranial nerves and visual pathway. Glaucoma, diplopia and the effects of systemic disease are also discussed; Case analysis.

OPTM4110
Optometry 4A
School of Optometry and Vision Science
UOC6 HPW6
Prerequisites: OPTM3211, OPTM3231, VISN3211; Corequisites: OPTM4131, OPTM4151, OPTM4170
Objectives: To build on OPTM3211 and to advance student knowledge and stimulate interest in children's vision, vision therapy, and low vision.
Brief Curriculum: Children's vision: history taking, the development of the child and vision; Vision therapy: vision and posture, behavioural optometry, learning difficulties, special needs, child abuse; Low vision: epidemiology, adaptation to loss, the low vision assessment, magnification, optical low vision aids, non-optical low vision aids, adaptive technology, multi-disciplinary models, international issues.
OPTM4114
Optometry and the Professional Environment A
School of Optometry and Vision Science
UOC3  HPW3
Corequisite: OPTM4311, OPTM4312, OPTM4313
Objectives: To make optometry students aware of the purposes and consequences of their education, to develop an awareness of professional and ethical action in optometric practice; to ensure that students are aware of their social responsibilities as optometrists. Brief Curriculum: Optometry’s role in health care, Morals and ethics, The law and optometry, Accounting and taxation, Marketing, Harassment and discrimination in the consulting room, Dealing with change, Optometric business dynamics. Indigenous eye care. Co-management.

OPTM4131
Clinical Optometry 4A
School of Optometry and Vision Science
UOC6  HPW6
Objectives: To develop the clinical skills from earlier courses to competently examine patients; to appropriately recommend treatment and strategies for patients presenting for primary eye care at the UNSW Optometry Clinic and at satellite clinics.

Brief Curriculum: Clinical experience in primary eye care: diagnosis, management and treatment of these patients are emphasised; case history; communications skills; refraction; ocular health assessment; binocular vision status; synthesis of clinical data; development of a clinical management plan; record-keeping; dispensing of ophthalmic prescriptions; continuing care.

OPTM4151
Ocular Therapeutics 4A
School of Optometry and Vision Science
UOC6  HPW6
Prerequisites: PHPH3302, OPTM3231; Corequisite: OPTM4131
Objectives: To provide an in-depth understanding of the management of anterior segment eye disease and the role of the optometrist in this process.

Brief Curriculum: The scope of the course includes diseases of the lids and lacrimal system, ocular surface, anterior chamber, uvea, crystalline lens, cornea and vitreous body; refractive surgery; epidemiology and clinical trials of anterior eye disease; differential diagnosis; new diagnostic tools e.g. Corneal topography, impression cytology, PCR, confocal microscopy, ultrasound biomicroscope, tear analysis, corneal asthesiometry; management strategies to include both current and future therapeutic approaches, influence of therapy on disease course, iatrogenic disease and ocular manifestations of systemic diseases; management of chronic disease, referral criteria and surgical management.

OPTM4170
Professional Optometry 4A
School of Optometry and Vision Science
UOC3  HPW3
Corequisite: OPTM4131
Objectives: To make optometry students aware of the purposes and consequences of their education; to develop an awareness of professional and ethical action in optometric practice; to ensure that students are aware of their social responsibilities as optometrists.

Brief Curriculum: Optometry’s role in health care; morals and ethics, the law and optometry; accounting and taxation; marketing; harassment and discrimination in the consulting room; dealing with change, optometric business dynamics; Indigenous eye care; co-management of eye disease.

OPTM4210
Research Project
School of Optometry and Vision Science
UOC3  HPW3
Prerequisite: OPTM3108, OPTM3203, OPTM3204, OPTM3209, PHPH45.002
Objectives: This subject seeks to develop students’ skills in searching the literature, critical analysis of publications, developing hypotheses, designing and running experiments, statistical data analysis and oral and written presentation of reports. Students in groups of 2 to 4 carry out a small research project under the guidance of an academic staff member. In November each group makes a presentation to a symposium.

OPTM4211
Optometry 4B
School of Optometry and Vision Science
UOC6  HPW6
Prerequisites: OPTM4110, OPTM4131, OPTM4151, PSYC3516; Corequisites: OPTM4231, OPTM4251, OPTM4270
Objectives: To build on OPTM4110 and to advance student knowledge and stimulate interest in environmental optometry, binocular vision and contact lenses.

Brief Curriculum: Environmental optometry: safety in industry, eye hazards, ergonomics, visual fatigue, lighting design, task analysis, public health, occupational health and safety law, visual screening, case analysis; Binocular vision: amblyopia, non-concomitant strabismus, neurological palsies, myogenic palsies, alphabet palsies, aniseikonia, nystagmus, use of botulinum toxin therapy; Contact lenses: orthokeratology, the Asian eye, presbyopia, keratoconus, special applications, silicone lenses, future developments.

OPTM4214
Optometry and the Professional Environment B
School of Optometry and Vision Science
UOC3  HPW3
Prerequisite: OPTM4114 Corequisite: OPTM4311, OPTM4312, OPTM4313

OPTM4231
Clinical Optometry 4B
School of Optometry and Vision Science
UOC6  HPW6
Prerequisites: OPTM4110, OPTM4131, OPTM4151, OPTM4170; Corequisites: OPTM4211, OPTM4251, OPTM4270, MEDM8001
Objectives: To develop the clinical skills from OPTM4131 with direct patient primary eye care consultations. More specialised optometric assessment techniques are acquired in authentic learning environments.

Brief Curriculum: Continuing clinical experience in primary eye care - diagnosis, management and treatment of patients is emphasised; use of more specialised clinical diagnostic tools in the management of patients with ocular disease; referral criteria; inter-professional referral and co-management.

OPTM4251
Ocular Therapeutics 4B
School of Optometry and Vision Science
UOC6  HPW6
Prerequisite: OPTM4151; Corequisite: OPTM4231
Objectives: To provide an in-depth understanding of the management of posterior eye disease and the role of the optometrist in this process.

Brief Curriculum: The scope of the course includes diseases of the vitreous body, uvea, retina, optic nerve and visual pathway - Glaucoma, macular degeneration and diabetic retinopathy will be discussed in detail; new diagnostic tools and interpretation of results, including scanning laser topography, scanning laser polarimetry, angiography, optical coherence tomography, retinometry, retinal blood flow analysis; management therapies to include both current and future therapeutic approaches, influence of therapy on disease course, iatrogenic disease and ocular manifestations of systemic diseases; management of chronic disease, referral criteria and surgical management.

OPTM4270
Professional Optometry 4B
School of Optometry and Vision Science
UOC3  HPW3
Prerequisite: OPTM4170; Corequisite: OPTM4231
Objectives: To make optometry students aware of the purposes and consequences of their education; to develop an awareness of professional...
and ethical action in optometric practice; to ensure that students are aware of their social responsibilities as optometrists.

**Brief Curriculum:** History of optometry and optics; legal aspects of optometry; Medicare; state law and how it affects optometry; starting an optometric practice; modes of practice; practice information systems; computers and optometry; continuing education; new challenges in optometry.

**OPTM4311 Clinical Optometry 4A**
School of Optometry and Vision Science  
UOC6 HPW6  
Prerequisite: OPTM3108, OPTM3203, OPTM3204, OPTM3209, PSYC3516, PHPH3302; Corequisite: MDCN8001  
**Objectives:** Further development of the clinical skill to examine competently patients in optometric practice and recommend appropriate treatment and strategies for patients presenting for primary eye care. Brief Curriculum: Clinical experience in primary eye care. Diagnosis, management and treatment of these patients will be emphasised.

**OPTM4312 Clinical Optometry 4B**
School of Optometry and Vision Science  
UOC6 HPW6  
Prerequisite: OPTM3108, OPTM3203, OPTM3204, OPTM3209, PSYC3516, PHPH3302; Corequisite: MDCN8001  
**Objectives:** Further development of the clinical skill to examine competently patients in optometric practice and recommend appropriate treatment and strategies for patients presenting for primary eye care. Brief Curriculum: Clinical experience in the following areas; colour vision, low vision, ocular disease and participation in patient review clinics. Diagnosis, management and treatment of these patients will be emphasised.

**OPTM4313 Clinical Optometry 4C**
School of Optometry and Vision Science  
UOC6 HPW6  
Prerequisite: OPTM3108, OPTM3203, OPTM3204, OPTM3209, PSYC3516, PHPH3302; Corequisite: MDCN8001  
**Objectives:** Further development of the clinical skill to examine competently patients in optometric practice and recommend appropriate treatment and strategies for patients presenting for primary eye care. Brief Curriculum: Clinical experience in the following areas; contact lenses, dispensing, vision training, sports vision and paediatric clinics. Diagnosis, management and treatment of these patients will be emphasised.

**OPTM5111 Clinical Optometry 5A**
School of Optometry and Vision Science  
UOC6 HPW6  
Prerequisite: OPTM4211, OPTM4231, OPTM4251, OPTM4270; Corequisites: PSYC3516, PHPH3302  
**Objectives:** Further development of the clinical skills needed to competently examine patients in optometric practice, and recommend appropriate treatment and strategies for patients presenting for primary eye care. Brief Curriculum: A minimum of 100 hours of clinical experience in primary eye care. Emphasis is on diagnosis, management and treatment of these patients.

**OPTM5131 Specialist Clinical Optometry 5A**
School of Optometry and Vision Science  
UOC6 HPW6  
Prerequisite: OPTM4211, OPTM4231, OPTM4251  
**Objectives:** Further development of the clinical skills needed to competently examine patients in optometric practice, and recommend appropriate treatment and strategies for patients presenting for eyecare. Brief Curriculum: A minimum of 100 hours of supervised clinical experience in the following advanced areas: contact lenses, vision training, dispensing, paediatric clinics, low vision and colour vision.

**OPTM5151 Clinical Ocular Therapeutics 5A**
School of Optometry and Vision Science  
UOC6 HPW6  
Prerequisite: OPTM4231, OPTM4251, VISN2231, PHPH3302  
**Objectives:** Further development of the clinical skills needed to competently examine patients with ocular disease, and recommend appropriate treatment and strategies for patients presenting with ocular disease. Brief Curriculum: A minimum of 72 hours of clinical work related to ocular disease management - students are rostered to attend speciality clinics at the Optometry Clinic at UNSW and at external clinics; detailed clinical and therapeutic management of ocular disease conditions, observation and supervised management of clinical cases, co-management of patients with ophthalmology and general practice.

**OPTM5171 Research Project 5A**
School of Optometry and Vision Science  
UOC6 HPW6  
**Objectives:** Modern optometrists need to be able to understand clinical research. This course introduces students to research and the scientific method.

**Brief Curriculum:** The literature review, critical analysis of literature, developing a hypothesis, experimental design, ethical considerations, the research process. Seminars from current researchers demonstrate the research process and current research directions in optometry and vision science. Students work in small groups to develop a realistic research proposal.

**OPTM5211 Clinical Optometry 5B**
School of Optometry and Vision Science  
UOC6 HPW6  
Prerequisite: OPTM5111  
**Objectives:** Further development of the clinical skills needed to competently examine patients in optometric practice, and recommend appropriate treatment and strategies for patients presenting for primary eye care. Brief Curriculum: A minimum of 100 hours of supervised clinical experience in primary eye care. Emphasis is on diagnosis, management and treatment of these patients.

**OPTM5231 Specialist Clinical Optometry 5B**
School of Optometry and Vision Science  
UOC6 HPW6  
Prerequisite: OPTM5131  
**Objectives:** Further development of the clinical skills needed to competently examine patients in optometric practice, and recommend appropriate treatment and strategies for patients presenting for eyecare. Brief Curriculum: A minimum of 100 hours of supervised clinical experience in the following advanced areas: contact lenses, vision training, dispensing, paediatric clinics, low vision and colour vision.

**OPTM5251 Clinical Ocular Therapeutics 5B**
School of Optometry and Vision Science  
UOC6 HPW6  
Prerequisite: OPTM5151  
**Objectives:** Further development of the clinical skills needed to competently examine patients with ocular disease, and recommend appropriate treatment and strategies for patients presenting with ocular disease. Brief Curriculum: A minimum of 72 hours of clinical work related to ocular disease management - students are rostered to attend speciality clinics at the Optometry Clinic at UNSW and at external clinics; detailed clinical and therapeutic management of ocular disease conditions, observation and supervised management of clinical cases, co-management of patients with ophthalmology and general practice.

**OPTM5271 Research Project 5B**
School of Optometry and Vision Science  
UOC6 HPW6  
Prerequisite: OPTM5171  
**Objectives:** This course continues to develop the skills learnt in OPTM5171. Students assemble the required materials, subjects and equipment and conduct the experiment they proposed in OPTM5171. The data is analysed using the appropriate statistical methods, and a publication-quality written report submitted. Each group is also required
to present the results of their research at the annual student research symposium.

**PAE35101**
**Paediatrics**  
School of Women's and Children's Health  
UOC: 10  
Prerequisite: MDSC4401  

**Objectives:** To understand the physical, intellectual, and emotional development of children; to recognise important interactions between the child, the family and the community; to take a reliable medical history from children and parents/guardians; to perform a reliable physical examination; to communicate with children and parents/guardians; to recognise acutely ill children and initiate management; to recognise and initiate management of common paediatric disorders; to recognise the role of preventative care in child health; to recognise the roles of allied health care professionals. General Paediatrics and Paediatric Surgery are taught at the Sydney Children’s Hospital (5 weeks) and Associated Hospitals including rural locations (4 weeks). Clinical clerking and practical involvement in care of inpatients are emphasised. Seminars and lectures on core material, case conferences, and instruction in clinical skills are provided. Students are expected to spend one night in four and one or two weekends per term in residence. Neonatal medicine is integrated with teaching of obstetrics and gynaecology. Assessment: Progressive assessment from clinical supervisors through the term, multiple choice, objective structured clinical assessments and clinical examinations in the last week of term.

**PATH2005**  
**Pathology Honours Full-time**  
School of Medical Sciences  
UOC: 24  
Research component of thesis: basic mechanisms of human disease processes, including inflammation, rheumatoid arthritis, asthma, uveitis, infection, bone and biomaterials, tumour biology, vascular biology, atherosclerosis and genetics. Projects can include techniques such as tissue culture and cell biology, microbiology and genetics, protein chemistry, histology and microscopy, immunology and enzymology. Projects may be undertaken within the School of Pathology or at a laboratory of an affiliated institute or hospital department associated with the school.

**PATH2006**  
**Pathology Honours Part-time**  
School of Medical Sciences  
UOC: 12  
Research component of thesis: basic mechanisms of human disease processes, including inflammation, rheumatoid arthritis, asthma, uveitis, infection, bone and biomaterials, tumour biology, vascular biology, atherosclerosis and genetics. Projects can include techniques such as tissue culture and cell biology, microbiology and genetics, protein chemistry, histology and microscopy, immunology and enzymology. Projects may be undertaken within the School of Pathology or at a laboratory of an affiliated institute or hospital department associated with the school.

**PATH2201**  
**Processes in Disease**  
School of Medical Sciences  
UOC: 6  
HPW: 4  
Prerequisite: ANAT2241 or ANAT1510, plus any one of ANAT2111, PHHP2101, BIOC2101/BIOC2181.  

Lectures, tutorials and museum study sessions aimed at increasing understanding of important disease processes. Comparisons between normal and abnormal cell, tissue and organ function will be made. Includes processes of cell and tissue degeneration, acute and chronic inflammation, regeneration and repair, infection, atherosclerosis, thrombosis, embolism and infarction. Particular examples include diseases of practical importance such as pneumonia, tuberculosis, pulmonary embolism and myocardial infarction. Recent advances in understanding molecular mechanisms of acute and chronic inflammation, allergy, autoimmune diseases, atherosclerosis and thrombosis. Detailed discussion of mediators of these processes, including cytokines and growth factors. Systemic pathology of the cardiovascular and respiratory systems, with an emphasis on ischaemic heart disease and asthma. Laboratory classes introduce modern research and diagnostic techniques.  

**Note:** Students are advised that previous and concurrent study of Anatomy, Physiology, Biochemistry or Immunology would be an advantage.

**PAH3206**  
**Molecular Basis of Disease B**  
School of Medical Sciences  
UOC: 6  
HPW: 4  
Prerequisite: PATH3205  

Recent advances in understanding the pathogenetic mechanisms underlying congenital disorders and neoplasia. Detailed discussion of molecular carcinogenesis, the metastatic process and techniques for diagnosing congenital diseases. Common tumours, with an emphasis on colorectal, breast, prostate and cervical carcinoma. Systemic pathology of the gastrointestinal, genitourinary and central nervous systems including peptic ulcer disease, liver disorders, glomerulonephritis, and Alzheimer disease.  

**Note:** Advantage in having undertaken previous study in ANAT3231 Cell Biology.

**PAH3207**  
**Musculoskeletal Diseases**  
School of Medical Sciences  
UOC: 6  
HPW: 4  
Prerequisite: PATH2201, ANAT2111 or ANAT2511  

Current scientific concepts of musculoskeletal diseases including arthritis, metabolic bone disease, primary and second bone neoplasms and neuromuscular disease. Detailed coverage of fracture healing and its complications and of biomaterials and prosthetic devices relevant to orthopaedic applications.

**PECO1000**  
**Introduction to Political Economy**  
School of Social Science and Policy  
UOC: 6  
HPW: 3  

Introduces the main schools of thought in political economy. Covers the development of economic ideas since Adam Smith and the key debates that have engaged the study of political economy.

**PECO1001**  
**Australia in the Global Economy**  
School of Social Science and Policy  
UOC: 6  
HPW: 3  
Excluded: ECONH1301, ECON1301  

Looks at the international economy at the end of the 19th century (trade, factor flows, and payments arrangements); problems of the international economy between the wars; the impact of World War II and the international economy in the post-war era; and Australian economic development and its relationship with the international economy in terms of economic fluctuations, problems of the inter-war period, growth of manufacturing, government policy and action, the importance of the mining industry, economic development and the distribution of income and wealth.

**PECO2000**  
**Political Economy and the State**  
School of Social Science and Policy  
UOC: 6  
HPW: 3  
Prerequisite: 36 units of credit; Excluded: SLSP2000  

An interdisciplinary overview of the making of economic policy and the institutional structure in which it occurs. Considers how theory informs and legitimates policy choices and how policies are dependent on historical, social and economic contexts. Major current policy case studies are used to evaluate policy implementation in Australia and internationally.

**PECO3000**  
**Political Economy**  
School of Social Science and Policy  
UOC: 6  
HPW: 3  
Prerequisite: PECO2000 or SLSP2000; Excluded: ECON3119
Exames alternative paradigms in economics and may include schools of thought such as the Post Keynesians, New Institutionalists, Marxians or Austrians. Particular non-traditional approaches to the theory of the firm and such topics as experimental economics, Cambridge distribution and growth theory, economic sociology, economics of politics and the debate over economic rationalism may be covered. Specific topics will depend on student preferences.

PHIL1007
Knowledge and Reality
School of Philosophy
UOCL, HPW3
An introduction to some classical and contemporary philosophical questions, puzzles, and ideas about knowledge and reality. This is a course in two central areas of philosophy - epistemology and metaphysics. Philosophers could include Plato, Descartes, Berkeley, and Hume, along with many contemporary philosophers. Topics may include: (1) Metaphysics: personal identity, free will, good and evil, universals, essences, meaning of life, death; (2) Epistemology: fallibility, truth, evidence, knowledge, empiricism, causation, rationalism, knowledge of other minds, knowledge of the external world, idealism, moral knowledge.

PHIL1008
Ethics and Society
School of Philosophy
UOCL, HPW3
This is political philosophy and moral philosophy at the intersection of the political with the personal. When we make decisions in important areas such as euthanasia, reproductive freedom and reproductive technology, the allocation of health resources or the environment, we must balance the rights and duties of the individual with the demands and obligations of society. This team-taught course considers the moral issues raised by such decisions, along with some of the political, philosophical principles which inform our public debate. Also examines the nature and justification of rights, as well as contemporary concepts of justice and equality.

PHIL1010
Thinking About Reasoning
School of Philosophy
UOCL, HPW3
Excluded: GENT0604
Thinking clearly, reasoning productively, arguing well. These are skills essential in life in general and at University in particular. Philosophy has a lot to say about these practices, and also about the whole nature of human reason. Involves practical work on reasoning and argumentative strategies, and an introductory investigation into what good reasoning actually is. There is a great deal of modern philosophical investigation into these matters.

PHIL1014
Introduction to European Philosophy
School of Philosophy
UOCL, HPW3
Provides a broad introduction to themes in European Philosophy, such as: the character of human subjectivity, rationality (and its limits), alienation, progress, history, freedom and how to understand meaning and morality with the waning of religious authority. Focuses on the legacy of the Enlightenment (Rousseau, Kant), the principal critics of this tradition (Hegel, Marx and Nietzsche), the emergence of existential and phenomenological themes in the work of thinkers such as Heidegger; some of the influential sources of contemporary theory such as the Frankfurt School and Hannah Arendt, and most modern thinkers such as Foucault.

PHIL2001
Logic
School of Philosophy
UOCL, HPW3
Prerequisite: 36 units of credit; Excluded: MATH3400, PHIL2106
This course is about deductive logic (in particular, propositional logic and predicate logic). Aims to construct - and to understand - a precise, unambiguous, formal language. Many important parts of English are translatable into it, hence many arguments of English are translated into it too. It is a language with which we can better understand the concept of deductive proof.

PHIL2002
Ways of Reasoning
School of Philosophy
UOCL, HPW3
Prerequisite: 36 units of credit; Excluded: PHIL2108
Examines what reasoning and argument really are and how best to engage in them. Material for this course is drawn from everyday sources, such as newspapers, books and advertisements, including television, as well as some of the brilliant pieces of reasoning in the philosophical tradition. From studying the structure of arguments, the purpose of reasoning, and a number of strong and weak argumentative moves, and from a guided re-evaluation of their own writing, students will be able to improve their critical skills and the presentation of their own arguments.

PHIL2003
20th Century European Philosophy
School of Philosophy
UOCL, HPW3
Prerequisite: 6 units of credit in level 1 Philosophy and 36 units of credit overall; Excluded: PHIL2407
Examines the main themes and thinkers of 20th Century French and German philosophy that have influenced the way we think about the world, our place in the world, and our relations with each other. Explores and compares important French and German approaches to issues such as language and meaning; existence and being; knowledge and interpretation; time and death; intersubjectivity and difference. Issues will be explored through an examination of the writings of major figures in French philosophy such as Merleau-Ponty, Foucault, Irigaray, Deleuze, and Derrida, and in German philosophy such as Arendt, Gadamer, Habermas and Heidegger.

PHIL2008
Issues in Applied Ethics
School of Philosophy
UOCL, HPW3
Prerequisite: 6 units of credit in level 1 Philosophy and 36 units of credit overall
Introduces various problems in the field of Applied Ethics within bioethics, environmental, business, political and public ethics. Provides an introduction to the key theories used in applied ethics, and considers how such theories help in making ethical judgments about the problems encountered in various areas of contemporary life. Issues to be discussed include: genetic technology, euthanasia, terrorism, political corruption and dirty hands, corporate responsibility and our responsibilities to animals and the environment.

PHIL2020
Philosophy of Language
School of Philosophy
UOCL, HPW3
Prerequisite: 36 units of credit
An introduction to central ideas in understanding what language is and how it works. Questions addressed include: What abilities are required of language users? How can language be used to refer to the world? What is the relation between language and thought? What is meaning? How are language and community related? What are speech acts?

PHIL2109
Contemporary Metaphysics
School of Philosophy
UOCL, HPW3
Prerequisite: 6 units of credit in level 1 Philosophy and 36 units of credit overall
Examines several classic metaphysical questions some of which are as follows: Is there a real world? What is social reality? What is the nature of possibility? Is this the only possible world? Is there a God? Are there people? Is there free will?

PHIL2206
Philosophy of Mind
School of Philosophy
UOCL, HPW3
Prerequisite: 6 units of credit in level 1 Philosophy and 36 units of credit overall
An introduction to some central concerns and major debates about the nature of mind. Addresses questions such as can our conscious mental life be an object of scientific study? What is the relation between mind
and brain? Can we explain how consciousness evolved? What is the basis and nature of our personal identity?

PHIL2207
Philosophy of Psychology
School of Philosophy
UOC6 HPW3
Prerequisite: 6 level 1 units of credit in Philosophy or PSYC1001 or PSYC1011 and 36 units of credit overall.
Philosophical issues in theoretical psychology, drawn from philosophical and psychological writings on mind, brain and behaviour; consciousness, memory and self; perception; and psychology and brain science.

PHIL2208
Contemporary Epistemology
School of Philosophy
UOC6 HPW3
Prerequisite: 6 units of credit in level 1 Philosophy and 36 units of credit overall. Excluded: PHIL2209.
What is knowledge? What knowledge are people capable of having? Might people have no knowledge at all? Might people at least have much less knowledge than they take themselves to have? We will discuss sceptical, as well as non-sceptical, philosophical theories of knowledge, covering such topics as these: truth, fallibility, evidence, certainty, knowledge of the world, knowledge of the unobserved, knowledge of one’s mind, knowledge of meaning.

PHIL2218
Philosophical Foundations of Artificial Intelligence
School of Philosophy
UOC6 HPW3
Prerequisite: 6 units of credit in level 1 Philosophy and 36 units of credit overall.
Artificial intelligence: an examination of its assumptions, history, goals, achievements and prospects.

PHIL2309
Recognition and Reconciliation: Introduction to Hegel
School of Philosophy
UOC6 HPW3
Prerequisite: 6 units of credit in level 1 Philosophy and 36 units of credit overall.
Introduces Hegel’s general philosophical approach through a close examination of Hegel’s Phenomenology of Spirit, his most famous work. Examines Hegel’s ethical, social and political philosophy in the Philosophy of Right. Some attention will be given to Hegel’s heritage in European philosophy, as well as contemporary Analytic philosophy. Issues examined include self-consciousness, normativity, civil society and freedom.

PHIL2310
Heidegger
School of Philosophy
UOC6 HPW3
Prerequisite: 6 units of credit in level 1 Philosophy and 36 units of credit overall.
Heidegger’s attempt to raise the question of the meaning of Being continues to have an important impact. This course begins with some of Heidegger’s critical works such as: Being and Time, What is Metaphysics? Early Greek Thinking, What is Called Thinking?, The Concept of Time, On the Way to Language, Identity and Difference, The Question Concerning Technology. It then proceeds to look back to Heidegger’s “destruction of metaphysics” and forward to the influence he continues to exercise on thinkers today.

PHIL2316
Philosophy of Religion
School of Philosophy
UOC6 HPW3
Prerequisite: 6 units of credit in level 1 Philosophy and 36 units of credit overall.
Aims to study the phenomenon of religion, its relation to ways of life, and its construction of stories and myths. Drawing from a variety of religious sources, it analyses the different categories and forms in and through which religious ideals are expressed and justified. Topics covered include arguments for the existence of God, the concept of evil, faith and mysticism, human relation to the natural world, religion and morality, religion and gender, and free will and determinism.

PHIL2416
Nietzsche and Philosophy
School of Philosophy
UOC6 HPW3
Prerequisite: 6 units of credit in level 1 Philosophy and 36 units of credit overall; Excluded: EURO2400.
As author of provocative and puzzling statements such as “God is dead”, “truth is metaphor”, “life is will-to-power”, “soul is a word about the body” and the “social contract was written in blood”, Nietzsche was arguably one of the most controversial thinkers of modern times. His more enduring and controversial ideas will be examined, including those about language, truth, morality, power, subjectivity and the body, history and time. The impact of his philosophy on twentieth century thought will be explored by examining interpretations of his work by figures such as Deleuze, Derrida, Foucault, Heidegger, Irigaray and Nancy.

PHIL2420
Environmental Ethics
School of Philosophy
UOC6 HPW3
Prerequisite: 36 units of credit.
Aims to familiarise students with both the content and the processes involved in ethical decision-making in issues concerning the natural environment. Begins with an inquiry into basic concepts operative in discussions in environmental ethics such as ‘value’, ‘nature’, ‘natural’ and ‘environment’. There is also an examination of various approaches to environmental debates including applied ethics, deep ecology, holism and ecofeminism. Students are encouraged to consider arguments arising from different value commitments and to understand the importance of, and the procedures associated with, the justification of a particular position.

PHIL2421
Philosophy, Education and Society
School of Philosophy
UOC6 HPW3
Prerequisite: 6 level 1 units of credit in Philosophy or Level 1 Education and 36 units of credit overall.
An introduction to the theory and practice of philosophical communities of inquiry. Explores the ways in which philosophy may be reconstructed for educational and other social purposes. Examines the relations between community and inquiry, self and society, and democracy and education. Addresses the social utility of philosophy and its educational potential. Authors whose works are discussed include Aristotle, Jerome Bruner, John Dewey, Immanuel Kant, Matthew Lipman, G.H. Mead, Jean-Paul Sartre and Lev Vygotsky.

PHIL2424
Human Nature and Technology
School of Philosophy
UOC6 HPW3
Prerequisite: 6 units of credit in level 1 Philosophy and 36 units of credit overall.
Examines theories of the fundamental nature of humans, with particular emphasis on the role that a conception of the human plays in moral and political theories. Also examines the idea that current technological developments are transforming human nature, and considers the ethical implications. Focuses on modern Western philosophy and includes texts by figures such as Rousseau, Kant, Hume and Nietzsche as well as more recent philosophers such as Habermas, Jonas, Foucault, Derrida.

PHIL2516
Representation and Sexual Difference
School of Philosophy
UOC6 HPW3
Prerequisite: 6 units of credit in level 1 Philosophy and 36 units of credit overall.
Examines concepts such as equality, freedom, rights, justice and community in the light of fundamental moral principles proposed by the main contemporary schools of political thought such as: the equal moral worth of individuals; justice as a fair distribution of goods; and belonging. The principal approach considered will be political liberalism but others discussed will include anarchism, utilitarianism, libertarianism, communitarianism, socialism, feminism and poststructuralism.

PHIL2517
Philosophy of Psychology
School of Philosophy
UOC6 HPW3
Prerequisite: 6 units of credit in level 1 Philosophy and 36 units of credit overall; Excluded: WOMS2300.
Considers the nature of sexuality and ideas about the role of sexual difference in the constitution of the bodily subject. The social significance of the connection between gender and such distinctions as culture/nature, reason/passion and public/private is examined in the light of feminist critiques. Also raises questions about philosophy and feminism with respect to issues of argument, advocacy and style.

PHIL2519
Introduction to Chinese Philosophy
School of Philosophy
UOC6  PHW3
Prerequisite: 6 units of credit in level 1 Philosophy and 36 units of credit overall; Excluded: PHIL2520
Confucianism and Taoism are the two most influential philosophies originating from China. Examines the two traditions, set against a backdrop of other schools of thought such as Mohism, Legalism and Chinese Buddhism. This course involves close readings of the relevant primary texts. Students will be taught to read these texts. No previous knowledge of Chinese culture or language is assumed.

PHIL2520
Aspects of Chinese Thought
School of Philosophy
UOC6  PHW3
Prerequisite: 36 units of credit in Arts and Social Science courses; Excluded: PHIL2519
There are many significant concepts underlying contemporary Chinese thought which have their origin in the classical Chinese schools of thought from pre-Confucian times. This course critically examines some of these concepts, such as the Confucian jen (humanity) and li (rules of propriety); and the Taoist tao and wu-wei (non-action).

PHIL2708
Reading Option
School of Philosophy
UOC6  PHW3
Prerequisite: 6 units of credit in level 1 Philosophy and 36 units of credit overall
Students wishing to do work in an area not covered by an existing course or seminar may apply to the School to take a reading option. Not more than one such course may be counted towards a degree. Approval of a program for a reading option depends on its suitability and on the availability of a member of staff to undertake supervision.

PHIL2709
Ethics and Accountability
School of Philosophy
UOC6  PHW3
Prerequisite: 36 units of credit
Deals with the probity requirements of public and private sector organisations. Covers ethical failure in areas such as corporate crime, professional malpractice, and public accountability. Also considers measures to regulate conduct and prevent corruption: codes of conduct, ethics committees, ethics education, watchdogs and regulators, and whistleblower protection.

PHIL3910
Advanced Philosophy Seminar
School of Philosophy
UOC6  PHW3
Prerequisite: 30 units of credit in Philosophy; Excluded: PHIL3106
An in-depth treatment of selected philosophical problems or traditions. Involves particular focus on the skills required for independent philosophical research.

PHIL4000
Philosophy Honours (Research) Full-Time
School of Philosophy
UOC24  HPW5
Prerequisite: 54 units of credit in PHIL including PHIL3910 with an average of 70% and at least 6 units of credit in PHIL at 75% or higher
The Honours year consists of a year-length thesis workshop, three session-length seminars and the writing of a research thesis under supervision.

PHIL4050
Philosophy Honours (Research) Part-Time
School of Philosophy
UOC12  HPW3
Prerequisite: 54 units of credit in PHIL including PHIL3910 with an average of 70% and at least 6 units of credit in PHIL at 75% or higher
The Honours year consists of a thesis workshop, three session-length seminars and the writing of a research thesis under supervision usually over a period of two years.

PHIL4500
Combined Philosophy Honours (Research) F/T
School of Philosophy
UOC12  HPW2
Prerequisite: 48 units of credit in PHIL including PHIL3910 with an average of 70% and at least 6 units of credit in PHIL at 75% or higher
For Combined Honours, candidates are required to take one course each in Philosophy and in the combined discipline as well as a thesis as approved by the Heads of the two participating Schools.
Note: Students contemplating Combined Honours are urged to seek advice from the Schools early in the program.

PHIL4550
Combined Philosophy Honours (Research) P/T
School of Philosophy
UOC6  HPW2
Prerequisite: 48 units of credit in PHIL including PHIL3910 with an average of 70% and at least 6 units of credit in PHIL at 75% or higher
For Combined Honours, candidates are required to take one course each in Philosophy and in the combined discipline as well as a thesis as approved by the Heads of the two participating Schools.
Note: Students contemplating Combined Honours are urged to seek advice from the Schools early in the program.

PHPH2101
Introductory Pharmacology and Toxicology
School of Physiology & Pharmacology
UOC6  HPW6
Prerequisite: 6 units of credit from level 1 Biology (BIOS1201 pref); and 12UOC of Level 1 CHEM; and 6 UOC Level 1 MATH(not including MATH1041). Excluded PHPH3151
This course will cover the basic principles of pharmacology with an emphasis on drug action from the molecular and cellular levels to tissue, organ and whole animal levels. The course will provide an understanding of the principles of drug action (pharmacodynamics) in terms of drug chemistry, drug-receptor interaction, receptor theory and dose-response relationships. An introduction to receptor-mediated signal transduction, membrane receptors and autonomic pharmacology will be covered. The handling of drugs by the body through the processes of absorption, distribution, metabolism and excretion (Pharmacokinetics) will be covered in some detail along with drug analysis and the adverse effects of drugs. Aspects of clinical trials, legal aspects of drug registration and the principles of toxicology will be introduced. The laboratory classes will involve basic pharmacological and toxicological methods.

PHPH2102
Physiology 1A
School of Medical Sciences
UOC6  HPW6
Prerequisite: 6 uoc from level 1 Biology (BIOS1101 pref); and 6UOC of Level 1 CHEM; and 6 UOC Level 1 MATH(not including MATH1041). Recommended : BIOC2101 or BIOC2181.
Introduces fundamental physiological principles, from basic cellular function in terms of chemical and physical principles to the operation and interaction of body systems. The area of physiology covered in this unit are excitable tissues, the cardiovascular system, blood and neuroscience. The unit includes a substantial series of practical class experiments on these different areas of physiology. This subject is taken by students enrolled in any of the Physiology programs.
Note: Students intending to major in Physiology or Pharmacology should note that prerequisites can only be waived at the discretion of the Head of Department of Physiology and Pharmacology. Biochemistry is highly recommended for a major in Physiology and essential for a major in Pharmacology.

PHPH2121
Principles of Physiology A
School of Medical Sciences
UOC6  HPW6
Provides an introduction to fundamental physiological principles for students in BOptom. degree and the Biomedical Engineering double degree programs. The areas of physiology covered in this unit are...
excitable tissues, the cardiovascular system, blood and neuroscience, and includes a series of practical class experiments on these different areas of physiology.

**Note:** Restricted to students enrolled in BOptom degree course and the Biomedical Engineering double degree programs.

**PHPH2201**  
**Physiology 1B**  
School of Medical Sciences  
UOC6  HPW6  
Prerequisite: PHPH2101.

The Areas of Physiology covered in this unit build on the fundamental physiological principles introduced in PHPH2101 Physiology 1A. The topics covered include reproduction, the respiratory system, the gastrointestinal system, kidney and body fluids, and the endocrine system. This unit includes a substantial series of practical class experiments on these different areas of physiology.

**Note:** Restricted to students enrolled in BOptom degree course and the Biomedical Engineering double degree programs.

**PHPH2201**  
**Principles of Physiology B**  
School of Medical Sciences  
UOC6  HPW6  
Prerequisite: PHPH2121

The area of physiology covered in this unit builds on the fundamental physiological principles introduced in PHPH2121 Principles of Physiology A. The topics covered include reproduction, the respiratory system, the gastrointestinal system, kidney and body fluids, and the endocrine system. This unit includes a series of practical class experiments on these different areas of physiology.

**Note:** Restricted to students enrolled in BOptom degree course and the Biomedical Engineering double degree programs.

**PHPH2201**  
**Physiology 1B**  
School of Medical Sciences  
UOC6  HPW6  
Prerequisite: PHPH2101

The areas of physiology covered in this unit build on the fundamental physiological principles introduced in PHPH2101 Physiology 1A. The topics covered include reproduction, the respiratory system, the gastrointestinal system, kidney and body fluids, and the endocrine system. This unit includes a series of practical class experiments on these different areas of physiology.

**Note:** Restricted to students enrolled in BOptom degree course and the Biomedical Engineering double degree programs.

**PHPH2501**  
**Human Physiology A**  
School of Medical Sciences  
UOC6  HPW6  
Introduces fundamental physiological principles, from basic cellular function in terms of chemical and physical principles to the operation and interaction of body systems. The areas of physiology covered in this unit are excitable tissues, the cardiovascular system, blood and neuroscience. The unit includes a substantial number of practical class experiments on these different areas of physiology.

**Note/s:** Restricted to students enrolled in Program 3870 Bachelor of Science in Health and Exercise Science.

**PHPH2502**  
**Human Physiology B**  
School of Medical Sciences  
UOC6  HPW6  
The areas of physiology covered in this unit build on the fundamental physiological principles introduced in PHPH2501. The topics covered include reproduction, the respiratory system, the gastrointestinal system, kidney and body fluid balance, and the endocrine system. Again this unit includes a substantial series of practical class experiments on these different areas of physiology.

**Note/s:** Restricted to students enrolled in program 3870 Bachelor of Science in Health and Exercise Science.

**PHPH2503**  
**Exercise Physiology**  
School of Medical Sciences  
UOC6  HPW6  
Prerequisite: ANAT2111, PHPH2501

This course focuses on how human structure and function is influenced by work and physical activity. Areas to be studied include energy metabolism and liberation, applied muscle physiology, and applied cardiopulmonary physiology. The unit includes a number of laboratories on these different areas of exercise physiology.

**Note/s:** restricted to students enrolled in program 3850 Bachelor of Science in Health and Sports Science.

**PHPH3121**  
**Membrane and Cellular Physiology**  
School of Medical Sciences  
UOC6  HPW6  
Prerequisite: PHPH2101 and PHPH2201

This subject deals with the properties and physiology of excitable cells, building on the concepts introduced in PHPH2101. Topic areas include: how electrical signals are generated across cell membranes; the function, properties and structure of ion channels and transporters; how individual nerve, muscle and epithelial cells function; how cells communicate with each other in the brain, including synaptic transmission and receptor-mediated signaling; how alterations in functioning of transporters and channels can lead to disease states; modern experimental techniques in cellular physiology; and recent advances in this field. The course provides an ideal introduction for further detailed studies in single cell physiology and pharmacology, and provides a foundation for the understanding of higher physiological systems.

**Note:** Enrolment in this course may be subject to quota restrictions. Such restrictions will only apply to students taking this course as an elective.

**PHPH3211**  
**Clinical and Experimental Pharmacology**  
School of Medical Sciences  
UOC6  HPW6  
Prerequisite: PHPH2101 and PHPH2201

Enrolment in this course may be subject to quota restrictions. Such restrictions will only apply to students taking this course as an elective.

**PHPH3211**  
**Cardiovascular Physiology**  
School of Medical Sciences  
UOC6  HPW6  
Prerequisite: PHPH2101, PHPH2201

An advanced course focusing on the physiology and pathophysiology of the cardiovascular system. The course is divided into three units. Unit One covers molecular and cellular aspects of cardiovascular tissues; the vascular endothelium, cardiac and smooth muscle and cell communication. Unit Two addresses systemic cardiovascular physiology, from capillary exchange, the microcirculation, the ECG, control of regional blood flow and hemodynamics, up to regulation of cardiac output and blood pressure and the function of the cardiovascular system in exercise. Unit Three focuses on the pathophysiology of the cardiovascular system, with lectures delivered by leading researchers in the fields of atherosclerosis, heart failure, hypertension and gene-targeted approaches to combating cardiovascular disease. Lecture-based material is complemented by practical classes and problem-based learning.

**PHPH3211**  
**Endocrine, Reproductive and Developmental Physiology**  
School of Medical Sciences  
UOC6  HPW6  
Prerequisite: PHPH2101, PHPH2201

There are two major components to this subject, which consists of lectures, practical classes, tutorials and case studies. The first component of the course uses problem based learning sessions and expert lecturers to cover a range of key topics in endocrinology and reproductive physiology. The second component of the subject details the physiology of pregnancy, and that of the fetus and the newborn.

**Note:** Enrolment in this course may be subject to quota restrictions. Such restrictions will only apply to students taking this course as an elective.

**PHPH3251**  
**Brain Mechanisms in Sensation and Perception**  
School of Medical Sciences  
UOC6  HPW6  
Prerequisite: PHPH2101, PHPH2201

Brain mechanisms in sensation and perception are analyzed in detail for vision, hearing and touch, and for the position sense arising from muscles, joints and the vestibular apparatus. The sensorimotor mechanisms responsible for the control of fine movement and postural regulation are also studied at different levels of the nervous system, from the sensoris and motor nerves within muscles through to the highest levels of cerebral cortical function. Segments are also included on nerve transmitters and neuromodulators; neural mechanisms in certain higher functions, eg language and memory; and nervous system plasticity. Experimental work introduces the student to electrophysiological and other neuroscience research techniques, and in seminar-discussion groups to a critical evaluation of neuroscience research literature.

**Note:** Enrolment in this course may be subject to quota restrictions. Such restrictions will only apply to students taking this course as an elective.

**PHPH3251**  
**Neurophysiology**  
School of Medical Sciences  
UOC6  HPW6  
Prerequisite: PHPH2101 and PHPH2201

Brain mechanisms in sensation and perception are analyzed in detail for vision, hearing and touch, and for the position sense arising from muscles, joints and the vestibular apparatus. The sensorimotor mechanisms responsible for the control of fine movement and postural regulation are also studied at different levels of the nervous system, from the sensoris and motor nerves within muscles through to the highest levels of cerebral cortical function. Segments are also included on nerve transmitters and neuromodulators; neural mechanisms in certain higher functions, eg language and memory; and nervous system plasticity. Experimental work introduces the student to electrophysiological and other neuroscience research techniques, and in seminar-discussion groups to a critical evaluation of neuroscience research literature.

**Note:** Enrolment in this course may be subject to quota restrictions. Such restrictions will only apply to students taking this course as an elective.
organ systems will be covered, including the cardiovascular, renal, endocrine, respiratory gastrointestinal and central nervous systems. Students will be introduced to emerging therapeutic strategies based on advances in understanding cellular physiology and drug action. The practicals will cover basic pharmacological methods from both clinical and experimental standpoints.

**Note:** Enrolment in this course may be subject to quota restrictions. Such restrictions will only apply to students taking this course as an elective.

**PHPH3501**
**Brain Mechanisms in Sensory-Motor Integration**
School of Medical Sciences
UOC6
Prerequisite: PHPH2501, PHPH2502, BIOL2181 or BIOL2101
Brain mechanisms in sensation and perception are analysed in detail for vision, hearing and touch, and for the position sense arising from muscles, joints and the vestibular apparatus. The sensorimotor mechanisms responsible for the control of fine movement and postural regulation are also studied at different levels of the nervous system, from the sensory and motor nerves within muscles through to the highest levels of cortical function.

**PHPH3502**
**Skeletal Muscle in Health and Exercise**
School of Medical Sciences
UOC6
Prerequisite: PHPH2501, PHPH2502, BIOL2181 or BIOL2101
This subject takes a scientific look at the concepts of skeletal muscle fatigue, training skeletal muscle for power and endurance and the effects of anabolic steroids and muscle stimulants like caffeine on skeletal muscle. It will also examine some of the common ways skeletal muscle can be damaged during sporting activities and the resultant mechanisms of muscle repair. There will be a detailed coverage of skeletal muscle development and the degenerative processes that occur as a result of aging. A series of advanced practical classes will examine the properties of isolated slow- and fast-twitch mammalian muscle. Students will design their own experiments to examine the effects of a range of drugs on their isolated muscle preparation. In the final practical session students will use themselves as subjects in order to examine the fatigability of their skeletal muscles in situ. The first part of the subject will examine the structure of skeletal muscle, the mechanism of force production, muscle fibre types, techniques for taking and analysing muscle biopsies and the innervation and central control of muscle activity. The second part of the course will look at the training for power, adaptations for endurance exercise, causes of skeletal muscle fatigue, muscle damage and repair and muscle pain. In addition there will be an examination of the pharmacological action of compounds such as clenbuterol, creatine and caffeine which affect skeletal muscle function and growth.

**Note/s:** restricted to students enrolled in program 3870 Bachelor of Health and Exercise Science.

**PHPH3506**
**Principles of Exercise Prescription**
School of Medical Sciences
UOC3
Prerequisite: ANAT2111, PHPH2501, PHPH2503
This course will serve to integrate knowledge acquired in previous stages of the program. A course that is focused strongly on practical application of theory. Exercise prescription principles will be revised and then further developed with the extension into a variety of population groups from the apparently healthy through to clinical and athletic groups.

**PHYP4218**
**Physiology 4 Honours Full-Time**
School of Medical Sciences
UOC24
The Honours Year provides an introduction to research. Students undertake a research project with supervision which is written up as a report and presented as a seminar. Students are also required to participate in departmental seminars and to submit a literature review. For further information see the Honours coordinator.

**Note/s:** Enrolment in this course may be subject to quota restrictions. Such restrictions will only apply to students taking this course as an elective.
The methods of physics, describing motion, the dynamics of a particle, conservation of energy, kinetic theory of gases, properties of liquids, vibrations and waves, electricity and conduction in solids, magnetism and electromagnetic induction, alternating current, atomic nature of matter, X-rays, the nucleus and radioactivity, geometrical optics, optical instruments, wave optics.

Note: Introductory level course for students of all disciplines. Recommended courses: MATH1011 or MATH1131 or MATH1031.

PHYS1121
Physics 1A
School of Physics
UOC6 HPW6

PHYS1131
Higher Physics 1A
School of Physics
UOC6 HPW6
Vectors, kinematics, particle dynamics, work and energy, the conservation of energy, conservation of linear momentum, rotational kinematics and dynamics, simple harmonic motion, gravitation. Electrostatics, magnetostatics in vacuum, ferromagnetism, electromagnetic induction.

PHYS1149
Physics 1A (Aviation)
School of Physics
UOC6 HPW6
Corequisite: MATH1011 or MATH1079 or MATH1131 or MATH1031
The methods of Physics, describing motion, the dynamics of particle, conservation of energy, kinetic theory of gases, properties of liquids, vibrations and waves, electricity and conduction in solids, ions and ionic conduction, magnetism and electro magnetic induction, alternating current.

PHYS1199
Physics 1 (Optometry)
School of Physics
UOC6 HPW6
Vectors, linear mechanics, Newton’s law of motion, rotational mechanics, electric forces, fields and potential. Magnetic forces and fields. Ampere’s Law, Faraday’s Law, electric circuit theory, AC, DC and transient circuits. Liquid mechanics; Bernoulli’s equation; viscosity; Stoke’s Law. Nuclear Physics; radioactivity, half-life, nuclear forces, binding energies, fission and fusion.

Note: Restricted to program 3950.

PHYS1211
Energy and Environmental Physics
School of Physics
UOC6 HPW6
Energy its uses and environmental impacts, thermodynamics, heat engines, heat transfer, solar radiation and its uses, properties of fluids, alternative energy sources, photons and atoms, photovoltaic energy, nuclear science and technology, environmental effects of natural and technological radiation sources, energy management.

PHYS1221
Physics 1B
School of Physics
UOC6 HPW6
Prerequisite: PHYS1121; Corequisite: MATH1231 or MATH1241
Waves in elastic media: application of wave theories to optical and acoustical phenomena such as interference, diffraction and polarisation. Properties of matter: solids, liquids, gases. Fluids and thermal physics. Inductance and electric circuit transients. Alternating current circuit theory.

PHYS1231
Higher Physics 1B
School of Physics
UOC6 HPW6
Prerequisite: PHYS1131; Corequisite: MATH1231 or MATH1241

PHYS1241
Higher Physics 1B (Special)
School of Physics
UOC6 HPW6
Prerequisite: PHYS1131; Corequisite: MATH1231 or MATH1241
This course is designed for Physics majors and all students taking an Advanced Science program that includes Physics. Physics1241 is the ‘companion’ course to PHYS1231. Higher Physics 1A, available in S1. The four topics covered in PHYS1241 are: 1. Quantum and laser physics, 2. A.C. circuit theory, 3. Solar system astrophysics, 4. Special relativity. Students taking PHYS1241 can choose the standard Higher Physics 1B laboratory program (HPW2) or, alternatively, may select a research project, supervised by a member of Physics’ academic staff, totalling approximately 20 hours for the session. A list of projects offered will be circulated at the commencement of Session 2.

PHYS1249
Environmental Physics (Aviation)
School of Physics
UOC3 HPW6
Energy, its uses and environmental impacts, thermodynamics, heat engines, heat transfer, solar radiation and its uses, properties of fluids, alternative energy sources.

PHYS1601
Computer Applications in Experimental Science 1
School of Physics
UOC6 HPW6
An introduction to the internal structure, operating and interfacing of computers. Binary and digital electronic logic; logic control devices; bus communication structures; instruction execution in a processor; machine language code and instruction sets; interfaces and interaction schemes between processor and the outside world.

PHYS2010
Mechanics
School of Physics
UOC3 HPW2
Prerequisite: PHYS1002 or PHYS1221 or PHYS1231 or PHYS1241 and MATH1231 or MATH1241; Corequisite: MATH2011 or MATH2110 or MATH2100; Excluded: PHYS2001.
Damped and forced harmonic oscillations and resonance phenomena. Central force problems and celestial orbits. Variational principles; the Lagrangian and Hamiltonian formulations of mechanics; coupled oscillators, normal modes, continuous systems and fields. Many-particle systems.

PHYS2020
Computational Physics
School of Physics
UOC3 HPW2
Prerequisite: PHYS1002 or PHYS1022 or PHYS1221 or PHYS1231 or PHYS1241 and MATH1021 or MATH1231 or MATH1241 or MATH1131; Excluded: PHYS2001.
Use of computers to solve problems in Physics. Topics will be chosen from, but not limited to, random number generators, Monte Carlo techniques, sorting, numerical integration, gravitational, cellular automata, classical mechanics, and data analysis. Software used will include C and Maple.

PHYS2030
Laboratory A
School of Physics
UOC3 HPW3
Prerequisite: PHYS1002 or PHYS1022 or PHYS1111 or PHYS1221 or PHYS1231 or PHYS1241 and MATH1021 or MATH1131 or MATH1141 or MATH1103; Excluded: PHYS2031.
Experimental investigations in a range of areas: x-ray diffraction, work function, semiconductor bandgap, Hall effect, carrier lifetimes, nuclear magnetic resonance, magnetic properties.
PHYS2040  
Quantum Physics  
School of Physics  
UOC3  HPW2  
Prerequisite: PHYS1002 or PHYS1221 or PHYS1231 or PHYS1241 and MATH1231 or MATH1241; Excluded: PHYS2021.  

PHYS2050  
Electromagnetism  
School of Physics  
UOC3  HPW2  
Prerequisite: PHYS1002 or PHYS1221 or PHYS1231 or PHYS1241, MATH1231 or MATH1241; Corequisite: MATH2011 or MATH2110 or MATH2100; Excluded: PHYS2011.  
Static and time-dependent electric and magnetic fields. Electric and magnetic potentials. Electromagnetic waves. Materials in electric and magnetic fields.

PHYS2060  
Thermal Physics  
School of Physics  
UOC3  HPW2  
Prerequisite: PHYS1002 or PHYS1022 or PHYS1111 or PHYS1221 or PHYS1231 or PHYS1241, MATH1021 or MATH1131 or MATH1141 or MATH1031; Excluded: PHYS2011.  
Laws of thermodynamics, kinetic theory, microscopic processes, entropy, solid-state defects, Helmholtz and Gibbs' functions, Maxwell's relations, phase diagrams, chemical and electrochemical potentials.

PHYS2160  
Astronomy  
School of Physics  
UOC3  HPW2  
Prerequisite: PHYS1002 or PHYS1221 or PHYS1231 or PHYS1241 or PHYS1022  
Galaxies, the distance scale, large scale structure of the universe, galaxy evolution, the very early universe.

PHYS2170  
The Search for Life Elsewhere in the Universe  
School of Physics  
UOC3  HPW2  
Excluded: GENS4014  
A scientific examination of the question 'Are we alone'. The material will include discussions on the origin and survival of life, current high-tech searches for radio signals from extra-terrestrials, discoveries of new planetary systems, possible types of life-forms, Einstein's relativity, space-travel, and much more. A team of researchers will present the lectures, which will be supported by special tutorials which will look in detail at quantitative aspects of the subject.  
Note: This course is not available to Advanced Science students.

PHYS2410  
Biophysics 1  
School of Physics  
UOC3  HPW2  
Prerequisite: PHYS1002 or PHYS1022 or PHYS1111 or PHYS1201 or PHYS1221 or PHYS1231 or PHYS1241  

PHYS2601  
Computer Applications in Experimental Science 2  
School of Physics  
UOC6  HPW5  
Prerequisite: PHYS1601  
Technical aspects of computer hardware, peripherals and systems. Bus logic devices; simple interface design; use of a general purpose interface for communication, data collection and control. Speed and capacity limitations of conventional peripherals; techniques to improve performance.

PHYS2630  
Electronics  
School of Physics  
UOC3  HPW3  
Prerequisite: PHYS1002 or PHYS1221 or PHYS1231 or PHYS1241 or PHYS1022; Excluded: PHYS2920, PHYS2031.  
Electronic bench experiments and tutorials on diodes, transistors, operational amplifiers, power supplies and digital electronics.

PHYS2801  
Atmospheric Science  
School of Physics  
UOC6  HPW4  
Prerequisite: PHYS1002 or PHYS1022 or PHYS1149 or PHYS1111 or PHYS1221 or PHYS1231 or PHYS1241 or PHYS1889 or GEOG1701 or GEOG1701 and MATH1021 or MATH1231 or MATH1079 or MATH1031; Excluded: PHYS2810  
Atmospheric composition, thermodynamics of dry and moist air, stability, atmospheric motion and weather systems, energy transport, cloud processes, radiation laws, solar and terrestrial radiation, ozone formation and loss, 1D and 3D climate models and climate analysis, global warming. Laboratory exercises including chart analysis and computer simulations.

PHYS2810  
Atmospheric Physics  
School of Physics  
UOC3  HPW2  
Prerequisite: PHYS1002 or PHYS1022 or PHYS1149 or PHYS1111 or PHYS1221 or PHYS1231 or PHYS1241 or PHYS1889 or GEOG1701 or GEOG1701 and MATH1021 or MATH1231 or MATH1079 or MATH1031; Excluded: PHYS2810  
Atmospheric composition, thermodynamics of dry and moist air, stability, cloud physics, atmospheric electricity, radiation laws, solar and terrestrial radiation, applications, ozone hole, atmospheric energy transport and 1D and 3D climate models, applications, global warming.

PHYS3010  
Quantum Mechanics (Advanced)  
School of Physics  
UOC3  HPW2  
Prerequisite: PHYS2021 or PHYS2040; Corequisite: MATH2120; Excluded: PHYS3210.  
Fundamental principles; the Hydrogen atom; angular momentum; stationary and time-dependent perturbations; semi-classical radiation theory; variational methods; systems of particles; the Helium atom; matrix formulation.  
Note: Not available without a mark of 65 or greater in PHYS2040.

PHYS3020  
Statistical Physics  
School of Physics  
UOC3  HPW2  
Prerequisite: PHYS2060 or PHYS2011; Excluded: PHYS3021.  

PHYS3030  
Electromagnetism (Advanced)  
School of Physics  
UOC3  HPW2  
Prerequisite: PHYS2011 or PHYS2939 or PHYS2050 and MATH2011 or MATH2111 and MATH2120 or MATH2130 and MATH2520 or MATH2620; Excluded: PHYS3230.  
Electromagnetic fields; Maxwell's equations, Poynting theorem, potential formulation. Plane waves, reflection and transmission. Emission of radiation from accelerating charges, scattering and propagation of radiation in material media. Extended review of special relativity and its relations to electromagnetism.  
Note: Not available without a mark of 65 or greater in PHYS2050.
PHYS3040
Experimental Physics A1
School of Physics
UOC3 HPW4
A selection of experimental investigations in areas including: chaotic motion, high temperature superconductivity, semiconductors, electron and tunnelling microscopy, X-ray and electron diffraction, laser physics and holography, optical fibre technology, Fourier optics and transform spectroscopy, magnetic measurement techniques and resonance imaging, electromagnetic waves and waveguides, nuclear counting techniques and neutron activation, vacuum techniques. Formal scientific report writing.

Note: Some experiments assume knowledge of PHYS2030, PHYS2040 or PHYS2050.

PHYS3050
Nuclear Physics
School of Physics
UOC3 HPW2
Prerequisite: PHYS3010 or PHYS3210 at a credit average or above.
Nuclear shell model; theory of beta decay; the deuteron, nucleon-nucleon scattering; theories of nuclear reactions, resonances; mesons and strange particles, elementary particle properties and interactions; symmetries and quark models; strong and weak interactions.

PHYS3060
Advanced Optics
School of Physics
UOC3 HPW4
Prerequisite: PHYS1002 or PHYS1221 or PHYS1231 or PHYS1241; Corequisite: MATH2120 or MATH2130
Review of geometrical optics, including ray tracing, aberrations and optical instruments; physical optics, including Fresnel and Fraunhofer diffraction, transfer functions, coherence, auto and cross correlation: applications of optics, including fibre optics, lasers and holography.

Note: This course may also be studied via distance education.

PHYS3070
Experimental Physics A2
School of Physics
UOC3 HPW4
As for PHYS3040 Experimental Physics A1.

Note: Some experiments assume knowledge of PHYS2030, PHYS2040 or PHYS2050.

PHYS3080
Solid State Physics
School of Physics
UOC3 HPW2
Prerequisite: PHYS2021 or PHYS2040; Corequisite: PHYS3010 or PHYS3210, PHYS3020; Excluded: PHYS3021.
Free electron model of metals, Bloch states and energy bands, reciprocal space and the Fermi surface, electron dynamics, Landau levels. Crystal structure, Brillouin zones, elementary diffraction theory, bonding, cohesive processes, impurity states, impurity conductivity. Lattice vibration, monatomic and diatomic chain, acoustic and optic phonons, Einstein and Debye models, dielectric effects. Recommended corequisites PHYS3010 or PHYS3210 and PHYS3020.

PHYS3110
Experimental Physics B1
School of Physics
UOC3 HPW4
A selection of experimental investigations in areas including: chaotic motion, high temperature superconductivity, semiconductors, electron and tunnelling microscopy, X-ray and electron diffraction, laser physics and holography, optical fibre technology, Fourier optics and transform spectroscopy, magnetic measurement techniques and resonance imaging, electromagnetic waves and waveguides, nuclear counting techniques and neutron activation, vacuum techniques.

PHYS3120
Experimental Physics B2
School of Physics
UOC3 HPW4
As for PHYS3110 Experimental Physics B1.

PHYS3160
Astrophysics
School of Physics
UOC3 HPW2
Prerequisite: PHYS2021 or PHYS2040

PHYS3210
Quantum Mechanics
School of Physics
UOC3 HPW2
Prerequisite: PHYS2021 or PHYS2040; Corequisite: MATH2120 or MATH2130; Excluded: PHYS3010.
As for PHYS3010 Quantum Mechanics (Advanced), but treated in less depth and excluding matrix formulation.

PHYS3230
Electromagnetism
School of Physics
UOC3 HPW2
Prerequisite: PHYS2011 or PHYS2050 PHYS2939 and MATH2111 or MATH2120 or MATH2130; Excluded: PHYS3030
As for PHYS3030 Electromagnetism (Advanced), but treated in less depth.

PHYS3310
Physics of Solid State Devices
School of Physics
UOC3 HPW2
Prerequisite: PHYS3021 or PHYS2020 PHYS2939 and MATH2111 or MATH2120 or MATH2130; Excluded: PHYS3030
Review of electronic structure in semiconductors; p-n junctions; bipolar and field effect transistors including formation, characteristics and electrical breakdown. Optical devices including light emitting diodes and junction lasers. Integrated circuit structures.

PHYS3410
Biophysics 2
School of Physics
UOC3 HPW2
Prerequisite: PHYS2011 or PHYS2060 and PHYS2410

PHYS3510
Advanced Mechanics, Fields and Chaos
School of Physics
UOC3 HPW2
Prerequisite: PHYS2001 or PHYS2010 and MATH2011 or MATH2111
Lagrangian's equations and applications, variational principles, dissipative systems, Hamiltonian formulation, canonical transformations, Poisson brackets, Hamilton-Jacobi equation, continuous systems and fields, stability and chaos.

PHYS3550
General Relativity
School of Physics
UOC3 HPW2
Prerequisite: PHYS1002 or PHYS1231 or PHYS1241 or PHYS1221 and MATH2011 or MATH2111; Excluded: PHYS2520
Relativistic kinematics and dynamics, tensors and tensor operations, Christoffel symbols, formulation of general relativity, curvature of space, geodesics, gravitational field equations, Schwarzchild solution, tests of the theory, astrophysical and cosmological implications.

PHYS3630
Electronics
School of Physics
UOC3 HPW3
Prerequisite: PHYS2031 or PHYS2630

**PHYS3710 Lasers and Applications**  
School of Physics  
UOC3 HPW2  
Interaction between light and matter, fundamental properties of laser amplifiers and oscillators, giant pulse generation, mode locking and Q switching, specific laser systems including gas lasers and semiconductor lasers, applications of lasers.  
**Note:** This course may also be studied via distance education.

**PHYS3720 Optoelectronics**  
School of Physics  
UOC3 HPW2  
Introduction to non-linear optics, fibre optics, second harmonic generation, parametric amplification, phase matching, modulation of light, types of optical detectors including thermal detectors, photomultipliers and semiconductor detectors.  
**Note:** This course may also be studied via distance education.

**PHYS3770 Laser and Spectroscopy Laboratory**  
School of Physics  
UOC3 HPW4  
A selection of experiments using techniques and instruments connected to laser and optical spectroscopy, including laser safety, properties of lasers, design and construction of a Nd:YAG laser, acousto-optics, Fourier optics, holography, absorption spectroscopy, photoluminescence spectroscopy of semiconductors, etc.

**PHYS3780 Photonics Laboratory**  
School of Physics  
UOC3 HPW4  
A selection of experiments using techniques and instruments connected to fibre optics and photonics in general, including basic properties of optical fibres, optical fibre gratings, optical fibre sensors, optical communications, wavelength division multiplexing. Er-doped fibre amplifiers, optical domain reflectometry, etc.

**PHYS4103 Physics 4 Honours Full Time**  
School of Physics  
UOC24  
Honours programs consist of advanced lecture subjects and project work. Students normally undertake two separate projects during the year, in different research areas. All students take subjects in quantum mechanics, statistical mechanics, solid state physics and electromagnetism and the standard model. Additional subjects are chosen from topics such as astronomy, molecular physics, condensed matter physics and quantum field theory.  
**Note:** For the combined Physics/Geology honours see entry under course code BSSM4103. Admission to the honours program is at the invitation of the Head of School and normally requires at least a credit average in Year 3.

**PHYS4949 Advanced Topics in Physics**  
School of Physics  
UOC6 HPW4  
Pre-requisites: PHYS3010 or PHYS3080. This course is restricted to students enrolled in program 3644.  
Typically this course would be a combination of one of the Physics Honours courses plus additional laboratory work from PHYS3040, PHYS3070, PHYS3110 or PHYS3120.  
This course is restricted to student enrolled in program 3644.

**PHYS4979 Photonic Devices**  
School of Physics  
UOC6 HPW4  
Co-requisites: TELE4313 Exclusion/s: PHYS3720, PHYS3780. This course is restricted to students enrolled in program 3644.  
Introduction to non-linear optics, modulation of light, types of optical detectors, optical light sources. A selection of experiments using techniques and instruments connected to fibre optics and photonics.

**PLAN0081 Work Experience**  
Planning and Urban Development  
UOC24 HPW0  
As a key part of their planning degree, students must undertake 48 weeks of approved employment related to the professional objectives of the Planning and Urban Development Program: for example, in private development companies, planning consultancies, state government departments and agencies, or with local councils. This is normally undertaken in the twelve months following the end of Session 1 of Year 3. The Program Head must approve the type of employment proposed. The requirements of courses PLAN0081 and PLAN0082 Work Experience must be successfully completed before a student will be permitted to graduate. Assessment components include documentation and submission of a work experience diary, a reflective report and participation in a compulsory seminar.

**PLAN0082 Work Experience**  
Planning and Urban Development  
UOC24  
As a key part of their planning degree, students must undertake 48 weeks of approved employment related to the professional objectives of the Planning and Urban Development Program: for example, in private development companies, planning consultancies, state government departments and agencies, or with local councils. This is normally undertaken in the twelve months following the end of Session 1 of Year 3. The Program Head must approve the type of employment proposed. The requirements of courses PLAN0081 and PLAN0082 Work Experience must be successfully completed before a student will be permitted to graduate. Assessment components include documentation and submission of a work experience diary, a reflective report and participation in a compulsory seminar.

**PLAN1011 Urban Society**  
Planning and Urban Development  
UOC6 HPW3  
The primary objective of this course is to encourage students to critically consider their understanding of the society in which they live. Students are introduced to different sociological perspectives that have been used to describe and analyse aspects of contemporary urban society and the way in which the sociological imagination can inform an understanding of urban life. Of central concern are the origins, theoretical traditions and contemporary debates of sociology. Issues of social equity, social class, technological change, social and imagined communities are canvassed underpinned by an interest in the role of planning in managing change and community development. The course is structured around a combination of lectures, weekly readings, and occasional audio and visual materials, with a variety of assessment tasks.

**PLAN1042 Local Planning**  
Planning and Urban Development  
UOC6 HPW6  
This course is an introduction to local planning processes. It focuses on theoretical understandings and practical knowledge needed by planners working on local issues. The course is set in the broad context of the notion of the ‘local’ and its importance for communities and individuals. The identification of local planning issues, competing stakeholders, and strategies that planners can use to deal with conflicting local demands are considered. Students are exposed to these issues through lectures, class exercises, readings and field trips. Critical observation skills are developed during field trips. Basic planning research is undertaken in a group setting. Key readings in locality studies, communication, conflict resolution, and stakeholder identification/interests, help students to bring theoretical understandings into current practice. Assessment is based on different tasks usually including class participation, reading set texts, group projects on field excursions and a final examination.

**PLAN1052 Quantitative Methods**  
Planning and Urban Development  
UOC6 HPW6  
This course is an introduction to local planning processes. It focuses on theoretical understandings and practical knowledge needed by planners working on local issues. The course is set in the broad context of the notion of the ‘local’ and its importance for communities and individuals. The identification of local planning issues, competing stakeholders, and strategies that planners can use to deal with conflicting local demands are considered. Students are exposed to these issues through lectures, class exercises, readings and field trips. Critical observation skills are developed during field trips. Basic planning research is undertaken in a group setting. Key readings in locality studies, communication, conflict resolution, and stakeholder identification/interests, help students to bring theoretical understandings into current practice. Assessment is based on different tasks usually including class participation, reading set texts, group projects on field excursions and a final examination.
An appreciation of the range, utility and meaning of quantitative research techniques is a fundamental part of the planner’s methodological training. This course provides an introduction to basic techniques of data collection and analysis, introductory statistics and survey research. The course is structured around a series of lectures, supplemented by readings, exercises on questionnaire design, and computer exercises to familiarise students with Statistical Package for Social Sciences (SPSS) for Windows. Most of the SPSS exercises make use of real, planning-related data sets. Instruction is through lectures and computer laboratory sessions.

**PLAN1101**
**Understanding Design**
Planning and Urban Development
UOC6  HPW6
The course is an introduction to urban design principles and basic design skills which are needed by all planners. It involves an introduction to the basic vocabulary of planning and design terminology, exploration of the general principles of urban design, understanding the meaning of places and spaces, evaluation of good and bad urban design, development of basic skills of reading and interpreting maps and plans, and the creative communication of design ideas including drawing, mapping and presentation. Teaching involves lectures, workshops, discussions, and fieldtrips. Assessment is primarily via individual projects, group work and class participation.

**PLAN1122**
**Development Processes**
Planning and Urban Development
UOC6  HPW6
An introduction to the processes involved in property development in market economies in the context of government supervision of regulatory and approval processes. Emphasis is on the various roles of private property developers and the ways in which they operate to achieve project outcomes. Topics include the nature and purposes of property development, real property law, development economics, the regulatory context, and taxation issues. Learning relies on lectures supplemented by student seminars focusing on individual projects. Assessment is based on tasks including individual assignments structured as consultant reports, seminar participation and an examination.

**PLAN1241**
**Planning Theory and Practice**
Planning and Urban Development
UOC6  HPW6
This course aims to introduce students commencing their planning studies to the principles which underlie planning as a profession, the explicit and implicit meanings of planning and its activities, some of the basic methods planners use to achieve their goals, and the interrelationships between planning, society and governments. The course familiarizes students with the role of urban design in planning and the sustainable management of urban environments. It does this by way of lectures, student-presented seminars, directed exercises and field investigations.

**PLAN2032**
**Urban Design**
Planning and Urban Development
UOC6  HPW6
The role of urban design is to re-unite the partnership between planning and design to help improve the quality and sustainability of the built environment. This course provides an introduction to, and basic understanding of, urban design methodologies in relation to current planning practice. Starting from an appreciation of the fundamentals of design, topics include site investigations, defining urban structure, enhancing the public realm, understanding building typologies, and controlling built form. The course is structured around lectures, methodological instruction, discussions, case studies, site visits, and design projects. Assessments are based on individual and group projects. Students submit projects in written reports and oral presentations, supported by drawings, sketches and images.

**PLAN2041**
**Integrated Planning 1 - Communication in Planning**
Planning and Urban Development
UOC6  HPW6
The course targets a range of communication skills required of planners in practice and is designed to enhance student expertise in the oral, written, graphic and digital presentation of planning information. Students are introduced to theories of communication as a foundation for their work. The course canvases issues of professional writing, seminar presentation techniques, effective graphic displays, and communication of information through different media. The course is designed to encourage independent research skills as well as the team-based planning and cooperation necessary for major presentations. The major outcome is a series of multi-faceted student presentations on topics of contemporary planning interest. The course builds on acquired knowledge as the first in a series of three major courses in integrated learning and skills development.

**PLAN2111**
**Economics of Planning and Development**
Planning and Urban Development
UOC6  HPW6
Micro-economic and macro-economic processes underpin urban and regional land-use patterns, property values, activity systems and social welfare. The processes of economic growth and decline are a perennial consideration of planning at different scales. The course focuses on development and planning across large urbanized and non-metropolitan regions. Students gain an understanding of how planning objectives are influenced by the aggregate impacts of uneven economic growth processes and economic behaviour. They gain familiarity with the potentialities and limitations of public policy in influencing spatial outcomes through studying economic issues and problems. Practical techniques for analysing spatial structure and development projects are introduced. Instruction is through lectures and tutorials.

**PLAN2122**
**History, Heritage and the Built Environment**
Planning and Urban Development
UOC6  HPW6
This course injects an explicitly historical dimension into planning studies. It has four main interrelated foci: the historical development of urban systems and places, the development of modern planning theory and practice, methods of historical research, and assessment of heritage values in the built environment. The emphasis is on Sydney at the 20th century Australian experience in international perspective. Topics include city typologies, historical planning paradigms, models of ideal metropolitan form, Sydney’s planning history, planned capitals, and heritage procedures under the NSW planning system. Teaching involves lectures, videos, and fieldtrips, engaging students through discussion and workshops. Assessment is primarily via written research reports and class participation.

**PLAN2152**
**Resources, Planning and the Natural Environment**
Planning and Urban Development
UOC6  HPW6
This course examines the interrelationships between urbanization, planning and the sustainable management of environmental systems. It situates the potential of land use planning in resource management relative to scientific bodies of knowledge and the roles of cognate professionals. The role of environmental factors in complex planning issues is considered. The assessment of environmental factors is considered at both the strategic and development application scale. The course reviews principles of ecologically sustainable development and how these may be interpreted in an urban context. Models for reporting on the ‘state of the environment’ are considered. Analytical and procedural tools for use in strategic and tactical management of the urban environment and non-metropolitan regions impacted by urbanization are introduced. Instruction is via lectures, tutorials and fieldwork.

**PLAN3015**
**Social Planning**
Planning and Urban Development
UOC6  HPW6
The course is intended to provide students with a deeper understanding of the social and cultural issues central to contemporary urban planning. It provides in-depth examination of the diverse characteristics and needs of the different groups who inhabit and claim space in the postmodern city. The focus is on the notion of the humane, multicultural city, human expressions of difference and diversity, and the realities of everyday living. Groups explored include ethnic communities, Aborigines, children, youth, older people, homeless, poor, those with disabilities, and gays and lesbians. Using both key theoretical readings and practical exercises, students question their own prejudices and values and the way
that these impact on their professional roles. Assessment is generally based on participation in class exercises, workshops and field trips, set readings, some written assignments and a group presentation.

PLAN3031
Integrated Planning 2 - Strategic Planning
Planning and Urban Development
UOC6  HPW6
Strategic planning is a dynamic, analytical, and interdisciplinary process. It can encompass comprehensive area planning, targeted problem solving, and non-physical planning scenarios. A major characteristic is the synthesis of diverse information sources and community opinions into communicable planning documents. This course provides instruction in the theory and practice of strategic planning as an integrative activity. It adopts an applied focus considering a typical multifaceted planning issue. Examples include environmental, town centre, open space, transportation, employment zone, redevelopment, heritage or general locality studies which typically underpin local environmental planning actions. The emphasis is on individual and team research, analysis, report production, and presentation, with a significant fieldwork component. The course explicitly builds on the skills and knowledge which students have gained in other courses and is the second in sequence of three major courses in integrated learning and skills development.

PLAN3032
Integrated Planning 3 - Master Planning
Planning and Urban Development
UOC6  HPW6
This course focuses on planning frameworks for the delivery of quality urban outcomes on complex major development sites. The primary aim is for students to develop a working knowledge and skills for planning and development using techniques of Master Planning. This is an increasingly common technique in planning practice as government and the development industry strive to create more liveable and sustainable communities. The course introduces students to the theory, processes, techniques, and politics of master plans. The focus is more than physical and other aspects covered include social capital, economic appraisal and due diligence. Students workshop the development of a Master Plan for a real world development site. As the third in a series of integrative planning projects, the course enables students to synthesise knowledge and skills acquired in other courses.

PLAN3041
Planning Law and Administration
Planning and Urban Development
UOC6  HPW6
The course provides an overview of the legal system and environmental planning law with particular reference to the Australian experience. The course targets three main foci: planning law, planning administration and land valuation. Planning law considers historical and theoretical issues in law and jurisprudence. The administrative context within which planning is addressed, principally the role and function of statutory bodies in the planning and environmental area. The property dimension covers fundamental issues of property rights, definitions of value, methods of valuation, and compensation and betterment. Lectures and seminar presentations are involved with assessment based on written work and an examination.

PLAN3051
Development Assessment
Planning and Urban Development
UOC6  HPW6
This course introduces students to the implementation of planning objectives via the statutory development control system, with particular reference to the NSW planning system. Various development control systems are examined, based on common law, statute and policy. Considered in detail are aspects of statutory and policy planning including the nature of environmental planning instruments, the development application process, and statutory-based development assessment. Emphasis is placed on familiarising students with the practical and creative skills required by a professional planner in undertaking various tasks involved in the development assessment process.

PLAN3052
Qualitative Methods
Planning and Urban Development
UOC6  HPW6
This course focuses on the importance of inter-personal relationship skills in planning practice. The emphasis is on developing and refining such skills to facilitate interviewing techniques for successful qualitative research, dealing with people empathetically and sensitively, team building, community consultations and conflict resolution. Basic instruction is given in interviewing technique, its use in different qualitative research situations, community consultation, mediation and related planning techniques. Students undertake a variety of class exercises to develop their skills. A major qualitative research project involves in-depth interviewing, transcription preparation, data analysis, and reporting of findings. Students have the opportunity to reflect on and share experiences. Assessment is based on participation in class discussions and exercises, a major research project and reading set texts.

PLAN4021
Research Design
Planning and Urban Development
UOC3  HPW3
Consideration of issues of research design in planning studies that seeks to integrate a range of relevant methodological issues into a foundation for major research investigations. The primary focus is on the substantive research project in the final year of the planning degree. The course considers fundamental epistemological questions about research paradigms, explores the realities of the research process. It covers practical topics such as writing and presentation. Students gain an understanding of the conceptual, methodological, and technical bases for the construction and delivery of research projects. Lectures, tutorials and assessments guide students toward a developed thesis proposal and plan of study.

PLAN4121
Spatial Policy
Planning and Urban Development
UOC6  HPW6
Collective efforts to influence land use change and the structure and behaviour of spatial activity systems in their environmental, social and economic dimensions take place at different geographical scales. This advanced course focuses on the supra - local - regional - scale: that is, metropolitan sub-regions, metropolitan regions as a whole, and non-metropolitan regions. The emphasis is primarily on the metropolitan scale where the conditions requiring spatial planning are most in evidence. The course addresses the organization of government and public-private relationships in achieving spatial planning objectives. While the empirical focus is primarily on the Australian scene the principles apply internationally and reference is made to international cases. Instruction employs lectures and class discussions. Assessment is via research papers and student presentations.

PLAN4132
Thesis Project
Planning and Urban Development
UOC12  HPW2
Prerequisite: PLAN4031
A major research project is the culmination of the undergraduate planning program. The form of the project is most conventionally a written thesis. The option of incorporating a significant multi-media (e.g. CD-ROM) component may be approved. The thesis project is an individual study taken with the object of allowing students to acquire more specialised knowledge. The range of topics and the methodology is flexible, but a rigorous approach is required. A thesis proposal is developed in the complementary course PLAN4031. While most research, analysis and final preparation may be done off-campus, students are required to maintain close contact with their advisers.

PLAN4142
Professionalism, Ethics and Politics
Planning and Urban Development
UOC6  HPW6
This course in the final session of the final year of the planning degree addresses vital issues surrounding the professional planning practice. It equips students to think more critically of planning (particularly as a function of the state) and their role as future practitioners. Students develop an advanced understanding of the fundamentals of professional practice in terms of ethics, standards, negligence, as well as common tasks such as responding to a consultant’s brief, managing a project, and preparing for court work. Hands-on skills are discussed in the broader context of philosophical positions, planning trends, and broader societal
environment in which planning practice is situated. Lectures, workshops and seminars from visiting professionals are employed.

POLS1002
Power and Democracy in Australia
School of Politics and International Relations
UOC6 HPW3
Explores Australian democracy starting with the basic premise that the notion of democracy is complex and sometimes contradictory. Democracy is heralded in Australia and across the world as an inherent good because it is rule ‘of the people, by the people, for the people’. Yet there is no simple formula to apply that will ensure democracy is a success. In Australia, democracy involves voting by all citizens to ensure the people’s will reigns. But there is no such clear idea as this. Furthermore, the nature of representative democracy and political parties complicates the outcome. Different, contending groups of institutions within society can appeal to different aspects of the concept of democracy in order to justify their actions. Explores the concepts of democracy, representation, government and opposition, parties, pluralism and interest groups, the state, the High Court and the Constitution, and the electoral system.

POLS1003
Australian Political Practice
School of Politics and International Relations
UOC6 HPW3
The nature and history of Australian political institutions in depth, including a study of the Australian constitution and federal structure and the role of the High Court, the political parties and the formal institutions of government (parliament, cabinet and the bureaucracy), elections and voting in Australia and pressure groups.

POLS1005
Politics and Crisis: An Introduction to Western Political Theory
School of Politics and International Relations
UOC6 HPW3
An introduction to Western political theory through the study of major texts taken from distinctly different political civilisations. Each text is studied against its social and intellectual background and in the context of the political crises to which it was addressed. The main themes of the lectures concern the relationship between political theory and practice and that between language and political awareness. The texts could include Plato, The Republic; Machiavelli, The Prince and Discourses; Hobbes, Leviathan; More,T, Utopia.

POLS1013
Thinking About Politics
School of Politics and International Relations
UOC6 HPW3
Introduces students to some texts, central questions and thinkers of politics in the West. Topics include the nature of justice and political obligation, the foundations of authority and legitimacy, the relation between politics and ethics, inequality, and toleration.

POLS1017
International Relations in the 20th Century
School of Politics and International Relations
UOC6 HPW3
Excluded: INST1000, INST1300
Traces the development of international relations and its major concepts and theories through key themes and events in international history over the past century. Examines ways in which international politics is viewed, and the events, forces, and trends that provide context and justification to these theories. Introduces the major theories of international relations, as well as developments such as the Cold War and the arms race, decolonisation and revolution, globalisation, and the rise of international organisations.

POLS1020
International Relations: Continuity and Change
School of Politics and International Relations
UOC6 HPW3
Excluded: INST1002, INST1400, POLS2005
An introduction to world politics and its study by scholars of International Relations. The course is in three sections which deal respectively with the key actors in, the dynamics of, and issues currently facing, the system of international politics.

POLS2003
The Political Development of Contemporary China
School of Politics and International Relations
UOC6 HPW3
Prerequisite: 36 units of credit
An introductory study of Chinese politics with special attention to political issues, values, and the conflicts of interests in policy-making. Includes the development and nature of communism in China, economics and development strategy, education and culture, defence and foreign policy.

POLS2008
Power and Policy in Australian Politics
School of Politics and International Relations
UOC6 HPW3
Prerequisite: 36 units of credit; Excluded: AUST2024
Examines Australian public policies in the context of contemporary theories and techniques of policy analysis. Considers the problems of government administration and decision-making in the modern state. Examines the role of the state and the impact of economic rationalism and managerialism. Focuses on a range of policy issues and areas including: economic policy, social policy, Industrial relations and industry policy, the environment, Indigenous affairs, immigration and women's policy. Encourages specialisation in specific policy areas, drawing on relevant analytical frameworks to produce policy briefs and case studies.

POLS2020
Sex, Human Rights and Justice
School of Politics and International Relations
UOC6 HPW3
Prerequisite: 36 units of credit in Arts and Social Science courses; Excluded: AUST2025, WOMS2004
Examines thought and practices of human rights in connection with questions of sex and sexual relations. Conceptions of equality, autonomy and freedom will be examined, with some reference to classic liberal expositions of justice and the rights of the person. Areas include discrimination and harassment, abortion, prostitution and sexual slavery, pornography, sexual violence and rape. Attention will be given to both domestic and international policy in these areas.

POLS2023
Globalisation and Uneven Development
School of Politics and International Relations
UOC6 HPW3
Prerequisite: 36 units of credit; Excluded: GLST2104, SLSP2701
Examines the problems and political prospects of ‘Third World’ or ‘Less Developed’ countries in the context of the development of a global economic and communications system. The first part examines the historical development of the system, the second part looks at its current structure and functioning and the third part considers the specific role of less developed countries and regions within the global system.

POLS2024
Theories and Concepts of International Relations
School of Politics and International Relations
UOC6 HPW3
Prerequisite: 36 units of credit; Excluded: GLST2105
Introduces students to both classical and contemporary writing on the nature of international politics. Particular emphasis is given to topics such as war and peace, human rights and the future of the state system.

POLS2036
Political Development in Northeast Asia
School of Politics and International Relations
UOC6 HPW3
Prerequisite: 36 units of credit
An introduction to contemporary political development in Northeast Asia. Applies Western modernisation theory to the process of socio-political and economic change in China, Japan, South and North Korea and Taiwan. Also discusses the relationship of these countries to the outside world. Their internal politics are analysed in the context of history, culture and economic development. Topics include: land and people, political culture, state/society relationship, environment, ideology and nationalism, government, the military and political parties. Examines similarities and differences in political development among the countries in the region. One particular emphasis will be on the on-going reform and democratisation process in Northeast Asia.
POLS2037
International Law: Power, Politics and Ideology
School of Politics and International Relations
UOC6 HPW3
Prerequisite: 36 units of credit; Excluded: INST2300
International law is integral to the system of international politics. It is the medium through which states and other actors negotiate their positions on a vast array of subjects and via which politics has, over recent decades, undergone a process of globalisation. Introduces students to the alternative approaches to analysing the political role of international law and examines the role of international law in particular case study scenarios.

Note: No prior knowledge of law is assumed.

POLS2040
Politics and Business
School of Politics and International Relations
UOC6 HPW3
Prerequisite: 36 units of credit
An examination of the relationship between business and politics at both international and national levels. The emphasis is on developed capitalist countries, but attention is also devoted to transitional, NIC and developing countries. Topics dealt with include globalisation, politics and business; corporatist relationships; business lobbying; business influence on public opinion; and corruption.

POLS2041
Sexuality and Power: The Social Relations of Sex and the Sexes
School of Politics and International Relations
UOC6 HPW3
Prerequisite: 36 units of credit
Introduces some of the main theories of power and of sexuality; analyses different sexualities, and issues relating to sexuality, in the context of theories of power. Topics include compulsory heterosexuality; the construction of masculinity, femininity and desire; marriage and prostitution; sexuality and work; body politics; and pornography and popular culture.

POLS2043
Free Speech
School of Politics and International Relations
UOC6 HPW3
Prerequisite: 36 units of credit
Examines the issue of free speech. Aims to engage students in thinking conceptually about speech and the politics of speech policy. Examines free speech arguments, and the relationship between these arguments and conceptions of speech. In this context, students will discuss how speech is regulated and debate whether this regulation is appropriate or not. Types of regulated speech which will be investigated include hate speech, pornography and gender-specific language. Areas of speech regulation which will be investigated include parliamentary privilege, academic freedom, terrorism and national security.

POLS2046
Political Rhetoric
School of Politics and International Relations
UOC6 HPW3
Prerequisite: 36 units of credit
Introduces students to the study of political rhetoric and the art of speech-making. Explores rhetorical theory including informal reasoning, aesthetic evaluation, prose style and an array of commonly used argumentative strategies. Focuses on political oratory in the twentieth century.

POLS2048
International Security
School of Politics and International Relations
UOC6 HPW3
Prerequisite: 36 units of credit; Excluded: GLST2106, INST2302, POLS1023
Examines the concept and practice of security in international relations. Examines theories of security, before addressing central actors to the security project such as states, institutions and civil society forces. Then considers key issues for security in international politics, including traditional conflict; humanitarian crises; environmental change; population movements and terrorism.

POLS3024
Australian Foreign Policy
School of Politics and International Relations
UOC6 HPW3
Prerequisite: 12 units of credit at the POLS2000 level
An examination of the foreign policy making and implementing processes in Australia; traditions, assumptions and perceptions; actors and audiences; interests and issues; incentives and constraints.

POLS3040
Early Political Texts
School of Politics and International Relations
UOC6 HPW3
Prerequisite: 12 units of credit at the POLS2000 level
An examination of Thomas Hobbes’s Leviathan (1651), its contexts, the controversies surrounding its reception and some of the uses to which it has been put in the twentieth century. Leviathan is, by general consent, the most important work in political theory written in the English language; but it is more than a political theory; it is an argument about philosophy, science, language, human psychology and religion. It is a work of rhetoric and satire and is one of the great prose works of English. It thus evokes a range of contexts, of the Reformation, the Scientific revolution, the British and French Civil Wars, the humanism of the Renaissance. On publication it proved highly controversial. It was largely overlooked in the nineteenth century but in our own it has been re-discovered as central to the understanding of political civilisation. It is still as controversial, though for different reasons, as it was in the seventeenth century. Studying it is a way into our own civilisation as well as Hobbes’s own world.

POLS3045
Policy and Politics: Theory and Practice
School of Politics and International Relations
UOC12 HPW3
Prerequisite: 12 units of credit at the POLS2000 level, including POLS2008
A policy oriented course based on a two day per week research internship attachment, usually with a member of parliament, a government department or unit or an NGO. Students must be able to demonstrate familiarity with the Australian parliamentary and political system. Students are required to produce a research report and a weekly journal and attend a weekly debriefing session as part of their assessment.

Note: Enrolments are limited to the number of available internships, which may vary from year to year. Available spaces are allocated by interview in order to match qualifications of individuals with the requirements of available internships.

POLS3054
Theorising International Political Economy
School of Politics and International Relations
UOC6 HPW3
Prerequisite: 12 units of credit at the POLS2000 level
Introduces key perspectives and central issues in the study of international political economy. Establishes links between theories about the relationship of politics and economics, and the analysis of key structures and processes in the world economy. Explores the theories and concepts designed to investigate the expansion and globalisation of a world economy. Key substantive issues include state-firm relations, production, international trade, and monetary relations.

POLS3943
US Hegemony & International Law
School of Politics and International Relations
UOC6 HPW3
Prerequisite: 18 units of credit at the POLS2000 level at credit level or better; Excluded: POLS3043
Considers the US ‘attitude’ towards international law from 1918 to the present in the context of the rise of the US to sole superpower status and examines literature relating to topics such as the US and treaty law, US participation in international courts and tribunals, and US compliance with its international law obligations in order to assess current theoretical understanding of the political operation of international law and the implications for international law of the US as sole superpower.

POLS3948
Language, Satire & Politics
School of Politics and International Relations
UOC6 HPW3
Prerequisite: 18 units of credit at the POLS2000 level at credit level or better; Excluded: POLS3048
Explores the nature and problems of political analysis from the point of view of rhetoric and argumentation. Examines satire as another form of persuasive language and as a certain sort of evidence about politics and central political concepts.

POLS3952
Sovereignty, Order and the State
School of Politics and International Relations
UOC6    HPW3
Prerequisite: 18 units of credit at the POLS2000 level at credit level or better; Excluded: POLS3052
Explores the meanings of the concepts of sovereignty and order in the context of historical and contemporary discussions concerning the operations of the state, both internally and externally. Particular focus is given to the early development of the theory of sovereignty and to the attacks on this notion made in the name of pluralism and internationalism, now and in the early part of this century. The question of justice in international politics, the issues of post-nationalism and the future of the state are also examined.

POLY4000
Politics and International Relations Honours (Research) Full-Time
School of Politics and International Relations
UOC24    HPW5
Prerequisite: 54 units of credit in POLS at an average of at least 70%, including at least 6 units of credit from POLS1###, and 12 units of credit in Pre-Honours (or equivalent) POLS 3### courses at a minimum of 70% each.
During the honours year, students are required: a) to undertake an original piece of research work extending throughout the year and to submit a thesis based upon it; b) to complete two coursework courses offered in the first Semester; c) to participate in the thesis workshop each week in the first Semester.

POLY3011
Polymer Science - Theory
School of Chemical Engineering and Industrial Chemistry
UOC3    HPW3
Prerequisite: CHEM2021, INDC2040

POLY3012
Polymer Science - Practice
School of Chemical Engineering and Industrial Chemistry
UOC3    HPW3
Prerequisite: CHEM2021, INDC2040, POLY3011
A series of practical laboratory exercises designed to illustrate the kinetics of polymerisation and the mechanical behaviour and properties of polymers.

PSYC1001
Psychology 1A
School of Psychology
UOC6    HPW5
Excluded: GENB4001, GEN59001
This course introduces the content and methods of psychology as a basic science, with emphasis on the social bases of behaviour. After an initial review of the historical foundations for the scientific study of human behaviour, several specific topics related to the social aspects of human behaviour are discussed. Specific topics covered in this course include: development, measurement of personality, theories of consciousness, and social influences on behaviour. In addition, training in the methods of psychological inquiry and basic procedures of data analysis is also provided.

PSYC1011
Psychology 1B
School of Psychology
UOC6    HPW5
Excluded: GENB4002, GEN59002
This course introduces the content and methods of psychology as a basic science, with emphasis on the biological bases of behaviour. Specific topics covered in this course include: perception, learning, memory, motivation, emotion, and abnormal behaviour. After describing the basic phenomena within an area, the goal will be to explore the neural bases of these behaviours. In addition, training in the methods of psychological inquiry and basic procedures of data analysis is also provided.

PSYC1021
Introduction to Psychological Applications
School of Psychology
UOC6    HPW4
Restricted to students currently enrolled in program 3432 Psychology
The approach of psychology to issues arising in the management of human affairs and to the remediation of human problems. Topics include psychology as a scientific discipline, an overview of areas such as clinical psychology, neuropsychology and developmental disabilities in which psychological knowledge is applied to help individuals to change or to function optimally, and specific areas of public concern where psychology has a major contribution to make such as education, selection, training in industry, traffic and aircraft safety, and the law. The practical component focuses on the professional and social responsibilities of psychologists.

PSYC2001
Research Methods 2
School of Psychology
UOC6    HPW4
Prerequisite: PSYC1001, PSYC1011 Excluded: GENB4004, GENB4005, GENB4007, GENB4008, GEN59005, GEN59007, GEN59008 and GEN59009.
General introduction to the analysis of data by means of inferential statistics (z, t and chi square). Issues in the use of statistics (power, robustness). General features of research methodology. Laboratory and statistical traditions affecting design and control procedures. The implications of the use of inferential statistics for research methodology generally. Ethics of research and interpretation of data.

Note: PSYC1001 may be taken as a co-requisite.

PSYC2061
Social and Developmental Psychology
School of Psychology
UOC6    HPW4
Prerequisite: PSYC1001, PSYC1011
Two strands: 1. Social - The basic principles of research and theory in social psychology, with a special emphasis on understanding how people relate to each other. Issues such as the nature of human sociability, the perception and interpretation of social behaviour, ambiguities of interpretation of interpersonal behaviour, verbal and nonverbal communication processes, impression formation and impression management and related topics will be covered. 2. Developmental - The age at which certain abilities or dispositions develop or are learned, and the processes by which developmental changes occur. Issues such as nature and nurture, continuity vs discontinuity, nomothetic vs ideographic approaches and the methods and ethics of developmental research will be covered from various perspectives - psychodynamic, biological/ethological, environmental/learning, and cognitive - developmental.

PSYC2071
Perception and Cognition
School of Psychology
UOC6    HPW4
Prerequisite: PSYC1001, PSYC1011
Introduces the fundamental principles underlying human perception and cognition such as sensory coding, perceptual organisation, perception of spatial layout, perceptual learning, object recognition, attention, memory storage and retrieval, problem solving and decision making. The practical program will provide an introduction to the use of psychophysical methods, experimental approaches to the study of cognitive processes, and the application of findings in society.

PSYC2081
Learning and Physiological Psychology
School of Psychology
UOC6    HPW4
Prerequisite: PSYC1001, PSYC1011
An examination of brain and behaviour relationships with emphasis on learning, memory and motivation. Topics may include habituation, sensitisation, classical/operant conditioning, basic motivations, hunger, sex aggression, neuropsychology of amnesia and normal memory.

**Note:** PSYC1001 may be taken as a corequisite.

**PSYC2101**
**Assessment and Personality**
School of Psychology
UOC6  HPW4
Prerequisite: PSYC1001, PSYC1011

Systematic measurement of various aspects of people occurs in many different settings such as clinical, counselling, legal, educational and vocational guidance, and personnel settings. An introduction to the principles and techniques of psychological measurement, including consideration of what makes tests useful, how to evaluate tests and factors that are important to consider in their interpretation. Underlying many tests is a theoretical position about personality. Discussion of how aspects of personality are operationalised and measured will enable students to understand how tests relate to these theories. The practical program will provide the opportunity to explore the application of tests in a number of different settings.

**PSYC3001**
**Research Methods 3A**
School of Psychology
UOC6  HPW4
Prerequisite: PSYC2001

Analysis of variance for single factor and multifactor designs. MANOVA model analyses of repeated measures data. Simultaneous inference procedures for contrasts defined on parameters of ANOVA and MANOVA models. General principles of experimental design. Analysing experimental data with the PSY program.

**PSYC3011**
**Research Methods 3B**
School of Psychology
UOC6  HPW4
Prerequisite: PSYC3001

Multiple regression and its application to prediction, analysis of designed experiments and construction of structural models. Principal components analysis and factor analysis. Data analysis using SPSS.

**PSYC3051**
**Physiological Psychology**
School of Psychology
UOC6  HPW4
Prerequisite: PSYC2001, PSYC2081

An overview of the neuroscience of learning, memory, and psychopathology (especially stress, anxiety, depression and addiction). Emphasis is placed on contemporary theories and approaches including the role of interactions between environmental events, synapses and genes.

**PSYC3121**
**Social Psychology**
School of Psychology
UOC6  HPW4
Prerequisite: PSYC2001, PSYC2061

A review of the history, principles and methods, and ethics of social psychology at an advanced level. Substantive research areas such as the nature of affiliation and attraction, interpersonal relationships, the study of beliefs, values and attitudes, persuasion and processes of attitude change, social influence processes, and group behaviour, among others, will be covered.

**PSYC3141**
**Behaviour in Organisations**
School of Psychology
UOC6  HPW4
Prerequisite: PSYC2001 and PSYC2061; Exclusion: PSYC3526.

The application of general psychological theories and principles to contemporary management problems. It will acquaint students with research in employee motivation, satisfaction, selection, training, evaluation, and teamwork as well as other topics in industrial and organisational psychology, including the role of the professional in organisations and in dealing with other professionals.

**PSYC3201**
**Psychopathology**
School of Psychology
UOC6  HPW4
Prerequisite: PSYC2001, PSYC2081

An introduction to the scientific analysis of behavioural and mental disorders. The major syndromes, focussing upon current models and theories of causation and the empirically-based evaluation of these aetiological models and theories will be described. Treatment of the disorders will be outlined, especially where modern treatment developments throw light on fundamental causal mechanisms. Professional and ethical aspects of various treatments will be considered.

**PSYC3211**
**Cognitive Science**
School of Psychology
UOC6  HPW4
Prerequisite: PSYC2001, PSYC2071

Considers a variety of different approaches adopted in the study of the mind. Critically appraises theories and models of mental processes and draws from studies of both normal and impaired cognitive functioning. Includes topics such as perception, visual cognition, attention, memory, reasoning, consciousness, and the association between mind and body. The professional implications of selected topics will be discussed.

**PSYC3221**
**Vision and Brain**
School of Psychology
UOC6  HPW4
Prerequisite: PSYC2001, PSYC2071

Seeing is an amazing achievement, taking up 40% of the visual cortex. This course will consider how we see and how this reveals and is related to principles of brain functioning. Topics will include stereo (3-D vision), the coding of brightness and colour, perceiving motion and self-motion, brain damage and the question of specialised visual systems, visual imagery, visual attention, and vision and art.

**PSYC3241**
**Psychobiology of Memory and Motivation**
School of Psychology
UOC6  HPW4
Prerequisite: PSYC2001, PSYC2081

Research and theory in memory and motivation as they underpin adaptive behaviour. Primary consideration will be given to general-purpose and specialised forms of learning. Implications for the origin and treatment of clinical disorders will be described.

**PSYC3271**
**Personality and Individual Differences**
School of Psychology
UOC6  HPW4
Prerequisite: PSYC2001, PSYC2101

The study of persons from two separate, but related perspectives. The psychology of personality involves the study of the structure and the processes involved in the organised functioning of individuals, their traits, cognitions and motives. The expression and measurement of the differences in those psychological characteristics between individuals and groups, and the theories or explanations that account for them, is what is involved in a psychology of individual differences.

**PSYC3301**
**Psychology and Law**
School of Psychology
UOC6  HPW4
Prerequisite: PSYC2001, PSYC2061

An introduction and broad overview to the discipline of psychology and law. You will be introduced to a wide range of forensic issues, civil and criminal, drawing on cognitive, social and clinical psychological research. The goal is set to demonstrate the relevance of psychological research on the development of policy and all aspects of the legal process.

**PSYC3311**
**The Psychology of Language**
School of Psychology
UOC6  HPW4
Prerequisite: PSYC2001, PSYC2071
One of the features that distinguishes humans from other animals is their use of a sophisticated symbolic system for communication—namely, language. This course will examine how humans cognitively represent their language system in order to successfully produce and comprehend spoken and written words. All levels of language will be considered ranging from the smallest sounds up to full discourse within context. Evidence obtained from language dysfunctions and from investigations of language development will also be considered.

**PSYC3341**

**Health Psychology**

School of Psychology

UOC6 HPW4

Prerequisite: PSYC2001, PSYC2061 or PSYC2101 Excluded: PSYC13.16

This course aims to introduce students to some of the major theoretical and empirical work in Health Psychology. Its primary focus will be on the promotion and maintenance of health-related behaviour and the prevention of illness. The course will begin with a brief overview of core material in the discipline of psychology with an emphasis on personality, social and developmental psychology. The application of that knowledge will then cover health promotion strategies and methods (for example, improving diet-related behaviour and attitudes, initiating and maintaining exercise programs), and disease prevention skills and behaviours (for example, coronary heart disease, cancer, and smoking related problems).

**PSYC3341**

**Developmental Psychology**

School of Psychology

UOC6 HPW4

Prerequisite: PSYC2001, PSYC2061

This is an advanced level course which provides an overview of theories and research in developmental psychology, with an emphasis on understanding how biological, cognitive, emotional, and social processes develop and interact. Specific topics may include prenatal growth, attention and memory, language development, cognitive development, development of attachments, moral development, and gender-role development. The implications of research in these areas for the understanding of emotional, intellectual and behavioural problems during childhood will be examined.

**PSYC3516**

**Psychology for Optometry**

School of Psychology

UOC6 HPW2

Co-requisite: OPTM3102

An introduction to various aspects of psychology of relevance to optometrical practice. Includes development of psychological theories, human development, social psychology, psychopathology, perceptual learning and human neuropsychology.

**Note:** Restricted to Program 3950 Bachelor of Optometry.

**PSYC4053**

**Psychology 4A**

School of Psychology

UOC6 HPW4

A supervised research thesis and coursework to be determined in consultation with the Head of School.

**PSYC4063**

**Psychology 4B**

School of Psychology

UOC6 HPW4

Prerequisite: PSYC4053

A continuation of PSYC4053.

**PSYM5001**

**Psychiatry**

School of Psychiatry

UOC6 HPW4

Prerequisite: MLJ5L14001

**Objectives:** To be aware of the key symptoms, signs and syndromes of psychiatric disorder; to be able to take a history and conduct a mental state examination; to have acquired those skills necessary for a doctor in general or non-psychiatric specialised practice to decide appropriate management strategies; to be aware of, and have some experience in basic counselling skills; to be able to assess a patient's personality, psychological adjustment, coping repertoires, social function; to appreciate the importance of psychological factors in the diagnosis and treatment of illness; to be trained in interpersonal skills appropriate to clinical practice in any area of medicine; to be aware of the appropriate sections of the Mental Health Act and Guardianship Board legislation; to have received basic knowledge in special areas of development disability, forensic psychiatry, child psychiatry, transcultural psychiatry and psychogeriatrics; to be competent in prescribing psychotropic medications; and to be able to use simple behavioural techniques such as relaxation training.

Formal teaching seminars are held in the mornings and afternoons Monday to Friday in week 1, and mornings and afternoons Monday and Friday weeks 2-8. The remaining days are spent at Prince of Wales, St George, St Vincent's, Sutherland, Bankstown, Liverpool and Campbelltown Hospitals, where small group tutorials, case conferences and video analyses are carried out with academic and clinical staff, and clinical experience is obtained. Attachments to liaison psychiatry teams are organised so that students receive the appropriate teaching of skills related to general hospital patients. Visits to appropriate community facilities and to the Forensic Psychiatry Unit at Long Bay Gaol are organised. Voluntary attachments to Illawarra and to a number of rural sites (Wagga, Lismore, Port Macquarie, Armidale, Dubbo, Albury, Coffs Harbour and Taree) occur across the term.

**Assignment:** A video examination is held mid-term to assess interviewing skills. A written examination is conducted on the first day of the last week of term, and viva voce examinations are carried out during that week. A liaison psychiatry report and two clinical case histories are also part of the assessment.

**PTRL1010**

**Introduction to the Petroleum Industry**

School of Petroleum Engineering

UOC6 HPW3


**PTRL1013**

**Computing for Petroleum Engineers**

School of Petroleum Engineering

UOC6 HPW3


**PTRL1016**

**Reservoir Rock & Fluid Properties**

School of Petroleum Engineering

UOC6 HPW6


Unit B: An integrated reservoir engineering and formation evaluation laboratory incorporating experiments in porosity, permeability, capillary pressure, resistivity of reservoir rocks and PVT properties of crude oil. Introduction to the API standard laboratory equipment and their processes in measuring the above rock and fluid properties. Sample preparation from whole cores of different types of rock and shale. Demonstration of differences of properties in different rocks by conducting various
experiments. Understanding PVT properties of a mixture of hydrocarbon and their phase behaviour under different test conditions.

**PTRL2010**  
**Business Communications & Practices for Petroleum Engineers**  
School of Petroleum Engineering  
UOC6 HPW3  
Communication skills: Preparation of resume. Background research for interviews and guidelines for conduct during interviews. Preparation of written reports and memorandums for maximum audience impact. Impromptu and prepared oral presentation skills.  
Business Practices: Joint Ventures, contracts, company structures, types of interest, stockmarket terminology and activities, acreage and reserves acquisition, farming, company annual reports, company special reports, oil and gas marketing, reserves reporting, relations with Governments and partners.

**PTRL2014**  
**Fluid Dynamics in Porous Media**  
School of Petroleum Engineering  
UOC3 HPW3  
Prerequisite: PTRL1016  

**PTRL2015**  
**Well Drilling Equipment & Operations**  
School of Petroleum Engineering  
UOC3 HPW3  
Introduction to physical processes involved in drilling oil and gas wells. Rotary drilling rigs for both land and offshore operation. Drilling equipment including rig power and transmission, hoisting, rotary systems, BOP equipment and hookup, drill pipes and collars. Drilling fluid circulating systems including pumps, mud tanks, mud mixtures and mud cleaners. Elements of rock mechanics and its application in drilling. Selection of drill bits and penetration rate optimisation. Rig sizing and selection. Special marine equipment.

**PTRL2016**  
**Introduction to Petrophysics**  
School of Petroleum Engineering  
UOC3 HPW3  
Prerequisites: PTRL1010, PTRL1016, GEOS3321  

**PTRL3008**  
**Reservoir Engineering A**  
School of Petroleum Engineering  
UOC6 HPW3  
Prerequisite: PTRL2014  

**PTRL3009**  
**Reservoir Engineering B**  
School of Petroleum Engineering  
UOC6 HPW3  
Corequisite: PTRL3008  

**PTRL3013**  
**Reservoir Characterisation and Modelling**  
School of Petroleum Engineering  
UOC3 HPW3  
Prerequisites: PTRL1013, PTRL2016, MATH2899  

**PTRL3016**  
**Field Development Geology for Petroleum Engineers**  
School of Petroleum Engineering  
UOC3 HPW3  
Prerequisites: PTRL2016, GEOS3321  

**PTRL3021**  
**Design Project for Petroleum Engineers**  
School of Petroleum Engineering  
UOC6 HPW3  
Prerequisite: CIEC2110  
This course covers front-end engineering design of new production facilities for a potentially viable oil/gas field. Common offshore and onshore field development modes are first reviewed. Various oil/gas processing systems are studied, including gas dehydration, condensate handling, acid gas removal, LPG extraction, and crude oil stabilisation. Design tasks include process simulation, preparation of process flow diagrams/piping & instrument diagrams, HAZOP studies, and project management arrangements. Students will make extensive use of a commercial process simulation software package during tutorials. Each student shall carry out an example facilities scoping study and submit this as their final design report.

**PTRL3023**  
**Formation Evaluation**  
School of Petroleum Engineering  
UOC6 HPW6  
Prerequisite: PTRL2014, PTRL2016  

**PTRL3024**  
**Drilling Fluids & Cementing Techniques**  
School of Petroleum Engineering  
UOC6 HPW6  
Prerequisite: PTRL3016

Unit B: Drilling and Production Laboratory: The laboratory includes measurement and control of the basic properties of drilling fluids (density, viscosity, filtration, lubricity and electrochemical properties) and cement slurries (density, viscosity, thickening time and mechanical properties). The objectives of this laboratory are to demonstrate the processes involved in drilling and cementing operations, introduce laboratory techniques which are used to select and optimise drilling fluids and cement slurry and to develop interest in experimentation.

PTRL3025
Petroleum Economics
School of Petroleum Engineering
UOC6 HPW6
Cash flow analysis in the petroleum industry (definition of cash flow, deriving net cash flow under tax/royalty systems and production sharing contracts, depreciation methods, inflation, sunk costs). Economic indicators (net present value, rate of return and other indicators). Fiscal analysis (the nature of petroleum fiscal regimes, the effects of fiscal regimes on exploration and field development decision making, economic analysis of fiscal regimes in Australia and Indonesia). Risk analysis (risks in each oil industry investment phase, project risk and expected value, sensitivity analysis, probability analysis, Monte Carlo simulation, probabilistic reserves estimates, probabilistic economics, portfolio analysis, asset management, risk and discount rates). Risk management (standards, establishing the context, identifying risk, analysing the risks, assessing and prioritising risks, treating the risks, insurance practices in the oil and gas industry, monitoring project risks).

PTRL4017
Well Technology
School of Petroleum Engineering
UOC6 HPW6
Prerequisite: PTRL3024
Unit A - Well Design: Prediction of formation pore pressure and stress gradients. Determination of safety mud weight bounds for different in-situ stress conditions. Design and planning well trajectory. Surveying tools and methods. Design of drill string including bottomhole assembly. Drilling methods and equipment for directional, horizontal and multilateral wells. Selection of casing shoes, material properties and design of casing program.


PTRL4018
Petroleum Production Engineering
School of Petroleum Engineering
UOC3 HPW3
Prerequisite: All Stage 3 Petroleum Engineering Courses.

RUSS1111
Introductory Russian 1
Russian Studies
UOC6 HPW6
Excluded: GENT0434
Intended for complete beginners, this course provides a basic introductory knowledge of spoken and written Russian. Assessment: weekly assignments, tests.
Note: Excluded native speakers of Russian and students with HSC qualifications.

RUSS1112
Introductory Russian 2
Russian Studies
UOC6 HPW6
Prerequisite: RUSS1111
A continuation of RUSS1111. Assessment: weekly assignments and tests.
Note: Excluded native speakers and students with HSC qualifications.

RUSS2101
Introductory Russian 3
Russian Studies
UOC6 HPW6
Prerequisite: RUSS1112
Excluded native speakers and students with HSC qualifications.

Note: No knowledge of the Russian language required.

**RUSS2102**  
The Great Terror  
Russian Studies  
UOC6 HPW3  
Prerequisite: 36 units of credit in Arts and Social Science courses; Excluded: RUSS2302

An analysis of Stalinism, the purges and show-trials of the 1930s. The growth of Soviet organs of oppression, forced collectivisation, the Gulag system.

Note: No knowledge of the Russian language required.

**RUSS2111**  
Intermediate Russian 1  
Russian Studies  
UOC6 HPW5  
Prerequisite: RUSS1112 or RUSS1000; Excluded: RUSS2000, RUSS2001

A continuation of Level 1 Russian language for beginners (with consolidation and extension of written and oral proficiency in Russian). Assessment: weekly assignments, tests.

**RUSS2112**  
Intermediate Russian 2  
Russian Studies  
UOC6 HPW5  
Prerequisite: RUSS2111

A continuation of RUSS2111. Assessment: weekly assignments, tests.

**RUSS2200**  
Soviet Cinema  
Russian Studies  
UOC6 HPW3  
Prerequisite: 36 units of credit

Provides an analysis of the history and development of film throughout Russian/Soviet history from the very early stages, including the essential turning points: Eisenstein, the Stalinist period, the thaw, selected masterpieces of the 60s and 70s; recent times. Note that the three hours per week does not include viewing time. Assessment: 2 essays.

**RUSS3111**  
Advanced Russian 1  
Russian Studies  
UOC6 HPW4  
Prerequisite: RUSS2112 or RUSS2001 or RUSS2000; Excluded: RUSS3000, RUSS3001

Advanced grammar, translation into Russian, essay-writing and advanced oral work. Assessment: weekly assignments, tests.

**RUSS3112**  
Advanced Russian 2  
Russian Studies  
UOC6 HPW4  
Prerequisite: RUSS3111

A continuation of RUSS3111. Assessment: weekly assignments, tests.

**RUSS4070**  
Russian Honours (Research) Full-Time  
Russian Studies  
UOC24 HPW5  
Prerequisite: 54 units of credit in RUSS courses at 70%

Advanced language (2 hours) or equivalent plus two options and a 15,000-20,000 word thesis on a topic to be approved by the Head of Department.

**RUSS4500**  
Combined Russian Honours (Research) Full-Time  
Russian Studies  
UOC12 HPW2  
Prerequisite: 48 units of credit in RUSS courses at 70%

Advanced language (2 hours) or equivalent plus one option and a 15,000-20,000 word thesis on a topic to be approved by the Heads of the participating Schools/Departments.

**RUSS4550**  
Combined Russian Honours (Research) Part-Time  
Russian Studies  
UOC6 HPW2  
Prerequisite: 48 units of credit in RUSS courses at 70%

Advanced language (2 hours) or equivalent plus one option and a 15,000-20,000 word thesis on a topic to be approved by the Heads of the participating Schools/Departments.

**SAED1402**  
Learning and Teaching Art & Design: Practice & Structure  
School of Art Education  
UOC3 HPW3  
Corequisite: SAED1491

This is the first in a series of three Learning and Teaching Art and Design courses. Students are introduced to practices of art and design teaching and system structures including syllabus and classroom requirements. Participants learn the importance of preparation, planning and evaluation. Content includes perceptions of teaching, management of risk in the art and design classroom, developing instructional skill, and an introduction to professional ethics. The course focuses on students becoming familiar with teaching and learning requirements of younger students while becoming aware of school practices and structures, and developing confidence as pre-service Art and/or Design teachers. Course content is applied to classroom settings in SAED1491 stage 1 professional experience school placement.

**SAED1403**  
Foundations of Art and Design Education  
School of Art Education  
UOC6 HPW3  
Enrolment Requirements: Currently enrolled in a program at College of Fine Arts.

This course introduces the field of art and design education using a series of key theorists and an interview with an art or design teacher. A modular course structure facilitates an investigation of territories, institutions and issues in art and design education today. Transition into university life and pre-service teaching is explored through introduction to scholarly practices of writing, information literacy and database skills.

**SAED1407**  
Making Curriculum in Art & Design  
School of Art Education  
UOC6 HPW3  
Enrolment Requirements: Currently enrolled in a program at College of Fine Arts.

This course introduces curriculum as a construct using current and proposed syllabuses in the Visual Arts and Design and Technology. Curriculum constructs shape understandings of art and design, classroom implementation, approaches to programming; the teacher’s role; the resources used in developing learning experiences: including artists, designers, artworks and exhibitions and artworld references. Students will focus on how teachers generate content informed by personal interest and expertise, syllabus requirements and an understanding of good teaching practice.

**SAED1491**  
Professional Experience Stage 1  
School of Art Education  
UOC3 HPW0  
Corequisite: SAED1402

Professional Experience 1 is a ten-day professional attachment orienting students to the conventional practices of the teaching profession and the typical school daily routine. The in-school component focuses on students becoming familiar with teaching and learning needs of younger pupils. Students are introduced to school procedures while developing
their confidence as prospective teachers. Students may extend and apply concepts and procedures introduced in SAED1402 Learning and Teaching: Practice & Structure, to prepare and implement lessons for classes in years 5/6 or 7/8 - in visual arts and/or design, working with whole classes and/or small groups.

SAED2401
Educational Psychology
School of Art Education
UOC6  HPW3
An introduction to the nature and objectives of educational psychology from a cognitive, social and ecological perspective, this course covers the nature of learning, the processes involved in social cognition and motivation, and theories of group processes in a school. Theories are applied through an analysis of the match between the teacher, the material and the student, the problems of different learning styles, the management of classrooms and principles of discipline and how these aspects contribute to planning and implementing a learning program in a positive educational environment.

Note/s: Prerequisites : SAED 1401

SAED2402
Learning and Teaching Art & Design: Language & Communication
School of Art Education
UOC3  HPW3
Prerequisite: SAED1402; Corequisite: SAED2491
This is the second in a series of three Learning and Teaching Art and Design courses. Students expand concepts and skills introduced in SAED1402 and applied in the first professional experience placement SAED1491. Course content focuses on the language and communicative demands of teaching and learning in Art and Design classrooms. The need for tutorial and instructional clarity in applying content to learning situations is explored through practical cases in the context of syllabus requirements. Students learn to extend their personal repertoire of teaching tactics through increasing awareness and development of classroom communication strategies, including language use, questioning and feedback skills.

SAED2405
Special Education in Art and Design Contexts
School of Art Education
UOC6  HPW3
Special Education in Art and Design Contexts extends and develops the pre-service teacher's experiences, attitudes and understandings of students with special and/or high support needs in the secondary school. Through in-class workshops, field trips, and hands on projects, students enhance their understanding of ways in which art and design can enhance the educational experiences of the special needs student. The Life-Skills component of syllabuses in Visual Arts, Design, and related subjects are introduced with regard to provision of appropriate experiences for students with special needs. The course, following a non-categorical approach, includes consideration of the psychology and special educational needs of students with mild and moderate intellectual disabilities and those with physical disabilities. It also includes the diagnosis and description of physical and learning disabilities and the role of and possibilities for art and design education in providing positive, supportive and inclusive educational choices and experiences for all students.

SAED2406
The Sociology of Education
School of Art Education
UOC6  HPW3
Currently enrolled in a program at College of Fine Arts.
Sociology examines the interaction between society and the individual and among socialising groups that shape behaviour. Students are encouraged to apply their knowledge of social processes for greater teacher effectiveness, to analyse and project strategies for effective student learning, to understanding group processes in classrooms and appreciating the school as a social system. Significant developments in and theoretical contributions to social research are investigated.

SAED2471
Histories of Australian Education
School of Art Education
UOC6  HPW3
This course aims to develop student understanding of the social and historical forces which have shaped traditions and policy in schooling and education in Australia. Social concepts including reproduction theory, structuration and cultural capital will be used with more orthodox historical tools to analyse, critique and revise historical explanations of educational developments. The impact of intellectual modes and paradigms originating beyond the educational arena will also be explored. Some art educational trends will be identified and explained in terms of these broader intellectual and historical origins.

SAED2472
Creativity in Art and Design Education
School of Art Education
UOC6  HPW3
The course introduces students to a range of explanations of creativity drawn from the fields of philosophy, psychology, sociology and art and design education. Student will explore how creativity is applied in art, design and education practice. Investigative topics will include the creative subject, genius and creative personality; the creative process, problem solving and divergent thinking; and the product as an outcome of performance valued by its recognition within a field of practice. Through a combination of lectures, seminars, and workshops student will consider how theories of creativity inform art and design teachers' beliefs and practices affecting their views on art and design, teaching, students, the artefacts produced, assessment, the HSC examination and ARTEXPRESS.

SAED2473
Seminar in Art Education
School of Art Education
UOC6  HPW3
The aim of this course is to provide a general introduction to research in art education. Through involvement in this subject students will become familiar with research bearing on major areas of interest in art education.

SAED2474
Art Education and the Primary School
School of Art Education
UOC6  HPW3
This course is designed to expand the student's knowledge of the art of the primary school child and to examine approaches to teaching art at that level. Students will examine curricula already designed for use at the primary level and will construct programs suitable for implementation in specific environments. Through lecture and discussion groups, the course will renew the theories of development linked with children's artistic development, consider the place of art education in the primary school curriculum, and design and evaluate appropriate learning experiences.

SAED2475
Multicultural Contexts
School of Art Education
UOC6  HPW3
The course aims to explore multiculturalism, encompassing personal and professional contexts. The terrain of multiculturalism is both historically and currently contested, variously impacting policy and practice. Through lectures and seminar experiences, students will analyse the way in which race, gender, class and ethnic consciousness is produced. This consciousness, and the various conceptions of multiculturalism are examined in relation to the personal and professional contexts in which students are engaged. The course provides the opportunity for students to increase their awareness of the cultural diversity of Australia and develop their sensitivity and responsiveness to the needs of minority groups.

SAED2478
Art Education and Aboriginal Studies
School of Art Education
UOC6  HPW3
This course is designed to foster students' insights into the social and political background that has affected, and continues to affect, the educational opportunities of Aboriginal people in contemporary Australia. Through lectures, discussions, seminars and visits by Aboriginal guest speakers, this subject will examine the following topics: Aboriginal Identity, Kinship, Law, Religious and Educational Systems and Land Rights. It will also explore European ethnocentricity, prejudice, stereotyping and racism. All topics will be illustrated by the works of both Aboriginal and non-Aboriginal artists.

SAED2479
Dialogues and Communities
School of Art Education
UOC6  HPW3
Through a planned series of workshops, this introductory course enables students to become familiar with some of the issues and contexts of contemporary community arts, including cultural development and democracy, cultural resources, real wealth/community value and social capital. The practice and management of selected contemporary groups, events and public art and design projects, along with more traditional applications of community arts practice as social and cultural development are explored, including the preparation of funding applications, field work and collaborative projects.

**SAED2480**  
The Art Museum and Art Education  
School of Art Education  
UOC6  HPW3

This course aims to foster an awareness in students of the ideology and philosophies of art museums and an understanding of the broad educational functions of the museum including the vernacular appreciation of art and the development of a lifelong approach to learning. Students will have the opportunity to observe the educational functions of the art museum within a diversity of contexts and systematically investigate the plurality of roles which the museum performs within our society.

**SAED2491**  
Media and Communication Contexts for Art and Design  
School of Art Education  
UOC6  HPW3

This course utilises contemporary theories and practices of communication to investigate the role of broadcast, print and electronic media in organisational, producing and making knowledge and information in art and design curriculum. A series of case studies and lectures introduces key contributions to media studies (Baudrillard, Hall, Kuhn, McLuhan, Williams), theories of communication and texts (Berelson, Ellis, Fiske, Kress) social power, ideologies and discourse (Hall), reading and reception (Elliott, Giroux, Morley, Radway). Students will participate in workshops dedicated to the analysis of art, design and education media as they relate to print, radio, television, video, web and CD ROM.

**SAED2491**  
Professional Experience Stage 2  
School of Art Education  
UOC3  HPW0

Corequisite: SAED2402.

Ten days professional experience in the practices, protocols, responsibilities and ethics of the professional art educator provides students the opportunity to extend their understanding of the function and organisation of schools and teaching practice within secondary contexts. The course models a typical high school structure and the concepts and conventions of the working educator are introduced and workshoped. Experts from a range of relevant educational fields are deployed to discuss policy and practice in their respective domains. These include the School Executive, the Child Protection Unit, Occupational Health and Safety, and Information Computer Technology. Students will investigate an individual school as a case study of these professional standards in practice. Each student works with a Cooperating Teacher in a negotiated program of classroom, departmental and whole school activities and responsibilities. Students with increased confidence plan and implement classes for Years 7-10 Visual Arts and Design.

**SAED3402**  
Learning and Teaching Art & Design: Classroom Management  
School of Art Education  
UOC3  HPW3

Prerequisite SAED2491, SAED2402; Corequisite: SAED3491.

This is the third in a sequence of Learning and Teaching Art and Design courses. Students focus on integrating tutorial strategies introduced in Learning and Teaching courses and developed through professional experiences in schools. This is facilitated by focusing on the principles and practices of management in Art and Design classrooms through a series of clinical cases developed through a short webCT module utilising e-tutors. Capable educational management facilitates the development of positive learning communities, assured teaching performances and a productive classroom environment. Management entails student attitudes, content organisation, development and maintenance of safe working environments and teacher reflective practice in a range of art and design settings.

**SAED3403**  
Issues in Contemporary Design Education  
School of Art Education  
UOC6  HPW3

Issues in Contemporary Design Education comprises an analysis and interpretation of the principal discourses shaping design education. This course examines the emergent possibilities for design education in the secondary school subject of visual arts and Key Learning Area Technology and Applied Studies, along with other curricula and educational applications. This course will facilitate the negotiation of two at times distinct fields and domains of knowledge, the fine arts and design within educational contexts.

**SAED3404**  
Practices of Art and Design History in Education  
School of Art Education  
UOC6  HPW3

Enrolment Requirements: Currently enrolled in a program at College of Fine Arts.

This course enables students to examine a range of conventions of art and design history. Fieldwork and in class debates provide real world contexts for the development of teaching strategies appropriate to pupil learning historical content in an active and authentic way. This is undertaken while developing an ability to explore and apply historical methodologies to art and design cases within the educational conditions of setting, student and curriculum. Students consider the educational significance of concepts of the historical event, the interpretation of artworks in cultural and historical contexts and the formation of spatio-temporal relationships among artworks.

**SAED3407**  
Curriculum Studies in Art Education  
School of Art Education  
UOC6  HPW3

Enrolment Requirements: Currently enrolled in a program at College of Fine Arts.

This course introduces and develops interpretive and critical perspectives in curriculum, with particular reference to contemporary art and design curriculum and theory and practice. Contributions to the field by significant educators and the principal theoretical positions in curriculum are examined. These orientations or ideologies are informed by the wider theoretical and philosophical contexts and related to art and design educational curriculum practice. Political, historical and institutional structures shaping curriculum contexts in visual arts and design with an emphasis on local contexts are investigated. The struggles and dilemmas manifested in the contested values of and challenges to contemporary curriculum discourse are considered.

**SAED3491**  
Professional Experience Stage 3  
School of Art Education  
UOC3  HPW0

Prerequisite: SAED2491, SAED2402; Corequisite: SAED3402.

Professional Experience 3 involves further in-school professional experience. Students work in a secondary school setting selected with a view to diversifying their experience of a range of educational cultures and practices. Students are expected to extend concepts of the demands of the teaching profession introduced in SAED2491 including administration, collegial and community consultation, together with visual arts and design expertise demonstrated through completion of required classroom projects.

**SAED4051**  
Practices of Research in Art, Design and Education  
School of Art Education  
UOC6  HPW3

Research is broadly conceived in this subject as a pattern of practices in which the major agencies which contribute to the research process are perceived as a mutually dependent relation. This course introduces students to the agencies of investigative practice in the humanities and social sciences and to an understanding of their role in the validation, analysis and interpretation of content within the domains of art, design and education. While practices of research in art, design and education vary widely in the their instrumental and political significance it is nevertheless the goal of this subject to enable students, through the analysis of exemplars of research, to rehearse these practices in a manner consistent with an apprenticeship model of learning. In particular students
will be able to integrate and apply systematically key agencies of research practice in art, design and education including - the role of explanatory theory, the functional stance of the researcher, the constraints imposed by art as the object of investigation, the use of nomothetic and ideographic methods, and the conventions of proposal writing.

SAED4052 Theoretical Frameworks in Art and Design Education
School of Art Education
UOC6   HPW3
This course aims to introduce students to the theoretical frameworks which form the basis for the conception of visual arts education as a distinctive field. Theoretical frameworks in art education will be explained as a largely discontinuous collection of histories. These histories are united by ruling paradigms many originating outside of the field in the human sciences, and in the practices of the visual arts. Examples include psychoanalytical approaches to creativity anthropological and socio-cultural studies, and cognitive theories.

SAED4053 Curriculum in Art, Design and Education
School of Art Education
UOC6   HPW3
This course will provide students with modernist and post-modernist theoretical frameworks of curriculum evaluation and critique. Particular reference will be made to the critical methodologies of Habermas and the genealogical archaeology of Foucault as appropriate to an interpretation of the visual arts in education.

SAED4055 Honours Research Project in Art and Design Education Studies
School of Art Education
UOC6   HPW12
Prerequisite: SAED4051.
This course enables students to prepare and complete an Art or Design Education research project in a chosen area of specialisation. Students will complete a research project submitting a report, which identifies an issue or problem of art or design educational significance and demonstrates understanding and appropriate application of selected methodologies to the investigation of the chosen problem, presented in the form of a project report of 5500-7500 words in length.

SAED4056 Theories of Knowing in Art, Design and Education
School of Art Education
UOC6   HPW3
This course aims to further students understanding of the cognitive foundation of the visual arts. It provides a general introduction to epistemology including concepts such as belief, truth, perception and representation. Reference will be drawn to recent concepts in metaphysics including, theory of mind, ontology and soul. The course goes on to reposition these concepts within the assumptions of a variety of philosophical perspectives. Students will be required to examine a range of these concepts and perspectives for their relevance to the teaching of art.

SAED4057 Art and Design History in Education
School of Art Education
UOC6   HPW3
This course introduces a range of contemporary theories of art and design history. Students will examine and evaluate art-history methodologies and apply them to educational settings within the context of general education. The textual, interpretive and revisionist character of the historical act are experienced, analysed and understood as a set of interpretive and explanatory practices which enable identification and revision of historical narratives.

SAED4003 Aesthetics in Art, Design & Education
School of Art Education
UOC6   HPW3
Prerequisite: SAED 3404
This course aims to provide students with opportunities to examine aesthetics and art theory as these relate to the teaching of art and design to increase their critical awareness, to become more aware of their own philosophy of art and design education and its implications for their teaching. Through a combination of lectures and seminars the subject will investigate the ideas and aims of aesthetics in educational contexts.

SAED4406 Philosophical Issues in Education
School of Art Education
UOC6   HPW3
Enrolment Requirements: Currently enrolled in a program at College of Fine Arts.
The aim of this course is to introduce students to contemporary philosophical theories applied to the field of education. Using the critical theories of society put forward by Jurgen Habermas, students will analyse knowledge and human interests in order to critically understand a range of significant educational issues in terms of their technical, practical and critical consequences.

SAED4472 Independent Study in Art, Design, and Education
School of Art Education
UOC6   HPW3
Enrolment Requirements: Completion of 48 Units of Credit in Art Education Core Courses
This course provides senior student with the opportunity to explore an area of art education, which is of particular interest. In collaboration with a staff member, students undertake a study in some issue or topic in art or design education, which is not encountered in other scheduled courses. Students are expected to demonstrate initiative and organisational skills in independently pursuing the research process and reaching educational objectives through completion of a series of preliminary investigations and construction of a short critical paper arguing a position regarding the selected issue/topic.

SAED4473 Politics and Identity in Art and Design Education
School of Art Education
UOC6   HPW3
This course provides students with opportunities to examine how practices of governments are manifested in civic values and cultural policy, and influentially reflected through art and design education. The impact of cultural theory upon education and understanding within the arts will be examined as a series of traditions, habits, practices, values and expectations. Students will become familiar with the way in which concepts such as identity, subjectivity, alterity, ethnicity, gender and post-colonialism mediate relationships between artworld and popular perceptions, governmental priorities, and art and design education. Students will focus on a range of historical and contemporary cases to understand the mechanisms and manifestations of politics, identity and power in art, design and educational contexts.

SAED4474 Dilemmas of Praxis: The State, the School and the Educator
School of Art Education
UOC6   HPW3
Excluded: SAED2472, COFA4025
This course utilises the student's internship experiences as a platform to explore the ethical, political and pedagogical dilemmas entailed in the School. Students will utilise a range of contemporary perspectives to explore philosophical, sociological and political dilemmas and conflicts in the context of education. Perspectives include Althusser's ideological state apparatuses, Gidden's Structuration; Haberma's communicative action; and Foucault's notion of discourse and difference.

SAED4491 Professional Experience Internship
School of Art Education
UOC24   HPW3
Prerequisite/s: SAED 2401, SAED 2406, SAED 3491, SAED 3402, SAED 3404, SAED 3407
During the Professional Experience Internship students make a full time teaching commitment in a secondary school. Students are required to take responsibility for several classes, including preparation of lessons and associated teaching materials, complete administration and record keeping as required by the school, including school reports, participate fully in the professional obligations of the school such as sporting and co-curricular activities, staff meetings, professional development days and community consultations. Students should demonstrate their knowledge of professional conduct required by the college and the school.
Students plan, implement, evaluate and document a curriculum of ten weeks duration for a selected class. Clinical supervision methods, applied at five weekly intervals, in consultation with their cooperating teacher, identity and address their developing teaching practice.

The Professional Experience Internship requires a synthesis and application of theoretical and practical understandings introduced and examined throughout the course. The Internship is supervised by cooperating teachers and jointly assessed by cooperating teachers and faculty of the School of Art Education.

Students may apply for a variation of program that will entail a placement for the final two to four weeks of the Professional Experience Internship in a museum, cultural, industry, media or community setting. These placements are competitive and subject to the completion of the related Art Education Elective (consult Head of School for conditions) and the approval of the Head of School. Students should consult the lecturer in their elective orientation for further advice.

Note/s: Prerequisites: SAED 2401, SAED 2406, SAED 3491, SAED 3402, SAED 3404, SAED 3407

SAHT1101 Mapping the Modern
School of Art History and Theory
UOC6  HPW3

Commencing in the nineteenth-century and concluding with World War Two, this course examines seminal art and design movements and tendencies within changing social, political and cultural contexts. The material covered includes Realism, Impressionism, Expressionism, Art Nouveau, Bauhaus, and early avant-gardes such as Futurism, Dada and Surrealism. These are considered against the backdrop of industrialisation, technological transformations, colonization, international conflicts and totalitarian regimes.

SAHT1102 Mapping the Postmodern
School of Art History and Theory
UOC6  HPW3

This course examines major transformations in art and design practice and theory from the late 1940s to the present, and locates these within changing social, political and economic contexts. Issues relating to Formalism, Pop, image and text, the ‘de-materialisation’ of art, and performance are addressed, as well as Feminist theories and practice, post-colonial culture, and the new technologies.

SAHT1211 Theories of the Image
School of Art History and Theory
UOC6  HPW3

An introduction to ways of understanding and evaluating the making, reception and theoretical understandings of images in our culture. Different cultures and historical periods have treated images in radically different ways with different ways of understanding the way images relate to their producer(s), viewer(s) and to the world. There is also a philosophical concern with the nature of the image, how it is able to have meaning, to represent at all. How are we able to read images? Is it a natural process or culturally determined? These issues will be addressed by critically examining the different ways of understanding the artistic image in Western and Non-western arts, and in crucial developments in Western art history (including Renaissance perspective; the invention of photography; photo-mechanical reproduction; Modernism and abstraction; and feminist critiques).

SAHT1212 Theories of Art History and Culture
School of Art History and Theory
UOC6  HPW3

Introduces art history and cultural analysis as forms of narrative, which aim to explain and integrate cultural objects into historical or other order. Draws upon and critically assesses the key methodologies (such as connoisseurship, periodisation, formalism, iconography, historicism and historical materialism, social history, psychoanalysis, semiotics, high culture/popular culture, ethnocentrism, and feminism). These methodologies will be examined by reference to such historians as Wollfin, Panofsky, Gombrich, Baxandall, Fry, Antal, Clark, and Pollock.

SAHT1221 Contexts for Art
School of Art History and Theory
UOC6  HPW3

The course exposes students to the different types of contemporary art exhibited locally - in public galleries, dealer galleries, contemporary art spaces, artist run initiatives, community centres and non-art spaces such as shopping malls. Designed to reflect the diversity both of art and the institutions through which it is viewed, this subject is structured around an examination of works in situ. Students are encouraged to engage with work in relation to specific contexts, to consider issues of taste and value and how these are mediated by place and modes of display.

SAHT1222 The Production of Art
School of Art History and Theory
UOC6  HPW3

The emphasis in this course is on a behind the scenes exposition of art. It looks critically at the processes by which visual art is made available to viewing publics. These processes take into account a range of concerns (practical, strategic, ideological) that vary widely between institutions. Students are introduced to various professional art practices, through the processes of curating, managing, catalogue writing and production, exhibition display and handling of works. The infrastructure of the art industry, including the administration of State Museums and other art organisations, such as funding bodies, are presented as a subject for practical purposes, as well as critical consideration.

SAHT1301 Design History, Theory and Aesthetics 1
School of Art History and Theory
UOC6  HPW3

Enrolment Requirements: Currently enrolled in a program at College of Fine Arts.

This course provides an overview of design history from the early modern period through to Postmodernism. The theories and strategies employed by industrialists, designers, philosophers and artist/designers will be explored. An understanding of elements and principles of design, and the role that design plays in the evolution of market systems along with its emergence as a powerful tool for national and cultural identity will be investigated. Key moments in design history - designers, movements, innovations etc. - are considered against the background of Western industrialisation, technological transformations, colonisation and international conflicts. The theories, practices, aesthetics, cultural and economic considerations employed by 20th Century designers will be explored both from a formal elements and principles base and a socio-political standpoint. Within these parameters 20th Century design movements, styles, manufacturers and retailing will be considered to assist students to understand the designer's role in society as well as to provide a context for the analysis of their designs.

SAHT2211 Eurocentred Visions: Grand Narratives in Western Art
School of Art History and Theory
UOC6  HPW3

To tell progressive stories about Western art, grand narratives were constructed. In these grand narratives, as this course reveals, Eurocentric and ethnocentric historical material was ordered into stories about Western nations becoming more and more civilised as signified by the development of perspective, the Classical canon, landscape and cityscape, portraiture and the nude from Ancient Greece to Modernism. Positioned as peripheral to this evolution or merely a sub-text to these grand narratives, Non-Western art, particularly that of Islam, was either excluded or misrepresented as uncivilised, regressive and barbaric. Issues of cultural difference capable of disrupting the seamless flow of Western art's evolution, such as gender relations, sexualities, ethnicities, nationhood, diaspora, work, patronage and money, criminality and disease, were disregarded. To deconstruct these grand narratives, this course will use these exclusions and denials as its tools. Drawing upon inter-disciplinary models for reconstructing history provided by Michel Foucault, Edward Said, Jonathan Crary and Abigail Solomon-Godeau, amongst others, it will explore how to rewrite histories of art in relation to non-western art, homoeroticism, masculinity and the ‘heterosexual imperative’, prostitution and ‘the venereal peril’, health, disability and hysteria, the alienated and displaced, the ‘orientalised other’, the nuclear family and ‘docile bodies’.
SAHT2212
Art and Cultural Difference
School of Art History and Theory
UOC6 HPW3

The conceptualisation of difference, diversity and multiplicity, both within and across cultural boundaries, has occupied a central position in the historical trajectory of Art, particularly since the end of World War II and the advent of a variety of neo and postcolonialisms. Topics covered include the representation of theories of ethnicity, gender, race, class, culture, knowledge and power to the complex history and practices of art. These will be addressed by critically examining Adorno, Benjamin, Freud, Irigaray and Marx, and theorists and artists of colonial struggle such as Kahlo, Rivera, Sartre and Fanon. The implications for art of such contemporary issues as multiculturalism will also be included.

SAHT2213
Memory and Self
School of Art History and Theory
UOC6 HPW3

This course traces contemporary ideas of body and subjectivity through the work of a range of artists and writers. Its major focus is on the experience of memory and self-understanding. It addresses the questions of how memory is constituted and how it is crucial to our sense of self; how memory affects our relations to images and objects, and how memory is represented. Themes include: horror and humour, gesture, performativity and mimesis. Contemporary art and writing practices will be used as the basis for a creative engagement with theoretical ideas.

SAHT2214
Approaches to Australian Art
School of Art History and Theory
UOC6 HPW3

This course introduces some of the preoccupations of Australian art in the years since colonisation. Issues to be discussed include: the notion of the artist as a recorder in the 19th century and a tourist in the 20th; the search for a ‘Great’ Australian artist; national identity and art; links between art and commerce; the idea of ‘modern’ in an Australian context; and attempts to place Australian art in an international context.

SAHT2218
Theories of the Digital
School of Art History and Theory
UOC6 HPW3

Excluded: 4810 Bachelor of Digital Media students.

This subject explores theoretical frameworks within which the content, meaning, aesthetics and impact of digital and new media practice can be critically analysed and evaluated. Topics covered include metaphors of convergence and divergence that structure digital media and aesthetic production; interfaces (particularly the interface between the body and technology); theories of the real, virtuality, materiality and immateriality, and concepts of post-media and software aesthetics. Experimental, innovative and conceptually sophisticated practitioners and current critical debates and theories relating to digital media are considered.

SAHT2221
Writing for Art and Design
School of Art History and Theory
UOC6 HPW3

This course examines different genres of writing on the visual arts, with an emphasis on contemporary practices. Newspaper reviews, journal criticism, scholarly catalogue essays, in house catalogue notes, coffee table art books and collaborative works between artists and writers are studied in terms of their connections to other genres of writing (for example journalistic, fictional narrative, descriptive prose). The course looks at these writings within specific cultural fields and their assumed sets of values. It also demonstrates how such categories play an active role in the shaping and production of meanings in art. Students also become participants in the writing, editing and design of the School of Art Theory's magazine, Artwrite.

SAHT2222
Methods of Research and Writing on Art and Design
School of Art History and Theory
UOC6 HPW3

This course is primarily concerned with the teaching of skills necessary to conduct specific research projects. The focus is on methods of researching primary material as well as locating archival documentation, in order to evaluate and effectively utilise different forms of visual and theoretical evidence for research projects. Topics include field work methods, such as oral history, together with knowledge of indexing procedures, statistical analysis and the utilisation of computer resources, as well as critical methodologies for appraising research material. The course also includes topics to address the logical construction of a valid argument, the rhetorical promises of different genres of writing and the delineation of ideas.

SAHT2223
Modern Art and French Imperialism
School of Art History and Theory
UOC6 HPW3

When Paris was invaded by Nazi troops, the art writer Harold Rosenberg reminisced how it had once been “the Holy Place of our time. The only one.”. Until then, a Modern Art market had flourished in Paris, unsurpassed in scale and complexity by any other nation. It was actively supported by the French Third Republic. Whilst encouraging artists worldwide to come to Paris, it also encouraged international collectors to acquire Modern Art made in France. At the same time, the Republic also bought artwork for transmission to French provinces and colonies in its ethnocentric conviction that those at the ‘peripheries’ would become “civilized” by this “mission”. This course will explore how Paris evolved as a unique field of cultural production through the network of institutional interrelationships forged between the French State, Paris Salons, art dealers and patrons. It will examine the huge number and national diversity of artists from Rupert Bunny and Marie Vassiliev to Pablo Picasso, who flocked from cities as geographically diverse as Sydney, St. Peters burg and Barcelona to this Modern Art Centre. By charting the dissemination of acquisitions, it will reveal how cultural imperialist strategies deployed by America during the Cold War, were alive and well in twentieth-century France.

SAHT2224
Art and Biogenetics: Breeding the Body Beautiful
School of Art History and Theory
UOC6 HPW3

When Eugenic Sterilisation became law in the Third Reich, American, Australian, European and British Eugenic Societies immediately congratulated Hitler. He, in turn, commended their eugenic policies and acknowledged them as his precedent. Far from being an isolatable phenomenon, this course will then reveal why Nazi eugenics may be perceived as the extreme realisation of a biogenetic culture that flourished worldwide. By examining images and exhibitions of the body beautiful, alongside those of degeneracy, it will explore different ways in which art propelled the quest for genetic perfection. Through an investigation of the artwork of such critical Modernists as Marcel Duchamp, it will expose ways in which art was also able to parody this quest.

SAHT2225
Decadents, Dissidents, and Degenerates: Fin-de-Siecle Symbolism to Nazi Degenerate Art Exhibitions
School of Art History and Theory
UOC6 HPW3

Before the Third Reich came to power, Adolf Hitler vowed to unleash ‘a thunderbolt against degenerate art’ as epitomized by Symbolism, Cubism, Futurism, Expressionism, Dadaism and Surrealism. Once he was Chancellor, Hitler commanded President of the Third Reich’s Chamber of Art, Adolf Ziegler, to extract 16,000 ‘degenerate’ artworks from German museums. Before being sold or burnt, they were exhibited in Degenerate Art Exhibitions designed to expose this art as pathological in their words, ‘the product of sick minds and bodies’. Yet the Third Reich was by no means the first to conflate ‘degeneracy’ with dissident Modernism. Its genealogy was spawned when Darwinism became a dominant discourse in Western nations seventy years earlier and any sign of deviation from ‘normalcy’ signified the threat of racial extinction. Its best-known theorist was Max Nordau who, aghast at images of bodily corruption, proclaimed it to be ‘the product of sick minds and bodies’. The rhetorical promises of different genres of writing and the delineation of ideas, the conceptualisation of difference, diversity and multiplicity, both within and across cultural boundaries, has occupied a central position in the historical trajectory of Art, particularly since the end of World War II and the advent of a variety of neo and postcolonialisms. Topics covered include the representation of theories of ethnicity, gender, race, class, culture, knowledge and power to the complex history and practices of art. These will be addressed by critically examining Adorno, Benjamin, Freud, Irigaray and Marx, and theorists and artists of colonial struggle such as Kahlo, Rivera, Sartre and Fanon. The implications for art of such contemporary issues as multiculturalism will also be included.
Oppenheim, to examine why those artists, who featured so prominently in Nazi Decadent Art Exhibitions, were long derided elsewhere as decadent, dissident and degenerate.

**SAHT2227**  
**Fashion History and Theory**  
School of Art History and Theory  
UOC6  HPW3  
The course examines the history of Western fashion from the Middle Ages to the present day. Methodologies employed include those of art history, cultural and media studies, anthropology, history, and economic history. Theories of gender, sexuality and the politics of identity will be emphasised. The social and economic histories of making and consuming clothes and the relationship of dress to the body, and to urban and domestic space, which will provide a focus for the course. Topics to be studied include Elizabethan court dress, representation and politics, the 18th-century consumer revolution, the rise of the dictator-designer within modernism, and post-modern dressing.

**SAHT2301**  
**Design History, Theory and Aesthetics 2**  
School of Art History and Theory  
UOC6  HPW3  
Prerequisite: SAHT1301  
This course reflects upon histories, theories and practices in the realm of design in order to provide an analytical framework for understanding present and future design from the designer’s viewpoint. Within this context a variety of themes and issues will be analysed in relation to: the “designer” product, the designer’s role in society, designer education, the designer and mass production and consumption. This course through further reflection on historical and contemporary theories and practices in design, will address such specific issues as packaging, marketing and retailing of designed products as well as aspects of consumer psychology. The communication qualities inherent in design products, graphics and environments will be considered in some depth.

**SAHT2601**  
**The Art of Ancient Cultures: Assyria, Mesopotamia, Egypt, Persia, Greece & Rome**  
School of Art History and Theory  
UOC6  HPW3  
Prerequisites: SAHT1301  
How do we ‘read’ objects and images from cultures that lived thousands of years ago? What methods can we use to enhance our appreciation and understanding of ancient artefacts? With knowledge and understanding increasing with every new discovery, where does this leave Prehistory? These and other commonly asked questions will be answered in this course, which provides an historical, cultural and theoretical study of the Ancient world through examining a variety of objects and images. This will include presentation of a range of thematic studies that examine arts of the Ancient world including the role of jewellery, body ornament and clothing towards defining gender, status and wealth. A cultural decoding of the symbolic messages contained within ancient ornament and decoration will be presented from a variety of perspectives. The culture of death (including burials, rituals and ceremonies) and the artefacts associated with this, will be examined. The course will also include a discussion of a variety of objects and images that portray the history of theatre, sport and other forms of entertainment.

**SAHT2605**  
**The Avant-Garde and the Academy, the Politics of Colonialism and Postmodernism**  
School of Art History and Theory  
UOC4  HPW2  
Following Napoleon’s blaze of European and colonial conquests and his downfall, a waning of revolutionary fervour marked early 19th century reaction in Europe, in which church, monarchy and such authoritarian institutions as The Academy for Arts became reactivated, but subsequently contested. The schism between Neoclassism and Romanticism, concepts of art-for-art’s sake, oppositions to academic art, the rise of Orientalism, the emergence of photography and formations of an avant-garde are issues which will be examined in this context, through such artists as Ingres, Canova, Goya, Turner, Daumier and Delacroix.

**SAHT2606**  
**The Painting of Modern Life: French and English Painting in Focus**  
School of Art History and Theory  
UOC6  HPW3  
This course focuses on Realist and Impressionist painting in the second half of the nineteenth century in France and England. The work is considered within changing social, political and cultural contexts, with special attention paid to its critical reception in reviews and cartoons. Questions to do with gender, class, sexuality, labour and leisure are examined in relation to such well known artists as Courbet, Manet, Morisot, Degas, Holman Hunt and Ford Madox Brown, as well as lesser known figures including Augustus Egg, Luke Fildes and Francois Salle.
SAHT2643
Pornography, Art and Politics
School of Art History and Theory
UOC6 HPW3
This course will explore the boundary between art and pornography and the social function of that boundary in western society. It will look at the ways in which bodies are eroticised and/or designated as pornographic or perverse. Concepts such as fetishization, voyeurism, sadism and masochism will be discussed in relation to art history and contemporary art practice. The politics of pornography will be debated in relation to such issues as gender/feminism, child sexuality, censorship and AIDS.

SAHT2644
Psychoanalysis and Art
School of Art History and Theory
UOC6 HPW3
Psychoanalysis is a key approach to the study of art and visual culture. This course will consider the work of the founder of psychoanalysis, Sigmund Freud and three of the main streams of contemporary psychoanalysis his work has spawned: object relations, Kleinian and French Freudianism (Lacan, Kristeva). It will also examine an emerging area of research: affect theory. The course will examine the key concepts from psychoanalysis that have been applied to the analysis of art, such as: dreams and primary processes, sublimation, the uncanny, the fetish and abjection. Each week we will read a key psychoanalytic text and then consider what it illuminates about the nature of art in general, or specific works of art. The aims of this course are to examine how psychoanalysis is used to interpret: the function of art, the origins of vision and creativity, and the unconscious processes that works of art deploy or activate.

SAHT2661
Experimental Film and Video since the 1960s
School of Art History and Theory
UOC6 HPW3
This screenings course will offer an overview of experimental film and video from the 1960s to the present, incorporating international and Australasian practices. It examines neo avangarde practices and theories of the 1960s and 1970s, as well as film and video art of recent decades. The course addresses the history and significance of the current proliferation of the moving image in the international art world and examines the impact of new technologies.

SAHT2663
Avant-Garde Cinema: 1900-1950
School of Art History and Theory
UOC6 HPW3
This screenings course will survey avant-garde cinema of the first half of the Twentieth Century. It will include historical and theoretical examination of Abstract Cinema, Dada and Surrealist film, Soviet Cinema, German Expressionism, Impressionist film, and avant-garde film of the U.S. The course will give students grounding in the early history of avant-garde cinema, framed by key film theories.

SAHT2667
After Modern Sculpture: Installation, Structures and Space
School of Art History and Theory
UOC6 HPW3
This course examines the radical changes in sculptural practices from the mid-1960s to the present. Movements to be analysed include: Fluxus, Arte Povera, Minimalism, Land Art, Postmodernism, and emerging trends such as Designer-Artists (Jorge Pardo, Andrea Zittel). Particular attention will be given to the emergence of installation art and the questioning of the integrity of the art object. The course aims are: to trace and examine the historical and philosophical understandings of late modern, postmodern and contemporary spatial and sculptural practices; to consider how these practices relate to conceptions of time, space and subjectivity and; to examine two recurrent themes in the discussion of installation: the total work of art and the spectacle.

SAHT2676
Art, Technology and New Media
School of Art History and Theory
UOC6 HPW2
This course explores the ways in which artists have responded to developments in technology and new media. A range of practices are examined from digital media to holography to techno-performance. In addition to investigating the work of specific artists, the subject investigates the ways in which museums and galleries are responding to the demands of new media and developing new strategies of presentation. The course will also introduce a range of theoretical work on new media and emerging trends such as virtual reality. In particular it will debate the nature of virtual experience, examining the temporal and spatial implications of operating within a virtual environment. The course incorporates a certain amount of hands-on experience and also demonstrations of artist's work.
to museum culture. Its emphasis is on material culture, objects, artworks and curatorialship in the contexts of collections and exhibitions.

**SAHT3214 Research Project**
School of Art History and Theory
UOC6  HPW3
This course provides an opportunity for students to complete a sustained piece of research and to develop their skills of independent writing and research. Students can choose to research a topic concerned with either a particular artist, art writer, art historian or philosopher, an institution or particular issue, such as modernity, nationalism, orientalism or gender. Students must then, under the supervision of the assigned academic staff, conduct independent archival and field research. The writing of a 6,000 word paper on the basis of this research will allow the development of such key research practices as cohesive methodology, critical evaluation and classification of research material, valid argumentation and writing skills, as well as speculation and a clear delineation of ideas. This course is recommended for students who are considering undertaking Honours.

**SAHT3321 Contexts, Professions and Practices**
School of Art History and Theory
UOC6  HPW3
This course orientates students towards professional practice in arts administration, curatorship, writing and other arts-related professions. Students will critically consider the professionalism of the arts, and the notion of the arts and cultural industries. They will investigate the nature of employment and practice, drawing on theoretical and case study approaches. They will examine the idea of professional skills, and have the opportunity to practise some skills and knowledge-based tasks, such as developing exhibition and funding proposals, preparing budgets and reports, developing marketing and promotion strategies, preparing education and/or public programs, and seeking sponsorships. The aims of the course are to prepare students for the Industry Placement, to help clarify career goals, to give students an understanding of professional practice and to ensure that they develop the confidence in their preparation for working in the arts.

**SAHT3301 Design History, Theory and Aesthetics 3**
School of Art History and Theory
UOC6  HPW3
Prerequisite: SAHT2301
Through reference to philosophers and scholars whose theories underpin historical and contemporary design practice, students will be encouraged to conceptualise and develop their own design philosophy. A number of specific design examples will be analysed in order to highlight the influence various theories of aesthetics and function has had on the design domain.

**SAHT3613 Digital Theory and Aesthetics**
School of Art History and Theory
UOC6  HPW3
Currently enrolled in a program at College of Fine Arts.
This subject explores theoretical frameworks within which the content, meaning, aesthetics and impact of digital media practice can be critically analysed and evaluated. Topics covered include rhizomic organisation of thought, temporality; interfaces (particularly the interface between the body and technology) and theories of the real, virtuality, materiality and immateriality. Experimental, innovative and conceptually sophisticated practitioners and current critical debates and theories relating to digital media are considered.

**SAHT3614 Screen Culture**
School of Art History and Theory
UOC6  HPW3
Enrolment Requirements: Currently enrolled in a program at College of Fine Arts.
Information and screen culture is central to the shaping of the political and economic structures and cultural experience of contemporary global society. The impact of screen culture is pervasive and deeply integrated into everyday life and yet digital media are also capable of generating and communicating complex and highly critical cultural insights. Topics covered in this subject include authorship, virtual communities, utopianism, cyberculture, gaming, interactivity, privacy, censorship and intellectual property. Social responsibility and ethical action in digital media practice is explored through a critical understanding of the significance and impact of screen culture.

**SAHT3669 Critical Theories of Photography**
School of Art History and Theory
UOC6  HPW3
This course will critically examine the major ways in which photography has been theorised. Semiotic and post structuralist approaches to the photographic medium will receive particular attention. Other areas covered include realism theories of photography, aesthetic and contextualist approaches, and theories about the impact of digital technologies on the photographic image. The theories studied in the course will be applied to historical and contemporary examples of photographic practice.

**SAHT3690 Special Project**
School of Art History and Theory
UOC6  HPW3
From time to time, one-off opportunities arise for the College to offer special programs of study for credit. For example, supervised international experiences (such as study tours, exhibition participation or attendance, or special projects). This course is intended to facilitate the College in developing its educational program for undergraduate students by incorporating such opportunities into the academic program. Specific course outlines will be distributed detailing the academic content, objectives, assessment tasks and criteria, modes of teaching and learning, expectations and requirements of student participation. Please note that there may be costs involved (such as costs associated with travel, accommodation, meals and museum visits) in taking this course.

**SAHT4211 Thesis A**
School of Art History and Theory
UOC12  HPW0
This course comprises the first semester's research and writing which will lead, in Session 2, to the completion of a research thesis of 15-18,000 words, or equivalent research project (for example, in curatorship), on an approved topic. Students are expected to consult with the Honours Co-ordinator in February about their topics. A supervisor will be assigned no later than mid-March, when work on the thesis should commence. Students attend and contribute to Thesis Seminars and such presentations and seminars as required. Satisfactory participation in the Thesis Seminar and presentations is a requirement of the successful completion of Thesis A. Thesis A is a prerequisite for completion of Thesis B.

**SAHT4212 Honours Seminar**
School of Art History and Theory
UOC6  HPW3
Corequisite: SAHT4211 Thesis A.
The Honours seminar course is to be taken in the first session of Honours enrolment. It complements the Honour Thesis subject. The course is designed to enhance skills in research and writing necessary for the preparation of an honours thesis in art history and theory. Topics addressed include: refining a research topic, writing an abstract, exegetical and analytical skills, visual analysis and thesis structure.

**SAHT4213 Thesis B**
School of Art History and Theory
UOC24  HPW0
Prerequisite: SAHT4211 Thesis A.
Thesis B follows on from Thesis A and is the completion of a research thesis of 15-18,000 words, or equivalent research project (for example, in curatorship), on an approved topic. Students attend occasional intensive workshops and seminar presentations as required.

**SART1301 Introductory Studies: Drawing & Painting**
School of Art
UOC6  HPW3
This course will introduce students to the basic relationships between drawing and painting. Through a series of projects, incorporating the study of line, tone, colour, proportion, composition and the use of media,
This course will assist students to develop and extend basic concepts and skills in drawing and painting. Students will be encouraged to understand both the inter-relationship of form and content and the creative possibilities of various media. In line with current art practice expression is encouraged through the use of traditional and contemporary print media. The importance of analytical observation will be emphasised. Students will be expected to attain a basic competence in printmaking by the end of the session.

**SART1314 Sculpture/Performance/Installation 1A**
School of Art
UOC6 HPW3
Prerequisite: SART1302 Introductory Studies: Sculpture & Time Based Art.

This studio based course provides the basic foundations for sculptural studies through a series of projects that are a trajectory into the students' personal creative enquiries. The projects foster a relation between concept to process, and intention to outcomes. Critical awareness and interpretive skills are developed along with an understanding of basic sculptural languages such as metaphor, narrative, metonymy, space, materiality, form, mass and scale. The interdisciplinary nature of contemporary sculptural practice is emphasised and includes a diversity of experiences such as producing works using time, light, installation, sound, collaboration and performance, as well as exploratory applications of traditional forms and methodologies.

**SART1361 Etching**
School of Art
UOC6 HPW3

This course provides an introduction to the basic principles and techniques of intaglio printing, including etching, drypoint and engraving. Through investigation and selection students will develop an understanding of the technical means and aesthetic qualities of the original print. Students will attain a level of competence in intaglio processes and develop their potential as creative artists in the printmaking medium as well as investigate the historical precedents of the discipline.

**SART1401 Foundation Studies: Draw/Paint/Print (BArtEd)**
School of Art
UOC6 HPW3
Enrollment Requirements: Currently enrolled in a program at College of Fine Arts.

This course will introduce students to a dynamic studio methodology that integrates the theory and practice of the visual arts and provides a basic overview of its current and historical contexts. The focus of this course will be on the use of drawing as a platform for interdisciplinary artwork in other 2 dimensional forms. Through sustained inquiry, students will have the opportunity to be critical, inventive and experimental in their approach. An emphasis is placed on the student's own developing practice.

**SART1402 Foundation Studies: Sculpt/Photo/Time (BArtEd)**
School of Art
UOC6 HPW3
Enrollment Requirements: Currently enrolled in a program at College of Fine Arts.

This course introduces three-dimensional, and photo-media based art practices by engaging students in a series of structured projects to encourage individual exploration and expression. The focus of the course
Various drawing media will be introduced to the student and their applications and use explored. This course aims at making the student proficient in the depiction and understanding of line, space, volume, and proportion, using a variety of different media. The fundamentals of drawing taught in this unit will be orientated towards its use as a tool in the solving of creative problems. This subject encourages the use of drawing, perspective, and the projection systems, as elements in the manipulation and creation of space on the two dimensional format, and analysis and clarification of tasks and concepts.

SART1621
Installation
School of Art
UOCP  HPW3
This course provides the opportunity to explore the various forms and disciplines three-dimensional activity can take in contemporary art practice. This course is designed to allow flexibility for both multimedia experimentation and specialisation in the exploration of the construction, installations and spaces as an expressive vehicle. This course is studio based with an emphasis on the critical analysis of research, experiential learning and conceptual development. This discussion is centred around a rigorous studio theory program, conducted on the studio floor and in tutorials.

SART2320
Drawing/Painting 2A
School of Art
UOCP  HPW3
Prerequisite: SART1311 or SART1401.
In this course, students will begin the investigation and imaginative interpretation of conventions of the disciplines of drawing and painting. In consultation with lecturers, students will examine and begin to develop a program of studio studies which demonstrate an understanding of contemporary and historical pictorial theories.

SART2322
Printmaking 2A
School of Art
UOCP  HPW3
Prerequisite: SART1313 or SART1401
In this course students will investigate and imaginatively interpret the significant concepts and conventions of the disciplines within printmaking. In consultation with lecturers, students will begin to develop a program of printmaking studies which reflects their individual focus within the printmaking discipline. Students will be encouraged to develop concepts relating to the characteristics of specific media in the context of contemporary practice.

SART2323
Sculpture/Performance/Installation 2A
School of Art
UOCP  HPW3
Prerequisite: SART1314 or SART1402
This studio based course supports the development of the individual student's sculptural ideas and through seminars, tutorials and critical evaluation, broadens the students' awareness of related issues in contemporary thought, sculptural theory and practice, and diverse areas of concern in the social and cultural environment. Students may choose to produce divergent or interdisciplinary works such as, site specific, temporal, ephemeral or performative installations, or develop particular sculptural forms such as object making or body works. The emphasis at this stage is on an open-ended, exploratory investigation of sculptural language, the stimulation of the imagination, and the development of creative ideas and rigorous studio methodologies through challenging project work. This process is supported by the acquisition of skills pertinent to the students’ needs, including the presentation of projects, field work, studio theory and documentation of completed works.

SART2330
Drawing/Painting 3A
School of Art
UOCP  HPW3
Prerequisite: SART2320
In this course students will investigate and imaginatively interpret concepts relevant to the disciplines of drawing and painting. In consultation with lecturers students will develop a program of studio studies which reflect...
their individual interests and enable them to view their work in relation to both art history and contemporary developments.

SART2332
Printmaking 3A
School of Art
UOC6 HPW3
Prerequisite: SART2322

In this course students will continue to investigate and imaginatively interpret the significant concepts and conventions of the discipline of printmaking. In consultation with lecturers, students will further develop a program of printmaking studies which reflects their individual interests and which may be built upon and expanded in subsequent sessions. Students will be encouraged to develop concepts relating to the characteristics of specific media. Documentation and conservation of prints and printmaking will be covered.

SART2333
Sculpture/Performance/Installation 3A
School of Art
UOC6 HPW3
Prerequisite: SART2333

This studio based course continues to support the development of the individual student’s sculptural ideas and through seminars, tutorials and critical evaluation, broadens the student’s awareness of related issues in contemporary thought, sculptural theory and practice, and diverse areas of concern in the social and cultural environment. Students may choose to produce interdisciplinary works such as spatial, temporal, ephemeral or performative installations, or develop particular sculptural forms related to object making or works related to the body. The emphasis is on the transition from a reliance on set projects towards self initiated project work in consultation with lecturers. The representation of the students’ ideas and studio methodologies are supported by the continued acquisition of skills pertinent to their needs, including the presentation of projects, field work, studio theory and the documentation of completed works.

SART2340
Drawing/Painting 2B
School of Art
UOC6 HPW3

In this course students will begin the investigation and imaginative interpretation of conventions of the disciplines of drawing and painting. Students will examine and interpret issues of space, form and structure within their emerging practice.

SART2342
Printmaking 2B
School of Art
UOC6 HPW3

In this course students will investigate conventions of the disciplines within printmaking. In consultation with lecturers, students will begin to develop a program of printmaking studies. Various media, techniques and aspects of printmaking will be examined, and students will be encouraged to develop work relating to the characteristics of specific media. Workshop procedures will be covered.

SART2343
Sculpture/Performance/Installation 2B
School of Art
UOC6 HPW3

This studio based course focuses on the students’ sculptural practice, and the importance of skills acquisition, experimentation, interdisciplinary technologies, and the manipulation of materials. Practical aspects of professional practice are taught - the development of project proposals, the documentation of completed work, the formal exhibition of project work. Research skills are introduced to encourage an increased rigour in the realisation of ideas, including exploratory field work, preparatory drawing, journals, analysis and critique of work in progress and completed project work. Problem solving projects are devised to ensure a continued, lateral approach to the students’ chosen areas of interest, which are addressed in self-initiated project work. Appropriate health and safety procedures are demonstrated, discussed and practised in the production of works.

SART2350
Drawing/Painting 3B
School of Art
UOC6 HPW3

In this course students will investigate and imaginatively interpret processes relevant to the disciplines of drawing and painting. Students will develop a program of studio studies which reflect their individual interests and enable them to view their work in relation to both art history and contemporary developments. Students will undertake investigations into the appropriateness of a range of media, materials and processes related to contemporary practice.

SART2352
Printmaking 3B
School of Art
UOC6 HPW3

In this course students will continue to investigate the discipline of printmaking. In consultation with lecturers, students will further develop a program of printmaking studies which reflects their individual interests and which may be built upon and expanded in subsequent sessions. Various media, techniques and aspects of printmaking will be examined, and students will be encouraged to develop concepts relating to the characteristics of specific media. Documentation and conservation of prints and printmaking will be covered.

SART2353
Sculpture/Performance/Installation 3B
School of Art
UOC6 HPW3

This is a studio based course with an emphasis on an increasingly rigorous representation of ideas, and the development of a speculative studio methodology. Self initiated project work is supported by practical workshops, set project work, and excursions to generate ideas, develop a creative visual language, acquire skills, including research skills, perceptual acuity, conceptual analysis, technical proficiency, explorative problem solving. This course develops the student’s documentation skills, and focuses on a considered presentation of completed works of a standard appropriate to this level of study.

SART1261
Advanced Etching
School of Art
UOC6 HPW3
Prerequisite: SART1361

This course allows students to develop the basic principles and techniques of intaglio printing, including etching, drypoint and engraving. Through investigation and selection students will demonstrate an understanding of the technical means and aesthetic qualities of the original print. Students will attain a level of competence in a chosen process and develop their potential as creative artists in the printmaking medium in the context of contemporary practice.

SART2501
Life Painting
School of Art
UOC6 HPW3

The aim of this course is to enable students to develop a command of painting as a visual arts discipline whilst consolidating and extending previously acquired painting skills and applying these to various aspects of life painting. Students will explore those aspects of life painting which will involve an examination of the clothed form, the nude or portraiture whilst providing opportunities to work from observational, interpretive and conceptual approaches.

SART2502
Advanced Drawing
School of Art
UOC6 HPW3

The aim of this course is to enable students to develop a command of drawing as a visual arts discipline whilst consolidating and extending previously acquired drawing skills. Students will explore various strategies of drawing which provide observational, interpretive and conceptual approaches. Emphasis will be given to drawing as a means of creative expression and also as a tool of research in the visual arts.

SART12581
Advanced Screen Printing
School of Art
UOC6 HPW3
Prerequisite: SART1581.
This course aims to develop the student's emerging practice in the discipline of screen printing. Through investigation and selection, students will demonstrate an understanding of the technical means and aesthetic qualities of the original print. These courses will deal with skills and techniques, experimental approaches, the relationship between the technical and aesthetic properties of prints and the ability to assess the results of one's own work in the context of contemporary practice.

SART2591
Advanced Printmaking
School of Art
UOC6, HPW3
Prerequisite: SART1591.
In this course, students focus on a chosen area of traditional and contemporary print media (depending upon availability) from the range of etching, digital imaging, lithography, paper moulding, photocopying, relief and screen printing. The aim of this course is to enable the student, by application of theory and developed skills, to create print-based works of an increasingly professional standard in both two and three dimensions. The student will undertake projects, either as separate entities or combined in installed pieces, aimed at encouraging an individual, creative and professional approach to printmaking in the context of contemporary art practice.

SART2601
Advanced Sculpture
School of Art
UOC6, HPW3
Prerequisite: SART1621 or SART1601.
The aim of this course is to develop in the student the capacity to resolve aesthetic, theoretical, technical and material considerations in the creation of sculptural works. Through a program of theoretical and practical studies, students will work with sculptural concepts, techniques and mediums toward the resolution of original works.

SART2621
Advanced Installation
School of Art
UOC6, HPW3
Prerequisite: SART1621 or SART1601.
This course provides the opportunity to develop skills in the various forms and disciplines of three-dimensional art. It is designed to allow maximum flexibility for both interdisciplinary experimentation and specialization in the exploration of the installations and space as an expressive vehicle. This course is studio based with an emphasis on the critical analysis of research, experiential learning and conceptual development. This discussion is centred around a rigorous studio theory program, conducted on the studio floor and in tutorials.

SART2818
Custom Printing
School of Art
UOC6, HPW3
This course will provide students with a valuable professional practice opportunity of engaging with a number of visiting artists in the operating of a print editioning workshop. Students will refine their technical and production skills and be exposed to professional methodology of the editioning process. Students will work with the artists and also realise a body of their own work from concept to final production. Previous printmaking skills are essential to undertake this course.

SART2819
Advanced Custom Printing
School of Art
UOC6, HPW3
Prerequisite: SART2818.
This course will further the students' professional practice opportunity of continuing to engage with visiting artists in the operating of a print editioning studio. Students will perfect their technical and production skills and work within the professional methodology of the editioning process. Students will work with the artists and also realise a body of their own work from concept to final production to the highest professional standards.

SART2827
Sculpture Field Studies
School of Art
UOC6, HPW3
This course is designed to enable students with a particular interest in working in the natural environment to devote an extended and concentrated time in the field to research a chosen location. By direct experience and observations, students will deal with the natural world as a source of ideas and inspiration particularly relevant to the focus of their major studies in sculpture. Students will be encouraged to seek out, identify and document new material that they can gather in the field that they feel will be most relevant to their developing work in the studio.

SART2828
Artists' Books
School of Art
UOC6, HPW3
This course will enable students to acquire skills in the production of artists' books, folios and other limited edition publications. Examples of the different kinds of artists' publications will be examined. A variety of materials, skills and techniques, both traditional and contemporary, which are involved in book and folio production will be demonstrated. Students will have the opportunity to produce an artist's book.

SART2829
Anatomy for Artists
School of Art
UOC6, HPW3
This course will provide an introduction to human anatomy through the studies of comparative anatomy, skeletal structure, musculature and a perspective on the history and philosophy of anatomical images. A practical examination of the structure, form and function of the body will develop an understanding of the human figure. The course will also include the study of canons of proportion and cultural perceptions of the body. Emphasis will be placed on direct observations of the nude. Students will draw from the skeleton, casts and prepared anatomical specimens. A range of approaches will be covered that will encourage students to understand basic anatomical constructs. This course is designed to be relevant to a broad range of student interests from diverse disciplines.

SART2831
Spatial Constructions in Drawing
School of Art
UOC6, HPW3
This course is designed to consolidate and extend previous drawing experience. Students will be engaged in the practical representation of form/space relationships within interior and exterior spatial contexts. Specific studies may be made from architecture, furniture, the street, land and natural forms. Particular reference will be made to human scale and location in each spatial context.

SART2832
Life Drawing
School of Art
UOC6, HPW3
This course will provide the opportunity for students at all levels of drawing experience to explore the drawing of the human figure. Students will develop an understanding of the structure and form of the human body. A range of approaches will be covered that will encourage students to understand relationships of contour, form, mass, volume, line, movement, rhythm and gesture. This course will provide an introduction to anatomy. Emphasis will be placed on direct observations and their interpretation in graphic media.

SART2833
Figurative Composition in Painting
School of Art
UOC6, HPW3
This course is designed to enable students to explore a range of visual images and ideas related to the human figure. The course will deal with practical and theoretical issues of figurative painting. Through interpretation and translation of two and three dimensions the student will examine space, form and composition. Students will also be encouraged to investigate the historical and contemporary contexts of the various genre associated with figurative representation.

SART2834
Experimentation in Mixed Media
School of Art
UOC6, HPW3
This course will facilitate experimentation across disciplines. Students will be encouraged to investigate the physical and aesthetic possibilities and limitations of a range of media and materials. Attention will also be given to developing such practical skills and methodologies as may be required by students’ own workshop projects.

SART2835 Composition and Design
School of Art
UOC6 HPW3
This course will introduce students to the theory and application of two dimensional composition and design. It will examine terminology, proportion and format, elements and principles of design and colour theory. It will investigate the application of theories of composition, colour interaction and visual measurement.

SART2836 Colour
School of Art
UOC6 HPW3
This course will investigate the theory and practice of colour as it applies to the discipline of painting.

SART2841 Electronic Technologies
School of Art
UOC6 HPW3
This is a workshop based course which aims to provide the student with skills in the application of low voltage electricity and electronics sculpture. Basic understanding of power source and linking will precede instruction in the use of small motors and lighting units. This will progress to practical exercises in the use of simple computer boards.

SART2842 Metal Casting
School of Art
UOC6 HPW3
This is a practical class for those students seeking skills in metal casting and mould making. Through lectures, demonstrations and projects, students will learn how to make moulds of increasing complexity and to cast various metals, especially bronze. The theory of metal casting will be discussed as it applies to individual work required by the student.

SART2845 Drawing/Painting Field Studies
School of Art
UOC6 HPW3
This course is designed to enable students to experience the practical applications of a concentrated time in the field drawing and painting a range of visual motifs derived from a first hand encounter with a specific landscape. By working ‘en plein air’ from direct observations, this course will deal with the natural world as a source of ideas and inspiration and the practical solutions to working outside the studio environment. Students will also be required to use the material gathered in the field in developing studio work.

SART2846 Figurative Sculpture
School of Art
UOC6 HPW3
This is a workshop based course founded on observation and interpretation of the human figure. It contains information and practice concerning skills in representing the figure in various materials, with aesthetic considerations. Modelling and casting skills are followed by basic constructivist techniques.

SART2847 Advanced Drawing/Painting Field Studies
School of Art
UOC6 HPW3
This course is designed to enable students with a particular interest in the natural world to devote an extended and concentrated time in the field to researching a remote location through drawing. By direct encounter and observations, students will deal with the natural world as a source of ideas and inspiration particularly relevant to the thrust of their major studies in drawing and painting. Students will be encouraged to seek out, identify and document new material that they can gather in the field that they feel will be most relevant to their developing work in the studio.

SART2849 Alternative Printmaking
School of Art
UOC6 HPW3
This subject will allow students at any level of experience to explore the use of alternative materials and procedures in printmaking. Through lectures, demonstrations and projects students will gain understanding and skills in the use of inexpensive and low-tech materials in the production of medium to large scale printworks. Emphasis will be placed upon investigating and exploiting the manner in which these materials and techniques influence the resulting imagery with respect to contemporary practice.

SART2851 Print as Object
School of Art
UOC6 HPW3
This course is designed to consolidate and extend previous printmaking experience. Students will be engaged in projects using both traditional and non traditional materials, which will allow them to explore the concept of a print in relation to the third dimension. Specific techniques will be demonstrated which involve the manipulation of three dimensional space. Beginning with exercises utilising comparatively low relief techniques such as embossing and paper casting, students will move towards the construction of multiples, and finally to the fabrication of printworks which are freestanding, or in the form of an installation piece.

SART2856 Digital Printmaking
School of Art
UOC6 HPW3
This course will introduce students to digital imaging and output procedures as they apply to printmaking. Through lectures, demonstrations and projects, students will gain understanding and skills in the use of computing software and hardware as a means to extending the possibilities for the creation of unique and original works of art in a fine art context. Emphasis will be placed upon the applicability of methods and materials to artistic purpose; the pros and cons of these procedures as compared directly with traditional print practice, and the extension of traditional print media through the incorporation of these practices into existing technologies.

SART2859 Abstraction for Drawing and Painting
School of Art
UOC6 HPW3
This course will assist students to develop and extend their awareness of concepts of abstraction. Through a series of studio based projects, students will gain knowledge of historic and contemporary models of abstraction as well as an understanding of formal developments as they apply to drawing and painting.

SART3340 Drawing/Painting 4A
School of Art
UOC6 HPW3
Prerequisite: SART2330
In this course students will concentrate on developing their individual creative interests. In consultation with lecturers, students will undertake a body of studio work which demonstrates the relationship between their own ideas and current concepts and conventions. Students will be encouraged to evaluate the relationship between intention and outcome achieved in their studio practice.

SART3342 Printmaking 4A
School of Art
UOC6 HPW3
Prerequisite: SART2332
In this course students will further investigate and resolve the significant concepts and conventions of the discipline of printmaking. In consultation with lecturers, students will further develop a program of printmaking studies which reflects their emergent practice. Various media, techniques and aspects of printmaking will be examined, and students will be
encouraged to consolidate concepts relating to the characteristics of specific media. Documentation and conservation of prints and printmaking will be covered.

SART1343
Sculpture/Performance/Installation 4A
School of Art
UOC6 HPW3
Prerequisite: SART3333
This studio based course centres upon the students’ self initiated work programs which are devised in consultation with their lecturers towards the development of their emergent practice. Tutorials, lectures, field work, the acquisition of advanced skills in studio research methodologies and the presentation of seminars by each student about the content and contexts of their practice are employed to achieve a thorough knowledge and critical awareness of contemporary sculptural practice and an ability to articulate the concerns of their art making. An experimental approach to sculptural practice is encouraged and may take the form of divergent or interdisciplinary works such as site specific, temporal, ephemeral or performative installations, or the development of particular sculptural forms related to object making or works related to the body.

SART1350
Drawing/Painting 5A
School of Art
UOC6 HPW3
Prerequisite: SART3340
In this course students will concentrate upon their major creative interests. Students will be required to initiate and execute a body of studio work which demonstrates the relationship between their own work and current art practice. In this course students are expected to extend and develop the focus of their inquiry towards a coherent body of work which incorporates previous theories and concepts.

SART3352
Printmaking 5A
School of Art
UOC6 HPW3
Prerequisite: SART3342
This course will consolidate concepts and skills developed in previous sessions. Students will be required to execute a body of work which demonstrates the relationship between their own practice and contemporary issues. Students are expected to incorporate previous investigations into theory and concept.

SART3353
Sculpture/Performance/Installation 5A
School of Art
UOC6 HPW3
Prerequisite: SART3343
This studio based course focuses on the resolution of the students’ self initiated projects which are devised in consultation with their lecturers towards the development of their emergent practice. Tutorials, lectures, field work, studio research methodologies, and the presentation of seminars by each student about the content and contexts of their practice are employed to achieve the synthesis of conceptual concerns and studio practice. The students are required to furnish support material and visual documentation of works produced during their sculpture studies, along with a body of works that represent the culmination of an intensive application of their study of sculptural practice.

SART3360
Drawing/Painting 4B
School of Art
UOC6 HPW3
In this course students will concentrate on developing their individual creative interests. In consultation with lecturers, students will undertake a body of studio work which demonstrates the relationship between their own concepts and outcomes. Students will specialise in a range of media pertinent to their individual practice with a demonstrable relationship between content and process.

SART3362
Printmaking 4B
School of Art
UOC6 HPW3
In this course students further investigate and interpret the significant conventions of the disciplines within printmaking. In consultation with lecturers, students will further consolidate a program of printmaking studies which reflects their individual interests. Various media, techniques and aspects of printmaking will be refined, and students will be encouraged to resolve the characteristics of their chosen media. Documentation and conservation of prints and printmaking will be covered.

SART1363
Sculpture/Performance/Installation 4B
School of Art
UOC6 HPW3
This is a studio based course that pursues a self initiated program of project work, formulated in consultation with the student's lecturers. Studio research training requires students to submit project proposals and to furnish support material for a series of works of a standard appropriate to this level of study. Students are required to demonstrate the intellectual and practical skills required to execute a coherent body of work. With lecturers' guidance students broaden their understanding of the relationship of their conceptual concerns to their personal working methods, their project management skills, enabled by a hypothetical public art project, strategies for research, the representation of ideas, and the presentation of their art work.

SART3370
Drawing/Painting 5B
School of Art
UOC6 HPW3
In this course students will concentrate on the resolution of their major creative interests. Students will be required to initiate and execute a body of studio work which demonstrates the relationship between their own work and current art practice. In this course students are expected to resolve the focus of their inquiry towards a coherent body of work which incorporates previous investigations into theories and concepts. Appropriate techniques of presentation for exhibition will be addressed in this course.

SART3372
Printmaking 5B
School of Art
UOC6 HPW3
This course will consolidate concepts and skills developed in previous sessions. Students will concentrate upon their major creative interests and will be required to initiate and execute a body of studio work which demonstrates the relationship between their own work and current art practices and concepts. Appropriate techniques of presentation for exhibition will be addressed in this course.

SART3373
Sculpture/Performance/Installation 5B
School of Art
UOC6 HPW3
This studio based course is comprised of a self initiated work program that is planned in consultation with the students’ lecturers. The result of this program will be a body of work of a standard appropriate to this level of study, suitable for public exhibition. This process is supported by the continued acquisition of advanced skills, refined perceptual analysis, material manipulation, and technologies pertinent to the students’ ideas. This includes the writing of project proposals, exploratory, interdisciplinary research, the planning, production and presentation of projects, and the documentation of completed works at a professional standard. This course provides a focus for the development of strategies towards the rigorous resolution of the student’s artworks as an emerging, professional artist.

SART13501
Advanced Life Painting
School of Art
UOC6 HPW3
The aim of this course is to enable students to develop skills and an awareness of aesthetic values in life painting so that the student can use the discipline of painting as a means of individual artistic expression. The student will explore theoretical concepts and develop relevant skills to allow them to realise their ideas. The student will undertake projects aimed at encouraging an individual, creative and professional approach to painting,
SART3800 Professional Practice
School of Art
UO6   HPW3
This course intends to prepare students for professional practice as artists (or as arts-related professionals) in order to ease the transition from student to the work place.

The course provides an overview of professional practice in Australia, including such topics as: the arts infrastructure and ‘industries’; arts and cultural policy and funding; legal and commercial frameworks; professional ethics; intellectual property and copyright; service organisations, unions and professional organisations.

The course also introduces students to some of the basic skills needed for establishing professional practice in such areas as: small business organisation and management; taxation, finance and accounting; planning, marketing and promotion; preparation of applications (for grants, studios, scholarships), submissions (exhibitions, projects), documentations of work, and curriculum vitae.

SART3801 Special Projects - Studio
School of Art
UO6   HPW3
This course is intended to facilitate the School of Art in developing its educational program for undergraduate students by incorporating such opportunities into the academic program. Specific course outlines will be distributed detailing the academic content, objectives, assessment tasks and criteria, modes of teaching and learning, expectations and requirements of student participation appropriate to the event/proposal. Please note that there may be costs involved (such as costs associated with travel, accommodation, meals and museum visits) in taking this course.

SART3860 Approaches to Digital Outputting for Artists
School of Art
UO6   HPW3
The objective of this course is to give a wide selection of students an understanding of the diverse range of digital output options presently available at UNSW that are of potential interest to the artist. As the aim of the course is to teach and encourage innovation with outputting devices, it is desirable that students have knowledge of the software needed to create the output. Currently this software could include Photoshop, Illustrator, and Maya. Students will not require knowledge of all programs, but choose the one that relates to their desired output. Alternatively, students may do a course of study in the software required to achieve their desired output at the same time.

SART3862 Ceramic Shell Casting
School of Art
UO6   HPW3
This sculpture course is an advanced studio workshop devised to extend the student's understanding, research skills and practical expertise in traditional and alternative metal casting technologies. Research and practice using a variety of casting techniques will be undertaken with a focus on ceramic shell casting. The conception and processing of the student's self initiated project work will be developed in the context of contemporary art theory and practice.

SART3863 Installation and Electronic Art
School of Art
UO6   HPW3
This research based elective course in studio practice engages in the investigation of the theory, aesthetics and three dimensional applications of electrical, electronic and digital components in contemporary sculpture, performance, installation and digital media. Research will be studio based and it is expected that a diversity of ideas and practices within the electronic arts will be explored. The course will build upon the students' technical knowledge of electronic and digital technologies to conceptualise, process and present completed art works. The course has a studio theory component in which all students will actively engage in the research, discussion and debate of issues related to contemporary thought in electronic arts, such as interactive sculpture, installation, IT spaces, and the interface of the visual arts with technology and science.

SART3864 Advanced Electronics
School of Art
UO6   HPW3
An advanced workshop devised to extend students’ existing skills and understanding of artistic practice at the intersection of sculpture, installation and performance with electronic technologies and digital media. The acquisition of skills and research methods in technical areas are fuelled by the students’ advanced, self initiated project work. Reportage of research is required as a skill sharing strategy. A diversity of practices will be explored, ranging from movement and light sensing to digital input and imaging, to site specificity and presentation methodologies. Students will be encouraged to liaise with both industrial and research organisations to achieve goals and meet deadlines.

SART4030 Honours Paper
School of Art
UO6   HPW0
A paper of approximately 5,000 words researching a selected subject, or subjects, related to the student's studio practice and interests. Subject to approval, the work undertaken will be initiated by the student.

SART4044 Honours Studio Practice
School of Art
UO18  HPW0
The completed studio-based research works appropriate to the field of study which will be formally exhibited, published or displayed at the end of the course.

SCIF1110 Perspectives in Medical Science 1
Faculty of Science
UO3    HPW2
Excluded: BSSM1110.

In this course we examine the historical background to the advent of scientific medicine in the 19th and 20th centuries, looking particularly at the intellectual climate which made such innovations possible. This course is restricted to students enrolled in programs 3991 Bachelor of Medical Science and 3821 Science/ Medicine.

Assessment is by written work and participation, and open-book class test.

For further information about this course contact the School of History and Philosophy of Science.

SCIF2220 Perspectives in Medical Science 2
Faculty of Science
UO3    HPW2
Excluded: BSSM2220.

This course is based on a series of colloquia given by visiting specialists on topics of historical, philosophical and contemporary relevance in medical science. It is intended, as a sequel to SCIF1110, to broaden students' understanding of the extent to which science is important throughout society, well beyond laboratory-based conceptions of scientific activity.

The course is available only for students enrolled in program 3991 Bachelor of Medical Science and program 3821 Science/ Medicine.

For further information regarding this course, please contact the School of Medical Sciences.

SCIF3001 Exchange Program with National University of Singapore for (northern) Summer Session
Faculty of Science
UO6    HPW6
This course covers an exchange program that permits UNSW Advanced Science students to complete a 6-week residential program of studies and cultural experience in Singapore and on Tioman Island in Malaysia. In Singapore students undertake an intensive course of Chinese or Indonesian language as well as another course component related to Business, History, Politics and/or Cultural Developments in the Asian context. Students study biodiversity during a 1-week residence on beautiful Tioman Island.
Enrolment in this course is subject to approval by the Science Student Centre.

**Note:** Students will incur some personal costs.

**SCIF4013**
**Combined Geology Physics Honours Full-time**
Faculty of Science
UOC24
Combines Geology and Physics in Program 0100, made by arrangement with the Heads of the two Schools.

**SCOM1011**
**Science, Technology and Society**
Faculty of Science
UOC6  HPW3
Excluded: HPSC1400, SCTS1001, SCTS1106.

Examines the relations of science and technology with societies in the modern world. The status and authority of science. Can science tell us what we ought to do? Critiques of science. Is technology applied science? What is the relation between technology and social change? The political uses of expertise. Experts and the rest of us. Issues of participation. These topics will be explored theoretically and by reference to case studies including: modern genetics and its use in agriculture and medicine; information technology, computers and cyberspace; energy technologies, nuclear and solar; and technologies of everyday life.

**SCOM1012**
**Introduction to Science Communication**
Faculty of Science
UOC6  HPW3

This course employs activities and discussion to introduce students to methods of reporting, discussing, debating and learning in relation to concerns involving science. The course surveys employment in science communication and introduces the range of skills required of practitioners in the area. It provides practical skills in research, organising, writing and presenting scientific and quantitative information to a non-scientific audience with clarity and accuracy. Students will gain experience in talking and writing about science and help in achieving the skills required through presentation of science reports for group feedback. There will be consideration of the need to present information to non-scientific audiences and to consider the likely impact of what is communicated. Case studies and guest lectures will illustrate the differing requirements of communicating controversial and non-controversial issues.

**SCOM2014**
**Science Communication**
Faculty of Science
UOC6  HPW3
Excluded: SCOM1012

Activities and discussion are used to enhance students' abilities in reporting, discussing, debating, and stimulating learning in relation to science and related concerns.

The course surveys a broad range of employment in science communication from management to journalism and introduces a range of strategies required in each area. Practical skills in researching, organising, writing, and presenting scientific and quantitative information to non-scientific audiences are refined through frequent practice and feedback to improve accuracy and impact. Students also develop skills in facilitation and teamwork.

There is special focus on understanding different types of audiences - from children to non-scientific professionals - in terms of their knowledge, learning styles, and vested interest in the scientific issues addressed. The differing requirements for communicating controversial and non-controversial issues are illustrated through case studies, guest lectures, and excursions.

**SCOM2021**
**Professional Science Communication**
Faculty of Science
UOC6  HPW3
Prerequisite: SCOM1021 or LIFE1001 or INOV3100 or SCOM2014

Key issues in science communication are addressed and skills in science communication are practised and developed - writing and speaking as well as multi-media.

Tensions faced by the professional science communicator that are addressed include: the need to identify and communicate the 'truth'; the need to simplify in order to be understood by the public and non-scientific professionals; the need to deal with a range of stakeholders with incommensurable viewpoints; and whether to allow the hopes and fears about the potential impact of what is communicated to influence the act of communication.

The course is taught as a seminar and workshop, combining examination of current issues with simulations for practising professional communication skills. Guest lecturers will include accomplished communicators from business, government and the media.

**Note:** This course is only offered in alternate years, and is offered in 2006.

**SCOM2505**
**Science Communication Project A**
Faculty of Science
UOC3  HPW2
Prerequisite: SCOM1021 or LIFE1001 or INOV3100 or SCOM2014

Students pursue a project to learn about an area of science communication of their choice - e.g. museum work, web site development, writing for publication - plus project management, extending professional networks, and garnering feedback to improve what they produce. A 'learning contract' determines the scope of effort and the nature of the deliverable product.

Assessments include a log of reflections on communication, science, and professional relationships; a short interim report; and a final product. Approval for enrolment depends on the project's suitability, and availability of a lecturer to supervise. SCOM2505 and SCOM3505 may be taken simultaneously.

**SCOM2700**
**Topics in Science Communication - Language and History**
Faculty of Science
UOC3  HPW2

This course on the role of language and history in science communication involves hands-on examination of topics such as the evolving jargon of science and technology, changes in the instrumentation of science, and the careers of people who have made scientific discoveries. The focus is on the day-to-day processes of arguing with colleagues or government bureaucrats, a scientist trying to be understood by his or her business partner, or how specialists in a field learn to exploit new instrumentation. This course reveals practical insights into how technical and nontechnical people interact in various scientific and institutional settings. Course content will vary significantly from session to session depending on the lecturer. Initial courses will address topics such as the evolution of scientific instrumentation or the recording of oral histories of Australian science. A number of these 3 UOC courses are being offered by the SCOM program.

**SCOM2750**
**Topics in Science Communication - Social and Organisational Processes**
Faculty of Science
UOC3  HPW2

Social and organisational processes often necessitate communication among various kinds of scientific or technical specialists as well as involvement of relatively non-technical people. New technology gets developed and integrated with other new or existing technologies, or court cases get heard on environmental issues with each side having its 'experts'. This course reveals practical insights into how technical and nontechnical people interact in various organisational and institutional settings. Course content will vary significantly from session to session depending on the lecturer. Initial courses will address topics like - how designers and operators interact in the design of new technology or how one addresses ethical concerns in science communication. A number of these 3 UOC courses are being offered by the SCOM program.

**SCOM2800**
**Topics in Science Communication - Processes in Science Media and Education**
Faculty of Science
UOC3  HPW2

Whenever scientific or technical specialists engage with lay people, interesting things can happen - such as the development of new technology, publicity for scientific discoveries, or changes in how science is taught. This course reveals practical insights into how technical and nontechnical people have - and how they can - communicate with each
other through the media and in educational settings. Course content will vary significantly from session to session depending on the lecturer. Initial courses will address topics like - how to make a science video or how to design a museum exhibit. A number of these 3 UOC courses are being offered by the SCOM program.

SCOM3011
Communicating Science: Theory and Practice
School of History and Philosophy of Science
UOC6  HPW3
Prerequisites: 36UOC of credit in Science courses. Excluded: SCT53127, HPSC2730

Communicating science is crucial in modern societies. Scientists need to communicate not only among themselves but with representatives of business, unions, government, the media, and environmental and community interest groups. This course examines how different ideas about the nature of science affect our understanding of how science is communicated. Topics include: the history of science communication; new communication technologies and science; popularisation; distortion; the communication of uncertainty and risk. The course considers the role of communicators and policy advisors and guides students toward the latest on-line tools required to access, evaluate and use current information about science, technology and their social and environmental impacts. The class will simulate issues of communication and the roles of science communicators and produce appropriate outputs, such as journalistic articles, press releases and presentations to be published through an online journal.

Note: This course is only offered in alternate years commencing 2005.

SCOM3021
Science Communication Internship
Faculty of Science
UOC6  HPW3
Prerequisite: SCOM1021 or SCOM2014 and SCOM2021

Students undertake an internship in a scientific or science communication workplace relevant to the student's career plans and science focus. The internship placement may be outside the University, or the student may pair up with a scientific researcher at UNSW. The intern will benefit from working with a mentor who permits them access to opportunities to discuss research in progress, policy issues under debate, or products being developed for commercialisation. The course coordinator will assist students to write and/or produce a series of pieces that explain the character of the research, its primary aims, and its potential contribution to the development of a scientific field and the community at large. With the help of the course coordinator, the student will produce a series of reports or other activities they feel are suitable for popular and technical audiences. Students will engage in regular meetings of their internship cohort to share insights and broaden their professional networks.

SCOM2505
Science Communication Project B
Faculty of Science
UOC3  HPW3
Prerequisite: SCOM1021 or LIFE1001 or INOV3100 or SCOM2014

Students pursue a project to learn about an area of science communication of their choice - e.g. museum work, web site development, writing for publication - plus project management, extending professional networks, and garnering feedback to improve what they produce. A 'learning contract' determines the scope of effort and the nature of the deliverable product. Assessments include a log of reflections on communication, science, and professional relationships; a short interim report; and a final product. Approval for enrolment depends on the project's suitability and availability of a lecturer to supervise. SCOM2505 and SCOM3505 may be taken simultaneously.

SDES1101
Design Studio 1 - Elements and Principles of Design
School of Design Studies
UOC6  HPW3
Enrolment Requirements: Currently enrolled in a program at College of Fine Arts.

In this course, students are introduced to the elements and principles of design. Acquisition of a design vocabulary will be encouraged through analysis of definitions of design, the designer, conceptualisation and abstraction within a design context. The course will require students to begin developing a visual language for use in communicating their design intentions. Examples will clarify key points from a wide range of design practices and fields. Students will undertake and complete exercises and projects using two-dimensional and three-dimensional responses. The philosophy of integrated and multi-disciplinary design on which the Bachelor of Design is founded, is emphasised throughout this early stage of the program.

SDES1102
Design Studio 3 - Analysing Design Principles
School of Design Studies
UOC6  HPW3
Prerequisite: SDES1101

This course extends the study of fundamental design principles. The relationship between two-dimensional and three-dimensional representation of form and space is examined through a series of process exercises and projects. Students are introduced to concepts of constructing and de-constructing form as well as relationships between form and function. The studies of Design Studio 1A are progressed to analyse designed objects, environments and graphics as well as the processes of designers and their practice. Students are required to respond to the projects contained within this course using both two-dimensional and three-dimensional techniques to communicate their creativity and resolutions. Further understanding of the design process is encouraged by placing emphasis on extended development of concepts as well as methods and techniques for presenting design solutions.

SDES1104
Interactive Systems
School of Design Studies
UOC6  HPW3
Prerequisite: SDES1101

The aim of this course is to introduce and develop understandings about patterns of interaction between design processes and natural and manufactured systems. The relationship between nature, human society, ethical values and design are examined in the context of pressures on resources and the implications for the quality of life. The course will refer to ecology, ethics, value systems, social systems, political systems and legal systems so that students understand some of the dynamics of the social and environmental contexts for design as well as the foundations of responsible design practice.

SDES1106
Design and Computers 1 - Introduction to Graphics Computing
School of Design Studies
UOC6  HPW3
Prerequisite: SDES1101

This course is an introductory investigation of computers and applications for graphics. It explores manipulation, image acquisition, layers, and various effects. The course investigates rapidly developing tool sets, identifies and familiarises students with basic user interface metaphors utilised by most software packages while placing into context software applications commonly seen in industry and studio work flows.

SDES1107
Design Studio 2 - Materials, Equipment and Process in the Design Studio
School of Design Studies
UOC6  HPW3
Corequisite: SDES1101.

The aim of this course is to introduce and demonstrate the multidisciplinary and integrated nature of the design process. Students will be introduced to basic materials, equipment and techniques involved in presenting and representing ideas both visually and verbally. The importance and relevance of two-dimensional and three-dimensional models/studies within the design process is emphasised by understanding their place as tools of exploration, communication, visualisation and presentation. This course will equip students with necessary knowledge and skills to apply within the design studio setting.

SDES1108
Design Studio 4 - Thinking and Theory in the Design Studio
School of Design Studies
UOC6  HPW3
Prerequisite: SDES1101, SDES1107; Corequisite: SDES1102.

In this course, students are introduced to thinking processes whereby theoretical and philosophical understandings are applied to support the
creative process. These understandings within the design process are used to create complexity and to reinforce design outcomes. Further, students are involved in critical analysis of solutions derived in order to develop the capacity to evaluate different design approaches. Questions of intent, content and application are focused toward the development of the individual's visual language.

**SDES1110**
**Design and Computers 2 - Introduction to CAD**
School of Design Studies  
UOC6  HPW3
Prerequisite: SDES1106
This course provides an introductory investigation of computers and applications for 2D CAD. It explores rapidly developing tool sets, identifies and familiarises students with basic user interface metaphors utilised by most 2D CAD software packages, while placing into context software applications commonly seen in industry and studio work flows.

**SDES1144**
**Textile Processes**
School of Design Studies  
UOC6  HPW3
This course introduces students to a range of textile techniques and processes used in contemporary textiles art, craft and design practices. The course allows students to develop a knowledge and understanding of these processes from historical and contemporary perspectives with projects addressing conceptual and material understanding of textile design. The course will cover a range of textile processes such as embroidery, printing, dyeing, basketry and weaving.

**SDES1154**
**Introduction to the Jewellery Studio**
School of Design Studies  
UOC6  HPW3
This is a practical class open to those students requiring skills related to jewellery and silversmithing. Through lectures, demonstrations and projects, students will acquire skills in techniques and the handling of materials related to the practice of jewellery and small scale objects. As the student passes through the elementary stages, more self-initiated projects will occupy the attention of the student and lecturer.

**SDES1155**
**Introduction to the Ceramics Studio**
School of Design Studies  
UOC6  HPW3
This course introduces basic ceramic processes and materials and provides the opportunity for students to develop some familiarity with ceramic media and studio skills. While primarily practical in nature, the course seeks to place the acquisition of skills within the broader context of ceramic art/design/craft history, theory and contemporary practice. Lectures, demonstrations and studio practice introduce a range of approaches which may include hand building, techniques, throwing, low impact processes, clay and glaze technology and firing. Appropriate health and safety procedures associated with the studio are demonstrated, discussed and applied in the production of students' work.

**SDES1304**
**Introductory Studies: Ceramics, Jewellery, Textiles**
School of Design Studies  
UOC6  HPW3
This studio based course introduces the student to the broad experience of working with ceramics, jewellery and textiles. Emphasis is placed upon the development of a keen critical awareness by looking at the content and the context of contemporary visual arts and culture. The questions of intent, content, process and context are explored in relation to the production of project based works that lay the foundations for the development of the individual student's artistic language.

**SDES1316**
**Ceramics 1A**
School of Design Studies  
UOC6  HPW3
Prerequisite: SDES1304 Introductory Studies: Ceramics, Jewellery, Textiles.
This course introduces students to basic ceramic processes and materials through engagement with a series of projects that incorporate analysis, instruction/explanation and investigation. The creative potential of various ceramic media and techniques are explored alongside the health and safety issues associated with the ceramic studio. The course is primarily practical in nature, but seeks to place the acquisition of skills within the broader context of art/ceramic history, theory and contemporary practice. Students are expected to display competence in basic studio processes by the end of the session.

**SDES1317**
**Jewellery 1A**
School of Design Studies  
UOC6  HPW3
Prerequisite: SDES1304 Introductory Studies: Ceramics, Jewellery, Textiles.
This course will extend students' understanding of the scope and possibilities of the jewellery workshop and provide an overview of traditional and contemporary perceptions of jewellery practice. Through lectures, demonstrations and projects, students will develop ways of working, acquiring skills and knowledge in techniques and with materials related to the practice of jewellery. Studio activity will examine the technology of metals and other materials applying such cold joining techniques as sawing, filing, drilling and riveting to translate ideas into wearable and non-wearable jewellery works.

**SDES1318**
**Textiles 1A**
School of Design Studies  
UOC6  HPW3
Prerequisite: SDES1304 Introductory Studies: Ceramics, Jewellery, Textiles.
This course introduces students to contemporary art textile practice, extending their understanding of the scope and possibilities of textiles. Contemporary, traditional, cultural and historical textiles are referenced and examined to develop knowledge and a critical awareness of textile processes and ways of integrating cloth, fabric, fibre and materials into the contemporary context. Textiles 1A provides the context to develop individual approaches with research, experimentation and investigation through lectures, demonstrations and conceptually based projects.

**SDES1319**
**Ceramics 1B**
School of Design Studies  
UOC6  HPW3
This course introduces basic ceramic processes and materials and provides the opportunity for students to develop familiarity with ceramic media and studio skills. While primarily practical in nature, the course seeks to place the acquisition of skills within the broader context of ceramic art/design/craft history, theory and contemporary practice. Lectures, demonstrations and studio practice introduce a range of approaches which may include handbuilding, techniques, throwing, low impact processes, clay and glaze technology and firing. Appropriate health and safety procedures associated with the studio are demonstrated, discussed and applied in the production of students' work.

**SDES1320**
**Jewellery 1B**
School of Design Studies  
UOC6  HPW3
This course extends students' understanding of the scope and possibilities of the jewellery workshop and provides an overview of traditional and contemporary perceptions of jewellery practice. Through lectures, demonstrations and projects, students acquire skills in techniques and the handling of materials related to the practice of jewellery and small-scale objects. Studio activity examines the technology of metals and other materials applying such techniques as sawing, filing, drilling, riveting and soldering to translate ideas into wearable and non-wearable jewellery works. This is a practical class in skills related to jewellery and metal-working.

**SDES1321**
**Textiles 1B**
School of Design Studies  
UOC6  HPW3
This course introduces students to contemporary art textile practice, extending their understanding of the scope and possibilities of textiles. Contemporary, traditional, cultural and historical textiles are referenced and examined to develop knowledge and a critical awareness of textile processes and ways of integrating cloth, fabric, fibre and materials into
contemporary practice. Textiles 1B provides the context to develop individual investigations into art textiles by introducing a range of textile processes. Students are expected to attain basic competence and incorporate these textile processes into their work.

**SDES1601**  
**Colour, Composition and Typography**  
School of Design Studies  
UOC: 6  HPW: 3  
Enrolment Requirements: Currently enrolled in a program at College of Fine Arts.  
This course introduces students to the critical and fundamental theories of colour, typography, graphics and composition. Understanding the relationship of colour, text, graphics and composition is seen as essential to all BDM students and their future success in the Degree. The majority of this course is conducted using analogue technology.

**SDES2101**  
**Applied/Object Studio 1 - Materials and Connections**  
School of Design Studies  
UOC: 6  HPW: 3  
Prerequisite: SDES1102  
This course aims to develop a design practice which requires students to integrate technical knowledge and skills with material, form and contextual issues in applied/object design. Research into a range of materials will be undertaken including material properties, structural qualities, construction methods, finishes, fittings and connections. Projects will address the conceptual, material and sculptural understandings of 3D object design. The foundation of a design process will be undertaken including: critical analysis, research, problem-solving and design development to facilitate the resolution of form and fabrication of 3D design outcomes.

**SDES2102**  
**Environment Studio 1 - Concepts and Process**  
School of Design Studies  
UOC: 6  HPW: 3  
Prerequisite: SDES1102  
In this course, design practice is undertaken which requires students to integrate technical knowledge and artisan skills with space, form and contextual issues in the human environment design discipline. Projects will address the conceptual, material and spatial understandings of both exterior and interior environments. Elements of the design process - critical analysis, research, problem solving and design development - will be undertaken to facilitate the resolution of space and form in fabricated and structured human environments.

**SDES2103**  
**Graphics Media Studio 1 - Community and Communication**  
School of Design Studies  
UOC: 6  HPW: 3  
Prerequisite: SDES1102  
This course explores relationships in graphic design between visual communication and audiences. The course introduces and reviews contemporary and historical graphics media practices in Australian and international contexts. Print and screen graphic outcomes and processes are examined through a series of design tasks to integrate visual research with typographic, image and layout experimentation. Students develop an introductory understanding of both conceptual and technical skills in graphics media studio practice in a series of lectures, readings and studio workshops and tutorials.

**SDES2104**  
**Ceramics Studio 1 - Material and Technologies**  
School of Design Studies  
UOC: 6  HPW: 3  
Prerequisite: SDES1102  
This course introduces students to the basic skills and technologies associated with the ceramic studio; and ideas, language and contexts pertinent to contemporary ceramic design practice. It provides a setting in which students integrate theoretical knowledge, technical knowledge and skills with material, formal and contextual issues in ceramic design. Theoretical and practical enquiry highlights the conceptual, material and sculptural understandings of three dimensional object design in clay and associated materials. In particular, the course provides an introduction to the ceramic studio and addresses issues of identity, seriality, certainty, familiarity and the mundane, interrogating the meaning of the repeated object. In practical terms, it provides the opportunity to investigate techniques of replication, including the principles and applications of model and mouldmaking. Students are encouraged to develop and explore ideas in relation to the articulation, transformation and reproduction of objects using a range of ceramic materials. Elements of the design process - critical analysis, research, problem solving and design development - are undertaken to facilitate the resolution of formal, material, fabrication and design issues in ceramic practice.

**SDES2105**  
**Jewellery Studio 1**  
School of Design Studies  
UOC: 6  HPW: 3  
Prerequisite: SDES1102  
In this course design practice integrates conceptual exploration with technical knowledge and material investigations applied to jewellery and object design. Projects address stages of the design process, critical analysis, research, problem solving and design development and culminate in the fabrication of design solutions for wearable or body-related objects. This course develops students’ understanding of jewellery practice through investigations of materials and jewellery processes. In practical terms, students will examine the technology of metal and its translation through heat into three-dimensional forms. The techniques of soldering, casting, hydraulic forming and fabrication will be explored using both ferrous and non-ferrous materials, to translate design drawings and models into three-dimensional jewellery objects, both wearable and non-wearable.

**SDES2106**  
**Textiles Studio 1: Material Processes**  
School of Design Studies  
UOC: 6  HPW: 3  
Prerequisite: SDES1102  
This course introduces the language, traditions, materials, processes and practices that constitute textile design. Design projects are undertaken which require students to integrate knowledge, conceptual ideas, references and technical skills with materials, surface, form and contextual issues. Aspects of the design process, research, critical analysis, problem solving and design development are undertaken to facilitate the resolution and fabrication of textile designs. Through projects, the course develops an understanding of a variety of surface design processes and textile construction techniques to translate design concepts, drawings and models into textiles for the body and interior contexts.

**SDES2107**  
**Design and Computers 3 - CAD & Graphics Computing**  
School of Design Studies  
UOC: 6  HPW: 3  
Prerequisite: SDES1110 or SDES1106  
This course is an investigation of graphics and CAD software used in the design of graphics/media and 3D models. The skill sets covered include photographic enhancement, image manipulation, typography and multi page documents, including style sheets and vector illustrations. This course also covers procedural techniques for conceptualisation in 2D and 3D as well as the processes and techniques used in computer-generated design within the graphics & print arena, objects and environments.

**SDES2108**  
**Applied/Object Studio 2 - Form Function and Fabrication**  
School of Design Studies  
UOC: 6  HPW: 3  
Prerequisite: SDES2101  
This course aims to extend knowledge of materials and processes and their relationship to three dimensional object design. Projects address the cultural positioning that objects have in the world around us. A series of case studies exemplifying design research, production/technology methodologies including moulding/casting, laser cutting and sheet forming and fabrication is undertaken. Students further develop skills in problem solving and creatively explore the relationship between the human interface and object design. Communication techniques in both 2D and 3D format are developed, including basic computer skills.

**SDES2109**  
**Environments Studio 2 - Space and Context**  
School of Design Studies  
UOC: 6  HPW: 3  
Prerequisite: SDES2102
In this course design practice is investigated which requires students to extend their capacity to integrate technical knowledge and artisan skills with space, form and contextual issues in the human environment design discipline. Projects will address the conceptual, material and spatial understandings of both exterior and interior environments. Elements of the design process - critical analysis, research, problem solving and design development - will be undertaken to facilitate the resolution of complex spatial relationships and forms in articulated and structured human environments.

SDES2110  
Graphics Media Studio 2 - Media and Experience  
School of Design Studies  
UOC6  HPW3  
Prerequisite: SDES2103  

This course examines a range of media forms with a critical practitioner perspective of how experiences in media shape discussion, exchange and international understanding. Students explore media production and consumption to develop skills in media generation and visual interpretation. The aim of the course is to develop skills in discerning between information and misinformation in a range of contexts. The graphic languages of television, the internet, news print and SMS inform studio projects that develop strategies for typographic design in a range of media for information retrieval in work, leisure and entertainment contexts.

SDES2111  
Ceramics Studio 2 - Concepts and Contexts  
School of Design Studies  
UOC6  HPW3  
Prerequisite: SDES2104  

The course extends students’ awareness of relevant theoretical, critical and contemporary contexts; and deepens understanding of an engagement with materials, processes and technologies relevant to ceramic design and studio production. In particular, the course highlights relationships between form and surface. It introduces and critiques processes that are involved in the development of painted, printed and digitally generated surfaces on ceramic media: students engage with issues, materials and techniques relevant in their development. Elements of the design process - critical analysis, research, problem solving and design development - are undertaken to facilitate a more complex resolution of formal, material, fabrication and design issues in ceramic design practice.

SDES2112  
Jewellery Studio 2  
School of Design Studies  
UOC6  HPW3  
Prerequisite: SDES2105  

In this course, students investigate existing design practice extending their capacity to integrate technical knowledge and skills with material and conceptual issues in the jewellery design domain. Projects address the conceptual, material and technical understandings of jewellery and object design, applying a design process that involves critical analysis, research, problem solving and design development to more complex formal and fabrication issues. This course focuses students on a thorough examination of the body as the format or site for design solutions, allowing for experimentation and the development of an understanding of techniques such as advanced fabrication, repousse, anodising, use of the lathe, and research and experimentation with a variety of non-metal materials and processes. Studio activity combines the development of one-off designs and multiple production of jewellery objects.

SDES2113  
Textiles Studio 2 - Surface and Structure  
School of Design Studies  
UOC6  HPW3  
Prerequisite: SDES2106  

In this course textile design practices are investigated, requiring students to extend their understanding of the language of textiles and their capacity to integrate knowledge, conceptual understanding and technical skills with materials, surface, form, structure and contextual issues in textile design. The design processes of research, critical analysis, problem solving and design development are undertaken to facilitate the resolution and fabrication of 2D and 3D textile designs. All projects involve conceptual development, historical and contemporary references and consideration for the application of the textile. Projects require students to consider the development of their individual design aesthetic. Through projects, the course develops an understanding of surface and print design techniques and construction processes to translate design concepts, drawings and models into textiles for apparel and interiors contexts.

SDES2116  
Design Practice  
School of Design Studies  
UOC6  HPW3  
Currently enrolled in a program at College of Fine Arts.

In Design Practice, students will investigate: the moral and philosophical contexts for professional activity, professional ethics, contract law, patents, copyright and registration of designs, preparation and budgeting for a brief, production co-ordination & project management, preparation of reports and other written material, Corporate Identity, and Design Culture. Students will be introduced to the broader question of general management, design management and the importance of a design culture within an organisation, company or institution. The relationship between design management procedures and good design will be a focus.

SDES2140  
Clay, Glaze, and Firing Technology  
School of Design Studies  
UOC6  HPW3  

This course provides an introduction to the basic materials and technology associated with the development and production of creative work in clay. Practical and theoretical classes focus on approaches to firing; and the chemistry, preparation and modification of clay bodies, slips and glazes. Workshop activity highlights experimentation, testing and evaluation, and the application of knowledge to studio practice. It provides the context in which students may explore personally relevant ideas and goals through an investigation of a range of materials and approaches. Theoretical information is contextualised with reference to ceramic history and to contemporary developments/usage. The course includes an introduction to specialist software designed to facilitate relevant calculations, assist in the development of ceramic formulations and provide for the storage of data.

SDES2141  
Moulding and Casting in Clay  
School of Design Studies  
UOC6  HPW3  

This course introduces moulding, casting and extrusion processes as a means of developing and producing three-dimensional form in clay. It provides a working knowledge of the principles and applications of model and mouldmaking and encourages students to develop and explore ideas in relation to the articulation, replication and transformation of objects using a variety of ceramic media. The course spans a range of applications from casting/moulding associated with multiples and series (e.g. in small scale industrial and studio production) to casting for “one-off” or sculptural outcomes. Theoretical information is contextualised with reference to ceramic history and to contemporary developments/usage. In addition, the course examines the impact of new and emerging technologies, particularly computing technologies such as CAD, on the manner in which ceramic artists and designers understand, develop, produce and replicate objects.

SDES2142  
Drawing, Photographic and Print Techniques on Clay  
School of Design Studies  
UOC6  HPW3  

This course examines media and processes associated with the elaboration of both raw and fired clay surfaces. It provides students with the opportunity to explore, evaluate and develop a range of approaches to the production of graphic surfaces on clay. Theoretical information is contextualised with reference to ceramic history and to contemporary developments/usage. Lectures, demonstrations and individual projects provide the focus for gaining understanding and skills in the practical application of drawn, painted, photographic, printed and digitally generated images/surfaces to clay. Studio activity is conducted within a context of enquiry in which students are challenged to interrogate the relationship between idea, material, process, outcome and meaning. It highlights experimentation, testing and evaluation, and the application of knowledge to studio practice.

SDES2143  
Self-sufficient Studio Processes and Firing  
School of Design Studies  
UOC6  HPW3  

This course examines a range of media forms with a critical practitioner perspective of how experiences in media shape discussion, exchange and international understanding. Students explore media production and consumption to develop skills in media generation and visual interpretation. The aim of the course is to develop skills in discerning between information and misinformation in a range of contexts. The graphic languages of television, the internet, news print and SMS inform studio projects that develop strategies for typographic design in a range of media for information retrieval in work, leisure and entertainment contexts.
This course provides an introduction to "alternative" materials and low impact processes relevant to the construction and firing of work in clay. Lectures, demonstrations and practical projects examine approaches that include adobe, pise, paper clay and a range of accessible, low impact firing methods. Theoretical information is contextualised with reference to ceramic history and to contemporary developments/usage. Throughout, students work with readily available materials to produce clay media, equipment and firings that are inexpensive, energy efficient and easily replicated in the domestic studio.

**SDES2147**
**Jewellery Materials and Technologies**
School of Design Studies  
UOC:6  HPW:3
This is a practical class open to those students requiring skills related to jewellery and small scale object making. Through lectures, demonstrations and projects, students will experiment and investigate a wide range of materials both metal and non-metal and acquire skills in techniques and process applicable to them. This knowledge will be applied in the development of finished works.

**SDES2149**
**Metal Casting for Jewellery and Small Scale Objects**
School of Design Studies  
UOC:6  HPW:3
This is a practical studio based class open to those students requiring skills in jewellery and small-scale object making. This course will extend students familiarity with the scope of the jewellery workshop and build their skills in particular areas related to the production of three-dimensional forms. Through experimentation with the materials and with processes associated with lost wax casting and mouldmaking for multiple production, students will be asked to realise three-dimensional works metal works within the jewellery studio.

**SDES2150**
**Jewellery Processes for Multiple Production**
School of Design Studies  
UOC:6  HPW:3
This is a practical class open to students requiring skills centred in the jewellery studio. This course will develop students' experiences with those jewellery materials, techniques and processes which are linked to the production of multiples and series for jewellery and small-scale objects and include the use of CAD to design object prototypes.

**SDES2151**
**Surface Investigations in Jewellery Design**
School of Design Studies  
UOC:6  HPW:3
This is a practical class open to those students requiring skills centred in the jewellery studio. This course will focus on a thorough examination of surface as applied to jewellery and object making allowing for experimentation in any one of a variety of specialist surface techniques for example reticulation, patination, married metal and granulation.

**SDES2152**
**Jewellery Workshop in Colour**
School of Design Studies  
UOC:4  HPW:3
This is a practical class open to students requiring skills centred in the jewellery studio. This course takes colour as a focus as it applies to jewellery practice. This advanced class will encourage students to integrate ideas, processes and materials from their major study area with the specific colour techniques demonstrated within the Workshop. Techniques such as enamelling, anodising and the application of a variety of applied pigments appropriate to the jewellery studio would form the basis for experimentation.

**SDES2153**
**Jewellery Experiments with Emerging Technology**
School of Design Studies  
UOC:6  HPW:3
Students will develop an understanding of jewellery practice and concepts producing both wearable and non-wearable objects. The course will guide students in their experimentation with a range of materials and techniques emphasising the use of emerging technology in the production of these works.

**SDES2163**
**Contemporary Wearables**
School of Design Studies  
UOC:6  HPW:3
This practical course encourages students to gain insight into, and understanding of jewellery practice in a contemporary context. Within a framework of contemporary jewellery perceptions, students will develop a sound understanding of jewellery skills and materials to be used when translating ideas into objects. Central to the course is the focus on the body as the format for wearable work.

**SDES2164**
**Jewellery and Small Scale Object Design**
School of Design Studies  
UOC:6  HPW:3
This course will develop students understanding of jewellery practice, as applied to three-dimensional form. Through experimentation with materials and jewellery processes students will be asked to realise both wearable works and works which are body related and which may be expressed as vessels or implements.

**SDES2167**
**Textiles for Fashion**
School of Design Studies  
UOC:6  HPW:3
This course provides an introduction to textiles, explored in the context of Fashion. The course covers the design of textiles for the fashion, apparel and accessories Industry. Particular emphasis will be placed on the textiles used, the selection of fabrics and the manipulation of the textile surface for fashion garments. It will also cover the work of selected designers, investigating how they incorporate specific textile techniques into their fashion ranges. The course will focus on design as a process, ways of interpreting trend inspirations and will culminate in a final textile surface design / print collection. Students will design their own textile collection based on research into current market and fashion trends, applying these influences to the design process.

**SDES2168**
**Commercial Textile Design**
School of Design Studies  
UOC:6  HPW:3
This course tracks the evolution of a textile design from sketch, design brief, concept development to sampling and final commercial production. It examines weave, stitch and print design processes at studio and industry level covering professional presentations, "colourways", client requirements, studios equipment and sources of inspiration. Industry visits will enable students to see the work of professional textile designers involved in the fashion, home wares & interior design industries, offering excellent insights into career possibilities in textile design. The course will cover the historical evolution of textile design and techniques and consider techniques currently used commercially including screen printing, roller printing, digital design development and direct digital printing onto fabric. Students will develop their own designs for printed textiles to set briefs, relating to fashion or furnishing fabrics.

**SDES2170**
**Rendering and Illustration for Designers**
School of Design Studies  
Pre:SART1333,SART1319,SART1606,SART2831,SART2832, SDES1109.
Students will undertake traditional and contemporary methods of hand rendering illustration as well as concept drawing, process drawing, storyboard and highly finished realization drawings. This course will examine through practice the techniques, processes, media and ideas associated with various design domains.

**SDES2171**
**Design Management Elective - Brand & Identity**
School of Design Studies  
UOC:6  HPW:3
This subject will develop students' understanding of how design management assists in the development of a company's brand and identity. Through a series of case studies students will investigate: company branding and communication, leadership and management, retail branding and positioning strategies, corporate identity and design management within corporate culture. They will also be introduced to
the broader question of general management, and the importance of the development of a design culture within organisations whether Companies or Institutions.

**SDES2174**
**Fashion and Costume Design 1**
School of Design Studies
UOC6  HPW3

This course will introduce students to the contemporary and commercial applications of fashion and costume design. Students will learn pattern making, basic garment construction, fashion drawing and design, and they will study applied decoration, embroidery and the uses of fashion accessories. The history of costume and fashion will be explored through the study of museum objects and artworks, and this will be supported by contact with the contemporary fashion industry in Australia.

**SDES2177**
**Design in Performance**
School of Design Studies
UOC6  HPW3

Theatricalisation and design theming of public occasions, community ceremonies, performance events and sporting events is an established design trend. Design in staging large-scale events, including theatre performance, will be the major focus of this subject. Through a series of lectures and workshops, students will be introduced to the design processes used in a variety of performances. Through close examination of the characteristics by which such occasions are represented and communicated to audiences, students will systematically investigate the crafts and contemporary theories of staging such events. A design brief will be set for students to design, draw and construct.

**SDES2178**
**Independent Study**
School of Design Studies
UOC4  HPW3

This course is a directed study in a discipline or multidisciplinary area of interest and of relevance to the professional and vocational interests of the student. It should extend the knowledge and understanding of the subject through a systematic investigation and development of a project in association with a supervisor. Permission of the Head of School may be sought to determine the suitability of undertaking an independent study.

**SDES2179**
**Design in the Theatre**
School of Design Studies
UOC6  HPW3

Students will be introduced to the fundamentals of stage design for the theatre. This will include scenic design, painting, perspective, lighting, special effects and costume design. Through a series of lectures, workshops and design projects, students will explore scenic design skills such as: technical drawing, rendering and model construction. Costume will cover character analysis, design, rendering, and pattern making. Historical and social research in theatre design will be given as well as design briefs for students to design, draw and construct.

**SDES2184**
**Textiles: Woven Forms**
School of Design Studies
UOC6  HPW3

This course covers the textile processes and techniques of woven, interlaced and constructed textiles with practical projects in tapestry, basketry, 3d interlacing and loom weaving. Weaving produces structures that can be used to make the finest of silk fabrics, define a shape or image in tapestry, create a texture or interlace any flexible material, metal or plastic to express a concept. Practical work in basketry, tapestry and loom weaving are complimented by historical, theoretical and conceptual references and information, providing an understanding of contemporary textile art and design practices involving woven structures.

**SDES2185**
**Textiles: Fabric Manipulation**
School of Design Studies
UOC6  HPW3

This course provides an introduction to textile processes and techniques associated with surface design and fabric manipulation as a means of expressing ideas. Practical work is complemented by critical, historical and theoretical information which assists the students in understanding elements of contemporary textile work. This subject covers processes involved in the surface decoration and manipulation of fabric including altered surfaces such as hand embroidery, machine embroidery, piecing, and fabric collage; mixed media techniques incorporating materials other than fibre; and drawing, design and concept development.

**SDES2187**
**The Contemporary Vessel, I**
School of Design Studies
UOC6  HPW3

This course provides an introduction to basic processes and technology associated with the construction and firing of studio based work in clay. Students develop familiarity with key skills and materials used in translating ideas to objects, establishing a sound foundation from which to continue study in the ceramic discipline. Practical work is contextualised within the historical, theoretical and critical considerations/debates that frame contemporary ceramic practice. In particular, projects give prominence to disparate contemporary interpretations of the vessel and associated notions of containment.

**SDES2188**
**Wheel Throwing in Contemporary Ceramic Practice**
School of Design Studies
UOC6  HPW3

This course highlights a range of fundamental approaches and skills that underpin the multiple strands of contemporary ceramic practice. Practical work is contextualised within the historical and theoretical considerations/debates that frame contemporary ceramic practice. In particular, studio projects give prominence to ideas and processes associated with the development of ceramic multiples and work in series, using the wheel as the principal tool.

**SDES2198**
**Advanced Typography and Publication Design**
School of Design Studies
UOC6  HPW3

Complexity of information and data density have increased with the integration of information in a greater range of private and public contexts. This course involves cultural, historical and practical exploration of typographic and publication genres from a design perspective. The relationship between typography as an expressive medium and it's technological development is explored through a series of studio workshops. Publications such as books and magazines in print and screen media are developed to gain an advanced understanding of dynamic typography, page and screen architecture and information layout for publication.

**SDES2199**
**Propaganda and Advertising**
School of Design Studies
UOC6  HPW3

Design and visual communication are often discussed in terms of transparency and clarity. This course proposes that design artefacts have rarely been politically neutral and that insights into the role of design in society can be drawn from conceptualising and developing design to express specific points of view. Students explore the relationships between graphic design and political persuasion in the 20th and 21st centuries both locally and internationally and use typography, layout and a range of media to develop both theoretical and practical understandings of “promotion” for a range of contexts. Studies of visual rhetoric, subjectivity and representation and alternative processes for the research and development of designed communication are explored individually and as a group.

**SDES2200**
**Maps, Art and Design**
School of Design Studies
UOC6  HPW3

We have evolved from thinking that the world is flat, to hand held Global Positioning Systems. What do you think of when you think of a map? How have you used maps, in your personal and professional life? The elective course ‘Maps, Art and Design’ explores these questions in the context of how maps and developments in measurement have impacted on the work of selected artists and designers. It also examines the influence of artists and designers on the early development of mapmaking. Grids, models, diagrams and maps, their structures, symbols, and orientation of space,
provide creative opportunities which students will explore in practical, sequenced projects. From small to large scale, students in this course will create individual portfolios of practical examples of different types of maps and two-dimensional models. From personal mind mapping, to archaeology, to global mapping systems, this course will take you on a journey of creative discovery.

**SDES2213**  
**Digital Textiles**  
School of Design Studies  
UOC6  HPW3

Digital design for textiles is covered in this course, introducing the specific requirements for digital textile design and production. Digital technologies have radically changed the way textiles are designed, printed, stitched, tufted and woven. This course will give students an understanding of these digital processes, designing in Photoshop for specific textile design projects. Studio design projects will cover all aspects of digital textile design from repeats, “colour ways”, directional effects, production, finishing and end use applications.

**SDES2214**  
**Art and Fashion**  
School of Design Studies  
UOC6  HPW3

This studio-based course explores the relationship between art and fashion, looking specifically at how artists have used clothing and the creation of garments as a medium for their creative expression. “Art and Fashion” presents the work of artists and practitioners from the Futurists to today who clearly demonstrate the significance of fashion and clothing as an expression of the aesthetics and the philosophical issues of their times. Artists and practitioners such as Sonia Delaunay, Roy Lichtenstein, Robert Rauschenberg, Andy Warhol, Beverly Semmes, Issy Miyake, Akira Isogawa, Wendy Parmour and Caroline Broadhead have all created individual one off garments for exhibition, production and the cat walk. Many have influenced fashion trends and museum collections. Studio projects will cover the design and construction of textiles and garments inspired by these artists and their practice.

**SDES2325**  
**Ceramics 2A**  
School of Design Studies  
UOC6  HPW3  
Prerequisite: SDES1316 or SART1402

This course highlights both mechanical and non-mechanical approaches to the construction of three-dimensional objects in clay and associated considerations of form, purpose, permanence, scale and site. Studio projects require that students gain competencies in clay handling and the manipulation of ceramic materials, while encouraging an innovative, experimental approach in their deployment and an imaginative interpretation of the significant ideas, conventions and precedents of the discipline.

**SDES2326**  
**Jewellery 2A**  
School of Design Studies  
UOC6  HPW3  
Prerequisite: SDES1317 or SART1402

This course will develop students understanding of jewellery practice, as applied to three-dimensional form. Through experimentation with materials and jewellery processes, students are asked to realise works which are bodily related and which may be expressed as vessels or implements, expanding their understanding of this traditional component of jewellery practice. The techniques and processes introduced may include the fabrication of hollow forms, raising and die-forming. Students are required to work with a variety of materials, exploring their potential and limitations through the application of jewellery skills. Each set of exercises culminates in a body related three-dimensional object.

**SDES2335**  
**Ceramics 3A**  
School of Design Studies  
UOC6  HPW3  
Prerequisite: SDES2325

This course provides the opportunity for students to further develop and enhance ideas via participation in the practical activities and debates of the ceramic studio. It provides the context in which students continue to explore personally relevant ideas and goals through an investigation of a range of ceramic materials, procedures and approaches. In particular, this course highlights relationships between form and surface, introducing and critiquing processes that are involved in the development of painterly, printed and digitally generated surfaces on clay. The intention and meaning of surface elaboration and image development is examined with reference to both traditional and contemporary approaches to work in clay.

**SDES2336**  
**Jewellery 3A**  
School of Design Studies  
UOC6  HPW3  
Prerequisite: SDES2326

This course will focus on a thorough examination of qualities of surface as applied in jewellery practice allowing for experimentation and the development of techniques such as metal alloying, etching, patination, mokume gane, keum boo and granulation. Studio activity will combine the development of one-off designs and multiple production of jewellery objects both wearable and non-wearable.

**SDES2337**  
**Textiles 3A**  
School of Design Studies  
UOC6  HPW3  
Prerequisite: SDES2327

This course extends the practice of contemporary art textiles by developing conceptual interpretations and the experience of individual textiles practice. The studio emphasises an open ended, innovative and experimental investigation of the language of textiles with historical, cultural and contemporary references. Students produce individual work integrating technical and conceptual approaches in response to studio projects. Textiles 3A provides an environment and context to develop individual approaches with research, experimentation and investigation through lectures, demonstrations and conceptually based projects.

**SDES2338**  
**Ceramics 3B**  
School of Design Studies  
UOC6  HPW3
This course examines media and processes associated with the elaboration of both raw and fired clay surfaces. It provides students with the opportunity to explore, evaluate and develop a range of approaches to the production of graphic surfaces on clay. Theoretical information is contextualised with reference to ceramic history and to contemporary developments/usage. Lectures, demonstrations and individual projects provide the focus for gaining understanding and skills in the practical application of drawn, painted, photographic, printed and digitally generated images/surfaces to clay. Studio activity is conducted within a context of enquiry in which students are challenged to interrogate the relationship between idea, material, process, outcome and meaning. It highlights experimentation, testing and evaluation, and the application of knowledge to studio practice.

SDES2339
Jewellery 3B
School of Design Studies
UOC6    HPW3
This is a practical studio course for students requiring skills in jewellery and small-scale object making. This course will extend students’ familiarity with the scope of the jewellery workshop and build their skills in particular areas related to the production of three-dimensional forms. Students will explore the concepts of making multiples to produce wearable and non-wearable objects. Through experimentation with materials and with processes such as casting, advanced fabrication and hydraulic forming, students will be asked to realise three-dimensional works.

SDES2345
Textiles 2B
School of Design Studies
UOC6    HPW3
This course extends the practice of contemporary art textiles by developing conceptual interpretations and the experience of individual textiles practice. The studio emphasises an open ended, innovative and experimental investigation of the language of textiles with historical, cultural and contemporary references. Students produce individual work integrating technical and conceptual approaches in response to studio projects. Textiles 2B provides an environment and context to develop individual approaches by exploring textile processes relating to surface design, providing knowledge to realise conceptual ideas. Students are expected to have the ability to incorporate various surface design processes into their work at the completion of the course.

SDES2355
Textiles 3B
School of Design Studies
UOC6    HPW3
This course extends the practice of contemporary art textiles explored in Textiles 2A/2B by developing conceptual interpretations and the experience of individual textiles practice. The studio emphasises an open ended, innovative and experimental investigation of the language of textiles with historical, cultural and contemporary references. Students produce individual work integrating technical and conceptual approaches in response to studio projects. Textiles 3B provides the context for developing individual approaches by exploring three dimensional textile structures and techniques providing the knowledge to realise conceptual ideas. Students are expected to have the ability to incorporate 3D constructed textiles into their work at the completion of the course.

SDES3101
Applied Object Studio 3 - Reuse/Recycle
School of Design Studies
UOC6    HPW3
Prerequisite: SDES2118
In this course, design solutions are developed from briefs that address problems associated with ethical and environmental responsibility typical of applied design in professional practice. Students are encouraged to develop a philosophical approach to their design process and apply their skills to facilitate the resolution of form and fabrication of design solutions. Projects address the multidisciplinary relationships between manufacturing, design and the end user. Students develop skills in analysing and articulating primary and secondary research and communicating this information in both 2D and 3D formats. 3D computer modelling and rendering is introduced and designs are conceived as full-scale prototypes.

SDES3102
Environments Studio 3 - Commissions and Practice
School of Design Studies
UOC6    HPW3
Prerequisite: SDES2109
In this course, design solutions are developed from briefs that are academically based or emulate problems typical of environment design in professional practice. The design proposals must address complex contextual issues and the interactions presented by the brief. Students will be encouraged to develop a clear design process and apply their skills to appropriate documentation and presentation by use of environment design conventions.

SDES3103
Graphics Media Studio 3 - Visual Representation
School of Design Studies
UOC6    HPW3
Prerequisite: SDES2110
This course explores strategies for the design of visual information for print, interactive and signage design. A range of multi-dimensional spaces in which graphic designers provide navigation cues and complex information will be considered from the perspectives of content, context and purpose. Students design information graphics for specific users according to a brief provided by a client in a real-world setting.

SDES3104
Ceramics Studio 3 - Innovation and Interdisciplinarity
School of Design Studies
UOC6    HPW3
Prerequisite: SDES2111
The course deepens students’ awareness of the theoretical, historical, critical and interdisciplinary settings of contemporary ceramic design. Moreover, it extends students’ capacity to operate independently in response to the design brief through increasing experience of the complexity and attributes of diverse ceramic materials, their application and processing. It provides the opportunity to extend skill, knowledge and familiarity with the conceptual contexts relevant to the design and production of objects in clay and associated materials. Students develop design solutions from briefs that are academically based and emulate the approaches and problems typical of ceramic design in the professional context. The design proposals address complex contextual issues and the interactions presented by the brief. Students are encouraged to develop a clear design process and apply their skills to appropriate documentation and presentation.

SDES3105
Jewellery Studio 3 - Contextual Issues
School of Design Studies
UOC6    HPW3
Prerequisite: SDES2112
In this course design solutions are developed from briefs that are academically based or emulate problems typical of jewellery design in professional practice. The design proposals must address complex contextual issues and the interactions presented by the brief. Students will be encouraged to develop a clear design process and apply their skills to appropriate documentation and presentation.

SDES3106
Textiles Studio 3 - Forecasting and Innovation
School of Design Studies
UOC6    HPW3
Prerequisite: SDES2113
This course provides an opportunity for students to develop and predict design solutions from briefs that emulate approaches and problems typical of the professional textile design industry. Individual design proposals will address complex contextual issues and the interactions presented by the brief, requiring design solutions ranging from one-off textiles for exhibition and production, to designs and trend predictions for commercial textile production. Briefs cover design for a range of industries and may include fashion, apparel, homewares, rugs, interior and exterior textile designs. Students will be encouraged to develop a clear design process and apply their skills to appropriate documentation, presentation and the execution of innovative textile designs.
### SDES3107
**Design and Computers 4 - Introduction to Multimedia**  
School of Design Studies  
UOC6  HPW3  
Prerequisite: SDES2107  
This course is an introductory investigation into computers and interactive multimedia authoring and its application in the graphics/media industry. The course includes combinations of various media such as sound, animation, digital video and dynamic interactive eventing mechanisms. This course introduces interface design processes and concepts within an industry context.

### SDES3108
**Applied/Object Studio 4 - Design and Production**  
School of Design Studies  
UOC6  HPW3  
Prerequisite: SDES3101  
Self-direction is encouraged so that students apply their skills within the development and articulation of a project brief. Project documentation and presentation methods are expected to reflect a substantial sophistication of design ideas and communication techniques. Projects undertaken consider a range of manufacturing processes and production systems used in industry and demonstrate a professional focus on the design process. Collaboration with industry is utilised in the development of projects. Students acquire knowledge of detailing, construction techniques and costing. Designs are realised as either scaled models or full-scale prototypes.

### SDES3109
**Environments Studio 4 - Philosophies and Processes**  
School of Design Studies  
UOC6  HPW3  
Prerequisite: SDES3102  
The aim of the course is to build on the skills and knowledge of Environments Studio 3 and to increase the complexity of studio practice within the environments discipline. Self-direction is encouraged so that students develop and apply their skills within the development and articulation of a brief. Project documentation and presentation methods are expected to reflect a substantial sophistication of design ideas and communication techniques.

### SDES3110
**Graphics Media Studio 4 - Design and Reflection**  
School of Design Studies  
UOC6  HPW3  
Prerequisite: SDES3103  
This course explores advanced concepts and practices in graphics media concerned with a range of approaches to visual identity and reflective practices in design. Studio discussions, lectures and readings contextualise designer, client and supplier, user and artifact interactions. Students develop a design portfolio and through reflection on designs completed in the program, explore strategies to attract client-based work and/or to attract funding for self-initiated work in future practice.

### SDES3111
**Ceramics Studio 4 - Research, Application and Practice**  
School of Design Studies  
UOC6  HPW3  
Prerequisite: SDES3104  
The course provides for consolidation, application and elaboration of skills in the design and prototyping/production of a unique body of ceramic work. Students extend research relevant to their individual design practice and produce a body of work which evidences a critically engaged and technically accomplished/ appropriate approach. Self-direction is encouraged so that students develop and apply their skills within the framing and articulation of the brief. Project documentation and presentation methods are expected to reflect a substantial sophistication of design ideas and communication techniques.

### SDES3112
**Jewellery Studio 4 - Design and Production**  
School of Design Studies  
UOC6  HPW3  
Prerequisite: SDES3105  
This course extends the skills and knowledge of Jewellery Studio 3 and increases the complexity of the studio practice within the jewellery domain. Self-direction is encouraged so that students develop and apply their skills within the development and articulation of a brief. Projects address the conceptual, material and technical understandings of jewellery and object design and require, in some instances, for students to liaise with industry partners in the development of their design solutions. Project documentation and presentation methods are expected to reflect a substantial sophistication of design ideas and communication.
This course tracks the development of man-made ‘techno’ textiles for fashion, design, interior and environmental applications. Exploring fibres and fabrics from nylon in the 1950s to the present with Issey Miyake’s recent APOC range, it looks specifically at the processes and techniques associated with synthetics for colouring, printing, resisting, blistering, bonding, shaping and adding textures. Recent developments to man-made fabrics and fibres have changed their character to replicate natural materials in relation to physical characteristics, drape, handle and feel. Nylon, polyester, polyamide, non-wovens, microfibres, synthetic polymers, PVC and polypropylene have application for 3D forms, interior, exterior, art, design and sporting environments. Studio projects will cover various processes and techniques and may include subistic printing, transfer dye printing, heat transfer printing, thermoplastic shaping, latex printing, flocking and bonding.

SDES3171
Introduction to Motion Graphics Design
School of Design Studies
UOC6 HPW3

It assumes knowledge of software applications such as Photoshop and Illustrator. This course introduces and develops student knowledge of digital video and compositing applications within a workflow of digital image design, motion graphics and information design processes. Students will also develop skills in pre-production media processes as well as the administrative mechanisms required for video, composing, processing, and production. Students will experience hands on tuition in computer software for graphics media design as it relates to video imaging. Students will also learn to interpret, design and produce digital video using compositing applications from briefs and concepts developed in class.

SDES3172
Digital Design - Interactive Design
School of Design Studies
UOC6 HPW3

The course is an advanced investigation into interactive computing in design graphics and its application in the graphics/media industry. This course assumes an introductory level of Photoshop, Illustrator, Director, or Flash knowledge. The course also considers the areas of Graphic User Interface design, Information Technology, Information Design and the design processes involved in the creation of interactive media. The course expands the student’s use of CAD modelling, image manipulation, typography, digital audio, digital video and within an interactive authoring environment.

SDES3173
Advanced Computer Graphics
School of Design Studies
UOC6 HPW3

This course focuses on an advanced investigation of various 2D software tools, while developing the knowledge, skills and attitudes required to produce artwork and output specifications to industry standards across a range of media, methods and applications. Course content includes techniques of digital bitmap compositing, vector type and shape manipulation. In addition, students will investigate a range of options for digital output, which include colour correction and use of various materials. The course assumes prior intermediate skills in Photoshop and Illustrator.

SDES3174
Digital Design - Web Design and Screen Interface
School of Design Studies
UOC6 HPW3

This course focuses on processes involved in the design of distributed content for the web in relation to, and satisfying the parameters set by, a specified brief and target audience. Course content includes critical analysis of selected web design, interface strategies, applications and usability. Students will investigate and research content, create and utilise navigational strategies, and apply hypertext mark-up language. Prior introductory level knowledge of Photoshop and Illustrator is assumed.

SDES3175
Fashion and Costume Design 2
School of Design Studies
UOC6 HPW3

This course will explore the scope of costume design in a theatrical context, building on the skills gained by students in Fashion and Costume Design 1. Students will study historical and contemporary costume in theatre, film and television. Cutting, decoration and the construction of theatrical costumes will be explored in order to allow students to develop individual skills and designs from set briefs. Theatrical venues and museum collections will be investigated in order to support the practical component of the subject.

SDES3176
Digital and Pre-press Design
School of Design Studies
UOC6 HPW3

The content of this course focuses on familiarising students with the industry terminology principles and processes involved in digital pre-press, direct to press and print production, while developing the knowledge, skills and attitudes required to produce artwork and print specifications to a specified industry standard across a range of media, methods and applications. The content includes digital pre-press techniques, direct to press techniques, paper technology and other print substrates; ink technology, printing technology; printing problems and troubleshooting; print grids, formatting and imposition; process colours and pantone colours, print resolution and dot gain; principles of planning, preparation and execution of finished artwork for print; special printing effects, writing print specifications liaison with pre-press bureaux and printers, and industry expectations and standards for quality assurance and OH&S.

SDES3177
3D CAD Object and Space
School of Design Studies
UOC6 HPW3

This course focuses on advanced investigation of various 3D software tools. It develops the knowledge, skills and attitudes required to produce models and measured drafting specifications to particular industry standards across a range of media types. Course content includes critical analysis of various Computer Aided Drawing strategies for rapid prototyping and visualisation. Students will investigate and research content and create outcomes in a number of areas, including modelling strategies, basic kinematics and various rendering techniques. The course assumes introductory level knowledge of Vectorworks, Photoshop, Illustrator and InDesign.

SDES3179
Digital Design - Introduction to Flash Design
School of Design Studies
UOC6 HPW3

This course introduces vector based interface design in the context of satisfying the parameters set by a specified brief and target audience. Students will explore and apply vector based interactive applications, research content, create and apply navigational strategies and structures, generate and produce fully functioning vector content to a introductory level of design. The content includes: critical analysis of selected Flash implementations and sites; criteria governing Flash design; critical analysis of target audience for a specified brief; research and structuring of Flash design; and research and analysis of navigational strategies. Students will be expected to have experience with Adobe Photoshop and Illustrator.

SDES3181
Designing Computer Mediated Responsive Environments
School of Design Studies
UOC6 HPW3

This course focuses on computer mediated responsive environment design in relation to, and satisfying the parameters set by, a specified brief and target audience. Course content includes critical analysis of selected interactive authoring applications and industry uses. Students will explore, create, manipulate and use various sensors and software applications to mediate a range of responses within an electronic context. In addition, they will research content, and create and produce physical computing outcomes to a specified industry standard across a range of media types. The course assumes knowledge of various software packages including Illustrator, Photoshop and Director (including Lingo).

SDES3186
Textiles: Surface Design
School of Design Studies
UOC6 HPW3

This course provides an introduction to the textile processes and techniques associated with dyed and printed textiles and explores these as a means of expressing ideas. Surface design incorporates various
techniques including dyeing, block-printing, screen printing, devori, discharge, Shibori and wax-resist, which are used in contemporary art and design practice and introduced in this course. Students will develop their own textile pieces using a combination of these techniques. Practical work is complimented by historical information, cultural references and contemporary textile art, craft and design practice.

**SDES3345**  
**Ceramics 4A**  
School of Design Studies  
UOC6  HPW3  
Prerequisite: SDES2335

This course provides the opportunity for students to pursue a self-initiated approach to art practice within a creative methodology that is exploratory, speculative and personal. At the same time, students deepen their awareness of the theoretical, historical and interdisciplinary settings of contemporary ceramic practice. Students are expected to engage with an area of research appropriate to their emerging practice and produce a body of work which evidences a development of relevant ideas and skills. Group seminars and critique develop the capacity to express the central concerns of studio work, constructive critical abilities and skill in their articulation.

**SDES3346**  
**Jewellery 4A**  
School of Design Studies  
UOC6  HPW3  
Prerequisite: SDES2336

This is a course of advanced studio practice that requires the student to initiate a jewellery design proposal; research and investigate appropriate technology, materials and audience; place the design within a conceptual framework and; construct a body of work that relates to the jewellery process.

**SDES3347**  
**Textiles 4A**  
School of Design Studies  
UOC6  HPW3  
Prerequisite: SDES2337

This studio based course provides the opportunity for students to pursue a self initiated work program devised in consultation with lecturers. Students are expected to develop an area of research appropriate to their emerging practice and produce a body of work that demonstrates an understanding and refinement of relevant concepts with technical ability. Students extend their understanding of the theoretical, historical and interdisciplinary nature of contemporary textiles practice. Textiles 4A integrates lectures, individual and group tutorials, studio research methodologies and the presentation of seminars by each student covering the content and context of their practice, to achieve a thorough knowledge and critical awareness of contemporary textile practice and an ability to articulate the concerns of visual art textiles.

**SDES3348**  
**Ceramics 4B**  
School of Design Studies  
UOC6  HPW3

This course provides an introduction to the basic materials and technology associated with the development and production of creative work in clay. Practical and theoretical classes focus on approaches to firing and the chemistry, preparation and modification of clay bodies, slips and glazes. Workshop activity highlights experimentation, testing and evaluation, and the application of knowledge to studio practice. It provides the context in which students may explore personally relevant ideas and goals through an investigation of a range of materials and approaches. Theoretical information is contextualised with reference to ceramic history and to contemporary developments/usage. The course includes an introduction to specialist software designed to facilitate relevant calculations, assist in the development of ceramic formulations and provide for the storage of data.

**SDES3349**  
**Jewellery 4B**  
School of Design Studies  
UOC6  HPW3

This is a practical class open to those students requiring skills centred in the jewellery studio. This course will focus on a thorough examination of surface as applied to jewellery and object making allowing for experimentation in a variety of specialist surface techniques, colours and coatings.

**SDES3355**  
**Ceramics 5A**  
School of Design Studies  
UOC6  HPW3  
Prerequisite: SDES3345

Students further develop a self initiated approach to art practice within a creative methodology that is exploratory, speculative and personal. It provides for the resolution of work devised in consultation with studio staff. Students extend research relevant to their individual art practice and produce a body of work which evidences a technically accomplished and critically engaged approach to making.

**SDES3356**  
**Jewellery 5A**  
School of Design Studies  
UOC6  HPW3  
Prerequisite: SDES3346

Students are required to produce a substantial project which demonstrates a refinement of the concepts and contexts central to their work and a developed area of research relevant to their jewellery practice. The presented body of work will evidence the refinement of students' conceptual and technical capabilities.

**SDES3357**  
**Textiles 5A**  
School of Design Studies  
UOC6  HPW3  
Prerequisite: SDES3347

This studio based course requires that students produce a substantial project which demonstrates a refinement of the concepts and contexts central to their work and a developed area of research relevant to their textiles practice. The presented body of work will evidence the refinement of the student's conceptual and technical capabilities. An experimental approach to textiles practice is encouraged and may take the form of divergent or interdisciplinary works such as site specific work, 3D forms, object making, works relating to the body or design for exhibition and studio production.

Textiles 5A covers an integrated approach to studio practice through lectures, tutorials, studio research methodologies and the presentation of seminars by each student about the content and context of their practice. These are employed to achieve the synthesis of conceptual concerns and studio practice.

**SDES3358**  
**Ceramics 5B**  
School of Design Studies  
UOC6  HPW3

This course provides the opportunity to pursue a coherent project that supports the student's emerging ceramic practice. Students are expected to engage with an area of research appropriate to their practice and develop a body of work that evidences maturation and the sophistication of relevant ideas and skills. Students may work across the range of approaches that constitute contemporary fine art contexts. Experimentation, interdisciplinary and hybrid means are supported and encouraged. Group seminars and critique develop the capacity to express the central concerns of studio work, constructive critical abilities and skill in their articulation.

**SDES3359**  
**Jewellery 5B**  
School of Design Studies  
UOC6  HPW3

This course extends the skills and knowledge developed in the jewellery studio and increases the complexity of the studio practice within the jewellery discipline. Self-direction will be encouraged so that students develop and apply their skills within the articulation of a brief. Projects will address conceptual, material and technical understandings of jewellery and object design and require, in some instances, for students to liaise with industry partners in the development of their jewellery solutions. Project documentation and presentation methods are expected to reflect a substantial sophistication of design ideas and communication.

**SDES3365**  
**Textiles 4B**  
School of Design Studies  
UOC6  HPW3
This studio based course provides the opportunity for students to pursue a self initiated work program devised in consultation with lecturers. Students are expected to develop an area of research appropriate to their emerging practice and produce a body of work that demonstrates an understanding and refinement of relevant concepts with technical ability. Students extend their understanding of the theoretical, historical and interdisciplinary nature of contemporary textiles practice. Textiles 4B integrates lectures, individual and group tutorials, studio research methodologies and the presentation of seminars by each student covering the content and context of their practice, to achieve a thorough knowledge and critical awareness of contemporary textile practice and an ability to articulate the concerns of visual art textiles. Textiles 4B covers demonstrations of advanced textile processes.

SDES3757
Textiles 5B
School of Design Studies
UOC6  HPW3

This studio based course requires that students produce a substantial project which demonstrates a refinement of the concepts and contexts central to their work and a developed area of research relevant to their textiles practice. The presented body of work will evidence the refinement of the student’s conceptual and technical capabilities. An experimental approach to textiles practice is encouraged and may take the form of interdisciplinary works such as site specific work, 3D forms, object making, works relating to the body or design for exhibition and studio production. Textiles 5B covers an integrated approach to studio practice through lectures, tutorials, studio research methodologies and the presentation of seminars by each student about the content and context of their practice. These are employed to achieve the synthesis of conceptual concerns and studio practice.

SDES4101
Design Studio Project
School of Design Studies
UOC12  HPW6

This student-initiated project will be positioned in a real context and provide students with an experience of the multi-disciplinary nature of design. The project will extend from research and development through to the translation of students' findings into realised design solutions. The project will be developed in conjunction with selected professionals and/or with a client who presents an actual design problem. The guiding philosophy of the Bachelor of Design Studies, that of an integrated approach to design must be demonstrated throughout the course with reference to more than one studio area in the finished project. The design proposals must address complex contextual issues and fully address the constraints of the brief. Students will be required to develop a recognisable design process, to incorporate costing of the final scheme, to demonstrate design management of the project and apply their skills to clear documentation and presentation of an integrated design outcome.

SDES4102
Professional Experience Program
School of Design Studies
UOC12  HPW0

Enrolment Requirements: Currently enrolled in a program at College of Fine Arts.

The aim of this course is to provide students with the opportunity to experience real-life professional design situations, over an extended period. During this course, students will establish a working relationship with the profession and potential employers as well as a working knowledge of the practice of design and production.

SDES4104
Honours Project
School of Design Studies
UOC6  HPW2
Prerequisite: SAED4051.

The aim of this project is to provide the Honours candidate with the opportunity to research and document an approved design related topic. Topics that explore design’s relationship to: history/theory, processes and technics, objects and prototypes, interactivity, ethics, materials and potential use, studio management, studio practice strategies, and education are examples of appropriate research areas. The Honours program in the Bachelor of Design provides a series of seminar presentations by research experts and Honours candidates to support the development of a research project comprising a research document and, where appropriate, studio outcomes. Candidates are asked to frame a research question or hypothesis in relation to an existing body of knowledge. The research process will include the application of a nominated research practice or methodology suited to the question. Analysis of the research findings based on documented evidence forms the basis for conclusions and suggestions for further research. Successful completion of the subject with a Grade of Credit (65%) and above will lead to the Award of the Bachelor of Design with Honours.

SDES5491
Professional Experience Program
School of Design Studies
UOC6  HPW0

The aim of this course is to provide students with the opportunity to experience real-life professional design situation, over an extended period. During this program of 25 working days, students will establish a working relationship with the profession and potential employers as well as working knowledge of the practice of design and production.

SENG1031
Software Engineering Workshop 1
School of Computer Science and Engineering
UOC6  HPW5
Corequisite: INF51611; Excluded: SENG1020

The Software Engineering Workshop is a series of courses that span the first three years of the Software Engineering program. The course series will provide an opportunity to work in small teams on substantial, realistic projects, covering most phases of the software production life cycle. The SE Workshop stream also provides an opportunity to apply the techniques and methods covered in other courses of the course. Under guidance from staff, the intention of this series is to enable students to learn by reflective practice. Whatever steps are taken students should become aware of what they are doing, and reflect on the consequences. This is the essence of the Personal Software Process described in the textbook by Watts Humphrey. Each course in the series will involve group project work, presentations, report writing, and documentation. This is the first course in the series and will contain: an introduction to the software process and to a number of the software engineering practices to be adopted throughout the series; the formation of the first set of small groups; a number of exercises to develop group skills. Each group will complete a domain analysis and a requirements analysis for a project. Each group will: examine similar systems; interview users or potential users of the system; develop a requirements document; validate the requirements by prototyping. This course will form the practical component of INF51611.

Further Information: CSE class page www.cse.unsw.edu.au/~se1031

SENG1030
Software Engineering Workshop 2A
School of Computer Science and Engineering
UOC5  HPW2.5
Prerequisite: SENG1020 or SENG1031; Corequisite: INF52603, and COMP2111.

This is the third course in the series and will cover specification. During this course the groups will take a requirements document (not necessarily the same document developed by the current teams during SENG1020) and develop a logical specification document. The specification document must be developed using the modelling techniques discussed in INF52603 and COMP2110. As part of the specification document, the groups should identify a set of acceptance tests appropriate to the functional specification. This course forms the practical components of COMP2110.

Further Information: CSE class page www.cse.unsw.edu.au/~se2010

SENG2010
Software Engineering Workshop 2A
School of Computer Science and Engineering
UOC5  HPW2.5
Prerequisite: SENG2010

This course forms the practical component of COMP2110. In this course, the fourth course in the series, the groups will take a specification document, such as might have been produced in SENG2010, and produce a design document describing how the specified system will be mapped onto physical components. The specification document must be developed using the modelling techniques discussed in INF52603 and COMP2110. As part of the specification document, the groups should identify a set of acceptance tests appropriate to the functional specification. This course forms the practical components of COMP2110.

Further Information: CSE class page www.cse.unsw.edu.au/~se2010

SENG2030
Software Engineering Workshop 3A
School of Computer Science and Engineering
UOC3  HPW2.5
Prerequisite: SENG2020

This is the final course in the series and will cover construction. During this course the groups will take a design document, such as might have been produced in SENG2010, and produce a design document.
Each group will take a design document, such as might have been produced in SENG2020, and carry out the implementation and testing of the components of the system. As for all components of this series the implementation and testing will be documented.

Further Information: CSE class page www.cse.unsw.edu.au/~se3010

SENG3020
Software Engineering Workshop 3B
School of Computer Science and Engineering
UOC6 HPW3
Prerequisite: SENG3010
In the sixth and final course in the series, the groups will undertake the integration, testing, evaluation, and maintenance of a system, whose components have been produced in SENG2010.

Further Information: CSE class page www.cse.unsw.edu.au/~se3020

SENG4910
Thesis Part A (Software Engineering)
School of Computer Science and Engineering
UOC6 HPW7
Prerequisite: Enrolment in Software Engineering program 3648 or 3651 or 3652 or 3653.
This course represents the thesis proposal component. The proposal is assessed by a seminar given at the end of semester.

Further Information: CSE class page www.cse.unsw.edu.au/thesis

SENG4911
Thesis Part B (Software Engineering)
School of Computer Science and Engineering
UOC12 HPW14
Prerequisite: SENG4910.
The thesis is done in the last two semesters of the BE degree program. For full-time students, seven hours per week in the first semester and fourteen hours per week in the second semester are devoted to directed laboratory and research work on an approved course under guidance of members of the lecturing Staff of the Schools of Computer Science and Information Systems. Generally, the thesis involves the design, construction, and testing of a software application, but the thesis could be an exploration and evaluation of some aspects of a software development method. Each student is required to demonstrate the outcome of the thesis work, and present a written thesis at the end of the second semester.

Further Information: CSE class page www.cse.unsw.edu.au/thesis

SENG4921
Professional Issues and Ethics
School of Computer Science and Engineering
UOC6 HPW4
Prerequisite: enrolment in Software Engineering program 3648, 3651, 3652, 3653, 3749 or BSc Computer Science co-op program 3978.
This course will develop a framework on which professional and ethical issues can be developed. Topics covered will include team and meeting skills, communication skills, interpersonal skills, software quality and process, in addition to ethics. The subject will be delivered using lectures, class discussions, written assignments, reading lists, the Internet, presentations, and invited speakers.

Further Information: CSE class page www.cse.unsw.edu.au/thesis

SERV1001
Fundamentals of Tourism
School of Marketing
UOC6 HPW3
Excluded: TAHM2001
An introductory course in the study of tourism. The origins and evolution of contemporary tourism will be carefully examined and students will be familiarized with the various supply and demand components of the tourism industry through the examination of competing tourism models. Topics to be covered include the historical, economic, social, cultural, psychological and marketing aspects of human travel and the tourism industry globally, with a special focus on the impacts of tourism and the nature and industrial structure of tourism in and to Australia.

SERV1100
Tourism & Hospitality Operational Studies
School of Marketing
UOC6 HPW6
Prerequisite: Enrolment in 3571 BCom (Services Marketing - Tourism & Hospitality).
Excluded: TAHM1666, TAHM1777
This course provides theoretical and practical training in food and beverage operations, hotel front office operations and interpersonal communication skills. The training takes place at an accredited hospitality and tourism training college and prepares students for the program requirement of 250 hours of industry employment.

SERV2001
Destination in Marketing
School of Marketing
UOC6 HPW3
Prerequisite: SERV1001
The success of most tourism businesses is reliant on the competitiveness of the host destination. This course examines the specialised nature of destination marketing to enhance students' understanding of the opportunities, challenges and constraints facing destination marketing organisations in an increasingly competitive tourism market place. Emphasises a strategic approach to marketing of destinations, which includes development of strategic and tactical campaigns, the management of destination demand and the development and management of destination image.

SERV2002
Services Operations Management
School of Marketing
UOC6 HPW3
Prerequisite/Corequisite: MARK2005
Excluded: TAHM3002
Successful service 'manufacture' and final delivery to customers/clients requires a series of well designed, well managed and seamless service processes, some backstage and some front stage. The intangibility of services complicates the traditional management task of planning, organizing, directing and controlling for the performance that goes into creating and delivering a service product. Building on the basic principles of operations management, the course examines the operations decisions that managers may face in managing their resources and delivering services to their customers to achieve service quality as well as efficiency goals. Key topics include: blueprinting the service experience, the new service development process, house of quality, setting KPIs, gap analysis, the physical environment, capacity management, waiting times and productivity measurement.

SERV2003
Service Industry Project
School of Marketing
UOC6 HPW2
Prerequisite: MARK2055
Corequisite: SERV2002
Excluded: TAHM2888, TAHM3888
A work experience project is a mandatory part of the degree program. This will be supplemented by lectures/seminars on a range of related, contemporary services marketing topics. It is envisaged the project topics might centre around blueprinting the services processes in order to solve a service operational problem; map and analyse the service quality processes (e.g. the gap model of service quality) of an organisation and prepare a set of recommendations for quality improvement; or mapping the key touchpoints and defining where value is created in an organisation's service processes; or perhaps analysing and reporting on a organisation’s employment branding processes. A key learning outcome will be students ability to put various services models, frameworks and theories into practice.

SERV3001
Managing People for Service Advantage
School of Marketing
UOC6 HPW3
Prerequisite: MARK2055
Excluded: TAHM3004
In the 21st century, most service organizations in a given industry perform their core service function equally well and hence it does not become a source of competitive advantage. Competitive advantage can however be achieved by developing a service culture and a customer-centric organisation that results in delivery of excellent customer service, be it with customers of general services (e.g., telecommunications, fitness centres, hotels, tourism, restaurants, airlines, etc) or clients of a...
professional service firm (e.g., accountancy, financial planning, higher education, architecture, engineering consulting). Excellent customer service does not happen by chance. It has to be designed into the firm’s service delivery systems and delivered by people and technology. Employing the service-profit chain concept as a framework, this course is about designing a service delivery strategy (built around service reliability, exceeding expectations, service recovery, and fairness) then examining the role of technology and people (e.g., service vision, service leadership, ‘internal’ customers, service climate and teamwork).

**SESV4001**  
**Strategic Management in Tourism & Hospitality**  
School of Marketing  
UOC6 HPW3  
Prerequisite: SERV2001  
Excluded: TAHM4003  
This course examines the practical application of tourism and hospitality policy and planning to the operation of major tourist and hospitality segments and key organisations within those segments. The course involves experiential learning with industry executives in workshops and seminars, debating current issues.

**SESV4002**  
**Entrepreneurship in Services**  
School of Marketing  
UOC6 HPW3  
Prerequisite: MARK2055  
Service industries now account for three quarters of wealth and 90% of all new employment in developed economies and approaching that in developing countries. Yet we know little about innovation in this sector. Much of today’s employment is generated through SME new service ventures. This course explores entrepreneurship (and intrapreneurship) in both large and SME firm contexts, but with a focus on intangible services. The course theme is on best practice in innovation in services and identifying a range of successful organisational responses to current technological opportunities and market imperatives. Specifically the course will focus on: what opportunities and challenges do entrepreneurs face; and, how might their success be measured? Key topics might include: a typology of service products; entrepreneurial orientation; entrepreneurs - born or made?; intrapreneurship; industry analysis; assessment of internal resources and capabilities; customer value creation; and development of a business plan.

**SESV4003**  
**Tourism Policy and Planning**  
School of Marketing  
UOC6 HPW3  
Prerequisite: SERV4001  
This capstone course integrates the knowledge developed in Fundamentals of Tourism, Tourism Law/Economics of Tourism and Destination Marketing into a course that uses government policy and planning as the conceptual framework. It examines the importance of tourism policy and planning in terms of sustainable tourism development, addressing the central role of tourism public policy making. The course analyses a range of critical factors such as carrying capacity, yield management and risk management. It focuses on sustainable tourism development to explain the links between these factors and tourism policy and planning.

**SESC1001**  
**Safety, Health and Environment**  
School of Safety Science  
UOC6 HPW4  
The course introduces students to the main issues of safety, health and environmental (SHE) science. Themes and inter-relationships are explored using scenarios based in the workplace, community and environment. SHE as an integrated concept.  
**Notes:** Only available to students who require more than 48 UOC to complete their degree requirements.  
Also offered in off-campus mode in all sessions.

**SESC1580**  
**Risk Management 1**  
School of Safety Science  
UOC3 HPW4  
Exclusions: ESCC6610 and students undertaking a major or minor in the BSC (3970) in Safety Science  
This course provides an introduction to risk management in aviation. Risk management is first treated generally but more detailed examples focus on safety health and environmental risks. The course covers the nature of risk and the process of managing risk.  
The range of risks of relevance to aviation are identified and ranked as an introduction to qualitative risk assessment. The course then covers OHS and Major Hazards legislation and general safety issues in aviation. Statistical analysis and fault and event tree analyses are used to demonstrate examples of quantitative risk assessment. Safety. Quality and Environmental management systems are discussed with reference to ISO9000, ISO14000 and AS/NZS4804.  

**SESC2091**  
**Safety, Health and Environmental Hazards**  
School of Safety Science  
UOC6 HPW4  
This course introduces students to safety health and environmental hazards, including chemical hazards, atmospheric contaminants, biohazards and psychological risks. The course also introduces epidemiology as a means of studying these hazards by examining safety, health and environmental case studies.

**SESC2451**  
**Biomechanics for Sports Scientists**  
School of Safety Science  
UOC6 HPW5  
Students study the basic principles of biomechanics and apply these to the analysis of sports. Basic mechanics (statics, kinematics and dynamics) is studied in two and three dimensions. Human movement measurement methods are introduced. The mechanics of the musculoskeletal system are studied in detail in human gait - walking, running and jumping. This will integrate students’ understanding of mechanics with functional anatomy through the study of normal gait dynamics, muscle function, work and power. Aerodynamics and hydrodynamics are introduced and explained through the analysis of throwing and swimming.

**SESC2580**  
**Risk Management 2**  
School of Safety Science  
UOC3 HPW2  
This course provides an introduction to the management process with a focus on operational risk issues. The process is demonstrated in case study examples involving business and safety decisions. The second half of the course identifies problems which could lead to emergency situations then considers the planning required for different types of emergency. The course covers writing emergency procedures, emergency plans, setting up an emergency control centre, running an emergency exercise and the links with the state emergency services.  
While there is an emphasis on application to the aviation industry the course is of relevance to other disciplines.

**SESC2800**  
**Fundamentals of Toxicology**  
School of Safety Science  
UOC3 HPW2  
An introduction to the underlying principles of toxicology. It provides an introduction to chemical, biochemical and cellular principles. The course is aimed at students who have not previously studied chemistry or biology.

**SESC3020**  
**Occupational Health and Safety Law 1**  
School of Safety Science  
UOC3 HPW3  
This course outlines the legal regime for the regulation of occupational health and safety in Australia. It deals with occupational health and safety legislation; relevant case law; duty of care of employers, controllers of premises and suppliers and manufacturers; risk management obligations; duty of employees. The course also covers public policy issues regarding legal reforms of occupational health and safety.  
**Note:** Also offered in off-campus mode in S2.

**SESC3030**  
**Occupational Health and Safety Law 2**  
School of Safety Science  
UOC3 HPW3
This course extends concepts of law introduced in SESC3020, and covers other workplace legislation and procedures, such as consultation obligations, reporting obligations, incident response and investigation, and workers compensation and rehabilitation obligations.

Assumed knowledge: SESC3020

SESC3091
Safety, Health and Environmental Practice
School of Safety Science
UOC6    HPW3
A workplace assessment based course, where students are required to report on the safety, health or environmental issues of management following visits to a number of diverse industrial sites.

Assumed knowledge: SESC3101

SESC3101
Risk Assessment and Safety Engineering
School of Safety Science
UOC6    HPW4
Risk management requirements and responsibilities in safety legislation. Methodologies of risk identification and assessment. Application of principles of risk identification, assessment and control to a range of engineering safety problems including manual materials handling, mechanical plant and equipment, pressure vessels, confined spaces, fire and explosion, noise, whole body vibration, ionising and non ionising radiation, electrical safety, workplace design and ergonomics and safety in construction.

SESC3310
Social Issues in Science and Technology
School of Safety Science
UOC3    HPW2
This course is an objective 5 course which covers social issues arising from future scientific and technological developments and the role that the professional engineer or scientist can play in influencing future directions.

The course is taught through a combination of group activities, case studies, projects and seminars, and covers four major topic areas: professional ethics, environment-related issues, safety and liability, and controls of future technology.

SESC3451
Human Movement Measurement Methods
School of Safety Science
UOC6    HPW6
Prerequisite: SESC2451.

Students study the theory and practice of human movement measurement.

The course is taught through lectures and laboratory sessions. Students learn 2D video measurement techniques and how to apply these to the study of human movement. Electromyography, force, temporo-spatial, balance and postural measurement and analysis methods are studied, as well as instrumentation data processing and analysis methods.

Methods for the study of human movement and skills, including gait, electromyography and sporting skills are covered in laboratory sessions.

SESC3541
Assessment of the Workplace Environment
School of Safety Science
UOC6    HPW4
This course is designed to give students an opportunity to learn and apply methods and techniques used to assess the workplace and the environment. The course is based on measurements in the working and external environment. Topics are selected from measurement and evaluation of noise, lighting, vibration, ventilation, air quality, thermal environment, radiation, chemical hazards, slip resistance etc. Assessments are carried out on sites in and around UNSW.

Assumed Knowledge: SESC3101

SESC3601
Safety, Health and Environmental Management Systems
School of Safety Science
UOC6    HPW4
Excluded: SESC6610.

This course deals with the ways in which work can affect the health of workers. Covers occupational diseases and injuries of skin, respiratory system, nervous system, reproductive system, the musculoskeletal system, kidneys and occupational cancer.

Assumed knowledge: ANAT2151

Note: Also offered in off-campus mode in Session 1

SESC4010
Project Research Methods
School of Safety Science
UOC6    HPW3
This course is the preparation for the fourth year project in safety science. It covers issues in research methodology, including literature searching, problem formulation, null and alternative hypotheses, qualitative and quantitative research designs, statistical inference and the analysis of quantitative data, and a research report. Students will be expected to be able to recognise and avoid common methodological problems in research.

SESC4211
Risk Management
School of Safety Science
UOC6    HPW3
This course gives an overview of Risk Management following the format of the Australian Standard in Risk Management (AS4360).

Tools and techniques applicable to each step of the risk management process are discussed, using examples applicable to the class. The same risk management process is applied to manage a wide range of business issues including health and safety, the environment, finance and project management. This course is therefore relevant as part of a wide variety of programs, and students from any program are accepted.

Students select examples for exercises to suit the industry and role in which they work (or intend to work). At the end of the course, students should be able to use risk management tools applicable to their specific interest and have an awareness of tools used in other industries and applications.

SESC4410
Ergonomics 2
School of Safety Science
UOC3    HPW3
Covers displays and controls, design of human-machine-environment systems, job design and work organisation, design of workplaces, the physical environment and an introduction to product design.

Assumed knowledge: SESC2091, SESC3101

SESC4820
Chemical Safety and Toxicology
School of Safety Science
UOC3
This course provides an outline of the toxicological, occupational hygiene and environmental aspects of chemical hazards and exposures. Atmospheric contaminants, metals, solvents, pesticides, carcinogens, hazardous wastes and dioxins are used as case studies.

Assumed knowledge: SESC2091

Note: Short Course mode in S1 (compulsory 2 day workshop plus assessable tasks completed subsequently). Also offered in off-campus mode in S1.

SESC4850
Management of Dangerous Materials
School of Safety Science
UOC3
Chemicals legislation, the dangerous goods system, the hazardous substances regulation and systems for management of hazardous wastes, and systems for management of chemicals in the workplace.

**Note:** Short course mode in Semester 2 (compulsory 2-day workshop plus assessable tasks completed subsequently). Also offered in off-campus mode in Semester 2.

**SLSP1000**
**Social Science and Policy**
School of Social Science and Policy
UOC6  HPW3
Explores the nature of social science, the knowledge and information created by it, and how this is applied to real world policy problems. These applications are examined in the context of a range of policy areas drawn from health, education, environment and social policy. Investigates how policy is developed, changed, implemented and evaluated and the role social science plays in this process. Considers practical, political and ethical problems encountered by social scientists in applying their knowledge and skills to inform policy and the role social science plays in the management of social change.

**SLSP1002**
**Introduction to Policy Analysis**
School of Social Science and Policy
UOC6  HPW3
An introduction to the social, political and organisational context of policy making. Includes the governmental and legal framework within which public policy is made; organisations and policy; the role of interest groups and the media. Provides skills in the use of such technologies and in the design, conduct and analysis of social research and considers the utilisation of such research in management and decision making.

**SLSP2000**
**Political Economy and the State**
School of Social Science and Policy
UOC6  HPW3
Prerequisite: 36 units of credit; Excluded: PECO2000
An interdisciplinary overview of the making of economic policy and the institutional structure in which it occurs. Considers how theory informs and legitimates policy choices and how policies are dependent on historical, social and economic contexts. Major current policy case studies are used to evaluate policy implementation in Australia and internationally.

**SLSP2001**
**Applied Social Research 1**
School of Social Science and Policy
UOC6  HPW4
Prerequisite: 36 units of credit
Issues and problems in conducting social research in applied contexts. Research methods and the analysis of data: qualitative and quantitative research methods, techniques for the analysis of data including inferential statistics, the use of statistical data packages and methods of qualitative data analysis. Reporting research findings and ethical issues in research.

**SLSP2002**
**Policy Analysis Case Studies**
School of Social Science and Policy
UOC6  HPW3
Prerequisite: SLSP2000
Examines the role of the social scientist in policy work, exploring both theoretically and practically the policy/action relationship. Case studies in policy work are introduced in workshops to develop practical skills in dealing with policy implementation issues.

**SLSP2701**
**The Theory and Practice of Development**
School of Social Science and Policy
UOC6  HPW3
Prerequisite: 36 units of credit; Excluded: COMD2000, GLST2104, INST2400, POLS2023
The theories developed to explain the different rate and pattern of economic and social development within and between countries and regions and the policy consequences of these explanations are analysed and compared. The theories covered include explanations for different rates of development internal and external to nation states based on social, market, technological and other factors. Significant case studies of policy experience from Latin America and Asia, where a variety of economic and social policy approaches have been adopted are examined. The current status of debates about the nature of underdevelopment and its solutions is reviewed.

**SLSP2820**
**Crime and Punishment in Historical Perspective**
School of Social Science and Policy
UOC6  HPW3
Prerequisite: 36 units of credit
Examines the historical development of key institutions and practices of modern law, enforcement and punishment. Traces the evolution of crime and ‘criminals’, the legal code, police forces transportation versus the prison, and other components of the criminal justice system from the end of the 18th century through to the present day, and the thinking behind these developments. The lecture series provides an overview, focusing on Britain with reference to continental Europe, the United States, and Australia; tutorials explore a series of policy case studies.

**SLSP3000**
**Social Theory and Policy Analysis**
School of Social Science and Policy
UOC6  HPW3
Prerequisite: SLSP2000
Addresses the way that the application of the social sciences to policy questions involves theorising - that is, the construction and application of abstract concepts - by both observers and practitioners. The place of theory in the production of knowledge, and the way in which knowledge is reflected in the organising of social order, are subject to critical review. Tracks the development of ideas in the social sciences, including contemporary debates about modernism and post modernism, and investigates their impact on policy.

**SLSP3001**
**Applied Social Research 2**
School of Social Science and Policy
UOC6  HPW4
Prerequisite: SLSP1001, SLSP2001 or enrolment in Program 4036
Characteristics of applied social research. Planning applied research: Specifying research questions, writing research proposals. Applied research designs and their strengths and limitations: Randomised and quasi-experiments, surveys, case studies, field research & qualitative research designs. Issues in data collection: choice of method, considerations of time and cost, consultation with stakeholders, operationalisation of concepts including social measurement and scale construction. Analysis of applied research data: qualitative and quantitative techniques including qualitative data analysis, analysis of variance, correlation, multiple regression analysis, analysis of contingency tables. Use of SPSS for data analysis. Reporting and interpreting research outcomes. Ethical issues and utilisation of research findings.
Students undertake a major social science research project in one of several policy areas. The project involves bringing together the research and analytical skills necessary for policy-related work and will involve students in all phases of the project. This includes preparation of a literature review and a research proposal, the conduct of research, and the writing of a report embodying the results of the research.

**SLSP3911 Inquiry and Interpretation in the Social Sciences**  
School of Social Science and Policy  
UOC6. HPW3  
Prerequisite: SLSP3000, SLSP3001  
Examines the conceptual foundations of the social sciences both historically and currently, to provide an understanding of the theoretical dimensions of social science research and their methodological implications.

**SLSP4000 Social Science and Policy Honours (Research) Full-Time**  
School of Social Science and Policy  
UOC24. HPW5  
Prerequisite: 48 units of credit in SLSP and SLSP3911 at an average of at least 65% and permission from Head of School  
Students are required to prepare a thesis of between 15,000 - 20,000 words. Participation in prescribed seminars of at least four hours duration per week is also required.

**SLSP4050 Social Science and Policy Honours (Research) Part-Time**  
School of Social Science and Policy  
UOC12. HPW3  
Prerequisite: 48 units of credit in SLSP and SLSP3911 at an average of at least 65% and permission from Head of School  
Students are required to prepare a thesis of between 15,000 - 20,000 words. Participation in prescribed seminars of at least four hours duration per week is also required.

**SLSP4100 Policy Studies Honours (Research) Full-Time**  
School of Social Science and Policy  
UOC24. HPW5  
Prerequisite: 54 units of credit at 65% including SLSP1002, SLSP2000, SLSP2002, SLSP3000, SLSP3911 and permission from Head of School  
Students are required to prepare a thesis of between 15,000 - 20,000 words. Participation in prescribed seminars of at least four hours duration per week is also required.

**SLSP4150 Policy Studies Honours (Research) Part-Time**  
School of Social Science and Policy  
UOC12. HPW3  
Prerequisite: 54 units of credit at 65% including SLSP1002, SLSP2000, SLSP2002, SLSP3000, SLSP3911 and permission from Head of School  
Students are required to prepare a thesis of between 15,000 - 20,000 words. Participation in prescribed seminars of at least four hours duration per week is also required.

**SLSP4500 Combined Social Science and Policy Honours (Research) Full-Time**  
School of Social Science and Policy  
UOC12. HPW2  
Prerequisite: 48 units of credit in SLSP and SLSP3911 at an average of at least 65% and permission from Head of School  
Students are required to complete a research and seminar program acceptable to both Social Science and Policy and the other school/department.

**SLSP4550 Combined Social Science and Policy Honours (Research) Part-Time**  
School of Social Science and Policy  
UOC6. HPW2  
Prerequisite: 48 units of credit in SLSP and SLSP3911 at an average of at least 65% and permission from Head of School  
Students are required to complete a research and seminar program acceptable to both Social Science and Policy and the other school/department.

**SOCA1002 Australian Society**  
School of Sociology and Anthropology  
UOC6. HPW3  
Excluded: SOCI1232  
In exploring some of the major dimensions of Australian society, this introductory course analyses the institutional patterns from a range of sociological perspectives. Topics covered include: family and intimacy, youth and identity, poverty, unemployment, the influence of the media and the global context of Australian social life.

**SOCA1004 Relationships: Sociology and Everyday Life**  
School of Sociology and Anthropology  
UOC6. HPW3  
Excluded: SOCC1311, SOCA1300  
Works through longstanding concerns of sociology with the qualities of self and sociality, with what it means to live in relation to others. Aims to enhance the productive tension between ways of knowing and ways of living and to teach particular skills in reading, writing and researching. Among the topics considered are ritual, passion, intellectuality, enchantment, estrangement, play, inspiration, sympathy and humility. Among the theorists are Durkheim, Sartre, Bachelard, Simmel and Buber.

**SOCA1005 Australia's Media: Sociological Perspectives**  
School of Sociology and Anthropology  
UOC6. HPW3  
Excluded: SOCC1311, SOCA2900  
Introduces students to theoretically informed examination and analysis of the mass media based upon sociological intellectual traditions which address the mediation of social relations, the social construction of everyday life and the formation of socially constructed and culturally inflected personal and collective identities. Explorations of newspapers, television, film and electronic communications set in the context of patterns of ownership and control produce new understandings of culture, ideology and social processes.

**SOCA1006 Introduction to Globalisation**  
School of Sociology and Anthropology  
UOC6. HPW3  
Excluded: GLST1100, INST1003  
Considers how the transnational flows of people, goods, culture and capital are changing the significance of locality and national societies in shaping social life. Examines questions of belonging by looking at migration, refugees and citizenship. Looks at the emergence of global culture through a study of the emergence of global and multicultural cities, new patterns of consumption for pleasure, and the role of media and communications in globalisation. Explores the issues of global governance and examines the cultural and political responses to globalisation in anti-globalisation movements, fundamentalism and economic strategies.

**SOCA2103 Globalisation and Fragmentation**  
School of Sociology and Anthropology  
UOC6. HPW3  
Excluded: INST2200, GLST2100  
Examines the effects of globalisation on peoples’ lives in different parts of the world. Explores the impact of transnational flows of culture, goods, technology and power and their impact on local worlds. Explores concepts such as: globalised culture, identity, frontiers, diaspora, de-territorialisation, virtual communities, the commodification of health and bodies, the formation of global multicultural cities, globalised religion, the experience of war and destabilised states, risk and vulnerability, new forms of sociality, human rights as a global discourse and social futures.
The subject of desire is an especially curious one because it makes us think about the nature of the human condition. The perception of difference is an erotic process through which we are forged as bodily beings whose identities are constantly shifting. Explores how our sense of self emerges in relation to others. How we divide our own bodies into alien parts that may delight or repulse us is part of a larger social process that includes how we experience the world, how we live our sex, sexuality and cultural difference. Will draw on several continental thinkers.

SOCA2206

Embodiment
School of Sociology and Anthropology
UOC6 HPW3
Prerequisite: 36 units of credit; Excluded: SOCC2501, WOMS2106
We are lived bodies inhabiting a world. Addresses a range of themes which emerge when we reflect upon ourselves in this way: I am a body, but I am both sentient and sensible. Consideration of such themes requires an investigation of theoretical constructs of the social and cultural formations of embodied subjectivity, the relations of consciousness and flesh, habit and inhabitation, the significance of body image, relationality and emotions. Major theorists include Merleau-Ponty, Foucault, Douglas, Turner, Bachelard and Lingis. Case studies such as reproduction, sacred and profane bodies, bodybuilding and anorexia, dissociation and disembodiment, illness, will be used to enable students to reflect upon their own embodied experience, to examine critically everyday and theoretical assumptions, and to develop skills in qualitative analysis.

Note: Offered by distance mode. Students attend a two hour introductory meeting on the commencement day. All further work is done via the internet. Students should consult the online timetable for further details.

Contact: Frances Lovejoy <f.lovejoy@unsw.edu.au>

SOCA3104

Global Migration, Global Refugees
School of Sociology and Anthropology
UOC6 HPW3
Prerequisite: 12 units of credit in Level 1 Sociology and 36 units of credit overall; Excluded: SOCC2702
Considers both voluntary and involuntary migration: from business migration and family reunion to various forms of exile and refugee flows. The social consequences of migration on the host society, the country of origin, and the migrant will be examined in light of questions of human solidarity, neighbourliness and justice.

SOCA3203

Oceanic Societies: Pacific Island Living
School of Sociology and Anthropology
UOC6 HPW3
Prerequisite: 36 units of credit; Excluded: SOCC3702
Provides students with the historical and intellectual context of the study of the Pacific Islands, including the conceptual and theoretical tools needed to comprehend the more than one thousand societies and cultures there. The broad outlines of the waves of human settlers in the region are explored, followed by discussions of specific topics, in selected locales, that best represent the rich diversity of the region. Topics include suicide, art and creativity, religion and sorcery, chieftainship, relations with the environment and how islanders see themselves in their worlds.
SOC3206
Anthropology of Celebration
School of Sociology and Anthropology
UOC6 HPW3
Prerequisite: 36 units of credit
Presents a series of key debates in the social anthropological literature of the last decade with the common theme of understanding celebration and the crucial role of play in human culture, inspired by Huizinga's concept of "homo ludens". Festivals, carnival, religious and secular ceremonial, rites of passage in culture and individual identity, global sport, visual anthropology, food, music and dance performance are some of the celebrations examined.

SOC3208
Colonisation and Indigenous Identity Formation
School of Sociology and Anthropology
UOC6 HPW3
Prerequisite: 36 units of credit; Excluded: ATS13001, SOCC3701
Investigates the formation of contemporary Indigenous identities in the context of the ongoing colonisation of Australia. Explores the interplay between culture and identity and analyses the various historical and academic constructions of Aboriginality. The history of imposed colonial notions of Aboriginal identity and their consequences for both Aboriginal people and non-Indigenous Australians are identified and examined. The use of contemporary media such as film, television, literature and art are examined as case studies in the analysis of contested identities.

SOC3209
Indigenous Australia: Gendered Identities
School of Sociology and Anthropology
UOC6 HPW3
Prerequisite: 36 units of credit; Excluded: ATS13002, AUST2012, SOCC3717
Encourages students to engage in a critical analysis of the way in which gender influences and structures the experiences of Aboriginal women and men in the past and the present. A wide range of issues involving gender roles will be covered including land, art, activism, feminism, violence, race, and literature. Particular attention will be paid to colonial constructs of gender roles within Aboriginal communities. Aboriginal women's and men's roles in subverting the colonisation of their identities will be explored.

SOC3210
Whiteness Beyond Colour: Identity and Difference
School of Sociology and Anthropology
UOC6 HPW3
Prerequisite: 36 units of credit; Excluded: ATS13005
Whiteness is generally assumed to be the norm in classifying difference. It is also assumed to be neutral. Delves into whiteness as a mode of identification and whether it can be assumed to be the norm as well as neutral. Topics include whiteness as Other, whiteness as a non-Indigenous identity, and whiteness in coloniser societies. Explorations of whiteness as a representation of oppression and as transformation will be addressed.

SOC3211
Development and Modernity
School of Sociology and Anthropology
UOC6 HPW3
Prerequisite: 36 units of credit
Investigates the parameters of contemporary development and the ways they affect our lives and the lives of others. Takes a historical approach to examine how the 'development project' arose out of the decline of colonialism and the rise of the Cold War, and how this 'project' was eventually supplanted by a quite different set of processes. Covers various topical areas including population pressures, urbanisation, the world food crisis, women and the international division of labour, foreign aid and NGOs, sustainable development, and the ethics of intervention.

SOC3212
Environment, Society and Culture
School of Sociology and Anthropology
UOC6 HPW3
Prerequisite: 36 units of credit
Examines environmental issues from a sociological viewpoint, analysing the social causes and consequences of resource scarcity and environmental degradation, and looks at societal responses to these problems. From this perspective, environmental problems are viewed as social problems, requiring an understanding of the social conditions that produce environmental problems and affect the extent and nature of solutions to them. Topics include who defines environmental problems; economic production practices; environmental movements; the global nature of environmental problems; environmental policy; a history of human modes of production and consumption; the role of culture in environmental problems; environmental justice; and environmental sustainability.

SOC3301
Critical Reason: Modern Sociological Theories
School of Sociology and Anthropology
UOC6 HPW3
Prerequisite: 6 units of credit in Level 1 Sociology and 36 units of credit overall; Excluded: SOCI3502
On the basis of classical sociological theory, proceeds to an in-depth elaboration of some of the most significant theoretical trends (e.g. phenomenology, structuralism, psychoanalysis, critical theory) and their place in the study of society.

SOC3407
Australian Migration Issues
School of Sociology and Anthropology
UOC6 HPW3
Prerequisite: 36 units of credit; Excluded: AUST2011, GENT1209, SOCI3614
An examination of racial, ethnic and social issues surrounding migration to Australia. Topics include an ecologically sustainable population; globalisation and international migration flows; brain drain to and from Australia; multiculturalism; criteria in determining migration policy; settlement issues; skilled migrants; refugees, international aid and social justice; identity, ethnicity and community.

SOC3409
Crime, Gender and Sexuality
School of Sociology and Anthropology
UOC6 HPW3
Prerequisite: 36 units of credit; Excluded: GENT1207, WOMS2007, WOMS3006
Examines social implications of: the role of law in defining the limits of gender and sexuality, regulating gender and sexual relationships, and in reinforcing particular gender and sex based interests; the intersection of criminality and sexuality (specific examples may include pornography, rape, discrimination, AIDS transmission, moral danger, prostitution, abortion, underage pregnancy). Notions of public interest, privacy and consent in matters of gender and sex. The interaction of gender and sexuality with other stratification factors such as age, class, disability, ethnicity and race in the social construction of crime.

SOC3410
Deviance
School of Sociology and Anthropology
UOC6 HPW3
Prerequisite: 36 units of credit; Excluded: SOCA2208
Examines a variety of definitions of deviance to include both legally proscribed activities such as arson, vandalism, and assault; and socially sanctioned activities, states and phenomena such as nudism, promiscuity, acne, obesity, stupidity, pollution and pornography. Reviews theories of how deviance is maintained or controlled. Considers the making, changing and breaking of rules in society, especially in times of social change when new forms of deviance may emerge (e.g. smoking, sexual harassment) or other activities gain social acceptance (e.g. higher education for women, ethnic diversity).

SOC3411
Forensic Sociology: Evidence, Implication and Responsibility
School of Sociology and Anthropology
UOC6 HPW3
Prerequisite: 36 units of credit
Examines the similarities between sociology and crime scene investigation by examining how isolated and seemingly random pieces of data are actually embedded in larger frames of social and informational significance. Considers how these larger patterns of association can provide predictive relevance and meaning. Beginning with Durkheim's foundational work on suicide, the course explores the interpretive approach called semiology, the science of reading signs. Several CSI tools, such as forensic facial reconstruction and fingerprinting, illustrate the empirical and philosophical implications of this method.
investigates economic and social contributions to life satisfaction, quality of
life and happiness over the life-cycle. Looks at friendship, leisure, income,
family, employment, consumption and health, and at different values and
constructions that are placed on these factors by individuals, communities,
socio-economic groupings and policy makers. Connects with competing understandings of the self and its relation to legal and economic systems and examines the consequences for identity, trust, citizenship, and rights in Australian society.

SOCA3605
Quality of Life in Australia
School of Sociology and Anthropology
UOC6 HPW3
Prerequisite: 36 units of credit; Excluded: SOCI3507
Investigates economic and social contributions to life satisfaction, quality of
life and happiness over the life-cycle. Looks at friendship, leisure, income,
family, employment, consumption and health, and at different values and constructions that are placed on these factors by individuals, communities, socio-economic groupings and policy makers. Connects with competing understandings of the self and its relation to legal and economic systems and examines the consequences for identity, trust, citizenship, and rights in Australian society.

SOCA3607
Sociology of Ageing
School of Sociology and Anthropology
UOC6 HPW3
Prerequisite: 36 units of credit
Considers historical legacies in social attitudes to ageing; wider economic and political processes such as the role of the state and social policies concerned with aged care, health and pensions; media representations of ageing; implications of an ageing workforce; consumer, attitudinal and political preferences of various aged cohorts; and new family and intergenerational relationships. Of particular relevance for students with interests in public policies and services for an ageing society. Addresses the professional interests of people who work in gerontology and public health, aged care, superannuation and retirement income consulting.

SOCA3702
Social Power: Theories and Structures
School of Sociology and Anthropology
UOC6 HPW3
Prerequisite: 36 units of credit; Excluded: SOCI3504
The main aims include: to acquaint the students with some of the most
significant ongoing theoretical debates on power, its forms and structures; to sensitise them to the more subtle or inconspicuous forms of power, and to provide them with the skills necessary for the conceptualisation of the everyday phenomena of power.

SOCA3703
Nationalism, Citizenship and Cultural Identity
School of Sociology and Anthropology
UOC6 HPW3
Prerequisite: 36 units of credit; Excluded: SOCI3506
Explores different forms of contemporary nationalism, its main sources, various levels of its construction, and its political employment. Investigates the resurgence of nationalism against the background of globalisation and the connected processes of dislocation and relocation. Focuses on the numerous anamologies resulting from these processes, including that between democratic citizenship and formation of collective and individual identities. Addresses some of the theoretical perspectives concerning the potential of multiculturalism for the formation of non-exclusive, open identities.

SOCA3806
Medicine, the Body and Culture
School of Sociology and Anthropology
UOC6 HPW3
Prerequisite: 36 units of credit; Excluded: SOCI3604
Presents an overview of sociological and cultural studies of the relationship between medical knowledge and practice, the experience of health and illness and contemporary society. Focuses particularly on the ways medicine affects the experience, understanding and performance of the body; the effect of medical intervention on the organisation of sexuality, illness and aging; the decentralisation of medical knowledge and the changing status of the doctor-patient relationship.

SOCA3912
Risk and Trust in Modern Societies
School of Sociology and Anthropology
UOC6 HPW3
Prerequisite: 36 units of credit including at least 6 units of credit in Sociology at credit level; Excluded: SOCA3302, SOCI3508
Detached from local contexts, mechanisms of risk-production are increasingly impersonal. Responsibility for managing risk is assumed by the same powerful agencies that create it, while traditional structures of risk-containment (such as kinship, locality, and religion) are dissolving. This process poses questions about how people cope with risk and about new forms of social solidarity that might support social trust and confidence.

SOCA4000
Sociology Honours (Research) Full Time
School of Sociology and Anthropology
UOC24 HPW3
Prerequisite: 54 units of credit in SOCA at 70% average including 12 upper Level in the SOCA3810 - 3915 range
The Honours program consists of research and writing a thesis and coursework. The thesis is a sustained research project which produces an Honours thesis of approximately 16,000 - 20,000 words. Coursework for Honours consists of two compulsory Honours seminars and a thesis research and writing workshop.

Note: Before enrolling in the Honours program, students are required to attend an interview about their proposed research with the Honours coordinator.

SOCA4050
Sociology Honours (Research) Part Time
School of Sociology and Anthropology
UOC12 HPW2
Prerequisite: 54 units of credit in SOCA at 70% average including 12 upper Level in the SOCA3810 - 3915 range
In special circumstances, students may be permitted to enrol in an Honours program on a part-time basis. Students will thus complete their Honours program over the course of two years. This program consists of research and writing a thesis and coursework. The thesis is a sustained research project which produces an Honours thesis of approximately 16,000 - 20,000 words. Coursework for Honours consists of two compulsory honours seminars and a thesis research and writing workshop.

Note: Before enrolling in the Honours program, students are required to attend an interview about their proposed research with the Honours coordinator.

SOCA4500
Combined Sociology Honours (Research) Full-Time
School of Sociology and Anthropology
UOC12 HPW2
Prerequisite: 48 units of credit in SOCA at 70% average including 6 upper level in the SOCA3810 - 3915 range
This program, designed by the relevant units in consultation with the student, is usually a jointly supervised and jointly examined thesis, with required seminar work being divided equally between the units. In addition to seminar and thesis work, students are required to attend and contribute to regular thesis workshops.

Note: Students who have also qualified to read for a degree at Honours level in another school/department may, with the permission of both units, seek to read for a Combined Honours degree. The program, designed by the relevant units in consultation with the student, is usually arranged around a jointly supervised and jointly examined thesis, with required seminar work being divided equally between the units. In addition to seminar and thesis work, students are required to attend and contribute to regular thesis workshops.

SOCA4550
Combined Sociology Honours (Research) Part-Time
School of Sociology and Anthropology
UOC12 HPW2
Prerequisite: 48 units of credit in SOCA at 70% average including 6 upper level in the SOCA3810 - 3915 range
This program, designed by the relevant units in consultation with the student, is usually arranged around a jointly supervised and jointly examined thesis, with required seminar work being divided equally between the units. In addition to seminar and thesis work, students are required to attend and contribute to regular thesis workshops.

Note: In special circumstances, students may be permitted to enrol in a combined Honours program on a part-time basis. Students who have also qualified to read for a degree at Honours level in another school/ department may, with the permission of both units, seek to read for a Combined Honours degree. The program, designed by the relevant units in consultation with the student, is usually arranged around a jointly supervised and jointly examined thesis, with required seminar work being divided equally between the units. In addition to seminar and
thesis work, students are required to attend and contribute to regular thesis workshops.

**SOCW1001**  
*Introduction to Social Work*  
*School of Social Work*  
*UOC6  HPW3*  
Provides an overview and rationale for the BSW curriculum. Students are introduced to the scope and parameters of the social work profession, the diversity of levels and contexts of intervention, the range of theory and knowledge that informs social work practice, and the code of ethics that guides professional intervention. A variety of case studies and scenarios are used to illustrate this material. To reinforce the links between conceptual knowledge and practical application, contact will be made with a range of relevant agencies.

**SOCW1002**  
*Communication and Social Work Practice*  
*School of Social Work*  
*UOC6  HPW3*  
Excluded: Students enrolled in Program 3970 (Bachelor of Science) and Program 3972 (Bachelor of Advanced Science) are not permitted to enrol in this course.  
Provides an understanding of theories of communication and their application in the context of social work practice. Includes selected communication skills exercises. Provides an awareness of the ways effective communication can be used to achieve particular outcomes. Exploration of professional and personal value systems in relation to social work codes of ethics.

**SOCW1003**  
*Human Behaviour 1 (Life Stress and the Life Span)*  
*School of Social Work*  
*UOC6  HPW3*  
Excluded: Students enrolled in Program 3970 (Bachelor of Science) and Program 3972 (Bachelor of Advanced Science) are not permitted to enrol in this course.  
Looks at theories of stress which have influenced the way the topic is researched and applied today. The main theoretical underpinnings are critically examined for their relevance to particular types of stress or events and applicability across the life span. The role of the individual, the nature of coping and the relative importance of biological and environmental factors are explored. Also examines the theoretical underpinnings and empirical evaluation of stress management techniques.

**SOCW2001**  
*Human Behaviour 2 (Physical and Psychological Health)*  
*School of Social Work*  
*UOC6  HPW3*  
Sustains the biopsychosocial framework of Human Behaviour 1 to examine factors which influence the maintenance of health and the development of illness. The contribution that major theories of human behaviour make to our understanding of health and illness are critically evaluated. Interdisciplinary theoretical and empirical contributions are used to examine a range of themes related to health and illness. Social factors which influence our view of health, the disorders we research and the theories we accept are examined.

**SOCW2002**  
*Society and Social Work 1*  
*School of Social Work*  
*UOC6  HPW3*  
Explores the nature of society and the interrelationship between conceptual knowledge and social work practice with the emphasis on the Australian context. Students will examine concepts, theories and key social trends related to social work.

**SOCW2003**  
*Social Work Practice: Individuals, Families & Groups 1*  
*School of Social Work*  
*UOC6  HPW3*  
Prerequisite: SOCW1001 and SOCW1002  
Builds on the methods of social work practice that students were introduced to in earlier courses, namely counseling individuals and families and working with groups. Explores the referral context, assessment frameworks, contracting processes and termination as issues common to working with individuals, families and groups. Aims to equip students with skills of engagement, exploration and case management. Focuses on understanding models of group work, group development and process. Encourages critical appraisal of models of direct practice.

**SOCW2004**  
*Society and Social Work 2*  
*School of Social Work*  
*UOC6  HPW3*  
Explores further the study of social and political institutions and structures and their effect on social work. Builds on the use of theory to understand the link between policy and practice in diverse public and private arenas. Identifies crucial factors in the distribution of resources, status and power. Provides a foundation for the study of Social Policy 1 and 2.

**SOCW2005**  
*Research for Social Work*  
*School of Social Work*  
*UOC6  HPW3*  
Looks at the nature of research - in particular, research in a social context. Aims to equip students with basic skills in research design, data collection and analysis. In addition, the course presents concepts that will enable students to critically evaluate others' research. Covers information on descriptive and experimental research, and qualitative and quantitative approaches to design and analysis. Students will learn to apply basic techniques of data analysis, including inferential and descriptive statistics.

**SOCW2006**  
*Social Work Practice - Community Work*  
*School of Social Work*  
*UOC6  HPW3*  
Prerequisite: SOCW1001 and SOCW1002  
Analyses and critiques models and theories of community work within the contemporary social policy and economic and political context. Skills and knowledge required for effective practice are pursued. An emphasis is placed on issues of power, powerlessness and the collective processes that empower marginalised communities.

**SOCW2007**  
*Social Work Practice - Bridge*  
*School of Social Work*  
*UOC3*  
Corequisite: SOCW2003  
Through a set reading program, students are introduced to the scope and parameters of the social work profession, the diversity of levels and contexts of intervention, the range of theory and knowledge that informs social work practice, and the code of ethics that guides professional intervention.  
**Note:** Students who enter the BSW program with advanced standing take this course.

**SOCW2100**  
*Aboriginal People and Social Work*  
*School of Social Work*  
*UOC6  HPW3*  
Prerequisite: Enrolment in program 4031 or 4035 or 4036 or 4785; Excluded: ATSI3004  
Examines the history and current legacy of colonisation and government policies for Indigenous Australians and their position in contemporary Australian society. Social movements and actions relevant to Indigenous Australians' social experience will be discussed. Addresses in particular the skills social workers need to work with Indigenous clients and what role social work can play in progressing equity and social justice for Indigenous Australians.

**SOCW3001**  
*Social Work Practice - Third Year Practicum*  
*School of Social Work*  
*UOC12*  
Prerequisite: SOCW2003; SOCW2006; Corequisite: SOCW3002  
Students are allocated to a social welfare agency to undertake field-based learning under the supervision of a qualified field educator. Placements occur in a range of traditional and contemporary settings and contexts, such as hospitals, local governments, state and federal government departments, as well as non-government, community based organisations. Performance is monitored and assessed by the university, in consultation with relevant agencies.
with the field educator and student. This placement begins in mid-January with a six-week full-time block period, then reduces to three days a week during Session 1.

SOCW3002
Social Work Practice: Individuals, Families & Groups 2
School of Social Work
UOC6 HW3
Prerequisite: SOCW2003, SOCW2006
Examines direct practice within agency contexts and explores a range of models for working with individuals, families and groups. The systemic approach to understanding patterns of interaction and relationships provides an overarching framework for intervention choices applicable to individuals, families and groups. Focuses on students developing skills in group leadership and facilitating change processes with individuals and families.

SOCW3004
Social Policy 1
School of Social Work
UOC6 HW3
Basic Sociology is assumed for this course. Understanding of historical, ideological, political and economic backgrounds to Australian social arrangements is assumed. Policy analysis frameworks are introduced along with perspectives from various policy theorists and analysts. These are applied in the detailed discussion and analyses of major policies in policy domains such as health, housing, urban and regional, finance, transport and criminal justice. Comparative policy studies are used in several of these critical analyses.

SOCW3005
Research Honours
School of Social Work
UOC6 HW4
Offered as a pre-Honours course. Students are introduced to various forms of experimental, qualitative and survey research designs, forms of data collection and the development of measuring devices. Investigates validity and reliability concepts and correlation analysis and prediction of problems. Introduces multivariate analysis. Part of class time is allocated to working on individual project designs.

SOCW3006
Socio-Legal Practice in Social Work Settings
School of Social Work
UOC6 HW3
Explores the legal, professional and ethical opportunities and constraints of social work practice. Includes a consideration of the tensions and dilemmas of socio-legal practice through an examination of social work interventions in selected settings. Attention is paid to legal systems, legal concepts, law making processes, and sources of legal assistance and interactions between social workers and lawyers.

SOCW3007
Research Methods 2
School of Social Work
UOC6 HW3

SOCW3008
Social Work Practice - Selected Studies 1
School of Social Work
UOC6 HW3
Prerequisite: SOCW3001, SOCW3002
Students select from a range of specialised modules that build on the methods-based input of earlier practice courses. The range of topics varies from year to year, depending on staff availability and student interest.

SOCW4002
Social Work Practice in Organisations
School of Social Work
UOC6 HW3
Prerequisite: SOCW3001, SOCW3002, SOCW3008
Provides a critical and practical examination of social work practice in organisations. Introduces organisational and management theories and considers their relevance for social work settings. Examines the tensions inherent in professionalism and contemporary ideas about management and the management of change in organisations and the importance of planning and evaluating for change. Explores strategies for effective and ethical practice in organisations are examined. Issues-based and experiential learning provides a basis for the development of organisational skills, such as skills in negotiation, teamwork, program planning, supervision and the management of information.

SOCW4003
Social Work Practice - Selected Studies 2
School of Social Work
UOC6 HW3
Prerequisite: SOCW3001, SOCW3002
Students take a second selected studies component to complement that taken in SOCW3008.

SOCW4004
Social Philosophy
School of Social Work
UOC6 HW4
Introduces students to the basics of moral philosophy in the first part of the course and builds upon this in dealing with political philosophy in the second part. Begins with moral reasoning and moral theory and these topics introduce students to some of the central thinkers and the doctrines which have shaped modern understandings of ethics.

SOCW4005
Social Policy Honours
School of Social Work
UOC6 HW4
Prerequisite: SOCW3005
Offered as a pre Honours course. Understanding of historical, ideological, political and economic backgrounds to Australian social arrangements is assumed. Introduces students to the social policy processes of formulation, implementation and evaluation. Processes and elements of the policy analysis framework are utilised to closely examine some social policy domains (eg social security, education, employment) as well as the impact of several policies on the patterns of welfare experienced by people within major population groupings (eg immigrants, Aboriginal and Torres Strait Islander peoples).

SOCW4006
Social Policy 2
School of Social Work
UOC6 HW3
Basic Sociology is assumed for this course. Understanding of historical, ideological, political and economic backgrounds to Australian social arrangements is assumed. Introduces students to the social policy processes of formulation, implementation and evaluation. Processes and elements of the policy analysis framework are utilised to closely examine some social policy domains (eg social security, education, employment) as well as the impact of several policies on the patterns of welfare experienced by people within major population groupings (eg immigrants, Aboriginal and Torres Strait Islander peoples).

SOCW4010
Social Work Practice - Fourth Year Practicum
School of Social Work
UOC24 HW35
Prerequisite: SOCW3001, SOCW4002, SOCW4003; Excluded: SOCW4001
Building on the first placement experience, students are placed in a different social welfare agency to develop additional competencies and further enhance those already mastered at a basic level. By the end of this placement students need to demonstrate satisfactory performance in the full range of required competencies. Students are consulted about placement allocations. The placement is undertaken as a full-time block period, beginning in mid-July and extending throughout Session 2.

SOCW4800
Honours Thesis
School of Social Work
UOC24
Prerequisite: 144 units of credit in SOCW, at an average of 70% or higher, including SOCW3005 & SOCW4005 and permission from Head of School
Students work individually on an approved thesis topic in consultation with appointed supervisors. Students are required to attend prescribed seminars. The completion of this course is the submission of an acceptable honours thesis of 12,000-15,000 words at the end of session.

SOLA1050
Introduction to Photovoltaics, Solar Energy and Computing 1
School of Photovoltaic and Renewable Energy Engineering
UOC6 HPW4
An overview is given of solar energy, its harnessing and its conversion into electricity via various converter technologies. In particular, an overview is given of solar cells and their applications with emphasis on visual presentations and interesting case histories. The interesting area of “solar cars” is considered in detail as an example of a high profile application of photovoltaic (PV) devices and systems that deals with state-of-the-art technology. Students will also gain experience in computer programming particularly with the C++ language. Trends in the PV industry are considered, particularly with regard to costs, industry growth and technology innovation. Insight is given into the types of jobs carried out by PV engineers including manufacturing, research, system design, system analysis and fault diagnosis, policy and analysis, marketing, quality control and testing, training/education, maintenance, electronics design and interfacing, etc. In general, one lecture each week will be given by guest lecturers who are experts from industry, end-user groups, research, government and other major areas of photovoltaics that are covered in this degree program.

SOLA1051
Introduction to Photovoltaics, Solar Energy and Computing 2
School of Photovoltaic and Renewable Energy Engineering
UOC3 HPW3
An overview is given of solar energy, its harnessing and its conversion into electricity via various converter technologies. In particular, an overview is given of solar cells and their applications with emphasis on visual presentations and interesting case histories. The interesting area of “solar cars” is considered in detail as an example of a high profile application of photovoltaic (PV) devices and systems that deals with state-of-the-art technology. Trends in the PV industry are considered, particularly with regard to costs, industry growth and technology innovation. Insight is given into the types of jobs carried out by PV engineers including manufacturing, research, system design, system analysis and fault diagnosis, policy and analysis, marketing, quality control and testing, training/education, maintenance, electronics design and interfacing, etc. In general, one lecture each week will be given by guest lecturers who are experts from industry, end-user groups, research, government and other major areas of photovoltaics that are covered in this degree program.

SOLA1055
Introduction to Renewable Energy Technologies 1
School of Photovoltaic and Renewable Energy Engineering
UOC6 HPW4
An overview is given of solar energy, its harnessing and its conversion into electricity via various converter technologies. In particular, an overview is given of solar cells and their applications with emphasis on visual presentations and interesting case histories. The interesting area of “solar cars” is considered in detail as an example of a high profile application of a Renewable Energy system that deals with state-of-the-art technology. Trends in the RE industry are considered, particularly with regard to costs, industry growth and technology innovation. Insight is given into the types of jobs carried out by RE engineers including manufacturing, research, system design, system analysis & fault diagnosis, policy & analysis, marketing, quality control & testing, training/education, maintenance, electronics design & interfacing, etc. Students will learn about the importance of computers to the RE industry and receive a basic grounding in programming and CAD packages. Many lectures will be given by guest lecturers who are experts from industry, end-user groups, research, government and other major areas of Renewable Energy that are covered in this degree program.

SOLA1060
Chemical Processes for Renewable Energy Systems
School of Photovoltaic and Renewable Energy Engineering
UOC3 HPW3
Introduction to the chemical processes associated with photovoltaic devices and systems with particular emphasis on the fabrication of solar cells. Revision of high school chemistry and its relevance to photovoltaic devices and corresponding systems. Revised material includes: atomic and molecular structure and bonding; chemical equilibrium; rates of reactions; ionic equilibria; metals, electrochemistry and corrosion; electrical properties of materials including metals, insulators and semiconductors. Emphasis will be placed on the application of these chemical principles to photovoltaic engineering. Examples include: junction formation through doping in semiconductors; oxidation and reduction reactions in semiconductor processing; corrosion in photovoltaic systems leading to a study of cathodic protection and life expectancy; storage of energy; and chemical handling and safety.

SOLA1172
Solar Architectural Technologies
School of Photovoltaic and Renewable Energy Engineering
UOC9 HPW6
Introduction to solar architecture principles for engineers. The use and effectiveness of electricity generation from renewable energy sources in buildings and domestic housing are considered in relation to energy efficient housing and effective solar utilisation. This course includes the material and lecture program from ARCH1172 “Architectural Technologies 2”.

SOLA2020
Photovoltaic Technology and Manufacturing
School of Photovoltaic and Renewable Energy Engineering
UOC6 HPW4
Sufficient theory relating to the operating principles of solar cells is covered to give an appreciation of the strengths and weaknesses of the dominant commercial cell technologies. Trends in commercial cell technology and the corresponding manufacturing processes and environment are considered. The impact of various processing and device parameters on performance, yields and product reliability are studied. Insight is given into complete production processes for both screen-printed solar cells and buried contact solar cells. In-line quality control techniques are studied with laboratory classes used to give students first-hand experience in their use as well as exposing them to manufacturing processes. Students will also be given the opportunity to take control of the “virtual production line” to adjust the equipment controls and processing parameters to try and optimize performance and maximize yields, etc. In-line quality control procedures are available to the student to aid in this optimization and will prove to be particularly useful in identifying and rectifying computer generated faults associated with the production. Other laboratory work focuses on the use, measurement and analysis of encapsulated modules of cells. Modules with a range of faults are examined and techniques for fault diagnosis developed.

SOLA2051
Project in Photovoltaics and Solar Energy 1
School of Photovoltaic and Renewable Energy Engineering
UOC6 HPW5
Satisfactory performance in SOLA2051 is a prerequisite for progress to SOLA2052. Each student is required to prepare for assessment a project proposal as part of the requirements for SOLA2051.

SOLA2052
Project in Photovoltaics and Solar Energy 2
School of Photovoltaic and Renewable Energy Engineering
UOC6 HPW5
To be completed sequentially with SOLA2051. The main emphasis of this course is hands-on “projecteering”, or project engineering. A wide range of projects is made available for students or groups of students, and new projects regularly become available, giving students some degree of choice. Examples of projects include monitoring and analysing existing installations, installing new PV, thermal solar, wind or micro-hydro generation systems, developing educational multimedia presentations, system design, modelling, developing country applications of renewable energy, biodiesel manufacturing and solar cell laboratory projects. Each project will have a research component, a planning component, a hands-on component and a reporting component and may involve a peer-reviewed oral presentation component. Lectures covering projecteering skills and practice are given in the early weeks, after which students work closely with their nominated project supervisor on their projects. A written project report must be submitted on each project to satisfy the requirements for SOLA2052.

SOLA2053 Sustainable & Renewable Energy Technologies
School of Photovoltaic and Renewable Energy Engineering
UOC6  HPW4
This course includes an introduction into issues in sustainable and renewable energy, including environmental impact, basic engineering economic analysis, energy payback time, embodied energy and the context of energy systems within a social framework. Included in the course is an overview of existing energy systems and sustainability issues with these systems. The course will examine renewable energy sources and generation systems, including an overview of wind, solar thermal, photovoltaics, hydro, geothermal design skills and creative thinking.

SOLA3010 Photovoltaics in the Built Environment
School of Photovoltaic and Renewable Energy Engineering
UOC6  HPW4
There is currently significant interest in reducing energy use and greenhouse gas production in buildings by designing buildings that are climate-appropriate, implementing energy efficiency measures and producing energy from renewable sources. Photovoltaics (PV) is one of the few renewable electricity generation options that can be readily used in urban areas and has no environmental impacts at the site. This course will examine the use of PV in the urban environment, with a particular focus on the integration of PV modules into the building envelope. The design of energy efficient buildings, building thermal and lighting performance and solar access will be introduced as an appropriate context for the use of PV. A competency in the use of building energy simulation software will be developed. Technical issues associated with the use of PV in buildings and the urban environment, such as heat transfer processes, partial shading and mismatch and system siting, sizing and configuration will be investigated. Students will tackle urban design problems that require balancing architectural and human requirements with the functional constraints of PV technology. Examples of PV products for buildings and the urban environment will be studied and system performance assessment and prediction will be introduced.

SOLA3540 Applied Photovoltaics
School of Photovoltaic and Renewable Energy Engineering
UOC6  HPW4
The use of solar cells (photovoltaic devices) as electrical power supplies based on the direct conversion of sunlight into electricity. The emphasis is placed on applications including system design and construction, although the properties of sunlight, the operating principles of solar cells and the interaction between sunlight and the cells are also treated.

SOLA4910 Thesis Part A
School of Photovoltaic and Renewable Energy Engineering
UOC6  HPW6
This part of the Group Thesis Project introduces the main structure of physical laboratory project components and the format of a written thesis report. The project is carried out in the last two sessions of enrolment to satisfy the requirements for SOLA4911, Thesis Part B. The Thesis Part A must be submitted on the Tuesday of the 14th week of the second session of enrolment to satisfy the requirements for SOLA4911, Thesis Part B.

SOLA4912 Thesis in Renewable Energy Engineering Part A
School of Photovoltaic and Renewable Energy Engineering
UOC9  HPW8
This course is an overview of existing energy systems and sustainability issues with these systems. The course will examine renewable energy sources and generation systems, including an overview of wind, solar thermal, photovoltaics, hydro, geothermal design skills and creative thinking.

SOLA4913 Thesis in Renewable Energy Engineering Part B
School of Photovoltaic and Renewable Energy Engineering
UOC9  HPW8
The Thesis Project (Parts A and B) is carried out in the last two sessions of the BE degree course for full-time students. Six hours per week in the first session, and twelve hours per week in the second session are devoted to directed laboratory and research work on an approved subject under guidance of members of the lecturing staff. Part-time students may need to attend the University full-time in their final session or attend for one further part-time session, if facilities are not available for the thesis to be done at their workplace. Typically, the thesis involves the design and construction of experimental apparatus together with practical tests. Each student is required to present a seminar as part of the requirements for SOLA4911. A written thesis report must be submitted on each project by the Tuesday of the 14th week of the second session of enrolment to satisfy the requirements for SOLA4911, Thesis Part B.

SOLA4914 Group Thesis Project Part A
School of Photovoltaic and Renewable Energy Engineering
UOC6  HPW6
This course is an overview of existing energy systems and sustainability issues with these systems. The course will examine renewable energy sources and generation systems, including an overview of wind, solar thermal, photovoltaics, hydro, geothermal design skills and creative thinking.

SOLA4915 Group Thesis Project Part B
School of Photovoltaic and Renewable Energy Engineering
UOC12  HPW12
The Thesis Group Project is carried out in the last two sessions of the BE degree course for full-time students. Six hours per week in the first session, and twelve hours per week in the second session are devoted to directed laboratory and research work on an approved subject under guidance of members of the lecturing staff. Part-time students may need to attend the University full-time in their final session or attend for one further part-time session, if facilities are not available for the thesis to be done at their workplace. Typically, the thesis involves the design and construction of experimental apparatus together with laboratory tests. The Group Project is for students with an NSS WAM of less than 65. Each student is required to present a seminar as part of the requirements for SOLA4914, Group Thesis Project Part A. Satisfactory performance in subject SOLA4914 is a prerequisite for progress to subject SOLA4915. A written thesis report must be submitted on each project by the Tuesday of the 14th week of the second session of enrolment to satisfy the requirements for SOLA4915, Group Thesis Project Part B.

SOLA5050 Renewable Energy Policy and International Programs
School of Photovoltaic and Renewable Energy Engineering
UOC6  HPW3
This course will review the objectives and strategies of renewable energy policies world-wide. It will examine policy drivers, including environmental impact, community service obligations and industry development, as well as policy instruments and how they are applied, including taxation, legislation, tariffs, targets and incentives. The policies and strategies will be illustrated with international case studies of renewable energy programs.

SOLA5052 Biomass
School of Photovoltaic and Renewable Energy Engineering
UOC6  HPW4
This course will introduce a range of biomass energy sources, including forestry, wastes and crops, as well as various technologies for their conversion into useful fuels or power. The course will cover liquid and gaseous fuels, including ethanol, however, the emphasis will be on electricity generation technologies, including combustion and gasification systems, biogas and landfill gas systems, combined heat and power production.

SOLA5056 Sustainable Energy for Developing Countries
School of Photovoltaic and Renewable Energy Engineering
UOC6  HPW4
Prerequisite: Completion of 96 units of credit
This course covers many of the technical and non-technical issues relating to introducing photovoltaics and renewable energy systems and technology in developing countries. The course will be closely aligned with current national or international programs in developing countries, for example the IEA PVPS Task IX, PV in developing countries.

The course will cover various Recommended Practice Guides developed by industry expert groups in the areas of financing and investment mechanisms, capacity building, implementation models and quality assurance. The course will include a practical components related to designing, implementation and maintenance of photovoltaic and renewable energy systems in developing countries and case studies thereof.

SOLA4915 Group Thesis. Details of the procedure for registering and the credits cannot be claimed for work submitted for credit as SOLA4911 Thesis or SOLA4915. Employment if this coincides with the first year of part-time enrolment. The period of employment claimed must precede the completion of the thesis SOLA4911 or SOLA4915. An Industrial Elective cannot be claimed for work submitted for credit as SOLA4911 Thesis or SOLA4915 Group Thesis. Details of the procedure for registering and the requirements to be met can be obtained from the School of Photovoltaic and Renewable Energy Engineering.

SOLA5061 Industrial Elective School of Photovoltaic and Renewable Energy Engineering UOC3 Each Industrial Elective (3 UOC) represents 6 months of appropriate quality industrial experience or equivalent in a suitable field. Students must submit evidence and a written report to the satisfaction of the Head of School. Some attendance at the University for verbal reporting may also be required. A maximum of 12 units of credit can be taken and the credits may be substituted for certain courses in program 3642 requirements. The substitution is not available for work done during the first year of employment if this coincides with the first year of part-time enrolment. The period of employment claimed must precede the completion of the thesis SOLA4911 or SOLA4915. An Industrial Elective cannot be claimed for work submitted for credit as SOLA4911 Thesis or SOLA4915 Group Thesis. Details of the procedure for registering and the requirements to be met can be obtained from the School of Photovoltaic and Renewable Energy Engineering.

SOMA1308 Time Based Art 1B School of Media Arts UOC6 HPW3

The aesthetics, practice and history of media art will be introduced and developed, with an emphasis on contemporary fine art practice. Time based art practices such as: experimental film, video art, performance, time based installation, interactive multimedia and experimental sound will be explored. Concepts and techniques of spatial and temporal montage will be introduced and elaborated through technical workshops, screenings, seminars and individual project work. Video editing software will also be introduced.

SOMA1309 Photomedia 1B - Digital Studies School of Media Arts UOC6 HPW3

This course introduces the student to the broad experience of working with photomedia. The course emphasises the development of a keen critical awareness in students by investigating the content and context of photographic images in contemporary visual art and culture. The questions of intent, content and context are focused toward the development of the individual’s visual language. The course introduces students to the basic technical concepts of digital imaging. Using digital imaging software students learn basic scanning, resolution theory, image manipulation and output. Students are encouraged to explore, experiment and develop their ideas through the completion of set projects.

SOMA1312 Photomedia 1A - Analogue Studies School of Media Arts UOC6 HPW3

Prerequisite: SART1303 Introductory Studies: Photomedia & Printmaking.

This course introduces the student to the broad experience of working with photomedia. The course emphasises the development of a keen critical awareness in students by investigating the content and context of photographic images in contemporary visual art and culture. The questions of intent, content and context are focused toward the development of the individual’s visual language. Students explore the possibilities of image-making processes by the acquisition of basic photographic technical skills including: 35 mm camera operation, B/W and colour processing/printing and related theory. Students are encouraged to explore, experiment and develop their ideas through the completion of set projects.

SOMA1315 Time Based Art 1A School of Media Arts UOC6 HPW3

Prerequisite: SART1302 Introductory Studies: Sculpture & Time Based Art.

Time based art is a cluster of units dealing with the complex multiplicity of artistic forms which use the passage of and the manipulation of time as the essential element. Time Based Art 1A introduces key concepts in time based art with specific reference to experimental film, video art and installation, sound, performance and multimedia computing. The course develops critical awareness by close study of histories of the moving image and the expressive use of technology and the human body. Concurrently the subject provides preliminary technical training in the various technologies used in the production of video, sound and performance works.

SOMA1521 Introduction to Analogue Photography School of Media Arts UOC6 HPW3

The aim of this course is to develop skills through the direct participation in intellectual and technical processes relevant to the field, and to create Photomedia based works of an increasingly professional standard. Students explore the possibilities of image-making processes by the acquisition of basic photographic technical skills including: overview of 35mm camera operation; B/W film types and exposure; processing and printing; print finishing and presentation. This technical knowledge is advanced by the development of the student’s critical awareness of contemporary visual arts practice through the completion of set projects.

SOMA1600 Language of Digital Media School of Media Arts UOC6 HPW3

School of Photovoltaic and Renewable Energy Engineering
Enrolment Requirements: Currently enrolled in a program at College of Fine Arts.

This course provides an overview of theories of language and looks critically at the way these apply to popular media in the digital age. Starting with basic principles of communication and introducing theories of semiotics, students are encouraged to critically engage with the deconstruction of media as text. Lectures in this course provide an introduction to linguistic and semiotic theory, as well as newer concepts such as memetics. Media platforms are also examined in individual lectures, ranging from comics to digital games and hypertext. In tutorials the concepts introduced in lectures are examined in more detail, and assessment is undertaken through presentation involving the examination and analysis of popular media.

SOMA1602
Web Authoring
School of Media Arts
UOC6 HPW3
Enrolment Requirements: Currently enrolled in a program at College of Fine Arts.

This course provides an introduction to the production of web pages and web sites. It covers basic web page composition, HTML, file directory organisation and the authoring and optimisation of media elements such as typography, images, sounds and animations through various software and processes. Examples of both simple and sophisticated web sites will be critiqued. The emphasis will be on creative utilisation, web interface design theory.

SOMA1603
Digital Video 1
School of Media Arts
UOC6 HPW3
Enrolment Requirements: Currently enrolled in a program at College of Fine Arts.

The course is designed to explore and expand an understanding of video production methods and practice, analogue then digital. The course is comprised of: technical demonstrations and workshops, discussions and tutorials, individual and group project development, assessment and critique, proficiency on analogue and digital editing systems will be gained in the workshop. The use of camera, lighting and sound editing will also be introduced.

SOMA1604
Introduction to Digital Media
School of Media Arts
UOC6 HPW3
Enrolment Requirements: Currently enrolled in a program at College of Fine Arts.

This course provides a broad introduction and foundation to video, photography and sound. It will cover aspects of video capture and editing, photographic capture and manipulation and sound capture and editing. Students will learn to use basic sound recording equipment and receive an introduction to concepts of sound layering and editing. Students will be introduced to the fundamentals of the video process associated with analogue and digital technologies. An introduction to photographic process will also be covered.

SOMA1605
Lighting
School of Media Arts
UOC6 HPW3

Lighting for the digital environment workshop is designed to explore the nature of light and expand the understanding of “light” in many of its forms. Light in relation to Digital production, issues of the consistency of light the fall of light, lighting for multiple outcomes, the measurement of light, key lighting and light ratios. Colour temperature in relationship to available light, artificial light, and studio lighting tungsten and electronic. This course will seek to establish an understanding and appreciation of the roll light plays in the image making process.

SOMA1608
Digital Composite
School of Media Arts
UOC6 HPW3
Enrolment Requirements: Currently enrolled in a program at College of Fine Arts.

This subject will introduce students to the principles, techniques and applications of digital imaging technology. The central aim will be to provide students with a clear perception and appreciation of the manner in which the various discrete components of hardware and software symbiotically interact to form an effective imaging system. Practical and creative experiences will give students the opportunity to gain basic proficiency in operating industry standard packages.

SOMA1641
Video Art
School of Media Arts
UOC6 HPW3

These courses offer students the opportunity to gain an awareness of the nature and variety of experiences included in the television area, to appreciate the specific qualities and potential of the video and electronic media and to acquire the technical, intellectual and creative skills necessary for the creation of original video work. By exploration of a theoretical overview and the development of relevant skills the student will formulate and implement an extensive study of a field of practice within the area of Video.

SOMA1651
Introductory Analogue and Digital Animation and Timing Skills
School of Media Arts
UOC6 HPW3

Analogue and Digital Animation is a general introduction to various techniques and methods involved with both linear capture of pictures onto film or hard drives and other computer animation techniques. Much time is spent developing timing skills and investigating through workshops various approaches to timing. As well through a series of projects students develop a comprehensive range of approaches to computer animation.

SOMA1661
Performance
School of Media Arts
UOC6 HPW3

The course develops a strongly eclectic approach to making contemporary performance and performance art exploring anti-narrative, physical and conceptual approaches. Issues of context, audience, spatial relationships and interactivity are addressed. Various technologies and media may also be used within the project work.

SOMA1681
Introductory Multimedia Computing
School of Media Arts
UOC6 HPW3

These courses enable students to develop concepts and techniques of multimedia production which utilise the computer to assemble sound, video, text and images in order to develop interactive media which is innovative, challenging and pertinent. By exploring a theoretical overview and gaining relevant skills the student will develop original and engaging interactive works.

SOMA1810
Introduction to Computing
School of Media Arts
UOC6 HPW3

This subject covers the basic use of Macintosh computers and the Macintosh operating system. This will include disc formatting, network server storage and printing, email set-up, the Internet, using the web as a research tool and various Web utilities including NS Student. An introduction to Microsoft Office Word, focusing on the basics of formatting and COFA style requirements; an introduction to the basics of Web authoring; an introduction to Power Point; file and document management with file formats commonly used and file types to use for cross-platform applications.

SOMA2201
Landscape Animation
School of Media Arts
UOC6 HPW3

Students will be taken through a range of workshops that develop animation skills, with particular attention being paid to stop-motion techniques. Students will work in and experience the unique Australian landscape in and around historic Broken Hill. This course draws upon the aesthetics and theories of environmental sculpture and animation. The arid landscape provides an opportunity to see the essential nature
of the environment, making underlying structures visible. Traces left on the landscape by natural and manmade events are more easily seen and rendered.

The projects are developed further using digital video editing and digital video postproduction. Students will work on various individual and group projects in the field to enhance and extend their production techniques, with each student shooting, editing, and scoring animation projects. On completion of this course, students will have an understanding of the technical and aesthetic foundations of digital video production and animation.

Cost to students is approx $480 which includes all travel, meals and accommodation. The course is run in the first week of the winter session refer to information posted by School.

SOMA2321
Photomedia 2A - Analogue Studies
School of Media Arts
UOC6    HPW3
Prerequisite: SOMA1312 or SART1402

This is a studio based course with an emphasis on placing the student's practice in the context of art history and studio theory. The course extends the conceptual and analogue technical skills acquired in Photomedia 1A. Students are introduced to medium format camera operation and advanced B/W and colour darkroom processes. Students are required to have a basic knowledge of B/W and colour photography, 35 mm camera operation, film exposure, processing and print production. Students are directed towards an analysis and critical awareness of current visual arts practice, central to the production and advancement of their own work. Students are encouraged to explore, experiment and develop ideas through set projects.

SOMA2324
Time Based Art 2A
School of Media Arts
UOC6    HPW3
Prerequisite: SOMA1315 or SART1402

This course introduces the conceptual understanding and technical skills underpinning practice in time based art. Screening programs and analysis of sound, the moving image and performance augment the students knowledge of the traditions and contemporary contexts of technological and non-technical art forms. Students become familiar with the processes of video production, 16 mm cinematography and editing and/or computer-based image and sound technologies. Students are directed to develop a body of work which integrates technical and conceptual approaches.

SOMA2331
Photomedia 3A - Analogue Studies
School of Media Arts
UOC6    HPW3
Prerequisite: SOMA2321

This is an analogue studio based course with an emphasis on placing the student's practice in the context of art history and studio theory. The course extends the conceptual and analogue technical skills acquired in Photomedia 1A and 2A. Students are introduced to large format camera operation and fieldwork projects. Students are required to have knowledge of basic lighting techniques, medium format camera operation and darkroom processes. Students explore a diversity of conceptual approaches, including the relationship of audience, site and context to visual art works and artist multiples/books, in order to extend their use of visual language. This conceptual and technical knowledge is advanced by the development of the student's critical awareness through set and self-initiated projects.

SOMA2334
Time Based Art 3A
School of Media Arts
UOC6    HPW3
Prerequisite: SOMA2324

This course furthers the conceptual understanding and technical skills underpinning practice in time based art. The course examines the traditions and contemporary contexts of art practices which developed underpinning practice in time based art. The course examines the technical and aesthetic foundations of digital video production and animation.

This is a studio based course with an emphasis on placing the student's practice in the context of art history and studio theory. The course extends the conceptual and digital technical skills acquired in Photomedia 1B. Students are introduced to advanced digital imaging software, image manipulation techniques, high resolution scanning and output devices, vector imaging and colour space theory. Students are directed towards an analysis and critical awareness of current visual arts practice, central to the production and advancement of their own work. Students are encouraged to explore, experiment and develop ideas through set projects. The integration of new technologies within analogue practice is explored.

SOMA2344
Time Based Art 2B
School of Media Arts
UOC6    HPW3

Students will gain the conceptual and technical skills to develop soundscapes and audiovisual soundtrack work. Technically, the following elements are covered: digital sound recording, editing and mixing; sampling; synthesis; sound design. All students will gain proficiency on the basic operation of the sound studios. Various conceptual, aesthetic and philosophical approaches to sound and sound design will be introduced through critical discussion of examples and project work.

SOMA2351
Photomedia 3B - Digital Studies
School of Media Arts
UOC6    HPW3

This is a digital studio based course with an emphasis on placing the student's practice in the context of art history and studio theory. The course extends the conceptual and digital technical skills acquired in Photomedia 1B and 2B. Students are introduced to advanced imaging software, digital image capture, advanced scanning, digital composite, image manipulation techniques and output alternatives. Students explore a diversity of conceptual approaches, including the relationship of audience, site and context to visual art works and artist multiples/books, in order to extend their use of visual language. This conceptual and technical knowledge is advanced by the development of the student's critical awareness through set and self-initiated projects. Students are encouraged to explore external print bureaus for final production of their work.

SOMA2354
Time Based Art 3B
School of Media Arts
UOC6    HPW3

Expressive and technical means for creating fine art practice in time based media will be further explored and developed through an emphasis on the development of the student's individual artistic practice. A strong focus on the presentation of work will be pursued.

SOMA2521
Introduction to Studio Lighting
School of Media Arts
UOC6    HPW3

This course introduces the student to the basic analysis and control of natural and artificial light for photography. Students are instructed how to observe the quality of natural light for photography as a basis for learning basic photographic studio lighting techniques and their creative applications. The student requires knowledge of basic B/W and colour photography; 35mm camera operation; film exposure and processing; and print production. The emphasis is on the development of new technical skills central to the production and advancement of the student's work. Projects are set which focus on the production of photographic images for contemporary visual art works.

SOMA2551
Introduction to Audio
School of Media Arts
UOC6    HPW3

Excluded: SOMA2602 and SOMA2812.
Enrollment Requirements: Must be currently enrolled in a program in the College of Fine Arts.
Students will gain the conceptual and technical skills to develop either “stand alone” audio work or audio soundtracks in relation to other mediums such as video, installation and multimedia work. Technically, the following elements are covered: digital sound recording, editing and mixing; sampling; synthesis; audiovisual sound design. All students will gain proficiency on the basic operation of the sound studios. Various conceptual, aesthetic and philosophical approaches to audio practice will be introduced through critical discussion of examples and project work.

SOMA2602
Sound Media 1
School of Media Arts
UOC6 HPW3
Enrolment Requirements: Currently enrolled in a program at College of Fine Arts.
This course covers all aspects of audio production relating to art works, soundtracks for film, video, performance and multimedia computing. Students are introduced to various conceptual, stylistic, aesthetic and philosophical approaches to the use of sound within art, with attention also being paid to the relationship of sound to other art practice. A screening and listening lecture program examines various sound/music pieces, installations and soundtracks.

SOMA2606
Advanced Multimedia Authoring
School of Media Arts
UOC6 HPW3
Prerequisite: SOMA2607 or SOMA1681.
Advanced Multimedia Authoring extends the students’ experience gained in Multimedia Authoring furthering the conceptual understanding, appreciation and technical skills underpinning interactive practice.

SOMA2607
Multimedia Authoring 1
School of Media Arts
UOC6 HPW3
Enrolment Requirements: Currently enrolled in a program at College of Fine Arts.
Multimedia authoring provides the platform for students to combine the media of sound, text, images moving and still. Interactive events are planned and structured, notions of the linear and non-linear are addressed. This multimedia-authoring course utilises multiple software programs and seeks the creative development of interactive and animated media outcomes.

SOMA2608
Digital Composite 2
School of Media Arts
UOC6 HPW3
Prerequisite: SOMA1680.
Topics to be considered include digital capture, colour theory, operation of input and output devices, image manipulation, compatibility issues relating to digital composite. The knowledge, skills and experience gained in practical and theoretical sessions will provide the understanding of the digital composite cycle. Students will apply imaging theory to optimise their digital media practice in a variety of situations across mutable media, using industry standard packages.

SOMA2609
3D Modelling and Animation 1
School of Media Arts
UOC6 HPW3
Currently enrolled in a program at College of Fine Arts.
This course is an introduction to the many operational elements within 3D. Students will be introduced to the fundamentals of 3D modelling, texturing, lighting and animation. The integration of 3D into other digital media will be explored. Emphasis is placed on establishing good working studio practices.

SOMA2610
Writing for the Digital Media
School of Media Arts
UOC6 HPW3
This subject focuses on creative writing and visual storytelling as a means for extending the student’s imaginative and conceptual approach to digital production. Classes will comprise workshops and individual and group projects covering issues of writing for both single screen and interactive works. Students will engage with issues of dialogue and voiceover texts, script and character construction, and storyboarding, mapping and visual description. The subject enriches the students’ comprehension of the creative process necessary to the generation of video or digital media works.

SOMA2651
Advanced Analogue and Digital Animation
School of Media Arts
UOC6 HPW3
Prerequisite: SOMA1309 or SOMA1608 or SOMA1651 or SOMA1681 or SOMA2815.
The course seeks to develop traditional animation skills and explore their application to digital media. These basic conceptual-physical skills are placed in a context of the independent experimental producer-artist. The course is designed to develop timing skills which can be applied to various forms of animation. Allied to this is a rigorous understanding of the different forms of techniques and media. An emphasis is placed on the ability to work across different media in one major project.

SOMA2681
Advanced Multimedia Computing
School of Media Arts
UOC6 HPW3
Prerequisite: SOMA1681.
This course enables students to develop concepts and techniques of multimedia production which utilise the computer to assemble sound, text and images in order to develop time based art which is innovative, challenging and pertinent. By exploring a theoretical overview and gaining relevant skills, the student will develop original web based interactive works.

SOMA2814
Cinematography
School of Media Arts
UOC6 HPW3
Prerequisite: SOMA1312 or SART1402.
The cinematography workshop offers students grounding in the technical operation of cameras and lighting equipment and explores related conceptual issues. Attention is focused on control of the media through an understanding of framing, lighting, and film stock. Areas of concern include camera operations, film language, exposure, lighting, camera mounts, frame speed, filters, printing and the laboratory process. Classes include demonstrations and workshops, treatments, discussions and tutorials, review and critique.

SOMA2815
Introduction to Digital Imaging
School of Media Arts
UOC6 HPW3
In this studio workshop the student is introduced to the basic concepts and future possibilities of digital imaging processes. The emphasis is on the integration of digital technologies into visual arts practices. The subject opens up for consideration a range of digital applications suitable for extending image production and visualisation. The student is introduced to the practice and methods of production of contemporary artists who utilise a variety of digital technologies in their work.

SOMA2854
Vector Graphics in Visual Arts
School of Media Arts
UOC6 HPW3
Prerequisite: SOMA2815 or SOMA2811 or SOMA1521 or SOMA3132.
In this studio workshop the student explores advanced photo-based digital imaging techniques, and is introduced to interconnected software suitable for the production of illustration, graphic based images, and artist’s publications. The emphasis is on the integration of digital imaging as utilised in visual arts practices. The course advances the student’s skills for image production, visualisation and presentation.

SOMA2858
Narrative and Gameplay
School of Media Arts
UOC6 HPW3
Starting from the nature of traditional narrative and story structure, this course provides intensive hands-on work in the understanding and
Photomedia 4B. It is expected that students will refine their analogue skills and concentrate on the professional resolution of projects initiated in Photomedia 4B. The works produced represent a culmination of intensive studio and contexts central to their individual art practice, skills and knowledge base. Students spend time analysing the components of different media, before developing an original design idea.

SOMA2859
Video Production Studio
School of Media Arts
UOC6 HPW3
Prerequisite: SOMA1603.

This course provides an intensive and progressive grounding in advanced aspects of video production. The techniques are equally applicable to film. The course covers areas of script analysis, breakdown/blocking, production management/budgeting, location sound/lighting and post production pathways. The aim is to provide a complete production experience. The course takes place in the studio context, and so students are faced with making practical choices and applying the extended suite of skills taught in the course to their production practices.

While based in narrative production, the applicability of the techniques to documentary filmmaking is also demonstrated and discussed. Students completing the course will have developed their production expertise, understanding of on set protocol and ability to complete projects with a high degree of professionalism.

SOMA3341
Photomedia 4A - Analogue Studies
School of Media Arts
UOC6 HPW3
Prerequisite: SOMA2331

This studio based course centres upon the student's development of a self-initiated body of work that demonstrates an understanding, exploration, and refinement of the concepts central to their practice. This course will address and critically refine the knowledge students have gained in Photomedia 1A - 3A. Students will concentrate on developing a body of work that demonstrates an understanding and refinement of concepts and contexts central to their individual art practice. The works produced will be an investigation of research possibilities and this investigation is initiated by the student and undertaken with lecturer supervision. It is expected that students continue to refine and advance their analogue technical skills to a standard appropriate to the concerns in their work. Students are directed toward an analysis and critical awareness of current visual arts practices and issues. Issues of production and documentation within the contemporary visual arts and media arts industry are emphasised.

SOMA3344
Time Based Art 4A
School of Media Arts
UOC6 HPW3
Prerequisite: SOMA2334

This course furthers the students knowledge of the art historical contexts and inter-disciplinary skills necessary to time based art practices. Students are expected to develop an area of research relevant to their individual art practice. The students concentrate on producing a substantial body of work which demonstrates an understanding and refinement of the concepts and contexts central to their work. Specialised content extend the students technical and conceptual skills in the use of film, video, audio and multi-media computing technologies. Concurrently, the subject deepens the students critical comprehension of time based forms through study and analysis of different art works in the screening and presentation programs.

SOMA3351
Photomedia 5A - Analogue Studies
School of Media Arts
UOC6 HPW3
Prerequisite: SOMA3341

In this course students focus on the production and resolution of a substantial body of work that demonstrates a refinement of the concepts and contexts central to their individual art practice, skills and knowledge base. The works produced represent a culmination of intensive studio research and study within the area of photomedia. The investigation is initiated by the student and undertaken with lecturer supervision. Students will concentrate on the professional resolution of projects initiated in Photomedia 4B. It is expected that students will refine their analogue technical skills to the highest standard appropriate to the concerns of their work and that the final work evidences a process of research, analysis and critical awareness. This process will require a significant knowledge of new media theory, interdisciplinary arts and contemporary photographic practice.

SOMA3354
Time Based Art 5A
School of Media Arts
UOC6 HPW3
Prerequisite: SOMA3344

Students produce a substantial project which demonstrates an understanding and refinement of the concepts and contexts central to their work and are expected to develop an area of research relevant to their individual art practice. Students refine their technical and conceptual skills in film, video, audio or multimedia computing. Concurrently, the course supports the students critical comprehension of time based forms through study and analysis of different art works in the screening and presentation program.

SOMA3361
Photomedia 4B - Digital Studies
School of Media Arts
UOC6 HPW3

This studio based course centres upon the student's development of a self-initiated body of work that demonstrates an understanding, exploration, and refinement of the concepts and knowledge students have gained in Photomedia 1B and 3B. Students will concentrate on developing a body of work that demonstrates an understanding and critical refinement of concepts and contexts central to their individual art practice. The works produced will be an investigation of research possibilities and this investigation is initiated by the student and undertaken with lecturer supervision. It is expected that students will continue to refine and advance their digital skills to a standard appropriate to the concerns in their work. Students will be directed towards analysis and critical awareness of current visual arts practices and issues. Issues of production and documentation within the contemporary visual arts and media arts industry are emphasised.

SOMA3364
Time Based Art 4B
School of Media Arts
UOC6 HPW3

This course further develops conceptual and technical skills towards a substantial body of work in time based art. A synthesis of previously gained knowledge and experience is encouraged to increase the sophistication and depth of the individual research. Individual projects in: experimental film, video art, performance, time based installation, interactive multimedia and experimental sound will be developed to a higher technical and conceptual level.

SOMA3371
Photomedia 5B - Digital Studies
School of Media Arts
UOC6 HPW3

In this course students focus on the production and resolution of a substantial body of work that demonstrates a refinement of the concepts and contexts central to their individual art practice, skill and knowledge base. The works produced represent a culmination of intensive studio research and study within the area of photomedia. The investigation is initiated by the student and undertaken with lecturer supervision. Students will concentrate on the professional resolution of projects initiated in Photomedia 4B. It is expected that students will refine their digital technical skills to the highest standard appropriate to the concerns of their work and that the final work evidences a process of research, analysis and critical awareness. This process will require a significant knowledge of new media theory, interdisciplinary arts and contemporary photographic practice.

SOMA3374
Time Based Art 5B
School of Media Arts
UOC6 HPW3

The course investigates contemporary research practices in time based art (experimental film, video art, interactive animation, sound art, installation) focussing on studies of recent research developments. Students employ a diverse range of media technologies in the development of a body of
The aim of this course is to develop skills through the direct participation in intellectual and technical processes relevant to the field, and to create Photomedia based works of an increasingly professional standard. Students explore the possibilities of image-making processes by the acquisition of advanced photographic technical skills including: further techniques for B&W film, processing and printing; colour photography and printing techniques. This technical knowledge is advanced by the development of the student’s critical awareness of contemporary visual arts practice through the completion of set projects.

**SOMA3521**  
**Advanced Analogue Photography**  
School of Media Arts  
UOC6 HPW3  
Enrolment Requirements: Currently enrolled in a program at College of Fine Arts.

The professional portfolio course seeks to offer students the opportunity to develop a portfolio of work at an industry standard. This course will encourage students to focus on a discreet body of work that will assist them in realising their career goals. The portfolio could be of a specific nature i.e. reflective of the student's own disciplinary strengths and interests.

**SOMA3611**  
**Industry Placement**  
School of Media Arts  
UOC6 HPW3  
Enrolment Requirements: Currently enrolled in a program at College of Fine Arts.

This course introduces the student to advanced techniques in studio lighting and their creative applications. The course focuses on the use of artificial lighting techniques for studio lighting set-ups in addition to specific lighting techniques for portraiture and still life. The student is required to have knowledge of basic lighting techniques; B&W and colour photography; 35 mm camera operation; film exposure and processing; and print production. The emphasis is on the development of new technical skills central to the production and advancement of the student's work. Projects are set which focus on the production of photographic images for contemporary visual art works.
SOMA3860  
**Advanced Digital and Web Media**  
School of Media Arts  
UOC6  
HPW3

In this lecture and studio based course, students will explore the integration of photo-based digital imaging techniques in conjunction with web-based production and delivery. Students will learn to create their own website through a combination of basic html and web production software packages, as well as elementary animation techniques. The emphasis is on the integration of digital technologies as utilised in visual arts practices. The course advances the student's skills for image production, visualisation, interface design and presentation utilising the web as a platform for delivery.

SOMA4045  
**BDM Honours Studio Practice 1**  
School of Media Arts  
UOC12  
HPW3

Prerequisite: 3 years undergraduate Bachelor of Digital Media (BDM) - see BDM rules.

The Bachelor of Digital Media (BDM) Honours program is a one-year full time program, at a higher level of study, of which Honours Studio Practice 1 is the first half. In their Honours year students undertake self-nominated research into areas of Digital Media. The aim of the Honours year is to provide the Honours student with the opportunity, through critical inquiry and practice, to develop a research project that is presented at the end of the year as a project and research paper.

The Bachelor of Digital Media encourages a diverse range of media practice and recognises the potential complexity of the media. It is with this in mind that the BDM Honours program may include, where appropriate, collaborative work.

SOMA4046  
**BDM Honours Studio Practice 2**  
School of Media Arts  
UOC18  
HPW3

Prerequisite: SOMA4045.

The Bachelor of Digital Media (BDM) Honours program is a one-year full time program, at a higher level of study, of which Honours Studio Practice 2 is the second half. In their Honours year students undertake self-nominated research into areas of Digital Media. The aim of the Honours year is to provide the Honours student with the opportunity, through critical inquiry and practice, to develop a research project that is presented at the end of the year as a project and research paper.

The Bachelor of Digital Media encourages a diverse range of media practice and recognises the potential complexity of the media. It is with this in mind that the BDM Honours program may include, where appropriate, collaborative work.

SOMA4609  
**3D Modelling and Animation 3**  
School of Media Arts  
UOC6  
HPW3

Prerequisite: SOMA3609.

This is an advanced course which assumes prior knowledge of 3D and builds upon the skills developed in SOMA3609. It will take you through the production and development of a short computer generated character animation. Sophisticated character control and facial animation systems will be illustrated culminating with the completion of a major studio project in animation.

SPAN1002  
**Introductory Spanish 1B**  
Department of Spanish & Latin American Studies  
UOC6  
HPW6

Prerequisite: SPAN1001; Excluded: SPAN1000, SPAN1020, SPAN1021, SPAN1100

Intended to give students a sound basis of spoken and written Spanish and to introduce them to the history and culture of Spain and Latin America. Five hours language and one hour civilisation lecture. All language teaching is in tutorial groups.

SPAN2003  
**Intermediate Spanish A**  
Department of Spanish & Latin American Studies  
UOC6  
HPW5

Prerequisite: SPAN1000 or SPAN1100 or SPAN1002; Excluded: SPAN2001

Two hours audio/visual comprehension and two hours of grammar/reading/written expression, plus one hour of cultural studies.

SPAN2004  
**Intermediate Spanish B**  
Department of Spanish & Latin American Studies  
UOC6  
HPW5

Prerequisite: SPAN2001 or SPAN2003; Excluded: SPAN2002

Two hours audio/visual comprehension and two hours of grammar/reading/written expression, plus one hour of cultural studies.

SPAN2406  
**Modern Spain: From Loss of Empire to European Integration**  
Department of Spanish & Latin American Studies  
UOC6  
HPW3

Prerequisite: 36 units of credit; Excluded: EURO2411

An overview of Spain's turbulent history following loss of empire, including the Spanish Civil War and the Franco dictatorship. Most attention is given to the nation's transformation since 1975 (the death of Franco and the return to democracy) and its enthusiastic embrace of Europe. As a peripheral European nation, and one that has been driven by cultural, political and economic conflicts in the recent past, Spain may well constitute a litmus test for the viability of European unity.

SPAN2421  
**Special Topic in Latin American History 1**  
Department of Spanish & Latin American Studies  
UOC6  
HPW3

Prerequisite: 36 units of credit

In unusual circumstances a special topic in Latin American history may be chosen by the student, in close consultation with the lecturer, to pursue a particular area of interest. Weekly tutorials and written work.

SPAN2425  
**The Americas before Columbus**  
Department of Spanish & Latin American Studies  
UOC6  
HPW3

Prerequisite: 36 units of credit

Examines the development of human societies in the Americas from their arrival to the great empires of the Aztecs and the Incas. The emphasis is on agriculturally based societies including the Olmec, Teotihuacano, Maya and Aztecs of Mesoamerica, the Chavin, Nazca, Moche and Inca of South America and the Anasazi and Mississippian mound builders of northern America.

SPAN2428  
**Un)Making the Third World: History and Global Development B**  
Department of Spanish & Latin American Studies  
UOC6  
HPW3

Prerequisite: 36 units of credit; Excluded: COMD2010, GLST2101, HIST2040, HIST2060, SPAN2424

Explores the history of dictatorship and democracy in the nineteenth and twentieth centuries from the vantage point of the early twenty-first century. In geographical terms, the focus is on Latin America with a particular focus on Argentina, Brazil, Chile, Peru, Mexico, Cuba, Guatemala and Colombia. The historical trajectories, current circumstances and future prospects of these nation-states will be examined in relation to themes such as authoritarianism, violence, terror, fear, democracy, liberty, freedom, nationalism, revolution, US hegemony, neo-liberalism and globalisation.
Explores the history of underdevelopment and development in the nineteenth and twentieth centuries from the vantage point of the early twenty-first century. Themes include: colonialism, nationalism, decolonisation and post-colonial states; the history and politics of development in the Cold War and post-Cold War era; the state and economic development; the role of international organisations such as the World Bank and the IMF; and the question of globalisation. In geographical terms, the focus is on sub-Saharan Africa, especially the Democratic Republic of the Congo; the Middle East, especially Egypt; South Asia, especially India; Southeast Asia, especially Indonesia; and Northeast Asia, especially South Korea.

Examines the role of the USA in the world in the context of the history of changing global orders. Drawing on diplomatic history, international history, international relations, international political economy, and social and cultural history, the main themes include: westward expansion, ‘Manifest Destiny’, theories of imperialism, US-Soviet rivalry, and debates about globalisation and the character and future of the contemporary global order centred on the USA.

Examines the role of the USA in the world in the context of the history of changing global orders. Drawing on diplomatic history, international history, international relations, international political economy, and social and cultural history, the main themes include: westward expansion, ‘Manifest Destiny’, theories of imperialism, US-Soviet rivalry, and debates about globalisation and the character and future of the contemporary global order centred on the USA.

The United States and Changing Global Orders
Department of Spanish & Latin American Studies
UOC6  HPW3
Prerequisite: 36 units of credit; Excluded: GLST2103, HIST2510
Examines the role of the USA in the world in the context of the history of changing global orders. Drawing on diplomatic history, international history, international relations, international political economy, and social and cultural history, the main themes include: westward expansion, ‘Manifest Destiny’, theories of imperialism, US-Soviet rivalry, and debates about globalisation and the character and future of the contemporary global order centred on the USA.

Advanced Spanish A
Department of Spanish & Latin American Studies
UOC6  HPW4
Prerequisite: SPAN2002 or SPAN2004 at credit level; Excluded: SPAN3001
Two hours grammar, one hour aural comprehension, one hour audiovisual.

Advanced Spanish B
Department of Spanish & Latin American Studies
UOC6  HPW4
Prerequisite: SPAN3001 or SPAN3003; Excluded: SPAN3002
Two hours grammar, one hour aural comprehension, one hour audiovisual.

Spanish Linguistics
Department of Spanish & Latin American Studies
UOC6  HPW3
Prerequisite: SPAN1020 or SPAN2004 or SPAN1021
Aims to provide students with a knowledge of the norms and structure of the Spanish language and its use. The course focuses on the areas of Spanish phonology, morphology, grammar, pragmatics and semantics. It will be very helpful for students wishing to pursue the language to translator level.

Note: The language of instruction is Spanish.

Latin American Culture and Globalisation: De Macondo a McDondo
Department of Spanish & Latin American Studies
UOC6  HPW3
Prerequisite: SPAN2003
Examines the formation of new identities in Latin America resulting from the neoliberal politics and globalisation that have swept the continent since the early 1990s. This process is evaluated through the study of Latin American and Latino literary texts that reflect this change, which is best captured through the image of transformation of the mythical and exotic village Macondo of Gabriel García Márquez into the modern global village McDondo defined by Macintosh computers, McDonalds, shopping malls, the Internet and cell phones. Examines the contradictory logic of globalisation that on the one hand “flattens” cultural distinctions but on the other creates real opportunities for breaking down cultural barriers and overcoming provincialism.

Note: The course is offered in Spanish.

Topics in Latin(o) American Cinema
Department of Spanish & Latin American Studies
UOC6  HPW3
Prerequisite: 36 units of credit
Examines key issues in Latin(o) American cinema, including the construction of gender and sexuality, questions of race and ethnicity, the representation of border issues, migration, urban life, and youth culture. Focuses on films within the cultural and social contexts of their production, and in the light of current theories of film. Shows how these films stand in strong contrast to the traditional and often stereotypical image of Latin America and Hispanics fabricated by Hollywood.

Note: Taught in English. Knowledge of Spanish is desirable but not required. All readings are in English and all films are subtitled.

Spanish as a World Language
Department of Spanish & Latin American Studies
UOC6  HPW3
Prerequisite: 36 units of credit
Examines the cultural contexts of the evolution of what today is called Spanish. Investigates and discusses the two themes of orthodoxy and syncretism commencing with the multicultural nature of the Iberian peninsula prior to the rise of Castellano, the dialect spoken in a small kingdom in central Spain, to be a national and a world language. Explores the spread of the language to the Americas, Africa, and Asia in the contexts of conquest, wealth accumulation, and Christianisation.

Colonising the Americas: The Spanish and Portuguese Empires
Department of Spanish & Latin American Studies
UOC6  HPW3
Prerequisite: 36 units of credit
Provides an introduction to the history of the Spanish empire in the Americas from the sixteenth century to the early nineteenth century. The major trends, events and processes of the colonial era are examined, up to and including the wars of independence in the early nineteenth century. The colonial history of Brazil is also covered. Apart from a comparison of Portuguese and Spanish America, an attempt will be made to compare the rise and decline of the Spanish and Portuguese empires with the vicissitudes of English colonialism in the Americas.

Special Topic in Latin American History 2
Department of Spanish & Latin American Studies
UOC6  HPW3
Prerequisite: 36 units of credit
In unusual circumstances a special topic in Latin American history may be chosen by the student, in close consultation with the lecturer, to pursue a particular area of interest. Weekly tutorials and written work.

Spanish and Latin American Studies Honours Full-Time
Department of Spanish & Latin American Studies
UOC24  HPW5
Prerequisite: 54 units of credit in SPAN at an average of 70% and permission from Head of Department
Language and Literature: 2 seminars and a thesis. History: 2 seminars and a thesis.

Spanish and Latin American Studies Honours Part-Time
Department of Spanish & Latin American Studies
UOC12  HPW2
Prerequisite: 48 units of credit in SPAN at an average of 70% and permission from the Head of Department
1. Research Project or thesis, whose course and nature have been approved by the two Schools or Departments concerned.

2. 1 or 2 seminars. Students of Language and Literature who did not complete SPAN1021/SPAN1022 in Year 1 may be required to study a language course as one of their seminars. The exact details of this program and its assessment are subject to prior consultation with and approval by the Heads of the two Schools or Departments concerned.

SPAN4550
Combined Spanish and Latin American Studies Honours
Department of Spanish & Latin American Studies
UOC6  HPW2
Prerequisite: 48 units of credit in SPAN at an average of 70% and permission from the Head of Department

1. Research Project or thesis, whose course and nature have been approved by the two Schools or Departments concerned. 2. 1 or 2 seminars. Students of Language and Literature who did not complete SPAN1021/SPAN1022 in Year 1 may be required to study a language course as one of their seminars. The exact details of this program and its assessment are subject to prior consultation with and approval by the Heads of the two Schools or Departments concerned.

TAHM9999
The Attraction of Australia: Tourism & Recreation Management
School of Marketing
UOC12
Refer to School of Marketing.

TELE1010
Introduction to Telecommunications
School of Electrical Engineering and Telecommunications
UOC5  HPW3
The lecture program for this course has three themes. The first lectures provide an introduction to the practice of telecommunications engineering. Key skills and knowledge in safety, technical communication and information gathering are discussed. Also covered are issues of what engineers do, the wider context in which engineers operate and their obligations to society. Several lectures also explore the key engineering theme of engineering systems. Many of the latter course lectures will be given by guest speakers from industry, and will introduce you to the world of telecommunications engineering. Your ability to learn from an academic and from industry will be included in the material assessed in the examination. A number of lectures will also be given by different lecturers from the School of Electrical Engineering and Telecommunications covering basic communications theory, computing, data networks, the Internet, electronics and communications systems.

TELE3013
Telecommunication Systems 1
School of Electrical Engineering and Telecommunications
UOC6  HPW4
Prerequisite: ELEC2032.

To present a general introduction to telecommunications aspects such as signal acquisition, transmission and processing in communication systems. This subject is intended for telecommunication engineering students as a necessary background, and also for electrical or computer engineering students not specialising in telecommunications as a general knowledge. Characteristics of typical communication channels. Typical signals (speech, audio, video, data) and their characteristics. Basic analogue and digital techniques. Key techniques in handling transmission system issues (modulation, coding, multiplexing). System performance and evaluation (channel noise, intersymbol interference, bit error rate). Major communication systems including telephony, radio, TV, satellite, mobile phone, optical fibre, radar and networks.

TELE3015
High Frequency Electromagnetics
School of Electrical Engineering and Telecommunications
UOC3  HPW3
Prerequisite: PHYS2939 or PHYS2949.


TELE3018
Data Networks 1
School of Electrical Engineering and Telecommunications
UOC6  HPW4
Prerequisite: (COMP1021 & ELEC1041) or (COMP1021 & COMP2021)


TELE4313
Optical Communications
School of Electrical Engineering and Telecommunications
UOC6  HPW4
Prerequisite: TELE3013; Excluded: ELEC9350 and ELEC8350


TELE4314
Optical Communication Systems
School of Electrical Engineering and Telecommunications
UOC6  HPW4
Prerequisite: TELE4313 Excluded: ELEC9355/ELEC8355

Digital and analogue optical communication systems; fibre connections and losses; fibre-device coupling; WDM systems; optical modulation; optical components; optical networks.

TELE4323
Digital Modulation and Coding
School of Electrical Engineering and Telecommunications
UOC6  HPW4
Prerequisite: TELE3013

Brief review of key concepts from signal processing, linear systems, sampling theory and source coding. Digital transmission through AWGN channels. Baseband signalling and pulse shaping. Carrier amplitude, phase and frequency modulation techniques. Spread spectrum modulation. Carrier and clock synchronisation. Channel capacity. Forward error correction coding. Applications of these techniques in typical digital communications systems.

TELE4333
Wireless Data Communication Systems
School of Electrical Engineering and Telecommunications
UOC6  HPW4
Prerequisite: TELE3013; Excluded: TELE9343


TELE4352
Data Networks 2
School of Electrical Engineering and Telecommunications
UOC6  HPW4
Prerequisite: TELE3018; Excluded: TELE9302

The course involves the design and construction of experimental apparatus, and research work on an approved topic is carried out. Generally, the thesis involves the design and construction of experimental apparatus, software simulations or models with laboratory tests. Each student is required to present a seminar as part of the requirements for TELE4914. Group Thesis Part A involves a detailed literature search and reviews of the background for the thesis topic and planning the activities that will be carried out during Part B.

**COURSE DESCRIPTIONS 645**

**TELE4353**  
**Mobile and Satellite Communication Systems**  
School of Electrical Engineering and Telecommunications  
UOC6 HPW4  
Prerequisite: TELE3013; Excluded: TELE9314.


**TELE4325**  
**Network Management**  
School of Electrical Engineering and Telecommunications  
UOC6 HPW4  
Prerequisite: TELE3018; Excluded: TELE9303.

This course will introduce students to methods, techniques and tools for the management of telecommunication systems and networks with specific examples from the Internet and the public switched telecommunication networks. It will introduce the fundamental concepts of SNMP. Then it will examine QoS management mechanisms and mobility management in IP networks. Finally it examines the concepts of content distribution networks.

**TELE4363**  
**Telecommunications Systems 2**  
School of Electrical Engineering and Telecommunications  
UOC6 HPW4  
Prerequisite: TELE3013; Excluded: TELE9301.

This course provides a fundamental coverage of important communication systems, their basic components, as well as legal and commercial aspects affecting the design and operation of these systems. This subject is intended for students who wish to major in telecommunications or to strengthen their knowledge of modern communication systems. Basic principles of guided and unguided wave propagation. Transmission aspects of voice telephony, digital networks signalling, CCITT signaling system no.7. Asynchronous Transfer Mode (ATM), Advanced Broadband Digital Transport Formats. Broadcast radio and TV systems. Cable systems. Introduction to mobile and satellite communications.

**TELE4914**  
**Group Thesis Part A**  
School of Electrical Engineering and Telecommunications  
UOC6 HPW4  
Prerequisite: TELE3017 and 132 units of credit.

The group thesis (Parts A&B) is carried out in the last two sessions of the BE degree course. Under the guidance of a supervisor, directed laboratory and research work on an approved topic is carried out. Generally, the thesis involves the design and construction of experimental apparatus, software simulations or models with laboratory tests. Each student is required to present a seminar as part of the requirements for TELE4914. Group Thesis Part A involves a detailed literature search and reviews of the background for the thesis topic and planning the activities that will be required for Part B.

**TELE4915**  
**Group Thesis Part B**  
School of Electrical Engineering and Telecommunications  
UOC6 HPW4  
Prerequisite: TELE4914.

The group thesis (Parts A&B) is carried out in the last two sessions of the BE degree course. Under the guidance of a supervisor, directed laboratory and research work on an approved topic is carried out. Generally, the thesis involves the design and construction of experimental apparatus, software simulations or models with laboratory tests. Each student is required to present a seminar as part of the requirements for TELE4914. Thesis Part B typically involves the detailed theoretical development or modelling work. A written thesis report must be submitted on the thesis topic by Tuesday of Week 14 of the session in which TELE4911 is taken.
VISN2131 Optics and the Eye
School of Optometry and Vision Science
UOC6 HPW6
Prerequisite: VISN1211
Objectives: An understanding of the optical performance of the eye, the optics of refraction, the optics of spectacle lenses and the measurement of light and colour.
Brief Curriculum: Ametropia and its correction: refractive error, the optics of subjective refraction, accommodation, optometers; The optics of spectacle lenses: spectacle magnification, ophthalmic prisms, lens forms; Factors influencing visual performance: ocular aberrations, analysis of the retinal image, modulation transfer function, enoptic phenomena; Measurement of Light and Colour: sources of optical radiation, sunlight and daylight, detectors, principles of photometry, principles of colour measurement and specification, uniform colour scales, colour rendering, metamerism, colour atlases and order systems.

VISN2211 Vision Science 2B
School of Optometry and Vision Science
UOC6 HPW6
Prerequisite: VISN2111
Objectives: An understanding of processing in the visual system.
Brief curriculum: Spatial vision: visual acuity, contrast sensitivity, aliasing, alignment thresholds; Colour vision: retinal and cortical processing, colour constancy, colour identification; Binocularity: models of depth perception, correspondence, Panum's area, horopter, stereovisual, monocular depth perception, summation, stereopsis tests; Motion perception: models of motion perception, adaptation, directional selectivity, first and second order motion; Cognition: shape recognition, face perception, visual illusions, visual hallucinations, visual attention, visual search and pop-out.

VISN2231 Introduction to Ocular Disease
School of Optometry and Vision Science
UOC6 HPW6
Prerequisite: VISN2111
Objectives: An understanding of the basic mechanisms of disease as they relate to the eye.
Brief curriculum: Microbiology: microbial identification, bacteria, viruses, fungi, parasitic infection, prions, epidemics of infection, infection control, common ocular infections; Immunology: cells of the immune system, normal and abnormal function; Disease processes: cell injury, adaptation, hypoxia, ischemia, inflammation, cell growth, vascular disease, atherosclerosis, neoplasia, aging, genetic abnormalities, diabetes, hypertension, intracranial disease.

VISN3111 Vision Science 3A
School of Optometry and Vision Science
UOC6 HPW6
Prerequisite: VISN1211
Objectives: An understanding of the development and aging of the visual system. The effect of disease on the visual system is briefly discussed.
Brief curriculum: Development of the visual system: embryology of the eye and brain, axon pathfinding, receptive field development, development of the visual cortex, critical periods, plasticity, reorganisation of cortical inputs; Development of vision: spatial vision, colour vision, motion perception, shape perception, binocularity; Ageing: physiology of aging, effect of age on brain function, effect of age on the visual system, effect of age on vision; Effect of disease: the effects of brain injury, retinal disease, refractive error, amblyopia and drugs on visual perception are briefly covered.

VISN3131 New Concepts in Optics
School of Optometry and Vision Science
UOC6 HPW6
Prerequisite: VISN2131

VISN3211 Vision Science 3B
School of Optometry and Vision Science
UOC6 HPW6
Prerequisite: VISN3111
Objectives: An understanding of the new developments occurring in vision science.
Brief curriculum: A review of interesting topics in modern visual science. Topics to be discussed may include: animal vision, machine vision, retinal implants for people with visual impairment, blind sight, stem cell implantation, cures for myopia, cures for presbyopia.
A portion of this course deals with public health issues in vision: the importance of epidemiological and clinical trial research, vision loss in the developing world, preventable vision loss, eye care in Australia's indigenous communities.

VISN4003 Vision Science Honours
School of Optometry and Vision Science
UOC6 HPW2
Advanced training in selected areas of vision science, including a supervised research program that places emphasis on the use of specialised techniques relevant to the research area. A written thesis on the research is required. The Honours program includes a formal component of seminars, an essay and participation in discussion groups.
Restricted to Vision Science study plan in program 3970 BSc.

WOMS1001 Introduction to Feminism
School of English
UOC6 HPW3
Introduces students to some key areas of feminist thought and to questions of sex and gender. There will be a focus on questions of representation and on differences and conflicts within feminism.

WOMS1003 Women, Gender and World History
School of History
UOC6 HPW3
Excluded: GLST1200, HIST1020
Looks at world change from ancient times, with reference to premodern women, male-female relations, sexuality and social constructions of gender. Emphasis will be placed upon patterns of change from prehistory through to modernity but with the recognition that even ‘revolutionary’ change has not necessarily involved progress for women. Topics include: androcentric periodizations of history; debates about early ‘matriarchies’; patriarchal controls placed upon women, their sexuality and fertility; different social constructs of feminine and masculine roles and identity; and the importance of culture and class in determining social roles, male-female relations and differences between women.

WOMS2003 A History of Sexualities
School of History
UOC6 HPW3
Prerequisite: 36 units of credit; Excluded: HIST2760
Begins with Classical Greece and establishes some important themes concerning gender, sex and culture which will be traced through the intervention of colonisation, Christianity, and the development of social sciences from the 18th century; traces the relationship between sexuality and socio-political control in the 19th and 20th centuries; investigates the shaping of sexualities through art, literature, cinema and media as well as pornography; and looks beyond the infamy of Lesbos, Mary Magdalen, the Marquis de Sade, Oscar Wilde, Margaret Mead, and Monica Lewinsky, amongst others, to uncover a rich history.

WOMS2004 Sex, Human Rights and Justice
School of Politics and International Relations
UOC6 HPW3
Prerequisite: 36 units of credit; Excluded: AUST2025, POLS2020
Examines thought and practices of human rights in connection with questions of sex and sexual relations. Conceptions of equality, autonomy and freedom will be examined, with some reference to classic liberal expositions of justice and the rights of the person. Areas include discrimination and harassment, abortion, prostitution and sexual slavery,
pornography, sexual violence and rape. Attention will be given to both domestic and international policy in these areas.

**WOMS2005**  
**Society and Desire**  
School of Sociology and Anthropology  
UOC6 HPW3  
Prerequisite: 36 units of credit; Excluded: SOCA2205, SOCC2201

The subject of desire is an especially curious one because it makes us think about the nature of the human condition. The perception of difference is an erotic process through which we are forged as bodily beings whose identities are constantly shifting. Explores how our sense of self emerges in relation to others. How we divide our own bodies into alien parts that may delight or repulse us is part of a larger social process that includes how we experience the world, how we live our sex, sexuality and cultural difference. Will draw on several continental thinkers.

**WOMS2006**  
**Sexuality and Power: The Social Relations of Sex and the Sexes**  
School of Politics and International Relations  
UOC6 HPW3  
Prerequisite: 36 units of credit; Excluded: POLS2041, POLS3049

Introduces some of the main theories of power and of sexuality; analyses different sexualities, and issues relating to sexuality, in the context of theories of power. Topics include compulsory heterosexuality; the construction of masculinity, femininity and desire; marriage and prostitution; sexuality and work; body politics; and pornography and popular culture.

**WOMS2106**  
**Embodiment**  
School of Sociology and Anthropology  
UOC6 HPW3  
Prerequisite: 36 units of credit; Excluded: SOCA2206, SOCC2501

We are lived bodies inhabiting a world. Addresses a range of themes which emerge when we reflect upon ourselves in this way: I am a body, yet I have a body; my body is always in communication with a world, I am both sentient and sensible; I am both bounded and open. Consideration of such themes requires an investigation of theoretical constructs of the social and cultural formations of embodied subjectivity, the relations of consciousness and flesh, habit and inhabitation, the significance of body image, relationality and emotions. Major theorists include Merleau-Ponty, Foucault, Douglas, Turner, Bachelard and Lingis. Case studies such as reproduction, sacred and profane bodies, bodybuilding and anorexia, dissociation and disembodiment, illness, will be used to enable students to reflect upon their own embodied experience, to examine critically everyday and theoretical assumptions, and to develop skills in qualitative analysis.

**WOMS3006**  
**Crime, Gender and Sexuality**  
Faculty of Arts and Social Sciences  
UOC6 HPW3  
Prerequisite: 36 units of credit; Excluded: SOCA3409, WOMS2007, GENT1207

Examines social implications of: the role of law in defining the limits of gender and sexuality, regulating gender and sexual relationships, and in reinforcing particular gender and sex based interests; the intersection of criminality and sexuality (specific examples may include pornography, rape, discrimination, AIDS transmission, moral danger, prostitution, abortion, underage pregnancy). Nations of public interest, privacy and consent in matters of gender and sex. The interaction of gender and sexuality with other stratification factors such as age, class, disability, ethnicity and race in the social construction of crime.

**WOMS4500**  
**Combined Women’s and Gender Studies Honours (Research) Full-Time**  
School of English  
UOC12 HPW2  
Prerequisite: 48 units of credit, including 6 Level 1 in WOMS at credit level and permission from the Coordinator

Students are required to complete coursework nominated by the Coordinator. The Women’s and Gender Studies component consists of a 2HPW seminar or reading program for one session. In addition, a thesis on an approved interdisciplinary topic, with joint supervision, must be submitted.

**WOMS4550**  
**Combined Women’s and Gender Studies Honours (Research) Part-Time**  
School of English  
UOC6 HPW2  
Prerequisite: 48 units of credit, including 6 Level 1 in WOMS at credit level and permission from the Coordinator

Students are required to complete coursework nominated by the Coordinator. The Women’s and Gender Studies component consists of a 2HPW seminar or reading program for one session. In addition, a thesis on an approved interdisciplinary topic, with joint supervision, must be submitted.
Glossary

Award
An award is a degree, diploma or certificate obtained when a student graduates from a program at UNSW. It recognises the student’s successful completion of that program.

Bachelor
A Bachelor degree is the formal award a student receives when they successfully complete an undergraduate university degree program, ordinarily of three or more years duration.

Campus
This is the teaching location where a program, course or plan is taught. UNSW has several campuses including the main campus at Kensington, the College of Fine Arts campus in Paddington, and the Australian Defence Force Academy in Canberra.

Co-major
A co-major is part of a sequence of study for a program in which the requirements for two majors are met.

Combined Program
A combined program is a program of study which leads to the award of two degrees, that is, the graduate earns two qualifications (an example of this would be the Bachelor of Arts/Bachelor of Laws.) These are also sometimes called combined degrees. They have a single set of program rules.

Corequisite
A corequisite is a course which is linked or integrated with another course so that the two must be studied concurrently.

Course
Otherwise known as a subject, a course is an individual study unit offered within a program and plan (for example, MATH1131 - Mathematics 1A). Students enrol in many courses to make up their program of study, some of which may be core courses (courses which need to be completed to satisfy the requirements of a particular program) and some of which may be elective courses (where students are given a choice of courses). At UNSW, courses are identified by a four character alphabetic prefix which identifies the subject area or specialisation and a four digit numeric suffix e.g. ECON1101 - Microeconomics 1.

Coursework
Coursework refers to a mode of study which is largely or wholly constituted of courses involving face-to-face class instruction. It is a term which is commonly used with regard to undergraduate and postgraduate study. The other mode of postgraduate study is research.

Degree
A degree is the formal qualification awarded when a student graduates from an undergraduate program of study such as a Bachelor of Arts, or a postgraduate Masters or PhD program.

Department
See School.

Doctorate/Doctoral program
A doctoral program is a postgraduate research program where students independently research a specific topic under the guidance of a supervisor and producing a thesis or report. Some research programs also involve a research component.

General Education
UNSW requires undergraduate students to complete some courses outside the study area of the degree program in which they are enrolled. General Education courses are offered in a variety of general subject areas to allow students to complete this requirement.

International Student
International students are citizens of a country other than Australia or New Zealand and are not Australian permanent residents.

Local Student
Local students are Australian citizens, Australian permanent residents or New Zealand citizens.

Major
Many programs require students to complete a major. A major is an approved sequence of study in an area of academic or vocational specialisation. This is also sometimes referred to as a ‘plan’ (see below).

Masters
A Masters program or degree is a postgraduate program where students enrol in an approved sequence of courses involving face-to-face instruction. Some Masters programs also involve a research component.

Minor
In some programs, students are required to supplement their study major (see above) with a ‘minor’. This is a sequence of study in a secondary area of specialisation, comprising fewer units of credit than a major (usually 24). For example, a student enrolled in an Science degree program might complete a minor in Anatomy and a minor in Zoology. Majors and minors are both examples of a ‘plan’ (see below).

Non-Award
Non-award enrolment means that the course/subject undertaken by the student do not lead to the award of any formal degree, diploma or certificate at UNSW. Students from other universities (cross institutional students) often enrol in non-award courses at UNSW, as credit may be granted for these courses by their home institution.

PhD
See Doctorate.

Plan
A plan is a sequence of study within a program focused on a particular study area, usually requiring students to complete an approved sequence of ‘core’ and ‘elective’ courses. At UNSW, plans are identified by a five-digit alphabetical prefix and a five-digit numeric suffix e.g. SENG13648 refers to the full-time Software Engineering plan.

Postgraduate
Postgraduate programs of study are available to students who have already completed a university degree program in a related area. They offer the opportunity for students to further their skills and qualifications in a particular area of specialisation. Completion of a postgraduate program may lead to an award of a Graduate Certificate, Graduate Diploma, Masters (by coursework or Research), Doctorate (PhD) or post-doctoral qualification.

Prerequisite
Some courses have prerequisites. A pre-requisite is a requirement which must be completed before enrolling in the course or the next level of courses e.g. completing a Level 1 MATH course before progressing to Level II MATH courses.

Program
A program is an approved program of study which leads to the award of a degree, diploma or certificate. Programs may be undergraduate or postgraduate and are identified by a four-digit numeric code e.g. the program code for the Bachelor of Psychology is 3432.

Research
Research programs of study are postgraduate programs of study which involve a student independently researching a specific topic under the guidance of a supervisor and producing a thesis or report. Some research programs involve a coursework component.
School
This is an academic organisational unit, also sometimes referred to as a department. Faculties may be comprised of several schools e.g. the Faculty of Arts and Social Sciences has 12 schools including the School of Philosophy and the School of History.

Session/Semester
A session or semester is a university teaching period. Each academic year, there are two main sessions (Session 1 and Session 2), usually of 14 weeks teaching, plus an examination period. There are also shorter Summer and Winter sessions that run during the breaks between the major sessions. Exceptions to this pattern are the Faculty of Medicine and the Australian Graduate School of Management whose academic years are divided into four teaching periods.

Specialisation
A specialisation is an area of academic expertise on which students’ focus their studies, often by enrolling in a plan offered in that area, such as a Philosophy major within an Arts degree. Examples of specialisations include French, Biological Science, Taxation etc.

Stage
Programs are generally structured in a number of ‘stages’ of study, requiring students to complete a specified number of units of credit and/or a particular sequence of courses at each stage. Generally, when a student completes their degree program within the normal minimum time, the different stages will correspond with the different years of the student’s enrolment (e.g. Level 1 is Year 1, Level 2 is Year 2, etc).

Undergraduate
Undergraduate programs of study are degree programs which do not require students to have previously undertaken university study in order to enrol. They are designed for students who have completed secondary studies (high school) in Australia or have a level of education deemed equivalent to this (e.g. equivalent overseas study or alternate entry programs).

Unit of Credit (UOC)
Each course at UNSW has a particular load or weighting which is referred to as a unit of credit e.g. the course ELEC1101 Electrical Engineering is worth 3 units of credit. This is often abbreviated to UOC. UNSW programs require the successful completion of a certain number of UOCs and fees are also charged on a UOC basis.
The University of New South Wales • Kensington Campus

BUILDINGS
AGSM G27
Analytical Centre (Under Construction 2005/07) G11
Applied Science F10
Arcade D24
Biological Sciences D26
Blockhouse G6
Building L5
Chancellery C22
Civil Engineering H20
Dalton F12
Electrical Engineering G17
Food Science B8c, C8a
Golf House (38 Botany St.) A27
Goodsell F20
Hefron E12
K17 (Computer Science) K17
Law (Under Construction 2005/07) F8
Library E21
Library Stage 2 F21
Material Science E8
Mathews F23
Mechanical Engineering J17
Medical Administration B27
Metallurgy Process D7
Morrow Brown C20
Newton J12
NIDA D2
Old Main K15
Pavilions E24
Petroleum Engineering D12
Quadangle E15
Red Centre H13
Robert Webster G14
Roundhouse E6
Rupert Myers M15
Sam Cracknell Pavilion H8
Samuels F25
Scientia G19
Squarehouse E4
University Regiment J2
Valentine Annex E22
Wallace Wurth C27
Willis Annex E18

RESIDENCES
Barker Apartments N13
Basser College C18
Baxter College D14
Goldstein College D16
International House C6
Kensington Colleges (Office) C17
New College L6
Shalom College N9
Warrane College M7

FACULTY OFFICES
Arts and Social Sciences C20
Australian Graduate School of Management (AGSM) G27
Built Environment H13
Commerce and Economics F20
Engineering K17
Law F21
Medicine B27
Science F12

THEATRES
Applied Science Theatre F11
Biomedical Theatres E27
Central Lecture Block (CLB) E19
Civil Engineering Theatre G1 H20
Clancy Auditorium C24
FigTree Theatre B14d
IO Myers Studio D9
Keith Burrows Theatre J14
Macauley Theatre E15
Mathews Theatres D23
NewSouth Global Theatre G14
Old Main Building (112) Theatre K15
Parade Theatre (NIDA) E2
Physics Theatre K14
Red Centre Theatre H13
Rex Vowels Theatre F17
Ritchie Theatre G19
Rupert Myers Theatre M15
Science Theatre F13
Webster Theatres G15

SERVICES
Aboriginal Education Program (47 Botany Street) A29
Aboriginal Research and Resource Centre F21
Accommodation (Housing Office) E15
Admissions and Enrolment - Student Centre C22
Alumni Association C22
Biomedical Library F23
Bookshop E15
Campus Conferencing C22
Cashier C22
Careers & Employment Office E15
Chaplaincy E4
Child Care Centres:
  House at Pooh Corner N8
  Kangaroo's House (52 Barker Street) O14
  Tiggers/Honey Pot (34 Botany Street) A28
Co-op program M15
CONTACT E15
Counselling Service E15

e Spot (Security, Parking, Permits etc) H13
Environment Management Program G2
Equity and Diversity Unit F10
Facilities Management B14a
Housing Office E15
Human Resources C22
Independent Learning Centre G21
IT Service Desk F21
Law Library F21
Mail Centre B13
Medical Centre E15
NewSouth Global P/L L5
Optometry M15
Physiotherapy Clinic B5
Planning and Development C22
Post Office F22
Marketing and Development C22
Publishing & Printing Services C22
Religious Services E4
Research Office M15
Roundtable Conferencing and Catering E4
Security (Lost Property, Parking etc) H13
Sports Association H8
Squash Courts B7
Student Centre (UNSW Student Central) C22
Student Guild E15
Student Recruitment Office C22
Swimming Pool B4
UniSearch Limited M15
Uni Gym B5
UNSW Bookshop E15
UNSW International (Student Centre) H13
UNSW Student Central C22
UNSW Union G6

Environment Management Program