UNSW

THE UNIVERSITY OF NEW SOUTH WALES

Undergraduate Handbook

2002

Courses, programs and any arrangements for programs including staff allocated as stated in this Handbook are an expression of intent only. The University reserves the right to discontinue or vary arrangements at any time without notice. Limitations on the number of students in a course may have to be imposed where the availability of equipment or studio or laboratory space is restricted. Information has been brought up to date as at 2 November 2001 but may be amended without notice by the University Council.

This document is available in large print, on audiotape, on disk or in Braille for people with print handicap. Please contact Equity & Diversity Unit on (02) 9385 4734 or equity-diversity@unsw.edu.au

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UNSW Undergraduate Handbook

Contents

General University Rules and Student Information

General Education

Introduction 24
General Education Courses 27

Faculties

Faculty of Arts and Social Sciences

A Message from the Dean 33
Faculty Information and Assistance 34
Program and Course Information 79

Faculty of the Built Environment

A Message from the Dean 84
Faculty Information and Assistance 85
Program and Course Information 86

College of Fine Arts

A Message from the Dean 106
Information and Assistance 107
Program and Course Information 109

Faculty of Commerce and Economics

A Message from the Dean 126
Faculty Information and Assistance 127
Information on Schools and Disciplines 128
Program and Course Information 133

Faculty of Engineering

A Message from the Dean 158
Faculty Information and Assistance 160
Program and Course Information 161

Faculty of Law

A Message from the Dean 207
Faculty Information and Assistance 208
Program and Course Information 211

ATAX Australian Taxation Studies Program

A Message from the Director of ATAX 230
Information and Assistance 231
Program and Course Information 233

Faculty of Medicine

A Message from the Dean 242
Faculty Information and Assistance 243
Program and Course Information 250

Faculty of Science

A Message from the Dean 258
Faculty Information and Assistance 260
Program and Course Information 260

Undergraduate Course Descriptions 298

All 2002 UNSW courses by course code

Maps

College of Fine Arts, Paddington 583
University of New South Wales, Kensington Campus 584

General University Rules and Student Information

Contents

Handbook User Guide 1
Academic Calendar for 2002 2
Units of Credit 4
Identification of Courses 4
Course Prefixes 4
Schedule of Undergraduate Programs offered by the University listed by Faculty/Unit 6
General Education 9
Disclosure of Enrolment Information and Release of Information to Third Parties 9
Enrolment and Variations in Enrolment 9
Attendance at Classes 10
Discontinuation and Program Leave 10
Resumption of Programs 10
Assessment and Examinations 10
Academic Standing 10
Admission to Degree or Diploma 11
Special Consideration – Illness and Misadventure 12
Academic Misconduct and Student Misconduct 13
Student ID Card – Conditions of Use 15
Computing at UNSW 15
Faculty Computing Information 15
Rules for the Use of Computing and Electronic Communications Facilities for Students 16
Prizes 17
Scholarships 17
Textbooks 17
Contact Details 17
Equity and Diversity Policy Statement 17
Other Equity and Diversity Policies and Procedures 18
Access to Assessment Information and Freedom of Information 18
Procedures for the Resolution of Student Grievances and Disputes 19
Student Discrimination and Harassment Grievance Policy and Procedures 19
Occupational Health and Safety on Campus 19
Copyright 20
Special Government Policies 20
Health-related programs 20
Education programs 20
Working with children 20
Student Representatives 20
Student Clubs and Societies 20
Library Facilities 21
Support for Students
The Learning Centre 22
Counselling Service and Compass 22
Careers and Employment 22
Contact Careers and Employment 22
Disability Services 23
Services for ACCESS Students 23
Charging fees for compulsory course materials 23

Handbook User Guide

From the 2002 academic year the University has consolidated the publication of information relating to Faculties, program and course offerings into an Undergraduate Handbook and a Postgraduate Handbook. The handbooks also provide information on some of the most important administrative rules and procedures and introduce students to many of the services available to them. It is hoped that these publications will provide students with a range of detailed information and will become an important reference source while they are studying at UNSW.

While this Handbook has been designed as a detailed source of reference in all matters related to Faculties, it should be used in conjunction with other University publications, especially the University's Student Guide which is issued annually to students as part of the Union Diary as well as being available on the web at www.student.unsw.edu.au/studentguide/

Within this Handbook program outlines are presented for each Faculty, providing a guide to degrees offered within specific organisational units. Descriptions of courses offered in 2002 detail course content, contacts and session/prerequisite details and are listed in the back of the Handbook.

As changes may be made to information provided in this Handbook, students should consult the University and Faculty web pages, Schools noticeboards and the official noticeboards of the University.

It is important that students read the General Information in the Handbook and the opening sections relating to the appropriate Faculty, together with the Summary of programs and courses. All Faculty sections contain specific information relating to undergraduate degrees, including Enrolment Procedures, Honours, Professional Practice, Program Transfers and a number of other matters with which students should be familiar.

Information Key

The following key provides a guide to abbreviations used in this book:

CCH	Class contact hours
F	Full-time
HPW	hours per week
L	lecture
UOC	unit of credit
P/T	part-time
Sa	Saturday
S1	Session 1
S2	Session 2
SS	single session, but which session taught is not known at time of publication
T	tutorial/laboratory
WKS	weeks of duration
X	external
X1	Summer session
X2	Winter session

Academic Calendar for 2002

Faculties other than Medicine, AGSM and University College, ADFA

	2002	2003
Session 1		
(14 teaching weeks)	4 Mar to 28 Mar 8 Apr to 14 Jun	3 Mar to 17 Apr 28 Apr to 13 Jun
Mid-session recess	29 Mar to 7 Apr	18 Apr to 27 Apr
Study period	15 Jun to 20 Jun	14 Jun to 19 Jun
Examinations	21 Jun to 9 Jul	20 Jun to 8 Jul
Mid-year recess	10 Jul to 28 Jul	9 Jul to 27 Jul
Session 2	29 Jul to 27 Sep	28 Jul to 26 Sep
(14 teaching weeks)	8 Oct to 8 Nov	7 Oct to 7 Nov
Mid-session recess	28 Sep to 7 Oct	27 Sept to 6 Oct
Study period	9 Nov to 14 Nov	8 Nov to 13 Nov
Examinations	15 Nov to 3 Dec	14 Nov to 2 Dec

Faculty of Medicine

	2002	2003
Medicine I, II, III	As for other faculties	As for other faculties
Medicine IV		
Term 1		
Campus Program 1	29 Jan to 1 Feb	28 Jan to 31 Jan
Hospital Program	4 Feb to 17 Mar	3 Feb to 16 Mar
Term 2	18 Mar to 28 Apr	17 Mar to 27 Apr
Recess	29 Apr to 5 May	28 Apr to 4 May
Term 3	6 May to 16 Jun	5 May to 15 Jun
Term 4		
Campus Program 2	17 Jun to 28 Jun	16 Jun to 27 Jun
Hospital Program	1 Jul to 11 Aug	30 Jun to 10 Aug
Recess	12 Aug to 18 Aug	11 Aug to 17 Aug
Term 5	19 Aug to 29 Sep	18 Aug to 28 Sep
Term 6	30 Sep to 10 Nov	29 Sept to 9 Nov
Medicine V		
Term 1		
Campus Program 1	17 Jan to 18 Jan	16 Jan to 17 Jan
Hospital Program	21 Jan to 24 Mar	20 Jan to 23 Mar
Recess	25 Mar to 1 Apr	24 Mar to 30 Mar
Term 2	2 Apr to 2 Jun	31 Mar to 1 Jun
Recess	3 Jun to 10 Jun	2 Jun to 9 Jun
Term 3	11 Jun to 11 Aug	10 Jun to 10 Aug
Recess	12 Aug to 18 Aug	11 Aug to 17 Aug
Term 4	19 Aug to 20 Oct	18 Aug to 19 Oct
Medicine VI		
Term 1	Elective – variable dates	Elective – variable dates
Term 2		
Hospital Program	25 Feb to 7 Apr	24 Feb to 6 Apr
Recess	8 Apr to 14 Apr	7 Apr to 13 Apr
Term 3	15 Apr to 26 May	14 Apr to 25 May
Term 4		
Hospital Program	27 May to 7 Jul	26 May to 6 Jul
Campus Program 2	8 Jul to 19 Jul	7 Jul to 18 Jul
Recess	20 Jul to 28 Jul	19 Jul to 27 Jul
Term 5	29 Jul to 8 Sep	28 Jul to 7 Sep
Term 6	9 Sep to 20 Oct	8 Sep to 19 Oct

Public Holidays	**2002**	**2003**
Australia Day	Monday, 28 January	Monday, 27 January
Good Friday	Friday, 29 March	Friday, 18 April
Easter Monday	Monday , 1 April	Monday, 21 April
Anzac Day	Thursday, 25 April	Friday, 25 April
Queen's Birthday	Monday, 10 June	Monday, 9 June **
Labour Day	Monday, 7 October	Monday, 6 October **

** Subject to proclamation

Important dates for 2002

March		
F	15	Last day applications are accepted from students to enrol in Session 1 courses
F	29	HECS Census Date for Session 1
		Last day for students to discontinue without failure Session 1 courses
April		
M	1	AVCC Common Vacation Dates (week beginning)
May		
T	14	Publication of the provisional timetable for the June examinations
W	22	Last day for students to advise of examination clashes
June		
T	4	Publication of the Final Timetable for the June examinations
F	21	Examinations begin for faculties other than Medicine, AGSM and University College, ADFA
July		
M	8	AVCC Common Vacation Dates (week beginning)
T	9	Examinations end for faculties other than Medicine, AGSM and University College, ADFA
August		
F	9	Last day applications are accepted from students to enrol in Session 2 courses
F	30	HECS Census Date for Session 2
		Last day for students to discontinue without failure Session 2 courses
September		
S	7	Courses and Careers Day
M	30	AVCC Common Vacation Dates (week beginning)
October		
T	8	Publication of the provisional timetable for the November examinations
W	16	Last day for students to advise of examination clashes
T	29	Publication of the Final Timetable for the November examinations
November		
F	15	Examinations begin for faculties other than Medicine, AGSM and University College, ADFA
December		
T	3	Examinations end for faculties other than Medicine, AGSM and University College, ADFA

General University Rules & Student Information

Units of Credit

The University's academic structure is based on units of credit and 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. A full-time enrolment for one year is defined as 48 units of credit (24 per semester). A course has the same unit of credit value and generates the same load for HECS and 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 semester for each unit of credit, including class contact hours, preparation and time spent on all assessable work.

Identification of Courses

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 organisational unit responsible for administering the course, and a four digit numeric suffix which identifies the course.

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

1. The authority offering the course, normally a School of the University, is indicated by the four character alphabetical prefix.

2. Each course identifier is unique and is not used for more than one course title.

3. Course numbers which have previously been used are not used for new course titles.

Courses taught in 2002 are listed at the back of this Handbook. Please check Faculty and School websites and noticeboards for changes to courses to be offered.

The identifying alphabetical prefixes for each organisational unit are set out on the following pages.

Course Prefixes

Prefix	Organisational Unit	Faculty
ACCT	School of Accounting	Commerce & Economics
ACHM	School of Chemistry	University College
ACIV	School of Civil Engineering	University College
ACSC	School of Computer Science	University College
ACTL	Actuarial Studies Unit	Commerce & Economics
AECM	School of Economics and Management	University College
AELE	School of Electrical Engineering	University College
AENG	School of English	University College
AERO	School of Mechanical and Manufacturing Engineering	Engineering
AGOC	School of Geography and Oceanography	University College
AHIS	School of History	University College
AIND	School of Language, Literature and Communication	University College
AINT	University College (Interdisciplinary)	
AMAT	School of Mathematics	University College
AMEC	School of Mechanical Engineering	University College
ANAT	Department of Anatomy	Medicine
ANCE	Centre for Advanced Numerical Computationin Engineering and Science	Engineering
APHY	School of Physics	University College
APOL	School of Politics	University College
ARCH	School of the Built Environment (Architecture)	Built Environment
ARTS	Faculty of Arts & Social Sciences	
ASIA	Faculty of Arts & Social Sciences	
ATAX	School of Law (Taxation)	Law
AUST	Faculty of Arts & Social Sciences	
AVEN	School of Mechanical and Manufacturing Engineering	Engineering
AVIA	Department of Aviation	Science
BENV	School of the Built Environment	Built Environment
BINF	School of Computer Science and Engineering	Engineering
BIOC	School of Biotechnology and Biomolecular Science (formerly Biochemistry and Molecular Genetics)	Science
BIOM	Graduate School of Biomedical Engineering	Engineering
BIOS	School of Biological, Earth and Environmental Sciences (formerly Biological Science)	Science
BIOT	School of Biotechnology and Biomolecular Science (formerly Biotechnology)	Science
BLDG	School of the Built Environment (Building)	Built Environment
BSSM	Faculty of Science	
CEIC	School of Chemical Engineering and Industrial Chemistry	Engineering
CHEM	School of Chemical Sciences (formerly Chemistry)	Science
CHEN	School of Chemical Engineering and Industrial Chemistry	Engineering
CHIN	Department of Chinese and Indonesian Studies	Arts & Social Sciences
CMED	School of Community Medicine, Health Services Management and Medical Education	Medicine
COFA	Faculty of the College of Fine Arts	
COMD	Faculty of Arts & Social Sciences	
COMM	Faculty of Commerce & Economics	
COMP	School of Computer Science and Engineering	Engineering
CONS	School of the Built Environment (Building Construction Management)	Built Environment
CRIM	School of Social Science and Policy	Arts & Social Sciences
CVEN	School of Civil and Environmental Engineering	Engineering
DANC	School of Theatre, Film and Dance	Arts & Social Sciences
ECOH	School of Economics	Commerce & Economics
ECON	School of Economics	Commerce & Economics
EDST	School of Education	Arts & Social Sciences
ELEC	School of Electrical Engineering and Telecommunications	Engineering
ENGL	School of English	Arts & Social Sciences
ENVS	Faculty of Science	
EURO	Faculty of Arts and Social Sciences	
EXCH	Exchange Program	UNSW Administration
FIBR	School of Fibre Science and Technology	Science
FILM	School of Theatre, Film and Dance	Arts & Social Sciences
FINS	School of Banking and Finance	Commerce & Economics
FOOD	School of Chemical Sciences (formerly Food Science and Technology)	Science

FREN	Department of French	Arts & Social Sciences
FUEL	School of Chemical Engineering and Industrial Chemistry	Engineering
GBAT	Graduate Programs in Business and Technology	Engineering
GENB	Faculty of Science	
GENC	Faculty of Commerce & Economics	
GEND	Faculty of the College of Fine Arts	
GENE	Faculty of Engineering	
GENL	Faculty of Law	
GENM	Faculty of Medicine	
GENQ	Faculty of Law (Taxation)	
GENR	Faculty of the Built Environment	
GENS	Faculty of Science	
GENT	Faculty of Arts & Social Sciences	
GENX	Aboriginal Research and Resource Centre	Arts & Social Sciences
GENZ	University College (ADFA)	
GEOG	School of Biological, Earth and Environmental Sciences (formerly Geography)	Science
GEOL	School of Biological, Earth and Environmental Sciences (formerly Geology)	Science
GEOS	School of Geology	Science
GERS	Department of German and Russian Studies	Arts & Social Sciences
GMAT	School of Surveying and Spatial Information Systems	Engineering
GREK	School of Modern Language Studies	Arts & Social Sciences
GSBE	School of the Built Environment	Built Environment
GSOE	Graduate Programs in Business and Technology	Commerce & Economics
HEAL	School of Community Medicine, Health Services Management and Medical Education	Medicine
HERI	School of the Built Environment	Built Environment
HIST	School of History	Arts & Social Sciences
HOSP	School of Marketing	Commerce & Economics
HPST/ SCTS	School of Science and Technology Studies	Arts & Social Sciences
IBUS	School of International Business	Commerce & Economics
IDES	School of the Built Environment (Industrial Design)	Built Environment
IEST	Institute of Environmental Studies	
ILAS	School of Information Systems, Technology and Management	Commerce & Economics
IMGT	School of Information Systems, Technology and Management	Commerce & Economics
INDC	School of Chemical Engineering and Industrial Chemistry	Engineering
INDO	Department of Chinese and Indonesian Studies	Arts & Social Sciences
INFS	School of Information Systems, Technology and Management	Commerce & Economics
INOV	Faculty of Science	
INST	Faculty of Arts & Social Sciences	
INTA	School of the Built Environment (Interior Architecture)	Built Environment
IROB	School of Industrial Relations and Organisational Behaviour	Commerce & Economics
JAPN	Department of Japanese and Korean Studies	Arts & Social Sciences
JWST	School of Politics and International Relations	Arts & Social Sciences
KORE	Department of Japanese and Korean Studies	Arts & Social Sciences
LAND	School of the Built Environment (Landscape Architecture)	Built Environment
LATN	School of Modern Language Studies	Arts & Social Sciences
LAWS	School of Law	Law
LEGT	School of Business Law and Taxation	Commerce & Economics
LIBS	School of Information Systems, Technology and Management	Commerce & Economics
LIFE	Faculty of Science	
LING	Department of Linguistics	Arts & Social Sciences
MANF	School of Mechanical and Manufacturing Engineering	Engineering
MARK	School of Marketing	Commerce & Economics
MATH	School of Mathematics	Science
MATS	School of Materials Science and Engineering	Science
MDCM	School of Media and Communications	Arts & Social Sciences
MDCN	School of Medicine	Medicine
MDSG	Medicine/Surgery Clinical Studies	Medicine
MECH	School of Mechanical and Manufacturing Engineering	Engineering
MEED	School of Community Medicine, Health Services Management and Medical Education	Medicine
MFAC	Faculty of Medicine	
MGMT	Faculty of Commerce and Economics	
MICR	School of Biotechnology and Biomolecular Science (formerly Microbiology and Immunology)	Science
MINE	School of Mining Engineering	Engineering
MINP	School of Chemical Engineering and Industrial Chemistry	Engineering
MNGT	Australian Graduate School of Management	
MODL	School of Modern Language Studies	Arts & Social Sciences
MSCI	Centre for Marine and Coastal Studies	Science
MTRN	School of Mechanical and Manufacturing Engineering	Engineering
MUSI	School of Music and Music Education	Arts & Social Sciences
NANO	School of Materials Science and Engineering	Science
NAVL	School of Mechanical and Manufacturing Engineering	Engineering
OBST	School of Women's and Children's Health	Medicine
OCEA	School of Mathematics (Oceanography)	Science
OPTM	School of Optometry and Vision Science	Science
PAED	School of Women's and Children's Health	Medicine
PATH	School of Pathology	Medicine
PDCS	Higher Education	Medicine
PFST	School of Theatre, Film and Dance	Arts & Social Sciences
PHIL	School of Philosophy	Arts & Social Sciences
PHPH	Department of Physiology and Pharmacology	Medicine
PHYS	School of Physics	Science

PLAN	School of the Built Environment (Planning and Urban Development)	Built Environment
POLS	School of Politics and International Relations	Arts & Social Sciences
POLY	School of Chemical Engineering and Industrial Chemistry	Engineering
PORT	School of Modern Language Studies	Arts & Social Sciences
PSCY	School of Psychiatry	Medicine
PSYC	School of Psychology	Science
PTRL	School of Petroleum Engineering	Engineering
REGS	Division of the Registrar and Deputy Principal	
REST	School of the Built Environment (Building Construction Management)	Built Environment
RUSS	Department of German and Russian Studies	Arts & Social Sciences
SAED	School of Art Education	College of Fine Arts
SAHT	School of Art History and Theory	College of Fine Arts
SART	School of Art	College of Fine Arts
SART	School of Media Arts	College of Fine Arts
SCOM	Faculty of Science	
SCTS\ HPST	School of Science and Technology Studies	Arts & Social Sciences
SDES	School of Design Studies	College of Fine Arts
SENG	School of Computer Science and Engineering	Engineering
SESC	School of Safety Science	Science
SLSP	School of Social Science and Policy	Arts & Social Sciences
SOCA	School of Sociology	Arts & Social Sciences
SOCW	School of Social Work	Arts & Social Sciences
SOLA	School of Electrical Engineering and Telecommunications	Engineering
SPAN	Department of Spanish and Latin American Studies	Arts & Social Sciences
SURG	School of Surgery	Medicine
SUSD	School of the Built Environment (Sustainable Built Environment)	Built Environment
TAHM	School of Marketing	Commerce & Economics
TELE	School of Electrical Engineering and Telecommunications	Engineering
THFI	School of Theatre, Film and Dance	Arts & Social Sciences
THST	School of Theatre, Film and Dance	Arts & Social Sciences
UDES	School of the Built Environment	Built Environment
WOMS	Faculty of Arts and Social Sciences	

Schedule of Undergraduate Programs offered by the University listed by Faculty/Unit

The range of programs offered by the University is indicated in the tables below, listed by Faculty. For details of the programs consult the relevant Faculty in this handbook.

Tuition fees indicated represent the per annum charge for a full-time program (48 Units of Credit).

Program and Plan	Award	Code	Total UOC	$Aust pa (full–fee Australian students)	$Aust pa (full-fee I'national students)
Faculty of Arts and Social Sciences					
Arts	BA	3400	144 *	$12,440	$13,440
Arts	BA(Hons)	3401	192	$12,440	$13,440
Arts (Asian Studies)**	BA(AsianStudies)	3405	144 *	$11,000	$12,000
Arts (Dance/Education)	BA(Dance)BEd	3408	192 *	$12,440	$13,440
Arts (European Studies)**	BA(EuropeanStudies)	3406	144 *	$11,000	$12,000
Arts (Media and Communications)	BA(Media)	3402	144 *	$13,400	$14,400
Arts/Education	BABEd	4055	192 *	$12,440	$13,440
Asian Studies **	DipAsianSt	3411	42	$12,440	$NA
European Studies **	DipEuroSt	3412	42	$12,440	$NA
International Studies	BIntSt	3413-6	192 *	$12,440	$13,440
Languages	DipLang	3417	42	$12,440	$NA
Music	BMus	3425	144 *	$13,400	$14,400
Music	DipMus	3418	42	$12,440	$NA
Music/Arts	BMusBA	3427	192 *	$13,400	$14,400
Music/Education	BMusBEd	3426	192 *	$13,400	$14,400
Social Science	BSocSc	3420/2	144 *	$12,440	$13,440
Social Science	BSocSc(Hons)	3423	192	$12,440	$13,440
Social Science (Asian Studies)**	BSocSc(AsianStudies)	3421	144 *	$11,000	$12,000
Social Work	BSW	4031	192 *	$12,440	$13,440
Social Work/Arts	BSW BA	4035	240 *	$12,440	$13,440
Social Work/Social Science	BSW BSocSc	4036	240 *	$12,440	$13,440
Faculty of the Built Environment					
Architecture	BArch	3260	264	$14,600	$15,600
Architecture	BSc(Arch)	3265	144 *	$14,600	$15,600
Architecture/Arts	BArch BA	3262	288	$14,600	$15,600
Architecture/Arts	BArch BA	3262	288	$14,600	$15,600

Program and Plan	Award	Code	Total UOC	$Aust pa (full–fee Australian students)	$Aust pa (full-fee I'national students)
Architecture/Social Science	BArch BSocSc	3263	288	$14,600	$15,600
Building Construction Management	BBCM	3331	204	$14,600	$15,600
Industrial Design	BIndDes	3385	204	$14,600	$15,600
Interior Architecture	BIA	3255	192	$14,600	$15,600
Landscape Architecture	BLArch	3380	216	$14,600	$15,600
Town Planning	BTP	3360	240	$14,600	$15,600
Town Planning/Environmental Management	BTP MEM	3363	288	$14,600	$15,600
Faculty of the College of Fine Arts					
Applied Arts **	BAppA	4804	144 *	$13,160	$NA
Art Education	BArtEd	4801	192	$13,160	$14,160
Art Theory	BArtTh	4803	144 *	$13,160	$14,160
Art Theory/Arts	BArtTh BA	4806	192 *	$13,160	$14,160
Art Theory/Social Science	BArtTh BSocSc	4807	192 *	$13,160	$14,160
Design	BDes	4802	192	$13,160	$14,160
Design/Art Education	BDes BArtEd	4808	240	$13,160	$14,160
Digital Media	BDM	4810	144 *	$13,160	$14,160
Fine Arts	BFA	4800	144 *	$13,160	$14,160
Faculty of Commerce and Economics					
Commerce	BCom	3502	144 *	$12,200	$13,200
Economics	BEc	3543	144 *	$12,200	$13,200
Marketing, Tourism and Hospitality Mangement	BCom	3571	192 *	$12,200	$13,200
Commerce/Arts	BCom BA	3525	240 *	$12,200	$13,200
Commerce/Social Science	BCom BSocSc	3527	240 *	$12,200	$13,200
Commerce/Science	BCom BSc	3529	192 *	$13,880	$14,880
Economics/Arts	BEc BA	3526	240 *	$12,200	$13,200
Economics/Social Science	BEc BSocSc	3528	240 *	$12,200	$13,200
Faculty of Engineering					
Bioinformatics	BE	3647	192	$17,000	$18,000
Chemical Engineering	BE	3040	192	$17,000	$18,000
Chemical Engineering/Arts	BE BA	3043	240	$16,040	$17,040
Chemical Engineering/Biomedical Engineering	BE MBiomedE	3048	240	$17,000	$18,000
Chemical Engineering/Computer Science	BE BSc	3042	240	$17,000	$18,000
Civil Engineering	BE	3620	192	$17,000	$18,000
Civil Engineering/Arts	BE BA	3621	240	$16,040	$17,040
Civil Engineering/Environmental Engineering	BE BE	3631	240	$17,000	$18,000
Civil Engineering/Mining Engineering	BE BE	3146	240	$17,000	$18,000
Civil Engineering/Science	BE BSc	3730	240	$17,000	$18,000
Computer Engineering	BE	3645	192	$17,000	$18,000
Computer Engineering/Arts	BE BA	3722	240	$16,040	$17,040
Computer Engineering/Biomedical Engineering	BE MBiomedE	3728	240	$17,000	$18,000
Computer Engineering/Science	BE BSc	3726	240	$17,000	$18,000
Electrical Engineering	BE	3640	192	$17,000	$18,000
Electrical Engineering/Arts	BE BA	3720	240	$16,040	$17,040
Electrical Engineering/Biomedical Engineering	BE MBiomedE	3727	240	$17,000	$18,000
Electrical Engineering/Science	BE BSc	3725	240	$17,000	$18,000
Environmental Engineering	BE	3625	192	$17,000	$18,000
Environmental Engineering/Arts	BE BA	3626	240	$16,040	$17,040
Environmental Engineering/Science	BE BSc	3735	240	$17,000	$18,000
Geomatic Engineering	BE	3741	192	$17,000	$18,000
Geomatic Engineering/Arts	BE BA	3747	240	$16,040	$17,040
Geomatic Engineering/Computer Science	BE BSc	3746	240	$17,000	$18,000
Industrial Chemistry	BSc	3100	192	$17,000	$18,000

Program and Plan	Award	Code	Total UOC	$Aust pa (full–fee Australian students)	$Aust pa (full-fee I'national students)
Industrial Chemistry/Arts	BE BA	3103	240	$17,000	$18,000
Industrial Chemistry/Computer Science	BSc BSc	3102	240	$17,000	$18,000
Mechanical and Manufacturing Engineering	BE	3710	192	$17,000	$18,000
Mechanical and Manufacturing Engineering/Arts	BE BA	3712	240	$16,040	$17,040
Mechanical and Manufacturing Engineering/Science	BE BSc	3711	240	$17,000	$18,000
Mechanical Engineering/Biomedical Engineering	BE MBiomedE	3683	240	$17,000	$18,000
Mechatronic Engineering/Biomedical Engineering	BE MBiomedE	3749	240	$17,000	$18,000
Mining Engineering	BE	3140	192	$17,000	$18,000
Mining Engineering/Arts	BE BA	3144	240	$16,040	$17,040
Mining Engineering/Science	BE BSc	3142	240	$17,000	$18,000
Petroleum Engineering	BE	3045	192	$17,000	$18,000
Petroleum Engineering/Chemical Engineering	BE BE	3046	240	$17,000	$18,000
Photovoltaics and Solar Energy	BE	3642	192	$17,000	$18,000
Software Engineering	BE	3648	192	$17,000	$18,000
Software Engineering/Arts	BE BA	3652	240	$17,000	$18,000
Software Engineering/Science	BE BSc	3651	240	$17,000	$18,000
Telecommunications	BE	3643	192	$17,000	$18,000
Telecommunications/Biomedical Engineering	BE MBiomedE	3723	240	$17,000	$18,000
Telecommunications/Science	BE BSc	3641	240	$17,000	$18,000
Faculty of Law					
Accounting/Law **	BCom LLB	4732	240	$14,880	$16,080
Architecture/Law	BArch LLB	4705	336	$16,320	$16,080
Art Theory/Law	BArtTh LLB	4703	240	$14,880	$16,080
Arts/Law	BA LLB	4760	240	$14,400	$16,080
Arts (AsianStudies)/Law	BA(Asian Studies) LLB	4762	240	$14,400	$16,080
Civil and Environmental Engineering/Law	BE LLB	4775	288	$16,320	$17,520
Commerce/Law	BCom LLB	4733	240	$14,880	$16,080
Economics/Law	BEc LLB	4744	240	$14,880	$16,080
Economics/Law **	BEc LLB	4745	240	$14,880	$16,080
Finance/Law **	BCom LLB	4735	240	$14,880	$16,080
Industrial Relations/Law **	BCom LLB	4750	240	$14,880	$16,080
Information Systems/Law **	BCom LLB	4736	240	$14,880	$16,080
International Business/Law **	BCom LLB	4738	240	$14,880	$16,080
International Studies/Law	BIntSt LLB	4766	288	$14,400	$16,080
Jurisprudence/Law	BJuris LLB	4780	240	$14,880	$16,080
Jurisprudence	BJuris	4720	144	$13,920	$16,080
Law (entry restricted to graduates only)	LLB	4790	144	$16,320	$16,080
Law	LLB	4791	144	$16,320	$NA
Marketing/Law **	BCom LLB	4710	240	$14,880	$16,080
Science/Law	BSc LLB	4770	240	$16,320	$16,080
Social Work/Law	BSW LLB	4785	288	$13,920	$16,080
Social Science/Law	BSocSc LLB	4761	240	$14,400	$16,080
Taxation	BTax	4620	144	$15,000	$16,080
Town Planning/Law	BTP LLB	4707	336	$16,320	$16,080
Faculty of Medicine					
Arts/Medicine	BA BSc(Med) MB BS	3840	336	$NA	
Health and Sports Science	BSc	3850	192	$15,560	$16,560
Medicine	BSc(Med) MB BS	3801	288	$NA	$30,000
Science/Medicine	BSc MB BS	3821	336	$NA	
Science (Medicine) Honours	BSc(Med) Hons	3831	48	$NA	

Program and Plan	Award	Code	Total UOC	$Aust pa (full–fee Australian students)	$Aust pa (full-fee I'national students)
Faculty of Science					
Advanced Science	BSc	3973, 3986, 3990	192	$17,000	3985, $18,000
Advanced Science/Arts	BSc BA	3931	240	$17,000	$18,000
Advanced Science/Social Science	BSc BSocSc	3936	240	$17,000	$18,000
Applied Geography	BSc	3010	192	$17,000	$18,000
Applied Geology	BSc	3000	192	$17,000	$18,000
Aviation - Flying	BAv	3980	144	$19,000 #	$20,000 #
Aviation - Operations Management	BAv	3981	144	$17,000	$18,000
Bioprocess Engineering	BE	3055	192	$17,000	$18,000
Biotechnology	BSc	3052	192	$17,000	$18,000
Business Information Technology	BSc	3971	192	$17,000	$NA
Ceramic Engineering	BE	3025	192	$17,720	$18,720
Communications	BSc(Communications)	3993	144 *	$17,000	$18,000
Computer Science	BSc	3978	144 *	$17,000	$18,000
Environmental Science	BEnvSc	3988	192	$17,000	$18,000
Environmental Science/Arts	BEnvSc BA	3932	240	$17,000	$18,000
Food Science (Honours)	BSc	3065	48	$NA	$18,000
Food Science and Technology	BSc	3060	192	$17,000	$18,000
Information Systems	BSc	3979	144 *	$17,000	$18,000
Innovation Management	DipInnovMan	3451	36	$17,000	$18,000
Materials Engineering	BMatE	3615	192	$17,720	$18,720
Media and Communications	BSc(Media)	3994	144 *	$17,000	$18,000
Medical Science	BMedSc	3991	144 *	$17,000	$18,000
Metallurgical Engineering	BMetE	3125	192	$17,720	$18,720
Nanotechnology	BSc	3617	192	$17,000	$18,000
Optometry	BOptom	3950	192	$18,200	$19,200
Psychology	BPsychol	3432	192	$17,000	$18,000
Safety Science	BSc	3877	192	$17,000	$18,000
Science	BSc	3970	144 *	$17,000	$18,000
Science/Arts	BSc BA	3930	192 *	$17,000	$18,000
Science/Education	BScBEd	4075	192 *	$17,000	$18,000
Science/Optometry	BSc BOptom	3951	240 *	$18,200	$19,200
Science/Social Science	BSc BSocSc	3935	192	$17,000	$18,000

* additional UOC required for Honours

** no longer offered to commencing students

flying costs not included - refer to School for information

General Education

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.

Disclosure of Enrolment Information and Release of Information to Third Parties

Information about a student's enrolment and attendance at the University is not disclosed to any person or organisation outside the University in a form that allows the student to be identified unless:

- the student provides written consent for the release of the information; or
- the disclosure is required by law; or
- the University discovers that information supplied by the student at the time of admission to the University or subsequently is untrue or misleading in any respect, in which case the University may take such action as it believes necessary including the disclosure of the information to any person or body the University considers has a legitimate interest in receiving it.

The University treats results of assessment and information it receives from a student as confidential and will not reveal such information to third parties without the permission of the student except at the discretion of senior officers in circumstances considered of benefit to the student and when it is either impossible or impracticable to gain the student's prior permission. This happens rarely. This policy is considered so important that it often involves officers of the University in very difficult situations, for example, when they must refuse to reveal the address of a student to parents or other relatives.

All students should be aware that students' addresses are eagerly sought by various commercial agents and that subterfuges of various kinds can be used to obtain them. From time to time, for example, people claiming to be from the University telephone students or their families and ask for information (usually another student's address) which is often given unsuspectingly. There is evidence that this is a technique used by some commercial agents.

It would be generally helpful if students, their families and friends were cautious in revealing information, making it a practice to ask the name, position, and telephone extension of any caller claiming to be from the University and, if suspicious, returning the call to the extension given.

Enrolment and Variations in 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 fee penalty. By enrolling students incur Student Activity Fees, Tuition Fee charges or liability under the Higher Education Contribution Scheme. Refer to the Student Guide or NewSouth Student *Online* for full details of enrolment procedures and HECS or tuition fee rules.

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 for some other unavoidable cause 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.

Discontinuation and 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.

Undergraduate Students

A new undergraduate student in Stage 1 of a program who discontinues that program without failure prior to 31 March 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 31 March may apply for leave for Session 2 prior to the Session 2 withdrawal date of 31 August. It should be noted that discontinuation after the census date for a session may result in failures being recorded.

All students

1. 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.

2. Leave should be sought prior to the census date: 31 March for Session 1 or whole year leave, or prior to 31 August for Session 2 leave.

3. 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 re-enrolment. A student who discontinues after the Session 1 census date may apply for leave for Session 2.

4. 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.

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

Resumption of Programs

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 NewSouth Q 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.

Assessment and Examinations

Examinations are held in June/July and in November/December.

Timetables

A provisional timetable indicating the dates and times of examinations is available in May and October. A final timetable indicating the dates, times, locations and authorised materials is available two weeks before the end of each session. Students must advise NewSouth Q of any clash in examinations as soon as the provisional timetable is released. Both the provisional and final timetable are posted on University noticeboards and on the World Wide Web. It is inadvisable for students to make any vacation travel arrangements within the examination period until dates for all assessment requirements have been finalised. Refer to the Student Guide or NewSouth Student *Online* for full details relating to assessment and the conduct of examinations.

Academic Standing

Overview

In October 1999, the Academic Board adopted a new system called Academic Standing to replace Show Cause. Academic Standing, consisting of good standing and several other levels, will be assigned to students at the end of each main session. Movement between levels is based on progress, measured by proportion of load passed (undergraduate), or cumulative number of failures (postgraduate). Research and non-award students do not participate in the Academic Standing scheme. The Program Authority assigns an adviser to each student not in good standing. Continued poor progress can lead to suspension (one year with automatic re-admission) or exclusion (two years without automatic re-admission).

Academic Standing Rules for Undergraduate Students

Levels

Academic standing levels for undergraduate students are

Good: the student's current progress is deemed satisfactory. Undefined standing (as when a student is first admitted) is also assumed to be good standing.

Referral*: it is* recommended *that the student consult their assigned adviser.*

Probation 1, ***Probation 2****: the student* must *consult their assigned adviser, who approves the next semester's enrolment.*

Suspension: the student is not permitted to enrol for one year.

Probation 3: an additional probation level that applies after return from suspension.

Exclusion: the student is not permitted to enrol for two years, and must reapply for admission after that period.

Unsatisfactory Progress

Students are assigned a level of standing based on their previous standing and their progress in the current (main) semester. Progress is either satisfactory, unsatisfactory, nil, or undefined.

Satisfactory: the student has attempted more than 6 units of credit and passed at least 50% of the attempted load.

Nil: the student has attempted more than 6 units of credit and failed all courses.

Unsatisfactory: the student has attempted more than 6 units of credit and failed more than 50% of the attempted load (but not all attempted courses); or has attempted up to 6 units of credit and has failed all courses.

If insufficient load is attempted, the student retains the previous semester's standing. Standing for students with unresolved results cannot always be determined. Depending on the session's performance a student may move down or up the levels of academic standing.

Transitions

During the first phase (prior standing is Good, Referral, Probation 1 or Probation 2), if progress in the current semester is satisfactory, standing is set to Good. If progress is unsatisfactory, standing is set one step beyond the previous level, and if it is nil, two steps are applied. Suspension is the last point in this phase.

After return from suspension, (Phase 2) satisfactory progress returns the student to Probation 1, unsatisfactory progress moves the student to the final probation level (Probation 3), and nil progress leads to exclusion.

Levels are shown in Table 2. Levels of Academic Standing

Academic Standing Rules for Postgraduate Students

Levels

Academic standing levels for coursework postgraduate students are

Good: the student's current progress is deemed satisfactory. Undefined standing (as when a student is first admitted) is also assumed to be good standing.

Table 1- Progress Rules

Number of units attempted	Number of units passed	Progress
0		**Indeterminate**
6 units or fewer	Some	**Indeterminate**
6 units or fewer	None	**Poor**
More than 6	At least half	**Good**
More than 6	Some, but less than half	**Poor**
More than 6	None	**Nil**

Probation: the student must consult their assigned adviser, who approves the next semester's enrolment.

Exclusion: the student is not permitted to enrol for two years, and must reapply for admission after that period.

Setting Standing Level by Rule

Students are assigned a level of standing based only on the number of units of credit failed throughout the program.

No failures: **Good**.

Up to 16uc failed, or 18uc for programs of at least 72uc in length: **Probation**.

More than 16uc failed (18uc for longer programs): **Exclusion**.

Academic Standing Processes - 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 of appeal. 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.

Re-admission after Exclusion

(1) Excluded students may apply for re-admission after the period of exclusion has expired.

(2) Applications for re-admission to a program should be made to the Universities Admissions Centre before the closing date for normal applications in the year prior to that in which re-admission is sought. Such applications will be considered by the Admissions and Re-enrolment Committee of the relevant faculty.

(3) Applications should include evidence that the circumstances which were deemed to operate against satisfactory performance at the time of exclusion are no longer operative or are reduced in intensity and/or evidence of action taken (including enrolment in program/s) to improve capacity to resume studies.

(4) Students who apply during their second year of exclusion to be re-admitted the following year to a program or course, and are unsuccessful, will have the right to appeal against the decision to the Re-enrolment Appeal Committee.

Admission to Degree or Diploma

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.

Graduation information is posted on the New South Student website for each graduation period. The website is located at http://www.student.unsw.edu.au. The website includes ceremony dates and information on current graduation procedures for potential graduands and graduands. Students expecting to graduate are advised to read the information posted on the website, and ensure that their graduation details are updated correctly. For further queries, please contact (02) 9385 3092/2435 or email graduations@unsw.edu.au

Tickets and mailed information about arrangements for graduation ceremonies will be mailed to graduands approximately three weeks before the date of the ceremony.

Graduands who are indebted to the University will not be permitted to graduate until the debt has been cleared.

Information about graduation ceremonies

The University usually holds graduation ceremonies in the following periods:

April/May – All Degrees and Diplomas

June – Degrees and Diplomas conferred at ceremonies in Hong Kong and Singapore or Malaysia

October – All Degrees and Diplomas

December – University College, Australian Defence Force Academy

December – Undergraduate and Research Degrees within the Faculty of Medicine

A schedule of graduation ceremonies, published by the Registrar, may be obtained from the Student Centre at each campus.

Special Consideration – Illness and Misadventure

On some occasions sickness, misadventure, or other circumstance beyond your control may prevent you 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 you to apply for consideration for the affected assessments. Depending on the circumstances, the University may take action to allow you to overcome the disadvantage; eg. give you additional assessment or extend a deadline.

Table 2. Levels of Academic Standing

Phase	Academic Standing	Implications for student
1	Good Standing	None
	Referral	Recommended to consult assigned adviser
	Probation 1	Enrolment must be approved by adviser
	Probation 2	As for Probation 1; last chance to avoid suspension
	Suspension	Not permitted to enrol for 2 sessions
2	Probation 3	As for Probation 1 or 2; last chance to avoid exclusion
	Exclusion	Excluded from the University for two years

You should note that merely submitting a request for Consideration does not automatically mean that you will be granted additional assessment, nor that you will be awarded an amended result. For example, if you have a poor record of attendance or performance throughout a session/year in a course you may be failed regardless of illness or other reason affecting a final examination in that course.

The University has a centralised procedure for Consideration applications. Many Course Authorities and Faculties have 'local' procedures that you will also need to follow.

It sometimes happens that a student may encounter a situation which is so significant or personal they do not want to use the Special Consideration procedures. In a case like this you may prefer to contact the University Health Service, the Counselling Service, an academic adviser in your program office or the Assistant Registrar in the Student Information and Systems Office. Remember that it is always important to let the University know if there is anything which may affect your ability to continue your studies.

How to apply for Consideration

You 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 NewSouth Q, program and course offices and from the web www.student.unsw.edu.au. The completed application form must be submitted to NewSouth Q.

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 semester 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 will not normally be considered a justification.
3. An absence from an examination should be supported by a medical certificate or other document which 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 which 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 ie. 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, (eg. road accident, court hearing, or death of a relative) written evidence (eg. a police report, a court summons, or a death certificate) instead of the documentation required in 6 above is acceptable (ie. Section B of the Consideration form need not be completed).

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 forms are widely available on all of the University's campuses—from NewSouth Q, Faculty and program offices, the University Health Service, the Counselling Service, and many course authorities.

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.

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 NewSouth Q, the course authority may require you to contact them.

If you need advice about any of the policies or procedures relating to Consideration contact NewSouth Q.

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 which 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. The student's 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.

What outcomes you can expect

If an application for illness or misadventure is accepted, the following action 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.

Essays, reports, mini-theses, models, creative work, etc.

If 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 ability to submit the work by the deadline given, you will generally be granted an extension of the deadline. You should not, however, expect the deadline to be extended for a time in excess of the period for which the certification was given.

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. Details are provided in the relevant course information sheets.

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.

Academic Misconduct and Student Misconduct

1. Introduction

Students and staff are governed by the normal laws which regulate our daily lives. But in addition the University has its own code of rules and conduct. This is because good conduct and academic honesty are fundamental to the mission of the University as an institution devoted to the pursuit of excellence in scholarship and research, and to the service of society. These principles apply not only to students but to the whole University community, including staff engaged in research. They have been developed over many years and are widely supported by staff and students. Staff and students are committed to good conduct and academic honesty and are keen to see that these values and principles are upheld.

The University Council has defined student misconduct as follows (29 August 1994): Student misconduct includes student academic misconduct and also encompasses conduct which impairs the reasonable freedom of other persons to pursue their studies or research or to participate in the life of the University.

Section 2 provides an overview of the University's rules regarding student academic misconduct, and of what kinds of activity constitute student academic misconduct according to current academic usage. Section 3 relates to further kinds of student misconduct, namely those that impair the reasonable freedom of others at the University.

It is very important that all students are familiar with the rules under which they attend the University, use University facilities, and are assessed. This is because students are responsible for managing their own conduct and for knowing what the University's rules concerning good conduct are. Ignorance of the rules is not an acceptable defence against charges of misconduct.

If you have any concerns about what constitutes misconduct either in general or specific situations, make sure you discuss them with the relevant University authority. In academic matters this will usually be the lecturer in charge of a particular course. You can also seek general advice from the Registrar through the Student Administration Department.

2. Academic Misconduct

These notes describe the University's policy on academic misconduct and define actions and behaviour which constitute misconduct. They include a description of procedures followed by the University where misconduct is alleged and penalties which the University may impose on students guilty of misconduct.

2.1 What is academic misconduct?

The University Council has defined academic misconduct as follows (29 August 1994):

Student Academic Misconduct means:

a) breach of such rules or guidelines relating to student academic conduct as may be prescribed by Faculties, Schools or the Vice-Chancellor;

b) misconduct relating to assessment or examinations; and

c) any other conduct (the general nature of which has been made known to students) regarded as student academic misconduct according to current academic usage.

2.2 Types of academic misconduct

It is important that students realise just how broad the definition of academic misconduct may be. It certainly covers practices such as cheating or copying or using another person's work. Furthermore, practices which may be acceptable in other situations are considered to be misconduct according to current academic usage within a University.

The following are important examples of the actions which have resulted in students being found guilty of academic misconduct in recent years:

Misconduct concerning examinations

- taking unauthorised materials into an examination;
- impersonation in examinations;
- permitting another student to copy answers in an examination;
- exchanging notes between students in an examination;
- improperly obtaining prior knowledge of an examination paper and using that knowledge in the examination;
- removing an examination paper from an examination room when it is specified that the paper is not to be retained by the student;

Misconduct concerning academic works

- failing to acknowledge the source of material in an assignment;
- quoting without the use of quotation marks even if the source is acknowledged;
- plagiarism;
- submitting work for assessment knowing it to be the work of another person;

Misconduct through misrepresentation

- submitting a falsified medical certificate;
- submitting a falsified academic transcript.

Two instances of academic misconduct - plagiarism and cheating in exams - are discussed in further detail below in Sections 2.3.1 and 2.3.2.

2.3 Specific examples of academic misconduct

The following are two examples of academic misconduct that have been detected frequently in recent years. Penalties imposed on students found guilty of misconduct in these areas have included failure in the course and exclusion from the University for periods as long as five years.

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 writing 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 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, eg. 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 (eg texts) which you have not read, without acknowledging the 'secondary' source from which knowledge of them has been obtained.

These principles apply to both 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 are usually excluded from the University for two years. Because of the circumstances in individual cases the period of exclusion can range from one session to permanent exclusion from the University.

2.5 Academic Misconduct Procedures

The University has detailed procedures for dealing with allegations or complaints of academic misconduct. The full text of the Council resolution on academic misconduct, which contains details of these procedures, can be obtained from NewSouth Q or http://www.infonet.unsw.edu.au/poldoc/stumis.htm

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 and Deputy Principal, the Director of Information Services and Deputy Principal, 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 NewSouth Q (student enquiries) or at http://www.infonet.unsw.edu.au/poldoc/stumis.htm

Student ID Card – Conditions of Use

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 (e-spot@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 indicated on the enrolment program notice issued at 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.

Computing at UNSW

The Division of Information Services (DIS) encompasses information technology and the University Library at UNSW and more information can be found at http://www.dis.unsw.edu.au. The UNSW central web site forms an important resource, providing access to information on every aspect of the University. This site also links to other important web resources on campus like the Library, Faculty and School sites, UNSW computing and more. Students should seek support from the DIS-Connect desk on 9385-1777 or http://www.disconnect.unsw.edu.au and its "navigation" link, or through the pages http://www.ascu.unsw.edu.au or http://www.misu.unsw.edu.au using Mosaic or Netscape. In particular, the campus is served by an optical fibre network which supports TCP/IP and IPX

The UNSW web address is http://www.unsw.edu.au

Email facilities are available to all enrolled students. Enquiries are to be made at the DIS-Connect office on the ground floor of the Library building (near the southern entrance). For remote access the University provides a good value dial-up service to students. It is against UNSW Policy to knowingly spread Viruses. Wireless applications are also supported for Laptops in some areas of the library – you have to first see DIS-Connect to get a wireless card installed. The preferred Email client (piece of software that DIS-Connect supports) is Eudora.

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 University machines as its security cannot be guaranteed by the University. It should be noted that students who alter or delete another person's work may be committing a criminal offence.

Faculty Computing Information

The Faculty of Arts and Social Sciences maintains its own Web server at http://www.arts.edu.au which provides information to prospective students, course outlines and course materials for current students and has a number of computer laboratories containing Macintosh computers with a range of software.

College of Fine Arts: Computing Resources at the College include 3 main teaching labs, a general access lab, smaller specialist labs, 2 x sound studios with ProTools 24 mix cards and hardware mixes, specialist video studios, workstations and control room. In total COFA provides over 150 generalist and specialist workstations equipped with hardware and software complimentary to course requirements. All workstations are connected to the University Wide Network, which in turn are connected to the Internet via the ARRNet2 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, modelling, animation, CAD, desktop publishing and high end scanning. The Digital Media Lab and Moving Image Lab provide access to digital audio and video production. Decks patched into these workstations include DAT,VHS, Mini DV, DVCAM. The Research Imaging Laboratory includes a number of computers with a range of 2D and 3D digital imaging applications.

Other services at the College include 'HiROF' 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. 'The Resource Centre' provides access to field and campus equipment such as DAT recorders, mini DV cameras, digital still cameras, and portable data projectors.

In addition to the college computing facilities, COFA also encourages students to consider the purchase of a personal computer as recommended by UNSW 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

The Faculty of the Built Environment's website http://www.fbe.unsw.edu.au/ 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.

The Faculty has five major computing laboratories containing around 100 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. They are a mix of high-end Pentium and Pentium2 workstations configured to support a wide range of applications including: CAD, modelling, rendering, visualisation, multimedia presentations, analysis; general office applications and much more. The Faculty's Resource Centre has a further 20 computers which provide net access and office applications to all students.

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 on-line 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.

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 from the Web Site, providing advice to students regarding the purchase of personal computers.

The **Faculty of Commerce** has a number of laboratories located in the Quadrangle and John Goodsell Buildings, all of which are equipped with Pentium machines running Windows NT. More detailed information is available in the the Faculty "Student IT Resource Handbook' or on the website at http://www.fce.unsw.edu.au

Faculty of Law manages a multimedia computer laboratory equipped with 26 PCs for instructional purposes. In addition law students have access to two multi-media computer workspaces which contain 15 networked computers and smart-card controlled laser printers. Research students have access to two dedicated computer workspaces equipped with 25 multi-media computers and printing facilities.

The faculty 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, On-line and CD-ROM based national and international legal databases, Library catalogues and WWW access.

For more information, please refer to the booklet IT Resources for Students or visit the Faculty web site at http://www.law.unsw.edu.au

The Faculty of Medicine's website address is http://www.med.unsw.edu.au The website for the Faculty provides detailed information about programs, courses, research interests, current events and policies. The website also contains links to additional 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.

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.

Many of the Schools also use computing extensively in research and postgraduate education. 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.

Further information on computing is available through each of the Schools' web pages.

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 those local 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.

For the complete policy on electronic mail go to:
www.infonet.unsw.edu.au/poldoc/email.htm

Rules

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, the University Wide Network, the modem pool, telecommunications, PABX and facsimile equipment to access or transmit information.

1.3 "computing facilities" refers to:

i. 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;

ii. computing facilities maintained by other bodies but available for use through an agreement or agreements with UNSW; and

iii. 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:

a. the deliberate or negligent preparing, storing, displaying of racist, pornographic or other offensive material,

b. 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.

Prizes

The University has over 400 prizes available that are presented to students for meritorious academic achievement. A list of all prizes and the conditions of award appears in the University Calendar. 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. Further details can be obtained from NewSouth Q or by phoning the Scholarships, Loans and Research Students Office. (9385 3100/3101/1462/1636/3807 fax: 9385 3732 scholarships@unsw.edu.au

New scholarships are advertised in the University publication 'Focus' and on noticeboards in Schools, and outside NewSouth Q. Information about scholarships can also be obtained from the UNSW web site www.infonet.unsw.edu.au/unsw/academic/schopriz/httoc.htm

Textbooks

Text and reference books are not listed in this Handbook. This information is available on the World Wide Web (WWW) at: **www.bookshop.unsw.edu.au/textlist.html**

Contact Details

It is essential that students maintain on NewSouth Student *Online* 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.

All communications from the University will be sent to either an email address or to the postal address except when arrangements are otherwise made.

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[1].

In fulfilling this commitment, the University will:

- foster a University culture which values and responds to the rich diversity of its staff and students[2];
- 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[3];
- offer programs which aim to overcome past disadvantage for members of staff and student equity groups[3];
- 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 co-operation 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 (ii): 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, 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:

- the Equal Opportunity in Education policy;
- the Anti-Racism policy;
- the HIV and other Blood Borne Infections policy;
- policies and guidelines: Students with Disabilities;
- the Code of Practice - Students with Disabilities; and
- Discrimination and Harassment Grievance Procedures for Students.

All of these can be found on the Equity and Diversity website http://www.equity.unsw.edu.au/policies.html or are available from the Equity and Diversity Unit, tel:: 9385 4734, email: equity-diversity@unsw.edu.au, location: Room 2008, 2nd floor, East Wing, Quadrangle Building.

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

- disability services for students and staff;
- 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.

Services for Equity Group and Educationally Disadvantaged Students

The University provides services to assist the successful completion of studies by students from equity groups through such means as:

- the Aboriginal Education Program;
- Disability Services Program (via the Equity and Diversity Unit);
- The Equity and Diversity Unit;
- The Learning Centre; and
- The Counselling Service.

Program Content, Curriculum Design, Teaching and Assessment, and Printed Material

Schools and faculties will monitor program and course content (including titles), teaching methods, assessment procedures, written material (including study guides, handbook and Calendar entries) and audiovisual material to ensure that they are not discriminatory or offensive and that they encourage and facilitate full participation in education by disadvantaged people.

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:

(i) 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.

ii) 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.

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

(iv) 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.

(v) Where examination question papers or other forms of assessment need to be kept confidential (eg 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.

(vi) In the case of the examination of theses and project reports, the examiners' report should be released to the student, following determination of the student's results. 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 NewSouth Q (student enquiries), the UNSW Freedom of Information Officer 9385 2860 or the web at http://www.infonet.unsw.edu.au/admin/pmu/foi.htm

Procedures for the Resolution of Student 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 for the re-enrolment rules for undergraduate students or for decisions on allegations of academic misconduct are not affected by these procedures. Information on these procedures is available in the *Calendar*, in the *Student Guide* or from NewSouth Q in the Chancellery.

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:

Grievance Procedure

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.

Step 4

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 Presiding Member of the Faculty, and give an answer (including reasons) normally within 7 days.

Step 5

If the student is still dissatisfied, an appeal may be lodged in writing with the Presiding Member of the Postgraduate or Undergraduate Studies Committee 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 Postgraduate or Undergraduate Studies Committee, this appeal will be heard by an Appeal Sub-Committee, empanelled for the purpose by the Presiding Member of the appropriate Studies Committee. The Presiding Member will appoint as Chair of the Appeal Sub-Committee a member of the corresponding Studies Committee.

If the matter has already been considered by the Postgraduate or Undergraduate Studies Committee, 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 and boards of studies.

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 Discrimination and Harassment Grievance Policy and Procedures can be found on the UNSW website at http://www.infonet.unsw.edu.au/poldoc/studegrv.htm

For further advice please contact the Equity and Diversity Unit on tel:: 9385 4734, email: equity-diversity@unsw.edu.au

Occupational Health and Safety on Campus

The University'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. Special requirements and training apply to students undertaking work with radioactive substances, ionising radiation apparatus, lasers or genetically manipulated material. Students need to read the AS/NZS2243 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 web page http://www.riskman.unsw.edu.au
- Students need to be aware of the OHS policy guidelines that relate to their area of work including policies on OHS accountability, hazardous substances, bio-safety carcinogens 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 http://www.riskman.unsw.edu.au/ohs/hsub.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 student representatives are nominated for the school OHS committee.
- Students working at night on campus are advised to use the Unibeat service arranged by phoning Security on 9385 6000 to accompany them 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 accident involving their project.
- All students have obligations as 'persons' under 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 following website: http://www.austlii.edu.au under NSW Acts and Consolidated regulations.

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 http://www.copyright.unsw.edu.au for further information.

Special Government Policies

The NSW Health Department and the NSW Department of Education and Training have special requirements and policies of which students of health-related and education programs should be aware. The requirements relate to:

- clinical/internship placements which must be undertaken as part of your program; *and*
- procedures for employment after you have completed the program.

Health-related programs

Criminal record checks

The NSW Health Department has a policy that all students undertaking clinical placements or who require access in any capacity to facilities operated by the Department must undergo a criminal record check prior to employment or placement in any capacity in the NSW Health System. This check will be conducted by the NSW Police Service and will be co-ordinated by the Department of Health.

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 vaccination and infection control.

An information sheet is available from your program officer and 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 New South Wales Government school.

Contact your program co-ordinator 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.

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.infonet.unsw.edu.au/election/index.htm

Student Clubs and Societies

Students have the opportunity of joining a wide range of clubs and societies. Many of these are affiliated with the Students' Union. There are numerous religious, social and cultural clubs and also many sporting clubs which are affiliated with the Sports Association.

Clubs and societies seeking to use the name of the University in their title, or seeking University recognition, must submit their constitutions to either the Students' Union or the Sports Association if they wish to be affiliated with either of these bodies, or to the Registrar for approval by the University Council.

List of Societies and Clubs by Faculty

Faculty of Arts & Social Sciences

For information about the following societies, contact the individual schools/departments:

- The French Society
- The German Society
- The Hispania Society
- The History Students Association
- The Indonesia-Australia Forum
- Kino: The UNSW Film Society
- The Music Students Society
- The New South Wales University Theatrical Society
- The Politics and International Relations Students Association
- The Russian Student Society
- The Sociological Society

Faculty of the Built Environment

- BEAT (Built Environment Action Team)
- TAC (The Architecture Club)
- BUGS (Building Undergraduate Society)
- IDSOC (Industrial Design Society)
- SOLA (Society of Landscape Architects)
- OOPS (Organisation of Planning Students)

Faculty of Commerce and Economics

- Accounting Students' Register- CPA Australia: Tel: (02) 9375 6200 or (02) 9385 5812, http:// www.cpaonline.com.au
- AIESEC: Tel: (02) 9385 5893 or fax: (02) 9385 5798
- The Advertising Federation of Australia: http://www.afa.org.au, email: afamail@afa.org.au
- Australian Marketing Institute (AMI): Tel: 1800 240 264 or fax: 1800 241 264, http://www.ami.org.au
- Banking Students' Register: Tel: (03) 9602 5811
- Commerce and Economics Society: email: com.eco.soc@unsws.edu.au
- Council of Australian Tourism Students (CATS): Contact the School of Marketing UNSW
- Economic Society of Australia: Tel/fax: 9988 0844, email: ecosoc@efs.mq.edu.au
- Hospitality Sales and Marketing Association (NSW) Tel: 02 96844820
- The Tourism and Hospitality (HOSPO) Society: Contact the School of Marketing
- Institute of Actuaries of Australia: Tel: 61 2 9233 3466, fax: 61 2 9233 3446, email: insact@actuaries.asn.au, or WWW http://www.actuaries.asn.au/
- Industrial Relations Society of New South Wales: Tel: (02) 9630 5211, fax: (02) 9630 5233, email: IRSNSW@bigpond.com
- Market Research Society of Australia NSW Division: Tel: (02) 9955 4830, fax: (02) 9955 5746, email: sydney@bigpond.com
- The Radio Marketing Bureau: Tel: (02) 9906-5944 fax: (02) 9906-5128, http://www.radiomarketing.com.au, email: rmb@radiomarketing.com.au
- Statistical Society of Australia: New South Wales Branch: Tel: (02) 4921 5518, fax: (02) 4921 7063, email: stalp@scriabin.newcastle.edu.au

Faculty of Engineering

The various Undergraduate Societies promote the interests of students within the Faculty of Engineering:

- Biomedical Engineering Society
- Chemical Engineering Undergraduate Society (CEUS)
- Civil and Environmental Engineering Society (CEVSOC)
- Computing Science Society (COMPSOC)

- Electrical Engineering Society (ELSOC)
- Geomatic Engineering Society (GSPOT)
- Industrial Chemistry Undergraduate Society (ICUS)
- Mechanical Engineering Society (MECHSOC)
- The Mining Engineering Society
- Petroleum Engineering Society

Students are encouraged to participate in the activities of their societies. Enquiries should be directed initially to the general offices of the respective Schools.

Faculty of Medicine

- Medical Students Society (MEDSOC) http://www.med.unsw.edu.au/medsoc
- Rural Allied Health and Medical Society (RAHMS) http://clinical.med.unsw.edu.au/rural

Faculty of Science

- Aviation Society
- Biotechnology and Bioprocess Engineering Society (BABESOC)
- Business Information Technology Student Association (BITSA)
- Environmental Science Student Society (ENVIROSOC)
- Food Science Association
- Industrial Chemistry Undergraduate Society (ICUS)
- Information Systems Student Society (ISSS)
- LIFESOC – Society for Advanced Life Science students
- Materials Science Society (MATSOC)
- Media and Communications Society
- Medical Science Society
- Optometry Students Society
- Physics Student Society (PHYSOC)
- Student Psychology Society (PSYCHSOC)
- The Geographical Society
- UNSW Geological Society (ROCKSOC)
- Zoology Students of UNSW Society (ZOOSOC)

Library Facilities

Library Information can be found on the UNSW web site http://www.library.unsw.edu.au During the academic year the Library is open from 8.00 am to 10.00 pm Monday to Thursday, 8.00 am to 6.00 pm on Friday and 12.00 pm to 5.00 pm Saturday and Sunday. During vacations, these hours will vary.

The Open Reserve Section houses books and other materials which are required reading. Lecture cassettes are also available. Study Kits, which are collections of required readings, are available for purchase from Unicopy, Level 2.

Photocopying facilities are available at Unicopy, the main photocopying area on Level 2; in each of the special subject libraries; and in Open Reserve. Change and assistance are available from Unicopy staff on Level 2. The multimedia resources service on Level 3 includes multimedia items, videos, cassette tapes and newspapers.

The Reader Education program provides orientation tours and introductory library research method lectures to students. Library tours are available at the beginning of Session I and self-guided tours are available throughout the year.

Staff assisted services are available after 10.00 am, including help with catalogues, CD Roms, inter-library loans, maps and online searching. An information skills program is in place with emphasis on developing basic information access and management skills for first year and advanced skills for final year and postgraduate students.

The Library's catalogue and selected CD-Rom databases are available over the Campus Wide Network.

Although any of the university libraries may meet specific needs, the staff and students of the various Faculties are best served by the following libraries:

Faculty of Arts and Social Sciences and Faculty of Commerce and Economics are best served by The Social Sciences and Humanities Library located on levels 3 and 4 of the library building. Librarian: Pam O'Brien. Materials required by students in the Department of Legal Studies and Taxation are held in the Open Reserve Section and an extensive collection on taxation is held in the Law Library.

The College of Fine Arts is best served by the Clement Semmler Library located at the College of Fine Arts, Paddington. The Library has a strong collection of books and serials on the visual arts, design, art and design education. It also has a substantial audiovisual collection which includes slides, video cassettes and interactive CD-ROMs. Access is via the UNSW Library's online catalogue and COFA online slide catalogue, Artscan.

Research is supported by a wide range of databases available online via the UNSW Library and by in-house indexes to Australian art material. Professional library staff are available to help students and staff make the best of these resources.

More information may be found on the Library's web page at http://www.cofa.unsw.edu.au/units/library/

Faculty of Law The Law Library is situated on the eighth and ninth levels of the Library Tower. During the first week of session, guided tours of the Library are conducted for all first year students as a component of Legal Research and Writing.

The librarians and the other staff members are always ready to assist readers to make the best use of the Library's collection. Further useful information may be found in the Library Guide, on Laws home page: http://www.library.unsw.edu.au/~law/law/html

The Faculty of Law acknowledges generous sponsorship of the Law Library by the law firm Freehill, Hollingdale & Page.

Faculties of Science, Engineering, and the Built Environment are best served by The Physical Sciences Library on Levels 5,6 and 7 of the Library Tower. Physical Sciences Librarian: Rhonda Langford.

Faculties of Science and Medicine are best served by the Biomedical Library located on Levels 2,3 and 4 of the Matthews Building Annexe. Professional staff are available at the Information Desk on Level 2 to provide reference services and to assist in the use of the catalogues. Instructional classes in the use of the library and specific subject material can be arranged through the Information Desk. Serials in the Biomedical Library are shelved in alphabetical order by title and carry the prefix MB or MBQ. Details about Biomedical Library books, serials and audiovisual material can be found in the Library Catalogue.

In addition, the Biomedical Library offers the following services: literature searches; on-site and remote access to a wide range of bibliographic databases; and a document supply service for external and remote students. Biomedical Librarian: Jill Denholm.

It is closely associated with the libraries of the teaching hospitals of the University and with the Curran Foundation Library at the Garvan Institute of Medical Research.

In addition, the Biomedical Library provides web access (see web address below) to a wide range of biomedical databases, full text electronic journals, and the best medical and life science web resources.

Two computer laboratories (a Pentium Lab and an Imac Lab) are available for the use of students from the Faculty of Science and the Faculty of Medicine (swipecard access needs to be arranged - ask at the Biomedical Library for more details). The labs provide access to the Internet, Word, Excel and to teaching programs provided by academic staff.

The Library provides special services for external students and remote users. Details of these services are listed on the Library's home page.

http://www.library.unsw.edu.au/~biomed/biomed.html

The Biomedical Library homepage facilitates easy access from the desktop for staff and students, both on campus and off campus, to databases, electronic fulltext journals (click on electronic resources), and subject guides, developed to assist teaching and learning (click on subject links).

Support for Students

The Learning Centre

The Learning Centre provides a wide range of academic support services to students enrolled at the University. Assistance is available through workshops in academic skills, individual consultations and academic English programs. All programs are free and individual consultations are confidential. Dates and times of workshops are available at the Learning Centre and on the website.

Academic Skills Workshops assist students to adjust to academic culture. Workshop topics include time management, reading and note taking, essay and report writing, critical thinking, seminar presentations and using PowerPoint for presentations.

Academic English Workshops assist students for whom English is a second language and topics include grammar, academic English vocabulary, pronunciation, listening skills and academic writing.

Students can also make an appointment with a Writing Assistant to help improve their academic writing and will be given feedback on what they have written.

The Learning Centre produces a number of handouts on topics such as academic referencing; writing an essay; writing a report; doing a seminar presentation; avoiding plagiarism and studying for exams.

The Independent Learning Centre is a self-access resource for students. It has a well-stocked library with study skills and language and communication materials; dictionaries; audio and videotapes and computer-based learning resources.

Contact Details

The Learning Centre, level 2, Library
Tel: +61 2 9385 3890

The Independent Learning Centre
Hut F9A Lower Campus
TEL: +61 2 9385 4288
Website: http://www.lc.unsw.edu.au

Counselling Service and Compass

The Counselling Service and Compass focus on helping students to help themselves by enhancing their personal or academic development. The programs and services are available free of charge to students. The Counselling Service provides confidential and professional consultations for any student who experiences personal or academic difficulties during their university enrolment.

Counselling for individuals on personal and academic matters

Orientation to uni and UNIPREP programs

Motivational support

Personal skills development

Advice on university administrative procedures and other issues plus referrals to appropriate persons or organisations

Stress and anxiety management

Staff consultancy on student related issues also provides seminars and workshops for students covering topics such as procrastination, time management, management of various types of anxiety and depression.

Contact Us:

COFA - Tel: 9385 0733 or go to Room 05, Ground Floor, G Block.

Kensington campus - Tel: 9385 5418 or use the Drop-In service on Level 2, East Wing, Quadrangle Building.

Website resources and information: http://www.counselling.unsw.edu.au

Careers and Employment

Careers and Employment offers the following services:

- Careers and Employment Online for: job vacancies (graduate, vacation and part-time), an employer database, 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);
- 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 employers, work and study overseas, job search skills, further education and training, professional associations;
- Computer access for job searching on the net and emailing employers;
- Direct mail and email service for employers to forward information on opportunities to students (make sure your contact details are correct, and that you access your email);
- Careers Expo (March 26, 2002) where students can meet employers;
- Two Graduate Recruitment Programs (April and August) where final year students apply to organisations for employment.
- Graduate Careers Forum for Arts and Social Sciences, Science and College of Fine Arts final year students.

Contact Careers and Employment

Level 2, East Wing
Quadrangle Building
Tel: 9385 5429
Fax: 9385 6145
Email: careers@unsw.edu.au
URL: www.careers.unsw.edu.au

Opening hours

Monday to Friday: 9am - 5pm

Disability Services

Students with disabilities who require any services should contact Laurie Alsop, Equity Officer (Disability), at the Equity and Diversity Unit on tel: 9385 4734, email: l.alsop@unsw.edu.au

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.

Services for ACCESS Students

Students who enrolled via the ACCESS entry scheme can receive support and referral from Elena Barrocal, Equity Officer (ACCESS), at the Equity and Diversity Unit on tel: 9385 5434, email: e.barrocal@unsw.edu.au

Charging fees for compulsory course materials

In 1997 the then DEETYA issued guidelines on the charging of fees for ancillary or additional services – the Ancillary Guidelines.

Under these Guidelines HECS liable and non-fee-paying HECS exempt students must be able to complete their program without facing course-related charges or fees imposed by the institution. This precludes charges for compulsory or essential components of a course or program, including its assessment and award.

Higher education institutions may charge students for goods or services, the purchase of which is voluntary and is not a requirement of a program of study for an award of the institution.

Under the *Disability Discrimination Act 1992*, higher education institutions must not discriminate against students with disabilities by charging fees for goods or services which are provided as 'reasonable accommodation' to the needs of such students.

The text of the advice received from DETYA follows.

Circumstances in which higher education institutions must not levy charges

Higher education institutions must not charge students for goods or services which are required for a program of study unless those goods or services or alternatives to them are also available to students at no additional charge. Cases include:

- materials such as course 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 on-line resources;
- 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 and re-assessment of results where a student has failed an assessment and thereby failed a subject or unit.

Charges which may be levied by higher education institutions

The following are cases in which higher education institutions may charge students for goods or services which are ancillary or additional to their program of study.

(i) Higher education institutions may charge students for additional materials or services which are not essential components of a course:

- for example, access to Internet or word processing services (except where these are required as part of a course); printing of notes from the World Wide Web or disks; and graduation ceremonies provided that the student does not need to attend the ceremony to graduate.

(ii) If goods or services that are an essential component of a course are made readily available at no additional charge by higher education institutions, then institutions may charge students for:

- alternative forms of those materials or services – for example, lecture notes or tapes, provided that the lectures are available to students at no charge; and the electronic provision of essential information if the information is also readily available at no charge in another form; and
- alternative access to those materials or services – for example, reading material such as anthologies of required readings provided that these texts are also available at no charge; and courses in non-standard semesters which allow accelerated completion of programs or which are offered for remedial purposes, provided that such courses are also available within normal semester periods on a Higher Education Contribution Scheme (HECS) liable basis.

(iii) In certain circumstances, higher education institutions may charge students for goods or services which are a component of a course if students have the choice of acquiring the goods or services from suppliers other than the institutions:

- goods or services which are necessary to produce items which become the physical property of students;
- food, transport and accommodation associated with field trips; and
- equipment regarded as a 'tool of the trade' which students would take with them at the completion of their program and which working professionals would normally own, for example, musical instruments, protective clothing or footwear, stethoscopes, dancing shoes and reference texts.

(iv) Institutions may levy charges as fines or penalties provided that such charges are 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 or late withdrawals from a course.

Heads of School are responsible for ensuring that these Guidelines are followed within the courses under their control.

Any enquiries on the application of these guidelines can be directed to Kathy Keane, Assistant Registrar, Student Information and Systems Office on extension 3154.

General Education

Contents

Introduction 24

Objectives 24

General Education requirements 24

Restrictions and students' choices 24

Students who commenced their programs prior to 1996 25

Exemption from part of or all of the General Education program 25

Students enrolling in combined programs 25

Special Student Exemptions 25

Substitution 25

Co-requisites and exclusions 25

Faculty General Education Requirements 25

Student involvement in the General Education Program 25

Administrative arrangements 25

The enrolment process 25

Quotas and preferences 26

Alternative mode courses 26

Campus at which courses are taught 26

Units of Credit, HECS and General Education 26

The Heinz Harant Challenge Prize 26

The General Education Travel Scholarships 26

General Education Courses 27

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. As well, over many years graduates of this University have reported that they greatly valued their general education studies, which are found to be relevant to both career and personal development.

The General Education Program at UNSW intends to broaden students' understanding of the environment in which they live and work and to enhance their skills of critical analysis. Above all, UNSW's General Education 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.

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 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 co-operatively 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 subjects 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.
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.

Details of the University's program are available on the Web at http://www.library.unsw.edu.au/gened/.

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 fulfil 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 not take General Education courses offered by the Faculty or which are judged by the Faculty's General Education Committee or program authority as being in discipline areas similar to the major discipline area(s) of the student's program.

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).

Students who commenced their programs prior to 1996

These students were governed by the pre-1996 GE rules. The general principle that will be applied is that no such student is to be disadvantaged by the change. This principle is interpreted by the Faculty as follows:

- Such students must satisfy the rules which applied in 1995 regarding the number of Units of Credit of General Education to be undertaken.
- Previously, these requirements had to be split between General Education 'Categories' in prescribed ways. This is no longer the case, and such students will be permitted to choose any General Education courses for which they possess the prerequisites, and from which they are not excluded. Courses taken prior to 1996 will be aggregated with those taken subsequently, with hours converted to Units of Credit at the rate of 28 hours = 3 Units of Credit.

Exemption from part of 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's General Education Committee or Education Committee (as appropriate), which will make a determination and notify the student accordingly. The Committee's yardsticks will be:

- the extent to which the courses nominated for exemption satisfy sufficient GE objectives (ie 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 12UOC.

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.

Practical experience/industry placement are not grounds for exemption.

Substitution

Students may apply to their Faculty's General Education Committee or Education Committee (as appropriate) 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 state how the proposed courses will, together with the remainder of the student's GE program, satisfy the GE objectives. The Committee 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 (LOTES) 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 General Education Committee will accept it otherwise.

Co-requisites and exclusions

The General Education Committee will determine co-requisites and exclusions as and when necessary.

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. In most cases, this means 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.

In satisfying the General Education requirement of 12 Units of Credit, students should complete courses in at least two other faculties.

Students may apply to obtain credit for courses taught outside the General Education program.

While courses approved for General Education credit in the degree programs of a Faculty will not normally include those taught by Schools located within that Faculty, courses taught by the Aboriginal Research and Resource Centre are available to students of the Faculty of Arts and Social Sciences.

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 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 Standing Committee on General 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 Faculty Education Committees whose students are taking those courses.

Administrative arrangements

The enrolment process

Students enrol in General Education courses through NewSouth Student *Online*, the Web interface to the University's student information system, in the same way that they enrol in other courses. Other General Education information can be obtained from Faculty or Program Offices or via the Web at http://www.library.unsw.edu.au/gened/.

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, as set out in this Handbook and printed Faculty enrolment information.
- the General Education Course Timetable, which includes lecture and tutorial times and the campus on which the course is taught. This information is included at the back of this section of the Undergraduate Handbook.
- 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 2002, 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 NewSouth Student *Online*.

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 NewSouth Student *Online*.

Students who are unable to enrol through NewSouth Student *Online* 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 General Education committee for information on courses and venues.

Units of Credit, HECS and General Education

The University's academic structure is based on Units of Credit. A full-time 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 HECS and 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.

HECS charges and tuition fees are based on the student's total study load. 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.

In addition to there being HECS charges based on a student's total study load, individual units of study attract one of three levels of HECS charges depending on the discipline grouping of that study. All General Education courses form part of the discipline group which includes Arts, Humanities, Social Studies/Behavioural Science, Visual/Performing Arts and Education and which attracts the lowest level of HECS charges.

Mainstream courses which are taken as part of the General Education Program will be charged according to the discipline grouping the unit of study falls within.

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 NewSouth Q 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.

The General Education Travel Scholarships

Within the University of New South Wales travel scholarships, up to eight are designated for excellent performance in General Education courses specifically. Details of the General Education travel scholarships may be obtained from NewSouth Q or the Scholarships, Loans and Research Students Office.

Course Descriptions

Course descriptions offered in 2002 can be found in alphabetical order by the course code at the back of this handbook. For a full list of courses offered by the University contact NewSouth Student or http://www.student.unsw.edu.au.

General Education Courses

For the latest timetable information go to www.library.unsw.edu/gened.

Out-of-session General Education Courses

Summer Session – Kensington Campus

Faculty of Arts and Social Sciences

Course	Session	Title
GENT0405	X1	An introduction to '…Isms". Ideas that have shaped our World
GENT0902	X1	Witches, Quacks and Lunatics: A Social History of Health and Illness
GENT1202	X1	Social Aspects of Deviance
GENT1209	X1	Migration and Australian Society
GENT1403	X1	GlobalCrisis: Transition to a Sustainable Society

Faculty of Commerce and Economics

GENC5001	X1	Introduction to the Internet and Electronic Commerce
GENC9001	X1	From Paper to the Web: Finding and Keeping Information

Faculty of Engineering

GENE7801	X1	Energy and Mineral Resources - Use or Abuse?

Faculty of Law

GENL0220	X1	Effective Communication
GENL0230	X1	Law in the Information Age
GENL3052	X1	Law on Film: Representations of the Lawand Legal Process on Film
GENL5000	X1	Environmental Law and Policy
GENL5020	X1	Business Fundamentals

Faculty of Medicine

GENM0201	X1	Human Origins, Human Problems
GENM0510	X1	Using the Media: Promotion Through Mass Media and Multimedia
GENM0512	X1	The (Mis)Representation of Health
GENM0518	X1	Health and Power in an Internet Age
GENM0701	X1	Contemporary Bioethics
GENM0702	X1	Promoting Healthy Lifestyles and Healthy Environments
GENM0703	X1	Concepts of Physical Fitness and Health
GENM0706	X1	Contemporary Health Issues & Consumer Rights
GENM1101	X1	Animal Welfare

Faculty of Science

GENB3002	X1	Great Epidemics in History
GENB4007	X1	The Psychobiology of Sex, Love and Attraction
GENB6001	X1	Food in Society
GENB7001	X1	Technological, Social and Business Aspects of Alcohol
GENS1004	X1	Cinema and Science
GENS2002	X1	Mathematics in Art and Architecture
GENS3001	X1	Coastal Environmental Problems: The Human Dimension
GENS3501	X1	Metals, Ceramics, Plastics – Building the 21st Century
GENS4001	X1	Astronomy
GENS8003	X2	Work and Safety
GENS8004	X2	Ergonomics, Productivity and Safety
GENS8005	X2	Environmental Management in the Workplace

Course	Session	Title

Summer Session – Paddington Campus

Faculty of the College of Fine Arts

GEND1202	X1	Drawing the Body, Studies of Surface Anatomy
GEND1203	X1	Drawing the World Within/Without
GEND1204	X1	Studies in Painting
GEND1205	X1	Making a Print
GEND1208	X1	Studies in Sculpture
GEND1212	X1	Analysing a Picture: Composition and Design in Art
GEND2206	X1	The Art Museum and Art Education
GEND3231	X1	Picturing Death: Art and the Human Predicament
GEND3233	X1	Scandals of Modern Art
GEND4205	X1	Design Communications and Presentation
GEND4207	X1	Designing: Models as a Tool for Communication
GEND4208	X1	Working with Ceramics
GEND4209	X1	Working with Jewellery
GEND4210	X1	Textiles and Fashion
GEND4211	X1	Design in Performance
GEND4212	X1	Design in Adornment and Costume
GEND4213	X1	The Arts of Aboriginal People and Torres Strait Islanders
GEND4214	X1	Surface & Image in Tapestry Weaving
GEND4207	X1	Designing: Models as a Tool for Design Communication

Winter Session – Kensington Campus

Faculty of Arts and Social Sciences

GENT0420	X2	Along the Silk Road: Conquerors, Traders and Explorers
GENT0422	X2	Birth of a Nation - East Timor: Past, Present and Future
GENT0903	X2	The Politics of Sustainability
GENT1403	X2	Global Crisis: Transition to a Sustainable Society

Faculty of Commerce and Economics

GENC5001	X2	Introduction to the Internet and Electronic Commerce
GENC9001	X2	From Paper to the Web: Finding and Keeping Information

Faculty of Engineering

GENE1012	X2	Tools for Implementing Ecologically Sustainable Development in Corporations and Regions
GENE7801	X2	Energy and Mineral Resources - Use or Abuse?

Faculty of Law

GENL2000	X2	Principles of International Environmental Law

Faculty of Medicine

GENM0201	X2	Human Origins, Human Problems
GENM0202	X2	Frontiers in Brain Research
GENM0510	X2	Using the Media: Promotion Through Mass Media and Multimedia
GENM0518	X2	Health and Power in an Internet Age
GENM0701	X2	Contemporary Bioethics
GENM0703	X2	Concepts of Physical Fitness and Health
GENM0705	X2	The process of personal and social change for health
GENM0706	X2	Contemporary health issues and consumer rights
GENM1000	X2	Miracles and Misadventures in Modern Medicine

Faculty of Science

GENB1002	X2	Diet - Food, Fact, Fiction and Fallacy
GENS2002	X2	Mathematics in Art & Architecture
GENS7602	X2	Viewing the Earth through a Geological Window

A Message from the Dean

Welcome to the Faculty of Arts and Social Sciences at UNSW. I am confident that you will find that you will enjoy and profit from your experience at UNSW.

Students in the Faculty enrol in the Faculty's programs for a variety of different reasons. The generalist degrees offer programs with a very wide range of intellectually challenging and stimulating disciplines and interdisciplinary courses, offering considerable flexibility for students to design their own sequences of study. The degrees in education, media and communication, music, social science and social work are more professionally or vocationally oriented but include possibilities for a range of optional study. All of the programs combine opportunity for broad intellectual growth with the development of specific skills of research, analysis, and the ability to write clearly and concisely.

The Faculty prides itself on retaining friendly and cooperative relations between staff and students and on the quality of its teaching and research. Because of the diversity of courses and the range of choice facing students, you should seek advice from lecturers and the Faculty administrative staff at all stages of your study. This is particularly important if you are doing well since you should consider taking a fourth honours year. An honours degree enhances your employment prospects and is a personally rewarding and exciting experience.

An Arts and Social Sciences degree is a valued one. Many people prominent in a broad range of occupations in both the public and private sectors hold an degree from the Faculty as their first university qualification.

I hope that the high goals that you will have set yourself are met or exceeded and that your stay in the Faculty of Arts and Social Sciences will be happy, stimulating, productive and rewarding.

Neil Harpley
Acting Dean
Arts and Social Sciences

Faculty of Arts and Social Sciences

Contents

Faculty Information and Assistance

Some people who can help you 34
Advanced Standing 34
ARTS2000 Faculty Internship 34
ARTS3000 Courses 34
Faculty Computing Facilities 34
Faculty Timetable 35
General Education 35
Re-enrolment Procedures 35

Faculty Rules 35

Key to Course Identifiers 35

How to Structure your Program

1. Bachelor of Arts Program 3400 36
2. Bachelor of Arts (Honours) Program 3401 37
3. Bachelor of Arts (Media and Communications) Program 3402 38
4. Bachelor of Arts (Dance) Bachelor of Education Program 3408 39
5. Bachelor of International Studies Programs 3413, 3414, 3415 & 3416 39
   - Bachelor of International Studies in Asian Studies Program 3413 40
   - Bachelor of International Studies in European Studies Program 3414 40
   - Bachelor of International Studies in Globalisation Program 3415 41
   - Bachelor of International Studies in Languages Program 3416 42
6. Bachelor of Social Science Program 3420 42
7. Bachelor of Social Science in Criminology Program 3422 43
8. Bachelor of Social Science (Honours) Program 3423 45
9. Bachelor of Music Program 3425 45
10. Bachelor of Music Bachelor of Education Program 3426 46
11. Bachelor of Music Bachelor of Arts Program 3427 47
12. Bachelor of Social Work Program 4031 47
13. Bachelor of Social Work Bachelor of Arts Program 4035 48
14. Bachelor of Social Work Bachelor of Social Science Program 4036 49
15. Bachelor of Arts Bachelor of Education Program 4055 49
16. Diploma in Languages Program 3417 49
17. Diploma in Music Program 3418 49
18. Combined Degrees 49

Course Codes and Sequences

Art History and Theory 50
ARTS Faculty Courses 50
Asian Studies 50
Australian Studies 50
Biological Science 51
Chemistry 51
Chinese Studies 51
Cognitive Science 52
Studies in Comparative Development 52
Computer Science 53
Criminology 53
Economic History 54
Economics 54
Education 55
English 55
Environmental Studies 56
European Studies 57
French 57
Geography 58
Geology 58
German Studies 59
Greek (Modern) 59

History 60
History and Philosophy of Science and Technology 61
Indonesian Studies 61
Industrial Relations and Organisational Behaviour 62
International Business 62
International Studies 63
Italian 63
Japanese and Korean Studies 63
Jewish Studies 64
Latin 64
Linguistics 64
Mathematics 64
Media and Communications 66
Modern Language Studies 66
Music and Music Education 66
Philosophy 68
Philosophy of Science 68
Physics 69
Politics and International Relations 69
Portuguese 70
Psychology 70
Russian Studies 71
Science and Technology Studies 71
Social Science and Policy 72
Social Work 73
Sociology 74
Spanish and Latin American Studies 75
Surveying and Spacial Information Systems 76
Theatre, Film and Dance 76
Women's Studies 79

Program and Course Information

3400 Bachelor of Arts Program 79
3401 Bachelor of Arts (Honours) Program 79
3402 Bachelor of Arts (Media and Communications) Program 80
3408 Bachelor of Arts (Dance) Bachelor of Education Program 80
3413 Bachelor of International Studies in Asian Studies Program 80
3414 Bachelor of International Studies in European Studies Program 80
3415 Bachelor of International Studies in Globalisation Program 80
3416 Bachelor of International Studies in Languages Program 81
3420 Bachelor of Social Science Program 81
3422 Bachelor of Social Science in Criminology Program 81
3423 Bachelor of Social Science (Honours) Program 81
3425 Bachelor of Music Program 81
3426 Bachelor of Music Bachelor of Education Program 82
3427 Bachelor of Music Bachelor of Arts Program 82
4031 Bachelor of Social Work Program 82
4035 Bachelor of Social Work Bachelor of Arts Program 82
4036 Bachelor of Social Work Bachelor of Social Science Program 82
4055 Bachelor of Arts Bachelor of Education Program 82
3417 Diploma in Languages 83
3418 Diploma in Music 83

Faculty Information and Assistance

Some people who can help you

Enquiries about degree requirements, enrolment, progression within programs, program transfers or any other general Faculty matters should be made to the staff in the Faculty of Arts and Social Sciences Office, G1, Morven Brown Building, telephone (02) 9385 2289, fax (02) 9385 1492, e-mail artsunsw@unsw.edu.au. Advanced standing, exemption and leave forms are available from the Office. The Office is normally open for enquires from 9.00 am – 12.30 pm and 1.30 pm - 4.30 pm Monday to Friday.

Enquiries about course content and class locations should be directed to School offices.

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

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 the University of New South Wales. 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. 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 – **zarni@unsw.edu.au** or on telephone (02) 9385 1443.

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 BA, the BA (Asian Studies), the BA (European Studies), the BInst, the BMus and the BMusBA. ARTS3000 courses are also available as elective courses for students in other degrees. These courses should normally be taken in the student's third year of study.

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, outside class hours, 24 hours 7 days per week. Printing charges apply. Limited access to email and the internet is available. Further information can be obtained from the Technical Resources Centre, Room 105, Morven Brown Building. Room G69 in the Morven Brown Building is available to students in the Faculty for Re-enrolment purposes.

Faculty Timetable

The timetable for Arts courses is published in a separate booklet and will be distributed to new students on final enrolment. Later year students will be able to access the information on the Web at www.arts.unsw.edu.au in November. Students may also refer to a copy either on the noticeboard outside the Faculty of Arts and Social Sciences Office or on the front counter.

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

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 are not permitted to enrol in 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 will be expected to re-enrol via the Web in 2002, apart from those who intend to enrol in an Honours program in 2002. 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.

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 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.

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

Concurrent study

7. 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

8. 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.

9. 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

10. 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

11. (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

12. 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

13. 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.

Prefix	Organisational Unit	Faculty
ARTS	Faculty of Arts & Social Sciences	
ASIA	Faculty of Arts & Social Sciences	
AUST	Faculty of Arts & Social Sciences	
BIOS	School of Biological Science	Science
CHEM	School of Chemistry	Science
CHIN	Department of Chinese & Indonesian Studies	Arts & Social Sciences
COMD	Faculty of Arts & Social Sciences	
COMP	School of Computer Science & Engineering	Engineering
CRIM	Faculty of Arts & Social Sciences	
DANC/FILM/ PFST/THFI/ THST	School of Theatre, Film and Dance	Arts & Social Sciences
ECOH	School of Economics	Commerce & Economics
ECON	School of Economics	Commerce & Economics
EDST	School of Education	Arts & Social Sciences
ENGL	School of English	Arts & Social Sciences
EURO	Faculty of Arts & Social Sciences	
FREN	Department of French	Arts & Social Sciences
GEOG	School of Geography	Science
GEOL	School of Geology	Science
GERS	Department of German & Russian Studies	Arts & Social Sciences
GMAT	School of Surveying and Spacial Information Systems	Engineering
GREK	School of Modern Language Studies	Arts & Social Sciences
HIST	School of History	Arts & Social Sciences
HPST/ SCTS	School of Science & Technology Studies	Arts & Social Sciences
IBUS	School of International Business	Commerce & Economics
INDO	Department of Chinese & Indonesian Studies	Arts & Social Sciences
INST	Faculty of Arts & Social Sciences	
INTD	Faculty of Arts & Social Sciences	
IROB	School of Industrial Relations & Organisational Behaviour	Commerce & Economics
JAPN	Department of Japanese & Korean Studies	Arts & Social Sciences
JWST	Faculty of Arts & Social Sciences	
KORE	Department of Japanese & Korean Studies	Arts & Social Sciences
LATN	School of Modern Language Studies	Arts & Social Sciences
LAWS	School of Law	Law
LING	Department of Linguistics	Arts & Social Sciences
MATH	School of Mathematics	Science
MDCM	School of Media & Communications	Arts & Social Sciences
MODL	School of Modern Language Studies	Arts & Social Sciences
MSCI	Centre for Marine & Coastal Studies	Science

MUSI	School of Music & Music Education	Arts & Social Sciences
PHIL	School of Philosophy	Arts & Social Sciences
PHYS	School of Physics	Science
POLS	School of Politics & International Relations	Arts & Social Sciences
PORT	School of Modern Language Studies	Arts & Social Sciences
PSYC	School of Psychology	Science
RUSS	Department of German & Russian Studies	Arts & Social Sciences
SAHT	School of Art History & Theory	College of Fine Arts
SCTS/ HPST	School of Science & Technology Studies	Arts & Social Sciences
SLSP	School of Social Science & Policy	Arts & Social Sciences
SOCA	School of Sociology	Arts & Social Sciences
SOCW	School of Social Work	Arts & Social Sciences
SPAN	Department of Spanish & Latin American Studies	Arts & Social Sciences
WOMS	Faculty of Arts & Social Sciences	

How to Structure your Program

1. Bachelor of Arts Program 3400

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. 48 units of credit obtained in Level 1 courses ie courses designed for students in their first year of study. Of these, no more than 12 can be in any one school or department. 24 units of credit must be obtained from courses offered specifically by the Faculty.
3. a major sequence (List A) in one of the following:

CHIN	Chinese Studies
EDST	Education
ENGL	English
FREN	French
GERS	German Studies
GREK	Greek, Modern
HIST	History
INDO	Indonesian Studies
JAPN	Japanese Studies
KORE	Korean Studies
LING	Linguistics
MUSI	Music
PHIL	Philosophy
POLS	Politics and International Relations
RUSS	Russian Studies
SCTS/ HPST	Science and Technology Studies
SLSP	Policy Studies
SOCA	Sociology
SPAN	Spanish and Latin American Studies
DANC/FILM/ PFST/THFI/ THST	Theatre, Film and Dance

A major sequence is an approved progression of courses in a school, department or program: you will find details under the relevant entry.

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/department in which you are majoring, so that your program does not become too one-sided.

6. in addition to the areas listed under 3. above, major sequences are available in: Art History and Theory, Australian Studies, Cognitive Science, Comparative Development, Computing, Economic History, Economics, Environmental Studies, European Studies, Geography, Geology, Human Resource Management, Industrial Relations, International Business, Jewish Studies, Mathematics, Philosophy of Science, Psychology and Women's Studies.

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. These courses are part of the requirements for the degree and do not incur an additional HECS or fee obligation.

8. 6 units of credit in an Upper Level ARTS 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 **Course Descriptions:** 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 fulfil the **requirements for a major sequence** in the school(s) or department(s) in which you are specialising. If you have any doubts about them, make sure you consult a member of staff before

BA – Sample Program - Example Only

YEAR ONE – *48 units of credit*				
S1	**Politics & IR (6)**	**Sociology (6)**	**Economics (6)**	**Spanish (6)**
S2	**Politics & IR (6)**	**Sociology (6)**	**Economics (6)**	**Spanish (6)**
YEAR TWO – *48 units of credit*				
S1	**European Studies (6)** **General Education (3)**	**Sociology (6)**	**Economics (6)**	
S2	**Linguistics (6)** **General Education (3)**	**Sociology (6)** **Sociology (6)**	**Economics(6)**	
YEAR THREE – *48 units of credit*				
S1	**European Studies (6)** **General Education (3)**	**Sociology (6)**	**Economics (6)**	**Arts Course (6)**
S2	**Linguistics (6)** **General Education (3)**	**Sociology (6)**	**Economics (6)**	
Total required for BA – *144 units of credit*		***Major Sequence, 42 units of credit***	**Second Major Sequence, *36 units of credit***	

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. Although, in most cases, they cannot be taken as the only major in your degree, they offer an interdisciplinary alternative to a second school-based major, or simply a way of giving more coherence to your other courses. Comparisons and connections are often the best way of bringing the particular problems of an area of study into clearer focus. Members of staff may be able to recommend particular courses in other schools which will help you in the direction you wish to take.

While it is desirable that all Upper Level students seek advice on their program from their home school, it is **essential** for intending Honours students. If you want to proceed to fourth year Honours Level in one or two schools or programs, you should work out a program which fulfils the requirements for Honours Level entry with the Head of School or program Coordinator concerned as early as possible in second year; with Combined Honours (Honours in two schools/programs) in particular, this can avoid many later problems such as missing prerequisites. Details of requirements for Honours entry can be found under the relevant entries.

2. Bachelor of Arts (Honours) Program 3401

The basic requirements for the degree are:

1. a total of 192 units of credit.

2. 48 units of credit obtained in Level 1 courses ie courses designed for students in their first year of study. Of these, no more than 12 can be in any one of the sequences of study listed for the BA Rules and must include ARTS1001.

3. a major sequence **(List A)** in one of the following:

CHIN	Chinese Studies
EDST	Education
ENGL	English
FREN	French
GERS	German Studies
GREK	Greek, Modern
HIST	History
JAPN	Japanese Studies
KORE	Korean Studies
LING	Linguistics
MUSI	Music
PHIL	Philosophy
POLS	Politics and International Relations
RUSS	Russian Studies
SCTS/HPST	Science and Technology Studies
SLSP	Policy Studies
SOCA	Sociology
SPAN	Spanish and Latin American Studies
DANC/FILM/ PFST/THFI/ THST	Theatre, Film and Dance

A major sequence is an approved progression of courses in a school, department or program: you will find details under the relevant entry.

4. at least 24 Upper Level units of credit in advanced courses to be taken in second and third year.

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

6. at least 66 units of credit gained in schools, departments or programs outside the school/department 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. These courses are part of the requirements for the degree and do not incur an additional HECS or fee obligation.

8. in addition to the areas listed under 3. above, major sequences are available in: Art History and Theory, Australian Studies, Cognitive Science, Comparative Development, Computing, Economic History, Economics, Environmental Studies, European Studies, Geography, Geology, Human Resource Management, Industrial Relations, International Business, Jewish Studies, Mathematics, Philosophy of Science, Psychology and Women's Studies.

9. 48 units of credit in a fourth year honours program. Almost all of the major sequences listed in 3. and 8. above are available as Honours programs. The interdisciplinary sequences listed in 8. above offer only a Combined Honours program. Of the sequences from outside the Faculty, Economic History, Economics, Geography, Human Resource Management and Industrial Relations offer Honours programs. Students wishing to proceed to Honours in Psychology or Mathematics should consult the relevant School before the end of second year about the possibility of a transfer to the appropriate program.

BA (Hons) – Sample Program - Example Only

YEAR ONE ***48 units of credit***				
S1 **English (6)**	**History (6)**	**Politics & IR (6)**	**ARTS1001 (6)**
S2 **English (6)**	**History (6)**	**Politics & IR (6)**	**Linguistics (6)**
YEAR TWO ***48 units of credit***				
S1 **Advanced Course (6)** **General Education (3)**	**History (6)**	**Politics & IR(6)**	
S2 **Advanced Course (6)** **General Education (3)**	**History (6)** **History (6)**	**Politics & IR (6)**	
YEAR THREE ***48 units of credit***				
S1 **Advanced Course (6)** **General Education (3)**	**History (6)**	**Politics & IR (6)** **Politics & IR (6)**	
S2 **Advanced Course (6)** **General Education (3)**	**History (6)**	**Politics & IR (6)**	
YEAR FOUR ***48 units of credit***	**Major sequence** ***42 units of credit***	**Second major sequence** ***42 units of credit***	
S1/2 **History Honours**	**HIST4000 (48)**		

Total required for BA (Hons)
– 192 units of credit

BA (Media and Communications) – Sample Program - Example Only

YEAR ONE *48 units of credit*				
S1	English (6)	Theatre, Film & Dance (6)	New Media Technologies A (6)	Computer Science (6)
S2	English (6)	Theatre, Film & Dance (6)	New Media Technologies B (6)	Sociology (6)
YEAR TWO *48 units of credit*				
S1		Theatre, Film & Dance (6)	Media, Technology and Creativity (6) Media Production (6)	General Education (3) General Education (3)
S2	Elective (6) Elective (6)	Theatre, Film & Dance (6)	Multimedia Production (6)	
YEAR THREE *48 units of credit*				
S1		Theatre & Film (6)	Media Forms (6) Advanced Media Production (6)	General Education (3) General Education (3)
S2	Elective (6)	Theatre & Film (6) Theatre & Film (6)	Multimedia Production in Industry Contexts (6)	
Total required for BA (Media and Communications) – *144 units of credit*		**Major Sequence, *42 units of credit***	**Media and Communications core program, *48 units of credit***	

How to Choose Your First Year Program

You must include the course **ARTS1001** Modernity and the Humanities and 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 **Course Descriptions:** this will normally account for 30 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, it is essential that you fulfil the **requirements for entry to the fourth year honours** in the school(s) or department(s) in which you are specialising. Details of requirements for entry to the Honours year are available in each relevant section of the Handbook. You should consult the school's Honours coordinator before enrolling in second year to ensure you are clear about these requirements. If you intend to proceed to Combined Honours (Honours in two schools/interdisciplinary sequences), you must consult coordinators in both of the areas in which you intend to specialise.

3. Bachelor of Arts (Media and Communications) Program 3402

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
MDCM1001

Second Year

MDCM2000
MDCM2002
MDCM2003

Third Year

MDCM3000
MDCM3002
MDCM3003

3. 3 electives (18 Upper Level units of credit).

4. a major sequence (List A) in one of the following:

CHIN	Chinese Studies
EDST	Education
ENGL	English
FREN	French
GERS	German Studies
GREK	Greek, Modern
HIST	History
INDO	Indonesian Studies
JAPN	Japanese Studies
KORE	Korean Studies
LING	Linguistics
MUSI	Music
PHIL	Philosophy
POLS	Politics and International Relations
RUSS	Russian Studies
SCTS/ HPST	Science and Technology Studies
SLSP	Policy Studies
SOCA	Sociology
SPAN	Spanish and Latin American Studies
DANC/FILM/ PFST/THFI/ THST	Theatre, Film and Dance

A major sequence is an approved progression of courses in a school, department or program: you will find details under the relevant entry.

5. 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.

6. 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. These courses are part of the requirements for the degree and do not incur additional HECS or fee obligation.

Bachelor of Arts (Dance) Bachelor of Education – Sample Program – Example Only

Year	Dance Practice	UOC	Dance Theory	UOC	Education & Dance Education	UOC	Second Teaching Subject	UOC	General Education	UOC	Total
1	DANC1001 DANC1002	6 6			DANC1101 DANC1102 EDST1101 EDST1102	6 6 6 6	ST Course ST Course	6 6			**48**
2	DANC2103 DANC2104	6 6	DANC2000 DANC2002 DANC2005	6 6 6			ST Course ST Course	6 6	GEP Course GEP Course	3 3	**48**
3	DANC2105 DANC2106	6 6	DANC2014 DANC2007	6 6	DANC2201	6	ST Course ST Course	6 6	GEP Course GEP Course	3 3	**48**
4	DANC2107	6			DANC2209 DANC2211 DANC2204 EDST4080 EDST4081 EDST4091	3 3 9 6 6 3	ST Course EDST Method EDST Method	6 3 3			**48**
Total		**42**		**30**		**60**		**48**		**12**	**192**

How to Choose Your First Year Program

Enrol in the core courses MDCM1000 and MDCM1001 (see 2. above); then choose one or more areas from 4. 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.

4. Bachelor of Arts (Dance) Bachelor of Education Program 3408

The School of Theatre, Film and Dance 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. The BA(Dance) BEd is a professional double degree which qualifies successful graduates to be recognised as high school teachers with the NSW Department of School Education. The double degree also serves as an ideal basis from which to enter a range of dance and dance education professions.

Entry to the BA(Dance) BEd program is by audition and satisfactory University academic entry requirements.

To qualify for the award of the degree, 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 Theatre, Film and Dance 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, Economics/Commerce, English, History, French, Geography, German, Indonesian, Japanese, Literacy/English as a Second Language (ESL), Spanish, Theatre

3. 12 units of credit in courses approved by the Faculty in the University's General Education program.

Second Teaching Area

The 42 units of credit drawn from the above major sequences function 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.

Honours Level

Students seeking admission to Dance Honours (Research) must have completed 192 units of credit as detailed above and achieved a minimum average grade of Credit in dance courses. Those intending to enrol in the Honours program must seek the permission of the Dance Program Coordinator during their second or third year of study so that an appropriate course of study can be planned.

5. Bachelor of International Studies Programs 3413, 3414, 3415 & 3416

The Faculty of Arts and Social Sciences currently offers four programs leading to the award of the degree of Bachelor of International Studies: **Asian Studies** (Program **3413**), **European Studies** (Program **3414**) **Globalisation** (Program **3415**) and **Languages** (Program **3416**). The programs are designed to give students a thorough preparation for further study and employment in areas vital to Australia's increasing participation

Bachelor of International Studies in Asian Studies – Sample Program

Year	Language	UOC	Major	UOC	Asia-related	UOC	Other	UOC	Total
1	JAPN	12	HIST	12	ASIA1000 ASIA1001	6 6	INDO	12	**48**
2	JAPN	12	HIST	12	HIST POLS	6 6	GEP	12	**48**
3	**Individual Study Programs A & B**						INST3101 INST3102	24 24	**48**
4	JAPN	18	HIST	18	POLS	6	ARTS	6	**48**
Total		**42**		**42**		**30**		**78**	**192**

in the international arena, and normally require a period of overseas study of one or two semesters. Degree students who have made satisfactory progress in their program will be eligible for a contribution to the expenses of this study.

The four-year programs lead to the degree at Pass level. A fifth, Honours, year is available in all programs.

Bachelor of International Studies in Asian Studies Program 3413

Coordinator: David Reeve (School of Modern Language Studies, MB 241)

The Bachelor of International Studies in Asian Studies degree is designed as an integrated program combining language study, a social science discipline and a core program in Asia-related study, together with an approved program overseas, 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 by both private and public employers.

The basic requirements for the degree are:

1. a total of 192 units of credit.

2. a total of 48 units of credit at Level 1, including not more than 12 in any one sequence.

3. a sequence of at least 36 units of credit in one of the following Asian languages:

CHIN Chinese, INDO Indonesian, JAPN Japanese, KORE Korean

4. an approved major sequence (**List D**) in one of the following:

ECOH Economic History, ECON Economics, GEOG Geography, HIST History, IBUS International Business, IROB Human Resource Management/Industrial Relations, LING Linguistics, PHIL Philosophy, POLS Politics and International Relations, PSYC Psychology, SCTS/HPST Science and Technology Studies, SLSP Policy Studies, SOCA Sociology.

5. 24 units of credit in ASIA1000, ASIA1001 and two of the following Asia-related courses:

ECOH2305	Modern Asian Economic History
ECOH3303	Transformation of the Japanese Economy
ECON2116	Japanese Economic Policy
ECON3112	The Newly Industrialising Economies of East Asia
ECON3113	Economic Development in ASEAN Countries
FILM2009	Japanese Cinema
HIST2043	The Last Emperors and the Birth of Modern China
HIST2044	Modern China: War, Revolution and Reform in the 20th Century
HIST2050	Women in Southeast Asian Societies
HIST2051	Ideology, Philosophy and Art in Modern China
HIST2052	Historical Perspectives on Chinese Culture and Society
HIST2053	Muslim Southeast Asia
HIST2054	Modern Japan: Political Culture, Popular Culture
HIST2055	Colonialism and Fundamentalism in India
HIST2068	East Asian History (Japan, China, Korea): Themes and Debates
HIST2076	Early Modern Japan: Age of the Sword
HIST2077	The Chinese in Southeast Asia
HIST2081	Traditions, Colonialisms and Revolutions: Southeast Asian Histories
HIST2082	The 'Orient': Western Engagements with Asia
HIST2084	The Vietnam War/The American War
HIST2085	Resistance and Engagement: Australia's Asian Context
HIST2086	Coins, Costumes and Alphabets: Sources in Southeast Asian History
HIST2300	Between Dictatorship and Democracy: Contemporary Southeast Asia
IBUS2103	Japanese Business
IBUS2104	Korean Business
IBUS2105	Chinese Business Enterprise
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
POLS3046	Japan and the New World Order
SCTS3106	Technology, Sustainable Development and the Third World
SOCA3205	Modern Southeast Asia: Society and Culture
SPAN2430	Miracles of Modernisation/Crises of Capitalism: Asia and the Americas
THST2201	Asian Theatre in Performance

and appropriate courses in CHIN, INDO, JAPN and KORE.

6. at least 54 units of credit from **Lists A** and **B** of the BA Rules.

7. at least 54 units of credit gained in schools/departments outside the List sequence.

8. 6 units of credit in an Upper Level ARTS course.

9. INST3101 and INST3102.

10. 12 units of credit from the University's General Education program at Upper Level.

Enquiries can be directed in the first instance to the Modern Languages Reception Desk (MB 258) on the second floor of the Morven Brown Building.

Bachelor of International Studies in European Studies Program 3414

Coordinator: John Milfull (Centre for European Studies, MB G64)

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.

Bachelor of International Studies in European Studies – Sample Program

Year	Core Program	UOC	Language	UOC	Social Science	UOC	Other	UOC	Total
1	EURO1000 EURO1001	6 6	FREN	12	POLS	12	INST	12	**48**
2	EURO	12	FREN	12	POLS	12	GEP	12	**48**
3	**Individual Study Programs A & B**						INST3101 INST3102	24 24	**48**
4	EURO	12	FREN	12	POLS	12	ARTS FREN or POLS	6 6	**48**
Total		**36**		**36**		**36**		**84**	**192**

Bachelor of International Studies in Globalisation – Sample Program

Year	Core Program	UOC	Major	UOC	Electives	UOC	Other	UOC	Total
1	INST1000 INST1001	6 6	POLS	12	EURO	12	COMD	12	**48**
2	INST2000 INST2001	6 6	POLS	12	HIST	12	GEP	12	**48**
3	**Individual Study Programs A & B**						INST3101 INST3102	24 24	**48**
4	INST3000 INST3001	6 6	POLS	18	EURO HIST	6 6	ARTS	6	**48**
Total		**36**		**42**		**36**		**78**	**192**

The European Studies program within the Bachelor of International Studies degree requires completion of the Faculty's European Studies (EURO) program and three years' study of a European language and of a social science discipline, together with an approved program overseas, to be undertaken during the third and fourth years of study. 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.

The basic requirements for the degree are:

1. a total of 192 units of credit.

2. a major sequence (36 units of credit) in EURO European Studies.

3. a sequence of at least 36 units of credit in one of the following European languages:

FREN French, GERS German, GREK Greek (Modern), RUSS Russian, SPAN Spanish

4. at least 36 units of credit from **List D:**

ECOH Economic History, ECON Economics, GEOG Geography, HIST History, IBUS International Business, IROB Human Resource Management/Industrial Relations, LING Linguistics, PHIL Philosophy, POLS Politics and International Relations, PSYC Psychology, SCTS/HPST Science and Technology Studies, SLSP Policy Studies, SOCA Sociology.

5. a major sequence in either a European language or **List D** above.

6. 6 units of credit in an Upper Level ARTS course.

7. INST3101 and INST3102.

8. 12 units of credit from the University's General Education program at Upper Level.

The European Studies noticeboard is located opposite the Centre for European Studies (MB G64).

Enquiries to John Milfull, MB G64.

Bachelor of International Studies in Globalisation Program 3415

Coordinator: Mark T. Berger (School of Modern Language Studies, MB 226)

Globalisation has emerged as a defining trend of the early twenty-first century. This program addresses the main themes and debates which relate to globalisation. It locates globalisation in the wider context of world history and global political economy. Questions about the changing role of nation-states, the growing power of international institutions and organisations, and the rising levels of inequality world-wide will be addressed. The relationship between globalisation and national identity will be explored. And the history and contemporary significance of the International Monetary Fund (IMF), the World Bank, and the World Trade Organization (WTO), and the role they play in globalisation will be clarified. This program will also answer questions such as: What is the role of transnational corporations (TNCs) in globalisation? What is the social and cultural significance of globalisation? What is the United Nations (UN), what is its role in the nation-state system and what is the relationship between the United Nations and globalisation?

The Bachelor of International Studies in Globalisation requires the completion of a core sequence of courses on world history, global political economy and globalisation and a major sequence in a social science discipline, together with an approved program overseas, 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 they require no previous knowledge of other languages.

The basic requirements for the degree are:

1. a total of 192 units of credit.

2. the core sequence (36 units of credit) in INST International Studies.

3. an approved major sequence (**List D***) in one of the following:

ECOH Economic History, ECON Economics, GEOG Geography, HIST History, IBUS International Business, IROB Human Resource Management/Industrial Relations, LING Linguistics, PHIL Philosophy, POLS Politics and International Relations, PSYC Psychology, SCTS/HPST Science and Technology Studies, SLSP Policy Studies, SOCA Sociology.

* Within the Globalisation stream, a major in COMD Comparative Development may also be taken in fulfillment of this requirement.

4. 36 units of credit in approved International Studies-related courses:

ASIA1001	Introduction to Contemporary Asia
CHIN	all courses
COMD	all courses
EURO	all courses
FREN	all courses
GEOG1601	Australian and Global Geographies: Integration and Divergence
GERS	all courses
GREK	all courses
HIST2039	Environmental History
HIST2300	Between Dictatorship and Democracy: Contemporary Southeast Asia
INDO	all courses
JAPN	all courses
KORE	all courses
POLS2023	Globalisation and Uneven Development
POLS2028	Politics of "Race", Gender and Class
POLS3901	States, Nations and Ethnicities
RUSS	all courses
SOCA2103	Globalisation and Fragmentation
SOCA2109	Local Cultures, Global Cultures
SOCA3063	Economic Rationalism and Public Policy
SOCA3104	Travel
SOCA3703	Nationalism, Citzenship and Cultural Identity
SOCA3704	Social Movements and Society:Current Debates
SOCA3708	Cybersociety
SPAN	all courses.

5. at least 54 units of credit, including at least 24 at Level 1 from Lists A and B of the BA Rules.

Bachelor of International Studies in Languages – Sample Program

Year	Language 1	UOC	Language 2	UOC	Electives	UOC	Other	UOC	Total
1	GERS	12	CHIN	12	LING1000 LING1500	6 6	ASIA1000 EURO1001	6 6	**48**
2	GERS	12	CHIN	12	EURO HIST	6 6	GEP	12	**48**
3	**Individual Study Programs A & B**						INST3101 INST3102	24 24	**48**
4	GERS	18	CHIN	18	EURO	6	ARTS	6	**48**
Total		**42**		**42**		**30**		**78**	**192**

6. at least 54 units outside the List D sequence.

7. 6 units of credit in an Upper Level ARTS course.

8. INST3101 and INST3102.

9. 12 units of credit from the University's General Education program at Upper Level.

International Studies Core Sequence

Year		**Course**
1	INST1000	*World History: The Big Picture*
1	INST1001	*International Relations in the Twentieth Century*
2	INST2000	*Making/Unmaking the Third World: History and Global Development II*
2	INST2001	*World History: The 20th Century*
3/4	INST3001	*Theorising International Political Economy*
3/4	INST3000	*Globalisation and Modernity: Interdisciplinary Seminar*

The International Studies in Globalisation noticeboard is located near Room MB 226.

Enquiries can be directed in the first instance to the Modern Languages Reception Desk (MB 258) on the second floor of the Morven Brown Building.

Bachelor of International Studies in Languages Program 3416

Coordinator: Olaf Reinhardt (School of Modern Language Studies, MB 252)

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, which continue to influence our experience of the world and represent 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 adds significantly to the choice of countries for overseas study and employment.

The *Languages* program is designed for students wishing to prepare themselves for a professional 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 electives to be chosen from courses in Asian Studies, European Studies, Globalisation and Linguistics, 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.

The basic requirements for the degree are:

1. a total of 192 units of credit.

2. two major language sequences:

CHIN Chinese, FREN French, GERS German, GREK Greek (Modern), INDO Indonesian, JAPN Japanese, KORE Korean, RUSS Russian, SPAN Spanish.

3. at least 24 units of credit in ASIA, EURO, LING or INST courses*.

4. a total of 48 units of credit at Level 1.

5. 6 units of credit in an Upper Level ARTS course.

6. INST3101 and INST3102.

7. 12 units of credit from the University's General Education program at Upper Level.

* With the approval of the Coordinator, other courses offered by Schools and Programs of the Faculty may be substituted.

Enquiries can be directed in the first instance to the Modern Languages Reception Desk (MB 258) on the second floor of the Morven Brown Building.

6. Bachelor of Social Science Program 3420

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 and Information Management S2
SLSP1000	Social Science and Policy S1
or	
SLSP1002	Introduction to Policy Analysis S2

Second Year

SLSP2000	Economy and Society
SLSP2001	Applied Social Research 1
SLSP2002	Policy Analysis Case Studies

Third Year

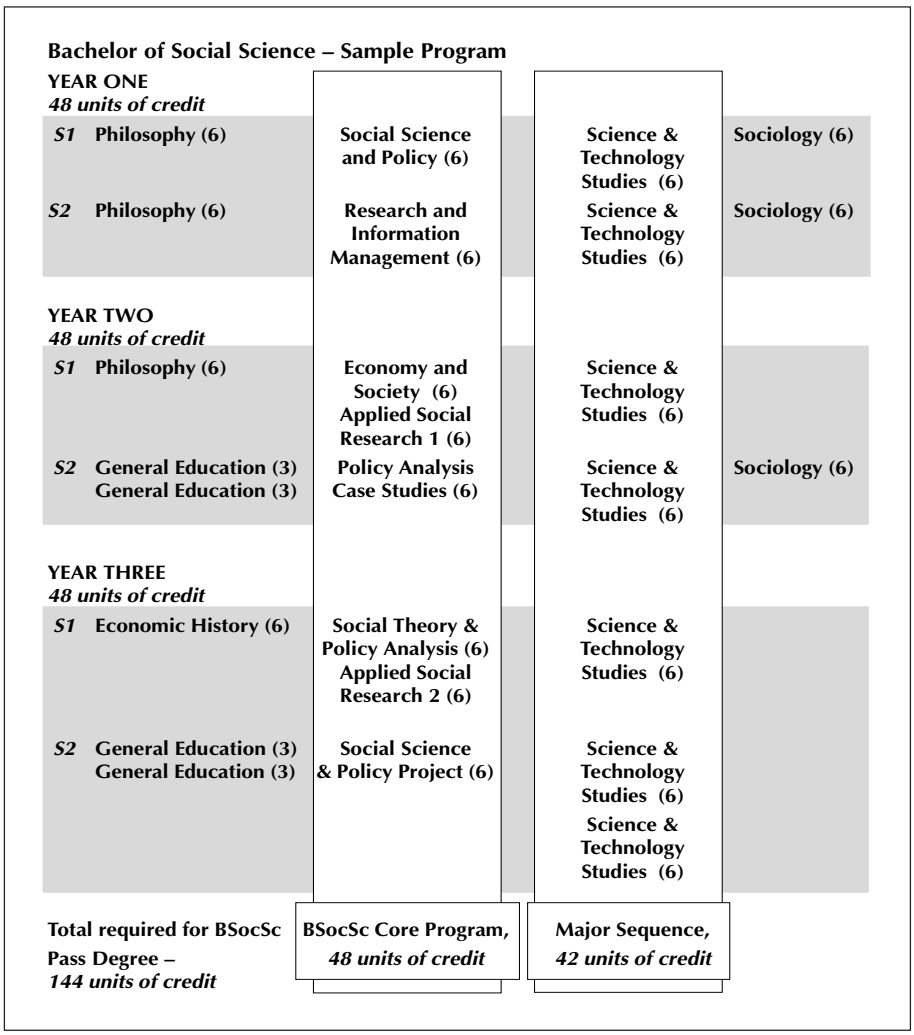
SLSP3000	Social Theory and Policy Analysis
SLSP3001	Applied Social Research 2
SLSP3002	Social Science and Policy Project

* 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. a major sequence (List F) in one of the following:

ECOH	Economic History
ECON	Economics
GEOG	Geography
GEOL	Geology
HIST	History
IBUS	International Business
IROB	Industrial Relations/Human Resource Management
PHIL	Philosophy
POLS	Politics and International Relations
PSYC	Psychology
SCTS/HPST	Science and Technology Studies
SOCA	Sociology
SPAN	Spanish and Latin American Studies (History Stream)
DANC/FILM/ PFST/THFI/ THST	Theatre, Film and Dance*

*Students majoring in Theatre, Film and Dance 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. These courses are part of the requirements for the degree and do not incur an additional HECS or fee obligation.

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 3. above 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, students who intend to apply for entry to the Honours year should enrol in SLSP3911 in the third year of study.

For entry to Honours in the BSocSc degree program, you must have demonstrated over the three years of the program that you have reached a sufficient standard, and apply to the Head of School for admission. If you wish to go on to Honours, you should ask staff in the program for advice on planning your program and defining your research interests at an early stage, perhaps during second year.

The BSocSc Honours Degree may be taken in three ways:

1. BSocSc Honours, with a Major in an approved area;
2. Combined BSocSc/approved area Honours. This program is undertaken in cooperation with a school offering a Combined Honours program.
3. BSocSc Honours Economics

7. Bachelor of Social Science in Criminology Program 3422

Criminology, broadly defined as the study of crime and crime control institutions, is a multidisciplinary area involving contributions from the social and behavioural sciences, the humanities and law. The Bachelor of Social Science in Criminology combines the core program of the Bachelor of Social Science degree with specialist training in criminology. Graduates are prepared for careers in policy analysis or research in criminal justice agencies, quantitative and qualitative social research, project design and management in private, government and non-government sectors.

The basic requirements of the degree are:

1. a total of 144 units of credit.

2. 48 units of credit in the BSocSc core 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
SLSP1001	Research and Information Management S2
SLSP1000	Social Science and Policy S1
or	
SLSP1002	Introduction to Policy Analysis S2

Second Year

CRIM2000	Criminological Theories
SLSP2000	Economy and Society
SLSP2001	Applied Social Research 1
SLSP2002	Policy Analysis Case Studies

Bachelor of Social Science in Criminology – Sample Program – Example Only					
Year	**S1/S2**	**Social Science**	**Criminology**	**Other**	**UOC**
1	1	SLSP1000 Social Science & Policy	CRIM1000 Criminal Law and Justice 1	HIST1003 The Fatal Shore (recommended) Elective	**48**
	2	SLSP1001 Research & Information Management	CRIM1001 Criminal Law and Justice 2	Elective Elective	
2	1	SLSP2000 Economy & Society SLSP2001 Applied Social Research 1	CRIM2000 Criminological Theories Criminology Elective I	General Education	**48**
	2	SLSP2002 Policy Analysis Case Studies	Criminology Elective II	General Education Elective	
3	1	SLSP3000 Social Theory & Policy Analysis	CRIM3000 Researching Crime and Justice	General Education Elective	**48**
	2	SLSP3001 Applied Social Research 2 SLSP3002 Social Science & Policy Project	Criminology Elective III Criminology Elective IV	General Education	
Total	**UOC**	**48**	**48**	**48**	**144**

Third Year

CRIM3000 Researching Crime and Justice
SLSP3000 Social Theory and Policy Analysis
SLSP3001 Applied Social Research 2
SLSP3002 Social Science and 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):

LAWS2709 Sentencing
LAWS2719 Community Corrections
LAWS2730 The Criminal Justice System
LAWS2759 Crime Prevention Policy
LAWS2769 The 'New' Prosecutors
LAWS2779 Juvenile Justice
LAWS2789 Policing
ENGL3460 Crime Fiction, Film and Theatre
HIST2468 History from Crime
POLS2020 Sex, Gender and Justice
PSYC3301 Psychology and Law
SOCA2208 Deviant Fieldwork, Data Collection and Analysis
SOCA3408 Crime in Australian Society
SOCA3409 Crime, Gender and Sexuality
SOCA3410 Deviance
SOCA3701 Discipline of the Law
SOCA3802 Fear and Hatred in Everyday Life
SOCA3810 The Space of Terror
THFI2011 Theatres of Cruelty

Bachelor of Social Science (Honours) – Sample Program					
Year	**S1/S2**	**Social Science**	**Major Sequence**	**Other**	**UOC**
1	1	SLSP1000 Social Science & Policy	Major	ARTS1001 Modernity & the Humanities (compulsory) Elective	**48**
	2	SLSP1001 Research & Information Management	Major	Elective Elective	
2	1	SLSP2000 Economy & Society SLSP2001 Applied Social Research 1	Major (upper level)	General Education General Education	**48**
	2	SLSP3900 Advanced Policy Analysis	Major (upper level)	Elective Elective	
3	1	SLSP3000 Social Theory & Policy Analysis Crime SLSP3001 Applied Social Research 2	Major (upper level)	General Education General Education	**48**
	2	SLSP3002 Social Science & Policy Project SLSP3911 Inquiry & Interpretation	Major (upper level) Major (upper level)		
4		Honours Program			**48**
Total UOC		**102**	**42**	**48**	**192**

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 course 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 year of study.

How to Choose Your First Year Program

Enrol in the core courses CRIM1000, CRIM1001, SLSP1000 and either SLSP1000 or SLSP1002 (see 2. above); 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.

8. Bachelor of Social Science (Honours) Program 3423

The Bachelor of Social Science (Honours) program is available to high achieving students to enable them to undertake advanced study in the social sciences leading to an honours degree. In addition to the Bachelor of Social Science program, students will undertake studies in policy analysis and gain first hand experience of policy work in an organisation through completion of a policy analysis internship program.

The basic requirements for the degree are:

1. A total of 192 units of credit.

2. 54 units of credit in the core courses of the BSocSc degree honours program*:

First Year

SLSP1001	Research and Information Management S2
SLSP1000	Social Science and Policy S1
or	
SLSP1002	Introduction to Policy Analysis S2

Second Year

SLSP2000	Economy and Society
SLSP2001	Applied Social Research 1
SLSP3900	Advanced Policy Analysis

Third Year

SLSP3000	Social Theory and Policy Analysis
SLSP3001	Applied Social Research 2
SLSP3002	Social Science and Policy Project
SLSP3911	Inquiry and Interpretation in the Social Sciences

*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. a major sequence (List F) in one of the following:

ECOH	Economic History
ECON	Economics
GEOG	Geography
GEOL	Geology
HIST	History
IBUS	International Business
IROB	Industrial Relations/Human Resource Management
PHIL	Philosophy
POLS	Politics and International Relations
PSYC	Psychology
SCTS/HPST	Science & Technology Studies
SOCA	Sociology
SPAN	Spanish & Latin American Studies (History Stream)
DANC/FILM/ PFST/THFI/ THST	Theatre, Film and Dance*

*Students majoring in Theatre, Film and Dance 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 **ARTS1001.**

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. These courses are part of the requirements for the degree and do not incur an additional HECS or fee obligation.

6. 48 units of credit in the fourth year honours program offered by the School of Social Science and Policy. Students may also undertake combined honours if they have satisfied honours entry into the school in which they have completed their major sequence.

9. Bachelor of Music Program 3425

The School of Music and Music Education offers a Bachelor of Arts (BA) with a major sequence in music and a Bachelor of Music (BMus) degree. The BMus signifies a greater degree of specialisation in music than the BA, and provides opportunities for professional development throughout the degree in the areas of musicology, ethnomusicology, performance, composition, music technology and jazz studies. It is also available as an Honours degree.

Entry to the BMus is by audition and University entry score. The three major sequences in the BMus are in Musicology, Musicianship and Professional Practices. The Contextual Studies component requires the completion of courses totalling 36 units of credit from courses offered by the Faculty of Arts and Social Sciences and includes an Upper Level ARTS course. The General Education component requires courses totalling 12 units of credit from the General Education program approved for students in the Faculty of Arts and Social Sciences.

Bachelor of Music – Sample Program

Year	Musicology	UOC	Musicianship	UOC	Professional Practices	UOC	Contextual Studies	UOC	General Education	UOC	Total
Year 1											
S1	MUSI1141	3	MUSI1241	3	MUSI1401	6	BA x 2	12			**48**
S2	MUSI1142	3	MUSI1242	3	MUSI1402	6	BA x 2	12			
Year 2											
S1	MUSI2141	3	MUSI2241	3	MUSI2401	6	BA x 1	6			**48**
	MUSI2111	3									
	MUSI2121	3									
S2	MUSI2142	3	MUSI2242	3	MUSI2402	6			Gen Ed x 2	6	
	MUSI2112	3									
	MUSI2122	3									
Year 3											
S1	MUSI3141	3	MUSI3241	3	MUSI3401	6	ARTS Course	6			**48**
	MUSI3111	3									
	MUSI3121	3									
S2	MUSI3142	3	MUSI3242	3	MUSI3402	6			Gen Ed x 2	6	
	MUSI3112	3			MUSI3412	3					
Total		**39**		**18**		**39**		**36**		**12**	**144**

Bachelor of Music Bachelor of Education – Sample Program

Year	Musicology	UOC	Musicianship	UOC	Music Education	UOC	Performance Studies	UOC	Education Studies	UOC	Contextual Studies	UOC	General Education	UOC	Total
Year 1															
S1	MUSI1141	3	MUSI1241	3	MUSI1801	6	MUSI1501	6			BA x 1	6			**24**
S2	MUSI1142	3	MUSI1242	3	MUSI1802	6	MUSI1502	6	EDST x 1	6					**24**
Year 2															
S1	MUSI2141	3	MUSI2241	3	MUSI2801	6	MUSI2501	6	EDST x 1	6					**24**
S2	MUSI2142	3	MUSI2242	3	MUSI2802	6	MUSI2502	6			BA x 1	6			**24**
Year 3															
S1	MUSI3141	3	MUSI3241	3	MUSI3801	6	MUSI3501	6	EDST/ MUSI x 1	6					**24**
S2	MUSI3142	3	MUSI3242	3	MUSI3802	6	MUSI3502	6					Gen Ed x 2	6	**24**
Year 4															
S1	MUSI4101	6			MUSI4801	3	MUSI4501	6			BA x 1	6	Gen Ed x 1	3	**24**
S2					MUSI4802	3			EDST/	6			Gen Ed	3	**24**
					MUSI4812	12			MUSI x 1				x 1		
Total		**24**		**18**		**54**		**42**		**24**		**18**		**12**	**192**

The BMus (Pass) degree requires a total of 144 units of credit and the Honours degree a total of 192 units of credit.

Honours Level

Prerequisite: Completion of all requirements for the Pass degree with an average of at least credit level in music courses.

MUSI4000 Bachelor of Music Honours

10. Bachelor of Music Bachelor of Education Program 3426

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). The BMusBEd is a professional double degree which develops skills in six distinct areas of competence. Consolidation of the professional responsibility of music educators plays a central role throughout the music education sequence, and culminates in the 50 day extended period of practice teaching.

Entry to the BMusBEd is by audition and University entry score.

To qualify for the BMusBEd at Pass level, a student must obtain at least 192 units of credit normally taken from the six major components listed following:

1. Musicology (24 units of credit): MUSI1141 Musicology 1A, MUSI1142 Musicology 1B, MUSI2141 Musicology 2A, MUSI2142 Musicology 2B, MUSI3141 Musicology 3A, MUSI3142 Musicology 3B, MUSI4101 Advanced Professional Practices.

2. Musicianship (18 units of credit): MUSI1241 Musicianship 1A, MUSI1242 Musicianship 1B, MUSI2241 Musicianship 2A, MUSI2242 Musicianship 2B, MUSI3241 Musicianship 3A, MUSI3242 Musicianship 3B.

3. Music Education (54 units of credit): MUSI1801 Music Education 1A, MUSI1802 Music Education 1B, MUSI2801 Music Education 2A, MUSI2802 Music Education 2B, MUSI3801 Music Education 3A, MUSI3802 Music Education 3B, MUSI4801 Music Education 4A, MUSI4802 Music Education 4B, MUSI4812 Extended Practice Teaching.

4. Performance Studies (42 units of credit): MUSI1501 Music Performance 1A, MUSI1502 Music Performance 1B, MUSI2501 Music Performance 2A, MUSI2502 Music Performance 2B, MUSI3501 Music Performance 3A, MUSI3502 Music Performance 3B, MUSI4501 Music Performance 4.

5. 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 EDST1101 Education Psychology 1 and EDST1102 Social Foundations of Education are prerequisites for an

Bachelor of Music Bachelor of Arts – Sample Program

Year	Musicology	UOC	Musicianship	UOC	Professional Practices	UOC	Arts	UOC	General Education	UOC	Total
Year 1											
S1	MUSI1141	3	MUSI1241	3	MUSI1401	6	BA x 2	12			**24**
S2	MUSI1142	3	MUSI1242	3	MUSI1402	6	BA x 2	12			**24**
Year 2											
S1	MUSI2141	3	MUSI2241	3	MUSI2401	6	BA x 2	12			**24**
S2	MUSI2142	3	MUSI2242	3	MUSI2402	6	BA x 1	6	Gen Ed x 2	6	**24**
Year 3											
S1	MUSI2111	3			MUSI3401	6	BA x 2	12			**24**
	MUSI2121	3									
S2	MUSI2112	3			MUSI3402	6	BA x 1	6	Gen Ed x 1	3	**24**
	MUSI2122	3			MUSI3412	3					
Year 4											
S1	MUSI3141	3	MUSI3241	3			BA x 2	12			**24**
	MUSI3111	3									
	MUSI3121	3									
S2	MUSI3142	3	MUSI3242	3			BA x 1	6	Gen Ed x 1	3	**24**
	MUSI3112	3					ARTS x 1	6			
Total		**39**		**18**		**39**		**84**		**12**	**192**

additional one elective (of 6 units of credit), and the Year 4 course EDST4080 Special Education which is 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 MUSI3812 Principles and Processes of Music Education for one of the School of Education electives.

6. Contextual Studies (18 units of credit): Selected from existing courses offered within the Bachelor of Arts degree.

7. 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.

Honours Level

Prerequiste: Completion of all requirements for the Pass degree with an average of at least credit level in music (in the case of Honours in music) or music education (in the case of Honours in music education) courses.

MUSI4610 Music Education Honours

11. Bachelor of Music Bachelor of Arts Program 3427

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 BMus BA 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. The BMusBA 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.

Graduates of this program will have appropriate music and musicianship skills as a basis for professional work in music organisation, direction and performance, arts administration, broadcasting, recording, and journalism.

The program is as follows:

Year 1

MUSI1141 and MUSI1142
MUSI1241 and MUSI1242
MUSI1401 and MUSI1402
First Year BA courses (24 units of credit)

Year 2

MUSI2141 and MUSI2142
MUSI2241 and MUSI2242
MUSI2401 and MUSI2402
Upper Level BA courses (18 units of credit)
General Education courses (6 units of credit)

Year 3

MUSI2111 and MUSI2112
MUSI2121 and MUSI2122
MUSI3401 and MUSI3402
MUSI3412
Upper Level BA courses (18 units of credit)
General Education course (3 units of credit)

Year 4

MUSI3141 and MUSI3142
MUSI3111 and MUSI3112
MUSI3121
MUSI3241 and MUSI3242
Upper Level BA courses (18 units of credit)
General Education course (3 units of credit)
An ARTS course (6 units of credit)

The BA courses must include one major sequence for the BA degree in addition to the Music major. Students are also expected to take part in at least two of the music performance groups offered by the School.

Honours Level

Prerequisites for Honours in Music: Completion of all requirements for the Pass degrees with an average of at least credit level in music courses.

MUSI4000 Bachelor of Music Honours

Prerequisites for Honours in another School in the Faculty: See the appropriate School for details of Honours requirements.

12. Bachelor of Social Work Program 4031

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: 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.

From years 1-4, the sequences of Practice courses must all be followed according to the curriculum listed later in this Handbook under Social Work. The Social Work Selected Studies Elective 1 and 2 courses offer students a range of specialist types of practice from which they may choose according to their own interests.

The Contextual Studies courses Research Methods, Philosophy and Socio-Legal Practice are compulsory. To enable students to pursue an area of interest, the first year elective courses can be selected from among any of the first level courses available in the Faculty of Arts and Social Sciences.

12 units of credit must be selected from the approved General Education courses for students in the Faculty of Arts and Social Sciences.

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 at all levels of government are utilised. For some students,

Bachelor of Social Work – Sample Program

Year	Practice	UOC	Human Behaviour	UOC	Society & Welfare Policies	UOC	Contextual Studies	UOC	General Education	UOC	Total
1	SOCW1001 SOCW1002	6 6	PSYC SOCW1003	6 6	SOCA	6	Elective Elective Elective	6 6 6			**48**
2	SOCW2003 SOCW2006	6 6	SOCW2001	6	SOCW2002 SOCW2004	6 6	SOCW2005 Elective	6 6	Gen Ed Gen Ed	3 3	**48**
3	SOCW3002 SOCW3001 SOCW3008	6 12 6	SOCW3003	6	SOCW3004	6	SOCW3006 Research Elective	6 6			**48**
4	SOCW4002 SOCW4003 SOCW4001	6 6 18			SOCW4006	6	SOCW4004	6	Gen Ed Gen Ed	3 3	**48**
Total		**78**		**24**		**30**		**48**		**12**	**192**

Bachelor of Social Work Bachelor of Arts – Sample Program

Year	Practice	UOC	Social/ Behavioural Sciences	UOC	Contextual Studies	UOC	General Education	UOC	Arts	UOC	Total
1	SOCW1001 SOCW1002	6 6	SOCW1003 SOCA PSYC	6 6 6	Elective	6			Major Major	6 6	**48**
2			SOCW2001 SOCW2002 SOCW2004	6 6 6	SOCW2005 Elective	6 6	Gen Ed Gen Ed	3 3	Elective Elective	6 6	**48**
3	SOCW2003 SOCW2006	6 6	SOCW3004 SOCW3003	6 6	Research Elective	6			Major Major Major	6 6 6	**48**
4	SOCW3002 SOCW3001 SOCW3008	6 12 6			SOCW3006	6			Major Major Elective	6 6 6	**48**
5	SOCW4002 SOCW4003 SOCW4001	6 6 18	SOCW4006	6	SOCW4004	6	Gen Ed Gen Ed	3 3			48
Total		**78**		**54**		**36**		**12**		**60**	**240**

their second field education placement may be located outside the Sydney metropolitan area.

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.

Honours Level

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 (Class1, 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.

13. Bachelor of Social Work Bachelor of Arts Program 4035

The School of Social Work offers a five-year double degree leading to the award of Bachelor of Social Work Bachelor of Arts. The BSWBA 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). The BSW 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: 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.

12 units of credit must be selected from the approved General Education courses for students in the Faculty of Arts and Social Sciences.

Bachelor of Social Work Bachelor of Social Science – Sample Program

Year	Practice	UOC	Social/ Behavioural Sciences	UOC	Contextual Studies	UOC	General Education	UOC	Social Science	UOC	Total
1	SOCW1001 SOCW1002	6 6	SOCW1003 SOCA PSYC	6 6 6	Elective Elective	6 6			SLSP1000	6	**48**
2			SOCW2001 SOCW2002 SOCW2004	6 6 6	SOCW2005 Upper Level Elective Upper Level Elective	6 6 6			SLSP2000 SLSP2002	6 6	**48**
3	SOCW2003 SOCW2006	6 6	SOCW3004 SOCW3003	6 6	Upper Level Elective	6	Gen Ed Gen Ed	3 3	SLSP3000 SLSP2001	6 6	**48**
4	SOCW3002 SOCW3001 SOCW3008	6 12 6			SOCW3006	6			SLSP3001 SLSP3002 SLSP3911	6 6 6	**48**
5	SOCW4002 SOCW4003 SOCW4001	6 6 18	SOCW4006	6	SOCW4004	6	Gen Ed Gen Ed	3 3			**48**
Total		**78**		**54**		**48**		**12**		**48**	**240**

Bachelor of Arts Bachelor of Education – Sample Program									
Year	**Major Sequence 1**	**UOC**	**Major Sequence 2**	**UOC**	**Other Courses**	**UOC**	**Education**	**UOC**	**Total**
1	English – Level 1	12	French – Level 1	12	History – Level 1 Sociology – Level 1	6 6	EDST1101 EDST1102	6 6	**48**
2	English – Upper Level	12	French – Upper Level	12	Upper Level in English/ French/Sociology/ History/Education General Education Electives	6 6	EDST Elective	6	**48**
3	English – Upper Level	18	French – Upper Level	18	General Education	3	EDST3090 EDST4127	6 3	**48**
4					General Education	3	EDST4080 EDST4081 EDST Elective EDST4128 EDST4133 EDST4134 EDST4090 EDST4091 EDST4092	6 6 6 3 3 3 12 3 3	**48**
Total		**42**		**42**		**30**		**78**	**192**

14. Bachelor of Social Work Bachelor of Social Science Program 4036

The School of Social Work offers a five-year double degree leading to the award of the Bachelor of Social Work Bachelor of Social Science. The BSW BSocSc 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 (see diagram). The BSW is designed to prepare students for the professional practice of social work while providing extended study in social science, policy analysis and social research.

12 units of credit must be selected from the approved General Education courses for students in the Faculty of Arts and Social Sciences.

15. Bachelor of Arts Bachelor of Education Program 4055

The combined degree of BA BEd at pass level is a four-year full-time program for intending secondary school teachers. Students combine academic studies in two approved teaching disciplines with both theoretical and practical aspects of education. In the final two years of the BA BEd program students develop skills in classroom competence and spend 52 days on supervised teaching practice in allocated secondary schools.

The following structure applies only to students who commence study in 2002. For those who commenced the program prior to 2002, advice should be obtained from the School of Education or the Faculty of Arts and Social Sciences Office.

To qualify for the BA BEd at pass level it is necessary to complete at least 192 units of credit.

1. Education courses

EDST1101, EDST1102 are compulsory Year 1 courses (12 units of credit). EDST3090 (6 units of credit) is a compulsory Year 3 course. EDST4080, EDST4081, EDST4090, EDST4091 and EDST4092 (30 units of credit) are compulsory Year 4 courses.

A further 12 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.

3. Arts Courses as Preparation for Teaching

Major sequences of at least 42 units of credit must be completed in two schools/departments to provide suitable background for teaching the following school subjects:

Chinese, Drama (Theatre), Economics/Commerce, English, French, Geography, German, History, Indonesian, Japanese, Literacy/English as a Second Language (ESL), Spanish.

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.

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.

16. Diploma in Languages Program 3417

This Diploma 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.

17. Diploma in Music Program 3418

This Diploma requires a program of 42 units of credit in Music, corresponding to a major in the Bachelor of Arts. It may be taken concurrently with another degree program.

18. Combined Degrees

The Faculty strongly encourages combined program study. The following programs are available to students from other faculties:

Bachelor of Architecture/Bachelor of Arts (3262)
BArch BA (Faculty of Built Environment)
Bachelor of Architecture/Bachelor of Social Science (3263)
BArch BSocSc (Faculty of Built Environment)
Bachelor of Art Theory/Bachelor of Arts (4806)
BArtTh BA (College of Fine Arts)
Bachelor of Art Theory/Bachelor of Social Science (4807)

BArtTh BSocSc (College of Fine Arts)
Bachelor of Arts/Bachelor of Laws (4760)
BA LLB (Faculty of Law)
Bachelor of Commerce/Bachelor of Arts (3525)
BCom BA (Faculty of Commerce and Economics)
Bachelor of Commerce/Bachelor of Social Science (3527)
BCom BSocSc (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 BSocSc (Faculty of Commerce and Economics)
Bachelor of Environmental Science/Bachelor of Arts (3932)
BEnvSc BA (Faculty of Science Office)
Bachelor of Science/Bachelor of Arts (3930/3931)
BSc BA (Faculty of Science Office)
Bachelor of Science/Bachelor of Education (4075)
BSc BEd (Faculty of Science Office)
Bachelor of Science/Bachelor of Social Science (3935/3936)
BSc BSocSc (Faculty of Science Office)
Bachelor of Social Science/Bachelor of Laws (4761)
BSocSc LLB (Faculty of Law)
Bachelor of Social Work/Bachelor of Laws (4785)
BSW LLB (Faculty of Law)
Bachelor of Arts/Bachelor of Medicine (3840)
BA BSc(Med)MBBS (Faculty of Medicine)
Bachelor of Engineering/Bachelor of Arts (various)
BE BA (Faculty of Engineering)

For details of these combined degree programs, consult the relevant Faculty.

Course Codes and Sequences

Art History and Theory

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.

Introduction

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 'toolbox' 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, and distinctions between the mass culture of television, films, the popular press, advertising and the culture of museums. Other issues include the relationship of culture to society, the linkage between vision and science, looking and sexuality, and the issues of trauma, memory and art. 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 courses listed 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 unit of credits).

Level 1

SAHT1211 Theories of the Image
SAHT1212 Theories of Art History and Culture
SAHT1213 Approaches to Australian Art
SAHT1214 Methods of Research and Writing on Art

Upper Level

SAHT2211 Grand Narratives of Western Art
SAHT2212 Art and Cultural Difference
SAHT2221 Genres of Art Writing
SAHT3211 Theories of Meaning/Meaning of Theory
SAHT3212 Art and the Culture of 'Everyday Life'
SAHT3213 Museum Studies: Exhibitions, Collections and Material Culture
SAHT3221 Contexts, Professions and Practices

ARTS Faculty Courses

Level 1

ARTS1001 is the complulsory core course for students enrolled in programs 3401 and 3423. For more information, contact Helen Pringle, School of Politics and International Relations, telephone (02) 9385 2346. Special permission is required for enrolment in **ARTS1100**.

ARTS1001 Modernity and the Humanities S1
ARTS1100 Culture and Tradition S2

Upper Level

ARTS2000 is an elective course which offers second and third year Arts and Social Sciences students a 14 day internship experience in a range of organisations. Special permission is required for enrolment in **ARTS2001**.

Degrees in which at least one ARTS3000 course must be included are the **BA**, the **BA (Asian Studies)**, the **BA (European Studies),** the **BInst**, the **BMus** and the **BMusBA**. ARTS3000 courses are also available as elective courses for students in other degrees.

ARTS2000 Arts and Social Sciences Internship S1 & S2
ARTS2001 Text and Interpretation S1
ARTS3001 Censorship and Responsibility in the Performing Arts, Film, Literature and Media S2
ARTS3002 Making Histories and Historians: Ethics, Scholarship and Public Roles S1 & S2
ARTS3004 Intellectuals and Power in the Modern World S2
ARTS3005 Arts and Social Sciences Graduates in the Workplace: Ethical & Social Responsibility S1
ARTS3007 East Asian Values and Identities X1 & S2
ARTS3010 Feminist Thought and Action X1

Asian Studies

Coordinator: Associate Professor David Reeve (Department of Chinese and Indonesian Studies, MB 241)

The following two first year courses are compulsory for students enrolled in the Bachelor of International Studies program 3413.

For details of the approved **Asia-related courses**, refer to the preceding section How to Structure your Degree in this Handbook. Further enquiries can be directed to the Modern Languages Reception Desk on the second floor of the Morven Brown Building.

Level 1

ASIA1000 World History: The Big Picture S1
ASIA1001 Introduction to Contemporary Asia S2

Australian Studies

Coordinators: Dr Rae Frances/Dr Bruce Scates (School of History)
School Office: Room 351, Morven Brown Building

Australian Studies provides an interdisciplinary exploration of Australian culture and society. Its concerns are wide-ranging. Aboriginal issues, the environment, gender identity and politics, and the shaping of cultural icons and institutions are central to its themes.

The Level 1 core courses offer students an introduction to important issues and debates in Australian Studies. Upper level courses are taught and administered through different schools in the Faculty and offer a range of interdisciplinary and disciplinary approaches. 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, Australian Studies courses also form excellent 'extensions' to majors in English, History, Politics and International Relations, Science and Technology Studies, Sociology and Theatre, Film and Dance.

Major Sequence

A major sequence is also available which may be counted as a 'second major' under the BA Degree Rules. It requires the completion of 36 units of credit in AUST (Australian Studies) courses, including 12 Level 1 units of credit in AUST (Australian Studies) courses. Aboriginal studies are an integral part of Australian Studies. Students are expected to include at least one Upper level Aboriginal course in their major. It is also possible to substitute 18 units of credit from the discipline-based Australian Studies courses listed. Students should note that no more than two courses (12 units of credit) will be accepted from any one discipline area.

AUST1001 Australia: The 1890's and 1990's B S2
AUST1003 Paradise Lost? Australian Environmental History S1
AUST2004 Aboriginal Australia: The Pre-Colonial and Colonial Experience S1
AUST2005 Aboriginal Australia: The Post-Colonial Experience S2
AUST2109 Values and Beliefs in Australian Culture S2

Electives offered in 2002

FILM2002 Australian Cinema S2
GEOG2611 The Australian City S1
GEOG2621 Regions, Resources and Spatial Systems S2
GEOG2711 Australian Climate and Vegetation S2
GEOG3631 Population Geography S2

GEOG3761	Environmental Change	S1
GEOG3901	Australian Natural Resources	S1
HIST2027	A Commonwealth for a Continent	S1
HIST2028	Australia since World War II	S2
HIST2033	Australian Identity	S1
HIST2039	Environmental History	S2
HIST2047	Winners and Losers: Poverty, Welfare, Justice in Australia	S1
HIST2100	Urban Legends	S1
HIST2102	The Australian-Jewish Experience	S2
HIST3902	Australian History and its Constructions	S1 or S2
HIST3904	Going Public	S1
IROB2702	Industrial Law	S1
IROB2704	Social Organisation of Work	S2
IROB2715	Labour History	S2
IROB3705	Management and Employment Relations	S1
IROB3706	Industrial Relations Policies and Processes	S2
POLS1002	Power and Democracy in Australia	S1
POLS1019	Power and Prejudice: Sex, Race, Class in Australia	S2
POLS2008	Public Policy Making	S2
SCTS2108	Information Technology, Politics and the Media	S1
SCTS3126	Society and Environmental Process: Botany Bay in the Sydney Region	S2
SOCA3208	Colonisation and Indigenous Identity Formation	S1
SOCA3209	Indigenous Australia: Gendered Identities	S2
SOCA3210	Whiteness - Beyond Colour: Identity and Difference	S2
THST2163	Staging Australia	S2

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.

AUST4500	Combined Australian Studies Honours (Research) Full-Time
AUST4550	Combined Australian Studies Honours (Research) Part-Time

Biological Science

Year 1 in Biology includes the courses BIOS1101 and BIOS1201.

No more than 12 Level 1 and 18 Upper Level units of credit may be counted towards the degree of Bachelor of Arts or related programs.

Level 1

BIOS1101	Evolutionary and Functional Biology
BIOS1201	Molecules, Cells and Genes

Upper Level

BIOS2011	Evolutionary and Physiological Ecology
BIOS2021	Genetics
BIOS2031	Biology of Invertebrates
BIOS2041	Biometry
BIOS2051	Flowering Plants
BIOS2061	Vertebrate Zoology
BIOS3011	Animal Behaviour
BIOS3071	Conservation Biology and Biodiversity
BIOS3161	Life in Arid Lands

Chemistry

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
CHEM1021	Fundamentals of Chemistry 1B
CHEM1031	Higher Chemistry 1C
CHEM1041	Higher Chemistry 1D

Upper Level

Chemistry offers a number of Upper Level courses in the four main discipline areas. Consult the School of Chemistry, Academic Office, Room 133, Heffron Building as to the appropriate choice to make. The following courses are available:

CHEM2011	Physical Chemistry
CHEM2021	Organic Chemistry
CHEM2031	Inorganic Chemistry and Structure
CHEM2041	Chemical and Spectroscopic Analysis
CHEM2839	Inorganic Chemistry

Chinese Studies

Head of Department: Associate Professor Hans Hendrischke
Administrative Assistant: Rosanna Cheung
Email: rosanna.cheung@unsw.edu.au

Undergraduate courses in Chinese language and studies are offered in three streams: Stream A (Beginners with no knowledge of written or spoken Mandarin or any Chinese Dialects), Stream B (Beginners in Mandarin with limited knowledge of Chinese Dialects), and Stream C (HSC Chinese or equivalent).

In order to count Chinese as a major sequence, students must complete 42 units of credit in Chinese language and Chinese studies courses. Upper-level students in Stream A and B, whose command of Chinese is sufficient, may obtain special permission to study upper-level C Stream courses.

Major Sequences

A Stream (Beginners with no knowledge of written or spoken Mandarin or any Chinese Dialects) – 42 units of credit

Year 1	**UOC**
CHIN1006	6
CHIN1007	6
Year 2	
CHIN2006	6
CHIN2007	6
Year 3	
CHIN3006	6
CHIN3007	6
CHIN3018 or CHIN3019	6

B Stream (Beginners in Mandarin with limited knowledge of Chinese Dialects) – 42 units of credit

Year 1	**UOC**
CHIN1106	6
CHIN1107	6
Year 2	
CHIN2106	6
CHIN2107	6
Year 3	
CHIN3106	6
CHIN3107	6
CHIN3018 or CHIN3019	6

C Stream (HSC Chinese or equivalent) – 42 units of credit

Year 1	**UOC**
CHIN1206	6
CHIN1207	6

Year 2 and Year 3

Students must complete 5 out of the following options over two years, including at least one Chinese Studies option taught in English.

	UOC
CHIN2210	6
CHIN2211	6
CHIN2220	6
CHIN2221	6
CHIN2301	6
CHIN2302	6
CHIN2303	6
CHIN2310	6
CHIN2312	6
CHIN2400	6
CHIN2500	6
CHIN2501	6
CHIN2800	6
CHIN2801	6

Pre-honours courses

Year 2 and/or Year 3

CHIN3900	6
CHIN3901	6

Honours Level

CHIN4000

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. For entry to Chinese Studies Honours (Research), students must normally have completed 54 units of credit in Chinese Studies with a grade average of at least 70 percent. Prerequisites for admission into the Honours year are the two preparatory courses CHIN3900 *Advanced Chinese Studies* and CHIN3901 *Research Methods in Chinese Studies* during Year 2 and Year 3. For entry to Combined Honours, students require 48 units of credit in Chinese Studies, which must include CHIN3901. Combined Honours programs require coordination between the two schools/departments involved and students should notify the departments concerned at an early stage.

Level 1

All students enrolling in first year Chinese must first consult with the course coordinators regarding the entry level most appropriate for them. The Department's decision regarding placement of students is final.

CHIN1006	Introductory Chinese A1 (Complete Beginners)	S1
CHIN1007	Introductory Chinese A2	S2
CHIN1106	Introductory Chinese B1 (Speakers of Other Dialects)	S1
CHIN1107	Introductory Chinese B2 (Speakers of Other Dialects)	S2
CHIN1206	Introductory Chinese C1	S1
CHIN1207	Introductory Chinese C2	S2

Upper Level

CHIN2006	Intermediate Chinese Language A1	S1
CHIN2007	Intermediate Chinese Language A2	S2
CHIN2106	Intermediate Chinese Language B1	S1
CHIN2107	Intermediate Chinese Language B2	S2
CHIN2210	Chinese English Translation	S1
CHIN2211	Interpreting Between Chinese and English	S2
CHIN2220	Contemporary Chinese Literature	S1
CHIN2221	Classical Chinese Literature	S2
CHIN2301	Social and Cultural Change in Contemporary China	S1
CHIN2302	Chinese Cinema	S1
CHIN2303	Chinese Gender Formations and Identities	S2
CHIN2310	Along the Silk Road: Conquerors, Traders and Explorers	X2
CHIN2312	Chinese Seminar Option	S1&S2
CHIN2400	China Imagined and Perceived	S2
CHIN2500	Advanced Chinese Business Language	S1
CHIN2501	Chinese Business Enterprise	S1
CHIN2800	Cantonese Phonology	S1
CHIN2801	Cantonese Morphology	S2
CHIN3006	Advanced Chinese A1	S1
CHIN3007	Advanced Chinese A2	S2
CHIN3018	Chinese Culture and Communication 1 (Advanced)	S1
CHIN3019	Chinese Culture and Communication 2 (Advanced)	S2
CHIN3106	Advanced Chinese Language B1	S1
CHIN3107	Advanced Chinese Language B2	S2

Advanced Upper Level courses (Honours preparatory courses)

CHIN3900	Advanced Chinese Studies	S1
CHIN3901	Research Methods in Chinese Studies	S2

Honours Level

CHIN4000	Chinese Honours Research Full-Time	S1&S2
CHIN4050	Chinese Honours Research Part-Time	S1&S2
CHIN4500	Combined Chinese Honours Research F/T	S1&S2
CHIN4550	Combined Chinese Honours Research P/T	S1&S2

Cognitive Science

Coordinator: Dr Anthony Corones, School of Science and Technology Studies, Rm MB LG22
Tel: 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 HPST2109 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 *Prerequisites:* 12 units of credit obtained in any of the following courses:

COMP1001	Introduction to Computing
COMP1011	Computing 1A
HPST1108	Science Good, Bad and Bogus
LING1000	The Structure of Language
PHIL1001	Encountering Western Philosophy I
PHIL1002	Encountering Western Philosophy II
PSYC1001	Psychology 1A
PSYC1011	Psychology 1B

Upper Level

Core course:

HPST2109	Computers, Brains and Minds

plus at least 18 units of credit obtained in any of the following courses:

COMP2011	Data Organisation
COMP3411	Artificial Intelligence
HPST2118	Body, Mind and Soul: The History and Philosophy of Psychology*
LING2500	Theoretical and Descriptive Linguistics*
LING2602	Psycholinguistics*
PHIL2206	Philosophy of Mind
PHIL2207	Philosophy of Psychology
PHIL2218	Philosophical Foundations of Artificial Intelligence
PSYC2071	Perception and Cognition
PSYC2081	Learning and Physiological Psychology

*This course will not be offered in 2002.

Studies in Comparative Development

Coordinators: Mark T. Berger and Peter Ross, Department of Spanish and Latin American Studies, Room 226 MB

The Studies in Comparative Development Program is an inter-disciplinary program that introduces students to the field of Development Studies. Central issues and themes that are examined include the history and political economy of development, the causes of poverty, global inequality, the relationship between the environment and economic development, and the growing debate about globalisation.

COMD may be taken as an additional major sequence together with a major from the approved major sequences listed in the BA Rules. Students are advised that the COMD program is designed to complement, most particularly, a major in Economic History, History, Politics and International Relations, Science and Technology Studies, Sociology and Spanish and Latin American Studies. To complete a major sequence you must take the three compulsory COMD courses listed below, totalling 18 units of credit, and a further 18 units of credit from the other COMD courses listed below. With the approval of the Coordinator of the COMD program, courses from other schools may be substituted for 12 of these 18 optional units of credit. Many of these courses will have their own prerequisites, and you must also fulfil Faculty of Arts and Social Sciences requirements concerning your distribution of courses. Please check school entries for availability, and consult with the school of your home-based major and the Coordinator of the Studies in Comparative Development program about the best combinations of courses in your two major sequences.

Major Sequence

Level 1

Compulsory courses

COMD1001	Comparative Development: The Pre-Industrial World S1
COMD1002	Comparative Development: Poor World, Rich World S2

Recommended course

POLS1016 Development and International Relations*

Upper Level

Compulsory course

COMD2000 The Theory and Practice of Development S1

Other Upper Level Courses

COMD2010 Making/Unmaking the Third World: History and Global Development I*
COMD2020 Making/Unmaking the Third World: History and Global Development II S1
COMD2040 Miracles of Modernisation/Crises of Capitalism: Asia and the Americas*
COMD2050 Technology, Sustainable Development, and the Third World S1
ECOH2305 Modern Asian Economic History S1
ECON3109 Economic Growth, Technology and Structural Change S1
HIST2013 Prophets and Millenarian Movements in World History S1
HIST2039 Environmental History S2
POLS2023 Globalisation and Uneven Development S2
SOCA2103 Globalisation and Fragmentation S2
SOCA3204 Modernity and Development in the Pacific Islands S2
SOCA3211 Development and Social Life*
SOCA3212 Environment, Society and Culture*
SPAN2401 Colonising the Americas: The Spanish and Portuguese Empires S2
SPAN2424 Dictatorship and Democracy in the Americas S2

*Not offered in 2002.

Honours Level

Students who have completed 36 units of credit in Studies in Comparative Development, including all compulsory courses, at a good credit average may be admitted to enrol in a Combined Honours, if they have also met the requirements for a single Honours in one of the Schools or Departments teaching in the Bachelor of Arts program. If these requirements are met, and with the approval of the relevant School or Department, students can complete an honours thesis on an interdisciplinary topic. For Combined Honours, students are required to present a thesis as approved by the Heads of the participating School or Department.

COMD4500 Combined Honours (Research) in Comparative Development F/T
COMD4550 Combined Honours (Research) P/T

Computer Science

These courses are provided by the School of Computer Science and Engineering. Quota restrictions apply to Level III Computer Science courses. Entry to these courses will depend on a student's performance in Year 1 and enrolment is subject to the consent of the CSE Undergraduate Coordinator.

Major Sequence

A major sequence in Computing within the Faculty of Arts and Social Sciences consists of COMP1001, COMP1011 (or COMP1711), COMP1021 (or COMP1721), COMP2011 and 3 Upper Level Computer Science courses, totalling 42 units of credit. Well-qualified students may elect to do COMP1711 and COMP1721. MATH1131 and MATH1231 are also recommended.

Note: No more than 12 Level 1 units of credit can be completed in computer science courses.

Level 1

COMP1001 Introduction to Computing
COMP1011 Computing 1A
COMP1021 Computing 1B
COMP1711 Higher Computing 1A
COMP1721 Higher Computing 1B

Upper Level

COMP2011 Data Organisation
COMP2021 Digital System Structures
COMP2041 Software Construction: Techniques and Tools
COMP2811 Computing B*
COMP3111 Software Engineering
COMP3121 Algorithms and Programming Techniques
COMP3131 Parsing and Translation
COMP3311 Database Systems
COMP3331 Computer Networks and Applications
COMP3411 Artificial Intelligence
COMP3421 Computer Graphics
COMP3511 Human Computer Interaction

*Students who complete COMP1001 and COMP1011 need to enrol in COMP2811 for the purposes of satisfying a major requirement In the Faculty of Arts and Social Sciences. It is equivalent to COMP1021.

Criminology

Coordinator: Associate Professor Janet Chan (School of Social Science and Policy)

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.

Core Program

First Year

CRIM1000 Criminal Law and Justice 1
CRIM1001 Criminal Law and Justice 2
SLSP1001 Research and Information Management S2
SLSP1000 Social Science and Policy S1
or
SLSP1002 Introduction to Policy and Analysis S2

Second Year

CRIM2000 Criminological Theories
SLSP2000 Economy and Society
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):

LAWS2709 Sentencing
LAWS2719 Community Corrections
LAWS2730 The Criminal Justice System
LAWS2759 Crime Prevention Policy
LAWS2769 The 'New' Prosecutors
LAWS2779 Juvenile Justice
LAWS2789 Policing
ENGL3460 Crime Fiction, Film and Theatre
HIST2468 History from Crime: Interrogating the European Past
POLS2020 Sex, Gender and Justice
PSYC3301 Psychology and Law
SOCA2208 Deviant Fieldwork, Data Collection and Analysis
SOCA3408 Crime in Australian Society
SOCA3409 Crime, Gender and Sexuality
SOCA3701 Discipline of the Law
SOCA3802 Fear and Hatred in Everyday Life
SOCA3810 The Space of Terror
THFI2011 Theatres of Cruelty

Honours Level

Students who intend to apply for entry to the Honours year should enrol in SLSP3911 in the third year of study.

Level 1

CRIM1000 Criminal Law and Justice 1
CRIM1001 Criminal Law and Justice 2

Upper Level

CRIM2000 Criminological Theories
CRIM3000 Researching Crime and Justice
LAWS2709 Sentencing: Law, Policy and Practice

LAWS2719 Community Corrections
LAWS2730 The Criminal Justice System
LAWS2759 Crime Prevention Policy
LAWS2769 The 'New' Prosecutors
LAWS2779 Juvenile Justice
LAWS2789 Policing

Economic History

See under **Economics**.

Economics

Undergraduate Coordinator: Dr Peter Robertson, School of Economics

The School of Economics offers three major sequences that may be undertaken within the Faculty of Arts and Social Sciences. The Major Sequence Professional Level offers the opportunity for students to obtain a professional degree suitable for a career in Economics or related business and public sector careers. The Intermediate Level Major Sequence is similar, but requires less specialisation in Economics courses. The General Level sequence is the most flexible major in Economics. Students completing the Professional Level sequence may also apply for admission to an Honours degree in Economics. Conditions for entry into the honours program are given below.

The School of Economics also offers a major sequence in Economic History. Economic History, as a discipline, seeks to provide an understanding of the present through the study of economic and social developments in the past. Students majoring in other disciplines and those concerned with area studies will find Economic History courses that complement their major sequence. In certain circumstances Economic History courses may also be counted towards a major sequence from another school in the Faculty of Arts and Social Sciences. For details see schools of Science and Technology Studies and Spanish and Latin American Studies. Requirements for entry into Honours in Economic History are given below.

Assessment in the School of Economics is by essays, tutorial participation and examination. The relative weight of each of these varies from course to course and is announced in each course at the beginning of each session. A minimum of 60% of total assessment will be by examination.

Major Sequence General Level in Economics

For a major sequence in Economics at the general level, all students must complete at least 36 units of credit in Economics courses, including:

ECON1103 and ECON1104 or ECON1101 and ECON1102
Economics courses chosen from the following list:

Options (i):

ECON2103 Business and Government
ECON2104 Applied Macroeconomics
ECON2105 Economics of Corporations
ECON2107 Economics of Information and Technology
ECON2109 Economics of Natural Resources
ECON2111 The Economics of Global Interdependence
ECON2112 Game Theory and Business Strategy
ECON2113 Economics of E-Commerce
ECON2116 Economics of Japanese Business & Government
ECON2117 Economics of Tourism
ECON2127 Environmental Economics
ECON3106 Public Finance
ECON3112 The Newly Industrialising Economies of East Asia
ECON3113 Economic Development in ASEAN Countries
ECON3119 Political Economy

All other Economics courses have prerequisites which are associated with other major sequences.

Major Sequence Intermediate Level in Economics

For a major sequence in Economics at the intermediate level, all students must complete at least 36 units of credit in Economics courses, including:

ECON2103 and ECON2104
Economics courses chosen from Options (i) or Options (ii). At least one option must be selected from Options (ii).

Options (ii):

ECON3101 Markets and Public Choice
ECON3104 International Monetary Economics
ECON3105 Economic Analysis of Productivity
ECON3107 Economics of Finance
ECON3109 Economic Growth, Technology and Structural Change
ECON3110 Development Economics
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 36 units of credit in Economics courses, including:
ECON1101 and ECON1102
ECON2101 and ECON2102
Economics courses chosen from Options (ii).
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 units of 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.

Honours in Economics (Arts)

Students intending to do Honours in Economics should take during their first two years 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. ECOH1301 + ECOH1302 – 12 units of credit. 2. ECON1101 + ECON1102 – 12 units of credit. 3. Four other Economic History courses 24 units of credit. Students take ECOH4321 Economic History 4 Honours

Level I

ECON1101	Microeconomics 1	S1 & S2
ECON1102	Macroeconomics 1	S1 & S2
ECON1103	Microeconomic Principles	S1
ECON1104	Macroeconomic Principles	S2
ECOH1301	Australia in the International Economy in the 20th Century	S1
ECOH1302	Australia and the Asia-Pacific Economies: Historical Perspectives	S2

Upper Level

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 and Technology	S1
ECON2109	Economics of Natural Resources	S1
ECON2111	Economics of Global Interdependence	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 Monetary Economics	S1
ECON3105	Economic Analysis of Productivity	S2
ECON3106	Public Finance	S2
ECON3107	Economics of Finance	S2
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
ECON3116	International Economics	S2
ECON3119	Political Economy	S2
ECON3120	Economic Reasoning	S2
ECON3121	Managerial Economics	S1
ECON3290	Introductory Econometrics	S1
ECON3291	Econometric Methods	S2
ECON4120	Economics Honours (Arts)	S1 & S2
ECOH2305	Modern Asian Economic History	S1
ECOH2311	German Economy and Society	S2
ECOH2313	Australian Economic Development in the 20th Century	S1

ECOH2318	Making the Market	S2
ECOH2319	Economic and Social Policy in Australia since Federation	S2
ECOH2321	Growth and Development of International Business	S2
ECOH2322	Business and the New Europe	S1
ECOH4321	Economic History 4 Honours	S1 & S2

Education

Head of School: Dr Paul Chandler
Administrative Officer: Sheena Wiard
Administrative Assistant: Jacinta d'Souza
School Office: Room 1307, Mathews Building

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. A range of courses is offered by the School of Education to all students in the Faculty. While some Education courses are compulsory for students in the combined Education programs (BABEd, BMusBEd, BA(Dance)BEd, BScBEd) 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.

Major Sequence

The following information refers only to single degree programs. Students in the combined Education programs listed above should follow the sequence of core and elective courses specified for their particular award. A major sequence in Education comprises:

42 units of credit including
12 Level 1 units of credit
30 Upper Level units of credit

Level I Courses

EDST1101	Educational Psychology 1	S1
EDST1102	Social Foundations of Education	S2

Upper Level Elective Courses

Note: It should be noted that course numbers for all electives and Year 4 compulsory courses were changed for 2001. Exclusions apply to the previous course numbers. Consult the School for details.

EDST2010	Educational Psychology 2	S1
EDST2020	Ethics and Education	S1, S2
EDST2030	History, Philosophy and Science Teaching	S2
EDST2041	Stress and Anxiety in Students and Teachers	S1
EDST2042	Theory and Practice in the Classroom	S1, S2
EDST2045	Teacher Effectiveness, Research and Practice	S1
EDST2050	Gifted and Talented Students: Recognition and Response	S1
EDST2052	Relationships Between Personality, Mood, Motivation and Learning	S2
EDST2060	Educational Programs and Curricula for Intellectually Gifted Students	S2
EDST2070	Culture, Identity and Education	S1

Year 3 Compulsory Course

EDST3090	Introductory Teaching Experience	S1

Year 4 and DipEd Compulsory Courses

EDST4080	Special Education	S1
EDST4081	Professional Issues in Teaching	S1
EDST4090	Teaching Experience	S2
EDST4091	Microteaching	S1
EDST4092	Computer Skills for Teachers	S2

Method Courses

EDST4121	Chinese Method 1	S1
EDST4122	Chinese Method 2	S2
EDST4123	Commerce/Economics Method 1	S1
EDST4124	Commerce/Economics Method 2	S2
EDST4125	Drama Method 1	S1
EDST4126	Drama Method 2	S2
EDST4127	English Method 1	S1
EDST4128	English Method 2	S2
EDST4129	English Double Method 1	S1
EDST4130	English Double Method 2	S2
EDST4131	Literacy/English as a Second Language Method 1	S1
EDST4132	Literacy/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
EDST4139	Greek Method 1	S1
EDST4140	Greek Method 2	S2
EDST4141	History Method 1	S1
EDST4142	History Method 2	S2
EDST4143	History Double Method 1	S1
EDST4144	History Double Method 2	S2
EDST4145	Indonesian Method 1	S1
EDST4146	Indonesian Method 2	S2
EDST4147	Japanese Method 1	S1
EDST4148	Japanese Method 2	S2
EDST4149	Mathematics Method 1	S1
EDST4150	Mathematics Method 2	S2
EDST4151	Science Method 1	S1
EDST4152	Science Method 2	S2
EDST4153	Spanish Method 1	S1
EDST4154	Spanish Method 2	S2
EDST4155	Business Studies Method 1	S1
EDST4156	Business Studies Method 2	S2
EDST4157	Computing Studies Method 1	S1
EDST4158	Computing Studies Method 2	S2

Advanced Upper Level Courses

EDST3901	Education Research Methods (Advanced)	S1
EDST3904	Research into Teacher Effectiveness (Advanced)	S1
EDST3908	Multiculturalism and Education (Advanced)	S1
EDST3911	Equality, Justice and Issues in Education (Advanced)	S1

Honours Level Courses

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.

EDST4000	Education Honours Full-Time	S1, S2
EDST4050	Education Honours Part-Time	S1, S2

English

Head of School: Dr Suzanne Eggins
School Office: Room 145, Morven Brown Building
Tel: (02) 9385-2298
Fax: (02) 9385-1047
Email: english@unsw.edu.au
Website: www.arts.unsw.edu.au/english/

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 some special ability in it, including the ability to write good English. As a guideline, students enrolling in English should have obtained one of the following in the New South Wales Higher School Certificate Examination: 3 unit English (25–50); 2 unit Related English (60–100); 2 unit General English (65–100); 2 unit Contemporary English (75–100).

Students who have successfully completed English at Level 1 (6 Level 1 units of credit) may enrol in Upper Level 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 an Upper Level English course is a Pass in one Level 1 English course. The choices of courses in Level 1 for 2002 are: ENGL1001 Ways of Writing: An Introduction to Literary Genres , ENGL1006 Imagining the City, ENGL1007 The Canon of English Literature, and ENGL1008 Reading Australia: Bodies, Dreams, Memories. A student who has not completed 6 Level 1 units of credit but is interested in one or more of our Upper Level 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 successful year's work in another language, or a Credit or greater result in a related discipline.

Major Sequence

Any student who wishes to gain a major sequence in English must complete 6 Level 1 and 36 Upper Level (or 12 Level 1 and 30 Upper Level) units of credit in English. However, provided 6 Level 1 units of credit have been completed in English, either ARTS1100 or ARTS1001 will be accepted as part of an English major. 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 and 48 or 42 Upper Level 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 (eg 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 and an average of 70% or higher. Course descriptions may be seen in the Honours level entry at the end of the English section.

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	S2
ENGL1007	The Canon of English Literature	S2
ENGL1008	Reading Australia: Bodies, Dreams, Memories	S1

Upper Level

ENGL2101	Women on the Apron Stage	S2
ENGL2103	Jane Austen in Context	S2
ENGL2104	Poetry, Virtue, Corruption: Milton to Burns	S1
ENGL2203	The Twentieth Century: Modernism and Modernity	S1
ENGL2206	Nineteenth-Century Prose: Romantic and Victorian Fiction and Non-Fiction 1789-1914	S1
ENGL2207	Nineteenth-Century English Poetry: Romantic and Victorian Poetry 1789-1914	S2
ENGL2305	African Resistance Writing	S1
ENGL2400	Twentieth Century Women Writers	S2
ENGL2505	Australian Children's Literature and Literacy	S1
ENGL2701	The Australian Cultural Text	S2
ENGL3302	Myths of Self and Society	S1
ENGL3400	The Gothic: A Genre, Its Theory and History	S1
ENGL3460	Crime Fiction, Film and Theatre	S1
ENGL3502	Professional Writing	S2
ENGL3753	Creative Writing A	S1
ENGL3754	Creative Writing B	S2

Advanced Upper Level

ENGL3902	Contemporary Critical and Cultural Theory	S2

Honours Level

ENGL4000	English Literature Honours Research Full-Time
ENGL4050	English Literature Honours Research Part-Time
ENGL4500	Combined English Literature Honours Research Full-Time
ENGL4550	Combined English Literature Honours Research Part-Time

Environmental Studies

Coordinator: Dr Paul Brown, School of Science and Technology Studies, Rm MB LG16
Tel: 9385 1497
Email: paul.brown@unsw.edu.au

The Environmental Studies program is designed for students who wish to undertake a major sequence within the BA degree concentrating on the historical, theoretical, and policy implications of the human construction and transformation of the environment. Combined Honours in Environmental Studies is also available (see below).

The interdisciplinary major sequence in Environmental Studies must be accompanied by a major sequence in a home-based school or department of the Faculty as specified in the Rules for the BA degree. Particularly appropriate home-based majors to be taken in conjunction with it would be in Philosophy, Politics and International Relations, History, Science and Technology Studies, or Sociology. Courses may not be counted towards more than one major sequence.

Major Sequence

Level 1

24 Level 1 units of credit in Arts. There are no compulsory Level 1 courses. However, a typical program would include:

SCTS1107	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:

SCTS1106	Science, Technology and Society	S1
GEOG1601	Australian and Global Geographies	S2
GEOG1701	Environmental Systems and Processes	S1
POLS1014	Global Politics and the Environment	S2

Upper Level

The following interdisciplinary **core course** is compulsory and is taken in the third year of study:

SCTS3126	Society and Environmental Process: Botany Bay and the Sydney Region	S2

You must also take its prerequisite SCTS2118 Technology, Environment, Politics. For a pass degree a further four Upper Level courses are required from the following:

ARTS2002	Arts and Social Sciences Internship[1]	X1 S1 X2 S2
GEOG2611	The Australian City	S1
GEOG2641	The Urban Environment and Economy	S2
GEOG2711	Australian Climate and Vegetation	S2
GEOG3761	Environmental Change	S1
GEOG3901	Australian Natural Resources	S1
GEOG3911	Environmental Impact Assessment	S1
GEOG3921	Coastal Resource Management	S2
HIST2039	Environmental History	S2
HPST2127	Discrediting Science? Postmodernism and the Crisis of Legitimation*	
HPST2136	Agriculture and Civilisation in Historical Perspective	S1
HPST3113	Changing Images of Nature	S2
PHIL2420	Environmental Ethics	S1
SCTS2109	The Challenge of the New Biotechnologies	S2
SCTS2123	Science, Environment & Performance*	
SCTS3106	Technology, Sustainable Development, and the Third World	S1
SCTS3109	Society, Technological Hazards, and Environmental Management*	
SCTS3120	Cultural Heritage Management*	
SCTS3128	Energy and its Politics	S2
SCTS3900	Technology and Everyday Life	S1
SOCA2104	Technology, Work, Culture*	
SOCA2204	Pacific Islands Research Fieldwork	S2
SOCA3204	Modernity & Development in the Pacific Islands	S2
SOCA3212	Environment, Society and Culture*	
SOCA3704	Social Movements and Society: Current Debates*	
SPAN2418	Amazonia*	

[1]Subject to agreement of Environmental Studies Coordinator that internship has appropriate environmental content.

* These courses will not be offered in 2002.

If you wish to major in Environmental Studies, or take combined honours, you should consult with the school of your home-based major and the Coordinator of the Environmental Studies program about the best combinations of courses in your two major sequences. You should make sure that you include in your degree program any necessary prerequisites for the courses you wish to take.

Honours Level

Honours in Environmental Studies must be combined with honours study in a school or department. Typical combinations are with Science and Technology Studies, Sociology, History, Geography, Politics and International Relations, or Philosophy. Normal requirements are a thesis (50%), seminar (25%) and an additional component (25%) which could be a second seminar, an internship or a project. This assessment scheme may vary depending on the requirements of the participating school or department.

SCTS4200	Combined Honours (Research) in Environmental Studies F/T
SCTS4201	Combined Honours (Research) in Environmental Studies P/T

Prerequisite: 1. Combined honours prerequisites in a discipline. 2. At least 48 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 SCTS3126 and its prerequisite SCTS2118, and may include two of the Level 1 courses recommended above. (Note: In assessing combined honours units of credit, courses may not be counted twice.) 3. Permission of the Environmental Studies Honours Committee.

European Studies

Coordinator: Professor John Milfull (Centre for European Studies, MB G64)

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, which may be counted as a 'second major' under the BA Degree Rules. It requires the completion of six EURO courses (36 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 12 units of credit. A major sequence in European Studies is a requirement for the **Bachelor of International Studies** degree in **European Studies (Program 3414)**, which is described in the introductory section of this handbook.

Students who wish to specialise in European Studies are encouraged to learn a relevant European language; a Combined Honours Program, which requires basic reading competence in one such language, may be undertaken in conjunction with a School/Department of the Faculty.

The **European Studies noticeboard** is located opposite the Centre for European Studies (MB G64).

Major Sequence

A minimum of 36 units of credit in European Studies, including at least 24 units of credit in Upper Level courses.

Honours Level

European Studies may be taken at Honours Level only as a Combined Honours program. Students must complete the single Honours prerequisite for the School concerned and a major in EURO with an average of 70%. They are required to present a thesis on an interdisciplinary topic approved by the Coordinator and the relevant Head of School.

Level 1

EURO1000	The New Europe A	S1
EURO1001	The New Europe B	S2

Upper Level

EURO2000	Concepts of Europe	S2
EURO2001	Gender, Race, Nature and Reason	S2
EURO2300	The German-Jewish Experience	S1
EURO2301	The Attractions of Fascism	S2
EURO2321	German Revolutions?	S1
EURO2401	Modern Italy since Napoleon	S1
EURO2410	Nineteenth-Century Europe, 1815-1914: Bourgeois Culture, Peoples' Revolutions	S1
EURO2411	Spain: From Loss of Empire to European Integration	S1
EURO2700	What is Postcommunism? Central and Eastern Europe after 1989	S2

Advanced Upper Level Courses

EURO3900	Advanced Program A
EURO3901	Advanced Program B

Honours Level

EURO4500	Combined Honours (Research) in European Studies F/T
EURO4550	Combined Honours (Research) in European Studies P/T

French

Website: www.arts.unsw.edu.au/languages/french/french.html

Courses offered by the Department at undergraduate level are made up of studies in: Language and Linguistics, Literature and Thought, French Culture and Society and Francophone Studies. French is the language of instruction throughout.

Language and Linguistics. Emphasis is on helping students to acquire a command of modern French. Course content integrates understanding, speaking, reading and writing. All core language courses also involve comparative cultural studies.

French Literature and Thought. Focuses on the techniques of literary analysis and criticism through the close study of texts, and various methodological approaches to literature, from the 18th century to the present day. These courses also examine the relationship between literature and social history or literary theory.

French Culture and Society. Courses cover France and the French speaking world. Although literary texts are sometimes studied, courses in this category mostly use non-literary and media material and concentrate on a particular socio-historical context. Here again, French is the language of instruction.

Students are invited to collect from the Reception of the School of Modern Language Studies (Morven Brown Room 258) the French Handbook, containing course descriptions, book lists, sequence of courses and general information about the Department. Students should also consult the Department noticeboards for all information relating to first meetings, prior to the commencement of the academic year.

Note: Teaching at all levels is normally done in French, and in most courses all assessment tasks are performed in French. However the Department sometimes offers courses which are taught and assessed in English; these are open to all students with Upper Level status in the Faculty of Arts and Social Sciences or equivalent.

Major Sequences

At least 42 units of credit, including 12 Level 1 units of credit. Students are advised to consult the French staff to plan their program.

Core Major Requirements: For D stream students, the major must include FREN1030. For C stream students, the major must include FREN2030. For B stream students, the major must include FREN3011. In certain cases approval may be given to replace FREN3011 with FREN2030. For A stream students, the major must include FREN3004 plus 1 Upper Level option.

Assessment

Most classes are of seminar and tutorial type and most teaching is conducted in French. In core language courses, students are expected to attain a prescribed proficiency level in each of the major skills, and to satisfy all other assessment required throughout the year. In other courses, assessment is continuous and, may be based on a combination of class tests, written or oral exposés, essays, or weekly assignments.

Level 1

Entry to Year 1 is available to students of all proficiency levels in French, from complete beginners to French native speakers. To accommodate such differing backgrounds at various levels, four streams are offered:

1. A stream – Designed for students with little or no knowledge of French.

2. B stream – Designed for students with some knowledge of French (eg HSC 2 unit French or HSC 2 unit Z French).

3. C stream – Designed for students with a good knowledge of French (eg HSC 2 unit French percentile 81–100 or HSC 3 unit French percentile 51–100).

4. D stream – Designed for Francophone students with a Baccalauréat or equivalent qualifications.

Students wishing to take French in Year 1 should enrol in the course which seems appropriate to their language skills. The Department will determine the appropriate course for every student, other than complete beginners, on the basis of a placement test. Contact the Department for the date.

Level 1

FREN1001	French 1A Introductory French 1	S1
FREN1002	French 1A Introductory French 2	S2
FREN1011	French 1B Intermediate French 1	S1
FREN1012	French 1B Intermediate French 2	S2
FREN1021	French 1C Language and Culture 1	S1
FREN1022	French 1C Language and Culture 2	S2
FREN1023	French 1C Language Part 1	S1
FREN1024	French 1C Language Part 2	S2
FREN1030	French 1D Language	S1
FREN1221	French 1D Literature and Society A	S1
FREN1222	French 1D Literature and Society B	S2

Upper Level

1. Core Courses

In all core language courses, students must attain the prescribed proficiency level in each major skill, as well as satisfying all other assessment requirements.

FREN2003	French 2A Intermediate French 1	S1
FREN2004	French 2A Intermediate French 2	S2
FREN2013	French 2B Language and Culture A	S1
FREN2014	French 2B Language and Culture B	S2
FREN2020	French 2C - Language and Culture	S1
FREN2030	Advanced Core Language	S2
FREN3003	French 3A Language and Culture A	S1
FREN3004	French 3A Language and Culture B	S2
FREN3011	French 3B Language and Culture	S1

2. Options

Upper level options are available to C stream and D stream students in their second and third year of study and, in some cases, to French 2B students in Session 2. Upper level options are available to A stream and B stream students in their third year of study.

FREN3120	Exploring the French Language	S1
FREN3211	Special Reading Program	S1or S2
FREN3210	French Prose Fiction	S1
FREN3216	France Today	S2
FREN3410	French for Special Purposes	S2

Advanced Upper Level Courses

FREN3901	Reading Program 1 (Advanced)	S1or S2
FREN3910	Honours Preparatory Seminar	S2

Honours Level

For D stream students: at least 54 units of credit, including FREN1030 and FREN3910 at an average grade of Credit or better. For C stream students: at least 54 units of credit, including FREN2030 and FREN3910 at an average grade of Credit or better. For A and B stream students: at least 54 units of credit, including FREN3910 at an average grade of Credit or better. With permission of the Head of Department, Honours students from A stream may arrange to write their Honours dissertation in English rather than French. *Combined Honours:* A total of 48 units of credit in the Department of French.

A research program can be undertaken either in French alone or in combination with another course. (Part-time enrolment is also possible in some cases.)

FREN4000	French Honours (Research) Full-Time
FREN4050	French Honours (Research) Part-Time
FREN4500	Combined French Honours Full-Time
FREN4550	Combined French Honours Part-Time

Geography

Student Advisor: Kevin Dunn
Email: k.dunn@unsw.edu.au
Tel: 9385 5737

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 the School of 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 30 Upper Level units of credit in Geography (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 Geography, plus another 36 units of credit in Geography or related courses. The courses must include one of GEOG2013, GEOG2101, GEOG3611, SLSP2001, SOCA2203 or a substitute course approved by the Head of School. A minimum cumulative average at Credit grade is required for all Upper Level Geography courses taken.

Combined Honours (Research) Entry

At least 6 Level 1 units of credit plus another 30 Upper Level units of credit in Geography or related courses (consult Geography advisor). A minimum cumulative average at Credit grade is required for all Upper Level Geography courses taken.

Level 1

GEOG1601	Australian and Global Geographies	S2
GEOG1701	Environmental Systems and Process	S1

Upper Level

GEOG2001	Field Techniques	S2
GEOG2101	Geographical Data Analysis I	S1
GEOG2611	The Australian City	S1
GEOG2641	The Urban Environment and Economy	S2
GEOG2711	Australian Climate and Vegetation	S2
GEOG2721	Australian Surface Environments and Landforms	S1
GEOG2811	Introduction to Remote Sensing	S1
GEOG2821	Introduction to Geographic Information Systems	S2
GEOG3101	Geographical Data Analysis II	S2
GEOG3311	Professional Geography	S2
GEOG3411	Special Topic	S1 S2
GEOG3611	Surveys and Interviews in Geography	S1
GEOG3621	Place and Politics of Identity	S2
GEOG3631	Population Geography	S2
GEOG3671	Transport, Land Use and Environment	S1
GEOG3711	Biogeography	S2
GEOG3731	Geomorphology	S2
GEOG3761	Environmental Change	S1
GEOG3811	Remote Sensing Applications & Digital Image Analysis	S2
GEOG3821	Geographic Information Systems Applications	S2
GEOG3861	Computer Mapping	S1
GEOG3901	Australian Natural Resources	S1
GEOG3911	Environmental Impact Assessment	S1
GEOG3921	Coastal Resource Management	S2

Honours Level

Students are required: 1. To undertake an original piece of research extending throughout the year and to submit a thesis based upon it. 2. To participate in seminars and fieldwork as notified by the School of Geography. Seminars include workshops on professional practice in geography and ethical issues in research.

GEOG4414	Honours Geography P/T	S1 S2
GEOG4418	Honours Geography F/T	S1 S2
GEOG4422	Combined Honours Geography P/T	S1 S2
GEOG4424	Combined Honours Geography F/T	S1 S2

Geology

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, Dr David Cohen.

Level 1

GEOL1111	Earth Systems and Dynamics
GEOL1211	Earth Environments and Resources

Upper Level

GEOL2101	Sedimentology and Sedimentary Environments
GEOL2131	Geomapping
GEOL2171	Earth Structures
GEOL2181	Earth Materials
GEOL2231	Environmental Geophysics
GEOL2281	Petrology
GEOL2291	Groundwater, Engineering and Environmental Geology
GEOL3101	Ore Deposits and Regolith
GEOL3110	Igneous and Metamorphic Processes
GEOL3121	Stratigraphy and Palaeontology
GEOL3131	Field Studies: Stratigraphy, Structure and Geological Mapping
GEOL3201	Field Studies: Ore Deposits, Structural and Metamorphic Geology
GEOL3231	Exploration Geophysics
GEOL3241	Sedimentary Basin Resources
GEOL3281	Exploration and Environmental Geochemistry
MSCI6200	Coastal Monitoring Techniques
MSCI6300	Coastal Environment Assessment

German Studies

Head of School: Dr Olaf Reinhardt
Website: www.arts.unsw.edu.au/languages/german
Email: german@unsw.edu.au
Tel: 9385 1188/1681

German is available as a major in Arts and also to students of all faculties as a co-major, elective/option, General Studies unit or as a major in the Diploma in Languages.

The Department has a flexible entry-point policy which allows students to enrol in the language program that builds on their existing language skills. There are three streams.

A Stream - beginners with no previous knowledge of German. B Stream - intermediate students who have studied German for the Higher School Certificate (or have equivalent knowledge). C Stream - advanced or native speakers.

The primary aims of courses offered in the Department of German Studies are:

* to provide students with proficiency in spoken and written German through practical language work and linguistic study

* to encourage a critical understanding of the development of the German - speaking countries as modern societies that are different from yet similar to our own.

Teaching and Assessment

As far as practical, German is the language of instruction. There are no formal end of session examinations. Every effort is made to make student assessment part of the learning process. Assessment may include class tests, essays, take-home tests and tutorial presentations.

Further details are contained in the Department of German Studies Handbook, available from the School of Modern Languages Student Information Desk.

German Language, Literature and Civilisation

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 topics and issues of German socio-cultural history contributes to an increased awareness and understanding of the forces that have shaped the development of modern German speaking societies.

Major Sequence

Major sequences require 42 units of credit in German Studies. Students are advised to consult the German staff to plan their program.

A Stream (Beginners)

Year 1: GERS1400/1401 Year 2: GERS2400/2401 Year 3: GERS3400/3401 and one seminar in each session GERS3405/3406

B Stream (HSC or equivalent)

Year 1: GERS1600/1601 Year 2: GERS2605/2606 Year 3: GERS3605/3606 and one seminar in each session GERS3405/3406

C Stream (Advanced or Native Speaker level)

Year 1: GERS1700/1701 Year 2: GERS2700/2701 Year 3: GERS3700/3701 and one seminar in each session GERS3405/3406

Level 1

Students wishing to take **Year 1 German** should enrol in the course which seems appropriate for their language skills. The Department will determine the appropriate course for every student other than complete beginners on the basis of a placement test. Contact the Department for the test date.

Honours Level

Entry into the Honours program requires 54 units of credit in German Studies, including GERS3900 and GERS3901, with an average grade of Credit or better.

Combined Honours requires 48 units of credit in German Studies, including GERS3900, with an average grade of Credit or better.

Level 1

GERS1400	Introductory German A1	S1
GERS1401	Introductory German A2	S2
GERS1600	Intermediate German B1	S1
GERS1601	Intermediate German B2	S2
GERS1700	Advanced German C1	S1
GERS1701	Advanced German C2	S2

Upper Level

GERS2400	Intermediate German A1	S1
GERS2401	Intermediate German A2	S2
GERS2605	Advanced German B1	S1
GERS2606	Advanced German B2	S2
GERS2700	Advanced German C3	S1
GERS2701	Advanced German C4	S2
GERS3410	Advanced German A1	S1
GERS3411	Advanced German A2	S2
GERS3605	Advanced German B3	S1
GERS3606	Advanced German B4	S2
GERS3700	Advanced German C5	S1
GERS3701	Advanced German C6	S2

Advanced Upper Level Courses

These courses are compulsory for students intending to proceed to Honours.

GERS3900	German Option 1	S1
GERS3901	German Option 2	S2

Seminar Courses

GERS3405	German Studies Seminar 1	S1
GERS3406	German Studies Seminar 2	S2

Honours Level

GERS4000	German Honours (Research) Full-Time
GERS4050	German Honours (Research) Part-Time
GERS4500	Combined German Honours (Research) Full-Time
GERS4550	Combined German Honours (Research) Part-Time

Greek (Modern)

Coordinator: Dr Eleni Amvrazi (Room 230, Morven Brown Building)

The basic aims of the programs offered are to help students to acquire a sound reading knowledge of Greek, a command of basic conversational and written Greek, and an understanding, through the study of Greek literature and history, of the way in which Greek society has developed.

Teaching and Assessment

All teaching in Modern Greek Studies is carried out in small groups except for the Greek Literature and Greek History sections. Assessment is continuous and ranges from informal class tests to literature and history essays and class oral and written presentations. Oral participation in all classes is also taken into account when determining the final mark.

Language of Instruction

Whenever possible, language programs are conducted in Greek. Literature lectures are mostly given in Greek with English explanations of difficult terms and points. The history lectures, however, are mainly given in English.

Note: Students who wish to take Modern Greek should enrol in a program that seems most appropriate to them; however, the Coordinator reserves the right to alter the enrolment, according to the student's knowledge of the language.

Major Sequence

A Stream (Beginners) 42 Units of credit

Year 1	**UOC**
GREK1001	6
GREK1002	6
Year 2	
GREK2010	6
GREK2020	6
Year 3	
GREK2021	6
GREK2022	6
GREK2005	3
GREK2006	3

B Stream (Some Greek) 42 Units of credit

Year 1	**UOC**
GREK1101	6
GREK1102	6
Year 2	
GREK2003	6
GREK2004	6
GREK2005	3
GREK2006	3
Year 3	
GREK3001	3
GREK3002	3
GREK2201 or GREK2202	6

C Stream (HSC Greek) 42 Units of credit

Year 1	**UOC**
GREK1201	6
GREK1202	6
Year 2	
GREK2201	6
GREK2202	6
GREK2203	3
GREK2204	3
Year 3	
GREK3201	6
GREK3202	6

Honours

Intending Honours students are recommended to contact the Head of Department 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 GREK3900 and GREK3901, with an average of 70% is required. The entry for Combined Honours is the completion of 48 units of credit, including GREK3900 and GREK3901, with an average of 70%.

Level 1

GREK1001 Introductory Modern Greek A1
GREK1002 Introductory Modern Greek A2
GREK1101 Intermediate Modern Greek B1
GREK1102 Intermediate Modern Greek B2
GREK1201 Advanced Modern Greek C1
GREK1202 Advanced Modern Greek C2

Upper Level

GREK2003 Advanced Modern Greek B1
GREK2004 Advanced Modern Greek B2
GREK2005 Literary Text Analysis 1
GREK2006 Literary Text Analysis 2
GREK2010 Intermediate Modern Greek A1
GREK2020 Intermediate Modern Greek A2
GREK2021 Advanced Modern Greek A1
GREK2022 Advanced Modern Greek A2
GREK2201 The Modern Greek Experience S1
GREK2202 Greek Traditional Culture S2
GREK2203 Core Language 1
GREK2204 Core Language 2
GREK3001 Advanced Modern Greek B3
GREK3002 Advanced Modern Greek B4
GREK3201 Modern Greek for Special Purposes S1
GREK3202 Greek Women Writers S2
GREK3205 Pandora's Box: Gender Issues in Greek Mythology and Tragedy S1

Advanced Upper Level Courses

GREK3900 Culture, Ethnicity & Identity in Greek Australian Literature S1
GREK3901 The History and Development of the Greek Language S2

Honours Level

GREK4000 Modern Greek Studies Honours (Research) Full-Time
GREK4050 Modern Greek Studies Honours (Research) Part-Time

History

Head of School: Associate Professor John Gascoigne
School Office: Room 351, Morven Brown Building
Website: www.arts.unsw.edu/history/

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. Some Ancient History is also taught. General theories and problems of historical explanation are also studied, as well as techniques of researching and writing history.

Class contact in most courses offered is three hours per week. Level 1 courses offered in each of the following fields – Asian, Australian or European 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; lecture timetables may also be consulted at the Faculty of Arts and Social Sciences office, Room G1, Morven Brown Building.) 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 courses 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 12 Level 1 units of credit in History or 36 Arts units of credit. It should be noted that ARTS1100 or ARTS1001 may be substituted for 6 first year units of credit in History.

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.

Honours Entry

Students must satisfy Faculty of Arts and Social Sciences requirements for entry to Honours programs, and must have obtained, at credit level or better, at least 54 units of credit in the School of History, including 6 units of credit from the HIST3000 courses. For entry to a Combined Honours program, students must have obtained at credit level or better, at least 48 units of credit in the School of History including 6 units of credit from the HIST3000 courses.

Level 1

HIST1003 The Fatal Shore: Aborigines, Immigrants and Convict Society S1
HIST1004 Making Australia: The Struggle for a Nation 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 & 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

Upper Level

HIST2000 World History: The Twentieth Century S2
HIST2013 Prophets and Millenarian Movements in World History S1

HIST2015	Women in the Modern World	S1
HIST2016	Film in History	S2
HIST2021	Irish History from 1800	S2
HIST2025	Slavery and Freedom: American History 1750-1890	S1
HIST2027	A Commonwealth for a Continent	S1
HIST2028	Australia Since World War II	S1 & S2
HIST2030	History of the Arab/Israeli Conflict	S2
HIST2033	Australian Identity: Media Image and Society	S1 & S1
HIST2036	Documentary Film and History	S1
HIST2039	Environmental History	S2
HIST2041	Australian Sport: History and Culture 1	
HIST2043	Modern China: The Last Emperors & the Birth of Modern China	S1
HIST2044	Modern China: War, Revolution & Reform in the 20th Century	S2
HIST2045	Modern America	S2
HIST2047	Winners and Losers: Poverty, Welfare, Justice in Australia	S1
HIST2050	Women in Southeast Asian Societies	S2
HIST2053	Muslim Southeast Asia	S2
HIST2054	Modern Japan: Political Culture, Popular Culture	S2
HIST2055	Colonialism and Fundamentalism in India	S1
HIST2056	From Elizabeth to the Republic: English History 1558-1660	S2
HIST2061	Making/Unmaking the Third World: History & Global Development II	S1
HIST2064	Values and Beliefs in Australian Culture	S2
HIST2070	Exploration and Empire: The Pacific and Cultural Contact	S1
HIST2074	Holocaust and Genocide in Historical Perspective	S2
HIST2075	Media, Modernity and History	S1
HIST2076	Early Modern Japan: Age of the Sword	S1
HIST2077	The Chinese in Southeast Asia	S1
HIST2080	Rights & Riots: Gender & Politics in 18th-century France	S1
HIST2081	Traditions and Revolutions: Southeast Asian Histories	S1
HIST2083	Writing Lives, Writing History	S2
HIST2084	The Vietnam War/The American War	S1
HIST2085	Australia's Asian Context: Resistance and Engagement	S1
HIST2090	The Transformations of Modern Warfare	S2
HIST2095	Talking History: Oral History and the Interview	S1
HIST2100	Urban Legends: The History of Sydney	S1
HIST2102	The Australian-Jewish Experience	S2
HIST2300	Between Dictatorship and Democracy: Contemporary Southeast Asia	S2
HIST2400	Concepts of Europe	S2
HIST2401	Modern Italy since Napolean	S1
HIST2410	Nineteenth Century Europe 1815-1914: Bourgeois Culture, Peoples' Revolutions	S1
HIST2421	German Revolutions?	S1
HIST2433	The Russian Revolution	S1
HIST2468	History from Crime: Interrogating the European Past	S2
HIST2500	The Pacific War: World War II in the Asia-Pacific	S2
HIST2650	Ancient Mediterranean: Egypt, Greece and Rome	S2
HIST2750	Southern African History from Dr Livingstone to Pres Mandela	S1

Advanced Upper Level Courses

HIST3900	Historiography of Southeast Asia	S2
HIST3901	History and Literature of the American South West 1865-1990	S2
HIST3902	Australian History and its Constructions	S1 & S2
HIST3904	Going Public: Public History and the Historian	S1
HIST3912	Researching and Writing History	S1

Honours Level

HIST4000	History Honours (Research) Full-Time
HIST4050	History Honours (Research) Part-Time
HIST4500	Combined History Honours (Research) Full-Time
HIST4550	Combined History Honours (Research) Part-Time

History and Philosophy of Science and Technology

For details and course listing, see entry under **Science and Technology Studies**.

Indonesian Studies

Coordinator: Dr Rochayah Machali
Email: r.machali@unsw.edu.au

Courses in Indonesian language are offered both for students with no prior knowledge of the language and for those with HSC Indonesian. There are also courses available for native speakers.

In order to count Indonesian as a major sequence, students must complete 36 units of credit in Indonesian language courses plus 6 units of credit in any of the optional studies courses. Those interested in doing Honours must complete a further 12 units of credit in recommended options. Language students are strongly recommended to study LING1500 or LING2500, which are specifically designed to complement language study.

Major Sequences

A Stream (Beginners) – 42 units of credit

Year 1	**UOC**
INDO1001	6
INDO1002	6
Year 2	
INDO2001	6
INDO2002	6
Year 3	
INDO3001	6
INDO3002	6

+ 6 units of credit from Indonesian options

B Stream (Intermediate, ex-HSC) – 42 units of credit

Year 1	**UOC**
INDO1101	6
INDO1102	6
Year 2	
INDO2101	6
INDO2102	6
Year 3	
INDO3101	6
INDO3102	6

+ 6 units of credit from Indonesian options

Year 4 (Honours - A stream and B stream)

INDO4000

Honours

Students interested in gaining additional personal qualifications and a deeper knowledge of Indonesia can do a year 4 Honours by research. Students thinking of studying for honours in Indonesian Studies should, if possible, consult the Department by the end of their 3rd session of study. A program of study will be worked out for each student according to his or her needs and interests. It is possible to move to honours at a later stage.

Students should normally complete 36 units of credit in consecutive INDO language courses at 70% or better, plus 18 UOC (three options) from INDO options, or options from MODL, HIST or POLS as recommended by the Department.

Level 1

INDO1001	Introductory Indonesian A1
INDO1002	Introductory Indonesian A2
INDO1101	Intermediate Indonesian B1
INDO1102	Intermediate Indonesian B2

Upper Level

INDO2001	Intermediate Indonesian A1
INDO2002	Intermediate Indonesian A2
INDO2101	Advanced Indonesian B1
INDO2102	Advanced Indonesian B2
INDO3001	Advanced Indonesian A1
INDO3002	Advanced Indonesian A2
INDO3101	Advanced Indonesian C
INDO3102	Advanced Indonesian D

Optional Courses

INDO3025	Interpreting and Translation Studies X1
INDO3500	Contemporary Indonesian Society S2
MODL2002	Communicating to the World: Introduction to Professional Interpreting S1

Honours Level

INDO4000	Indonesian Honours Research Full-Time
INDO4050	Indonesian Honours Research Part-Time
INDO4500	Combined Indonesian Honours Full-Time
INDO4550	Combined Indonesian Honours Part-Time

Industrial Relations and Organisational Behaviour

The School of Industrial Relations and Organisational Behaviour is located in the Faculty of Commerce and Economics. The School offers distinct disciplinary streams in Industrial Relations and Human Resource Management to students within the Faculty of Arts and Social Sciences. Students within the Faculty of Arts and Social Sciences may undertake a major in Industrial Relations or Human Resource Management. It is not possible to major in both streams.

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 multi-disciplinary social science basis to foster an appreciation of the many important questions relating to the role of individuals, trade unions, employers and governmental bodies in the world of work.

The specialisation in human resource management provides a strong practical and theoretical grounding in the policies and processes involved in the management of people at work. In a climate of rapid economic change, effective labour management is being seen as a critical component of the operation and strategic planning of both private firms and public sector organisations.

Major Sequence in Industrial Relations

A total of 42 units of credit obtained in the following Required and Option courses:

Required Courses (18 units of credit)

IROB1701 Industrial Relations *
IROB1702 Labour Organisation
IROB2702 Industrial Law

* IROB1701 is offered in Session 2 as well as Session 1.

Option List A (minimum 12 units of credit)

IROB2704 Social Organisation of Work
IROB2715 Labour History
IROB3705 Management and Employment Relations
IROB3706 Industrial Relations Policies and Processes

Option List B (minimum 6 units of credit)

IROB2703 International Employment Relations
IROB2718 Human Resource Management
IROB2724 Health and Safety at Work
IROB3702 International Human Resource Management Practice
IROB3704 Analysing Work and Organisations
IROB3707 History and Philosophy of Industrial Relations Research
IROB3721 Negotiation, Bargaining and Advocacy
IROB3724 Strategic Human Resource Management
IROB3728 Managing Pay and Performance
IROB3729 Managing Workplace Training

Industrial Relations Honours

To progress to Year 4 Honours in Industrial Relations a student must:

1. Complete the specified number of Required and Options courses;

2. Pass all these courses and obtain average grades of 71% or better in these courses; and

3. Obtain the permission of the Honours Coordinator to undertake the Honours year.

To complete a major in Industrial Relations at Honours Level, students should in addition to the specified number of Required and Option Courses complete the following:

IROB3707 History and Philosophy of Industrial Relations Research*
IROB4736 Industrial Relations 4 (Honours)

* IROB3707 is a prerequisite for Year 4 Honours and should normally be taken as an Option in the session preceding the Honours year.

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)

IROB1701 Industrial Relations
IROB1712 Management of Organisations
IROB2718 Human Resource Management

Option List A (minimum 12 units of credit)

IROB3702 International Human Resource Management Practice
IROB3724 Strategic Human Resource Management
IROB3728 Managing Pay and Performance
IROB3729 Managing Workplace Training

Option List B (minimum 6 units of credit)

IROB2702 Industrial Law
IROB2703 International Employment Relations
IROB2704 Social Organisation of Work
IROB2715 Labour History
IROB2724 Health and Safety at Work
IROB3704 Analysing Work and Organisations
IROB3705 Management and Employment Relations
IROB3706 Industrial Relations Policies and Processes
IROB3708 History and Philosophy of Human Resource Management
IROB3721 Negotiation, Bargaining and Advocacy

Human Resource Management Honours

To progress to Year 4 Honours in Human Resource Management a student must:

1. Complete the specified number of Required and Options courses:

2. Pass all these courses and obtain average grades of 71% or better in these courses; and

3. Obtain the permission of the Head of School to undertake the Honours year.

To complete a major in Human Resource Management at Honours Level, students should in addition to the specified number of Required and Option Courses complete the following:

IROB3708 History and Philosophy of Human Resource Management*
IROB4736 Industrial Relations 4 (Honours)

* IROB3708 is a prerequisite for Year 4 Honours and should normally be taken as an Option in the Session preceeding the Honours year.

Level 1

IROB1701 Industrial Relations
IROB1702 Labour Organisation
IROB1712 Management of Organisations

Upper Level

IROB2702 Industrial Law
IROB2703 International Employment Relations
IROB2704 Social Organisation of Work
IROB2715 Labour History
IROB2718 Human Resource Management
IROB2724 Health and Safety at Work
IROB3702 International Human Resource Management Practice
IROB3705 Management and Employment Relations
IROB3706 Industrial Relations Policies and Processes
IROB3707 Industrial Relations Research Methods and Thesis Workshop
IROB3708 History and Philosophy of Human Resource Management
IROB3721 Negotiation, Bargaining and Advocacy
IROB3724 Strategic Human Resource Management
IROB3728 Managing Pay and Performance
IROB3729 Managing Workplace Training

Honours Level

A thesis of 20,000 words, Human Resource Management seminar (both Sessions), two approved IROB courses (one per Session). Details of approved courses may be obtained from the Head of School.

IROB4736 Industrial Relations 4 (Honours) F/T
IROB4737 Industrial Relations 4 (Honours) P/T
IROB4740 Human Resource Management 4 (Honours) F/T
IROB4741 Human Resource Management 4 (Honours) P/T

International Business

Coordinator: Professor Sidney Gray, School of International Business, Faculty of Commerce and Economics

International Business is a rapidly growing field of study dealing with the development, strategy, and management of multinational enterprises. Business is becoming increasingly international and the most effective leaders and professionals of the future will be those who know how to deal with the problems of doing business and managing organisations in a complex and uncertain global business environment.

Doing business and making decisions internationally involves greater complexity and is much more challenging compared to decision making restricted to the domestic context. Specialist knowledge and skills are required to be successful at international business. For example, strategic decisions have to be made about which countries to operate in and whether or not to export or licence, 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.

Major Sequence in International Business

A total of 42 units of credit obtained in the following Required and Option courses.

Required Courses (30 units of credit)

Level 1 (12 units of credit)

IBUS1107	Global Business Environment	S1/S2
IBUS1108	Managing Across Cultures	S2

Upper Level (18 units of credit)

IBUS2107	International Business and Multinational Operations	S1
IBUS3105	International Business Strategy	S1
IBUS3106	Asia-Pacific Business	S2

Options

IBUS2103	Japanese Business	S2
IBUS2104	Korean Business	S2
IBUS2105	Chinese Business Enterprise	S1

Other courses in Arts and Social Sciences may be substituted for the above options with the approval of the Head, School of International Business.

International Studies

Coordinator: Dr Mark Berger (Department of Spanish and Latin American Studies, MB 226)

The following first year courses are only available to students enrolled in the Bachelor of International Studies program. The courses are compulsory for students in Program **3415**.

For details of the approved International Studies-related courses, refer to the section on **How to Structure your Degree** in the Faculty section of this Handbook. For further information, refer to the **International Studies noticeboard** which is located on the second floor of the Morven Brown Building beside Room 226.

Level 1

INST1000	World History: The Big Picture	S1
INST1001	International Relations in the 20th Century	S1

Upper Level

INST2000	Making/Unmaking the Third World: History and Global Development II	S1
INST2001	World History: The 20th Century	S2
INST3001	Theorising International Political Economy	
INST3000	Globalisation and Modernity: Interdisciplinary Seminar	

Italian

Coordinator: Associate Professor Olaf Reinhardt
Email: o.reinhardt@unsw.edu.au

Students may enrol in Italian externally at the University of New England. Currently two first year courses as well as second and third year courses are available. It will be possible to complete a major. Teaching is by distance mode.

Level 1

ITAL 101	Italian Language and Modern Literature, S1, 5HPW
ITAL 102	Italian Language and Modern Literature, S2, 5HPW (prerequisite ITAL 101)

Japanese and Korean Studies

Email: japankorea@unsw.edu.au
Tel: 9385 3760
Office: Room 203, Morven Brown Building
Website: www.arts.unsw.edu.au/languages/

In addition to its core language program, the Department of Japanese and Korean Studies in the Faculty of Arts and Social Sciences offers a range of Japanese and Korean language and non-language area studies elective courses to students, including courses in Japanese and Korean cultural studies, business and management and technical language.

For students with HSC or other Japanese and Korean language studies (including background speakers), a multipoint entry system operates and, subject to an individual placement test, students will be allocated to the most suitable course level.

Note: For students admitted in their first year of studies to JAPN2000 or 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 in Japanese Studies

A major sequence in **Japanese Studies** comprises 42 units of credit including 36 units of credit from consecutive core Japanese language units in List A plus at least 6 units of credit from the elective units offered in List B.

BCom and BEc students co-majoring in Japanese Studies may instead take 24 units of credit from consecutive core Japanese language units in List A plus 18 units of credit from the elective units offered in List B.

List A	**Core Units**
JAPN1000	Japanese Communication 1A
JAPN1001	Japanese Communication 1B
JAPN2000	Japanese Communication 2A
JAPN2001	Japanese Communication 2B
JAPN3000	Japanese Communication 3A
JAPN3001	Japanese Communication 3B
JAPN4000	Japanese Communication 4A
JAPN4001	Japanese Communication 4B
JAPN4100	Japanese Communication 5A
JAPN4101	Japanese Communication 5B
JAPN4200	Japanese Communication 6A
JAPN4201	Japanese Communication 6B
JAPN4300	Advanced Reading in Japanese A
JAPN4301	Advanced Reading in Japanese B

List B	**Elective Units**	
JAPN2500	Japanese Society, Culture and Economy	S1
JAPN2501	Minorities in Japan: Ethnic and Cultural Diversity	S2
JAPN2600	Hospitality Japanese	S2
JAPN2700	Japanese Contemporary Culture	S2
JAPN3500	Business Japanese	S2
JAPN3900	Introduction to Japanese Studies (Advanced)*	S1
JAPN3901	Special Topics in Japanese (Advanced)*	S1
JAPN3902	Readings in Japanese Studies (Advanced)*	S2
JAPN4300	Advanced Reading in Japanese A	S1
JAPN4301	Advanced Reading in Japanese B	S2
IBUS2103	Japanese Business	S2

Students who complete their major sequence with JAPN4101 or higher will be recognised as having completed the Japanese Studies Advanced Program.

* Advanced Upper Level courses

Honours Entry

Students intending to do Honours in Japanese Studies should take at least 6 consecutive core language units, averaging a Credit level or higher, in addition to JAPN3900, JAPN3901 and JAPN3902.

Honours Level

JAPN4500	Japanese Studies Honours (Research) Full-Time
JAPN4550	Combined Japanese Honours (Research) Full-Time

Major Sequence in Korean Studies

A major sequence in **Korean Studies** comprises 42 units of credit.

Beginners' Stream

A major sequence in Korean Studies for students in the Beginners' Stream includes 36 units of credit from consecutive Korean language courses in List A plus 6 units of credit from the elective units offered in List C.

Native and Background Speakers' Stream

A major sequence in Korean Studies for students in the Native and Background Speakers' Stream includes 24 units of credit from List B plus 18 units of credit from the elective units offered in List C.

List A	**Beginners' Stream Core**
KORE1000	Korean Communication 1A
KORE1001	Korean Communication 1B
KORE2000	Korean Communication 2A
KORE2001	Korean Communication 2B
KORE3000	Korean Communication 3A
KORE3001	Korean Communication 3B

List B	**Native and Background Speakers' Stream Core**
KORE1100	Structures of Korean Language A
KORE1101	Structures of Korean Language B
KORE3400	Intermediate Korean A
KORE3401	Intermediate Korean B
KORE3500	Advanced Korean A
KORE3501	Advanced Korean B

KORE3600	Korean for Special Purposes A	
KORE3601	Korean for Special Purposes B	

List C Elective Units

KORE2500	Korean Civilisation and Culture	S1
KORE2601	Gender and Politics in Korean Literature	S2
KORE3600	Korean for Special Purposes A	S1
KORE3601	Korean for Special Purposes B	S2
KORE3900	Introduction to Korean Studies (Advanced)*	S1
KORE3901	Special Topics in Korean Studies (Advanced)*	S1
IBUS2104	Korean Business	S2

Students who complete the program with KORE3501 or higher will be recognised as having completed the Korean Studies Advanced Program.

*Advanced Upper Level course

Honours Entry

Students intending to do Honours in Korean should take 6 Korean language courses, averaging a Credit level or higher, in addition to KORE3900 and KORE3901 plus either KORE2600, KORE2601, KORE2602, KORE2603 or IBUS2104.

Honours Level

KORE4000 Korean Studies Honours (Research) Full-Time

Jewish Studies

Coordinator: Dr Geoffrey Brahm Levey (School of Politics & International Relations, MB 321)

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 to the Holocaust	S1
JWST1001	The Modern Jewish Experience: Nationalism and Statehood	S2

Upper Level

JWST2000	Jews in Modern Society	S1
JWST2001	Jews, States and Citizenship	S2
JWST2101	Holocaust and Genocide in Historical Perspective	S2
JWST2102	History of the Arab-Israeli Conflict	S2
JWST2103	The German-Jewish Experience	S1
JWST2105	Religions: Judaism, Christianity, Islam*	
JWST2106	Jewish Law*	
JWST2202	The Australian Jewish Experience	S2
JWST2203	Women in Contemporary Judaism, Christianity, and Islam	S1

* Not offered in 2002.

Latin

Coordinator: Associate Professor Olaf Reinhardt
Email: latin@unsw.edu.au
Tel: 9385 1681
Website: www.arts.unsw.edu.au/languages/latin

A knowledge of Latin gives students direct access to some of the greatest works of Western literature, philosophy, scientific theory and legal oratory. It can also offer significant advantages to students pursuing other areas of language study, such as linguistics, English or other modern European languages.

Level 1

LATN1000	Introductory Latin A	S1
LATN1001	Introductory Latin B	S2

Upper Level

LATN2001	Reinventing the Past: Roman Mythological Epic	S1
LATN2002	Mothers and Roman Sons	S2

Linguistics

Coordinator: Associate Professor Peter Collins, Room 218, MB
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. 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 Cross-Cultural Communication, MODL2002 Communicating to the World, and SPAN3040 Spanish Linguistics. Students who wish to count any other course from outside the Linguistics Department towards a major sequence in Linguistics should consult the Department.

Level 1

LING1000	The Structure of Language	S1
LING1500	The Use of Language	S2

Upper Level

LING2510	Analysing Talk	S1
LING2540	Semantics and Pragmatics	S2
LING2550	Introducing Grammar	S1
LING2590	The English Language	S2
LING2601	Sociolinguistics in Australia	S1
LING2680	Language Universals and Linguistic Typology	S1
LING2700	Language Learning and Teaching	S2
LING2800	Current Issues in English Grammar	S2

Advanced Upper Level Course

LING3901	Language Learning and Teaching (Advanced)	S2

Honours Entry

Students need to have completed at least 54 units of credit (48 units of credit for Combined Linguistics Honours) at credit level or better in Linguistics courses, including two of LING3900, LING3901, LING3902, LING3903, for entry to Honours.

Note: Students are strongly advised to consult the Head on their eligibility to enter Honours programs.

LING4000	Linguistics Honours (Research) Full-Time
LING4050	Linguistics Honours (Research) Part-Time
LING4500	Combined Linguistics Honours Full-Time
LING4550	Combined Linguistics Honours Part-Time

Mathematics

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 an 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.

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.

MATH1011, MATH1021, 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.

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 First Year Mathematics 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 the period late January to February each year, starting immediately the enrolment period begins.

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
MATH1021 General Mathematics 1C
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
MATH2160 Linear Programming
MATH2180 Operations Research
MATH2200 Discrete Dynamical Systems
MATH2220 Continuous Dynamical Systems
MATH2240 Introduction to Oceanography and Meteorology
MATH2301 Mathematical Computing A

Pure Mathematics Level II

MATH2400 Finite Mathematics
MATH2430 Symbolic Computing
MATH2501 Linear Algebra
MATH2510 Real Analysis
MATH2520 Complex Analysis
MATH2601 Higher Linear Algebra
MATH2610 Higher Real Analysis
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
MATH2810 Statistical Computing for Categorical Data
MATH2831 Linear Models
MATH2841 Statistics SS
MATH2901 Higher Theory of Statistics
MATH2910 Higher Statistical Computing for Categorical Data
MATH2931 Higher Linear Models

Mathematics Level III

MATH3000 Mathematics/Statistics Project
MATH3001 Mathematics/Statistics Project
MATH3002 Mathematics/Statistics Project
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
MATH3150 Transform Methods
MATH3161 Optimisation Methods
MATH3181 Optimal Control
MATH3201 Dynamical Systems and Chaos
MATH3241 Fluid Dynamics
MATH3261 Atmosphere-Ocean Dynamics
MATH3301 Mathematical Computing B

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 average 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 MATH3680, MATH3740 and MATH3780 normally are offered only in even numbered years and the courses MATH3670, MATH3730 and MATH3770 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 Higher Real Analysis
MATH3620 Higher Functional Analysis
MATH3630 Higher Integration and Mathematical Probability
MATH3641 Higher Differential Equations
MATH3670 Higher Set Theory and Topology
MATH3680 Higher Complex Analysis
MATH3710 Higher Algebra 1
MATH3720 Higher Algebra 2
MATH3730 Higher Advanced Algebra
MATH3740 Higher Number Theory
MATH3760 Higher Topology and Differential Geometry of Surfaces
MATH3770 Higher Calculus on Manifolds
MATH3780 Higher Geometry

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 and Communications

Head of School: Philip Bell
Administrative Assistant: Julie Miller
Tel: 9385 6811
Fax: 9385 6812
Email: mdcm@unsw.edu.au
Website: mdcm.arts.unsw.edu.au

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 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 complete 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**) and BSc (Media and Communications) (program **3994**).

Level 1

MDCM1000	New Media Technologies A	S1
MDCM1001	New Media Technologies B	S2

Year 2

MDCM2000	Media, Technology and Creativity	S1
MDCM2002	Media Production	S1
MDCM2003	Multimedia Production	S2

Year 3

MDCM3000	Media Forms	S1
MDCM3002	Advanced Media Production	S1
MDCM3003	Multimedia Production in Industry Contexts	S2

Honours Level

For entry to Honours in Media and Communications, students must have normally completed 54 units of credit in MDCM courses with a grade average of at least 65%.

MDCM4000	Media and Communications Honours F/T
MDCM4050	Media and Communications Honours P/T

Elective Courses

These courses are available to all Faculty of Arts and Social Sciences students at Upper Level.

MDCM2101	Media, Tastes and Values	S1
MDCM3101	Media, Culture, Policy	S2
MDCM3102	Digital Aesthetics	S2

Modern Language Studies

School Office: Reception Room 258
Email: languages@unsw.edu.au

The School of Modern Language Studies has Departments of Chinese and Indonesian Studies, French, German and Russian Studies, Japanese and Korean Studies, Linguistics, Spanish and Latin American Studies, and Modern Greek. Major sequences are offered in all of these languages. The courses listed below are taught in English and are available to all students who meet the prerequisites. They are taught by staff members from different departments and will emphasise cross-cultural comparison.

Upper Level

MODL2000	Cross-Cultural Communication	S2
MODL2002	Communicating to the World: Introduction to Professional Interpreting	S1

Music and Music Education

School Office: Room G19, Webster Building

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 (BMusBEd)

4. The combined Bachelor of Music Bachelor of Arts degree (BMusBA)

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

7. An upper level course not requiring music prerequisites

1. 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

MUSI1141 and MUSI1421	(Musicology 1A and 1B)
MUSI1241 and MUSI1242	(Musicianship 1A and 1B)

Year 2

MUSI2141 and MUSI2142	(Musicology 2A and 2B)
MUSI2241 and MUSI2242	(Musicianship 2A and 2B)

Year 3

MUSI3141 and MUSI3142	(Musicology 3A and 3B)
MUSI3241 and MUSI3242	(Musicianship 3A and 3B)

Performance

MUSI2321 and MUSI2322 (BA Performance 2A and 2B)
May be taken in session 1 or session 2 of Year 2 and/or Year 3.

The second possible major sequence (for students with less formal training in music) is:

Year 1

MUSI1301 and MUSI1302 (Fundamentals of Music A and B)

Year 2

MUSI2311 and MUSI2312	(Musicology 2E and 2F)
MUSI2341 and MUSI2342	(Musicianship 2E and 2F)

Year 3

MUSI3311 and MUSI3312	(Musicology 3G and 3H)
MUSI3341 and MUSI3342	(Musicianship 3G and 3H)

Performance

MUSI2321 and MUSI2322 (BA Performance 2A and 2B)
May be taken in session 1 or session 2 of Year 2 and/or Year 3.

All BA students doing Music courses must take part in at least one of the performance ensembles offered by the School. The Bachelor of Arts (BA) permits the combination of music with a wide range of other options in the Faculty of Arts and Social Sciences and in other faculties, including options such as theatre, film and dance, languages, history, philosophy and psychology. Through double degrees such as the BALLB or the BScBA, it may be possible to combine serious music studies with law, science and other degree courses.

Bachelor of Arts students who have completed 2 Unit 1 Music for their HSC or who have AMEB grades lower than 7 (performance) and 5 (musicianship) are encouraged to complete MUSI1301 and MUSI1302 (Fundamentals of Music A and B). Completion of this course at a required level may provide the means of proceeding to a BA with a major in Music, and may also provide, if combined with a satisfactory audition, a means for subsequent enrolment in the BMus, the BMusBEd, or the BMusBA.

Consistently good work in the BA with a major in Music and completion of required additional courses in second and third years may lead to a fourth (honours) year of study completing a BA (Hons).

2. The Bachelor of Music (BMus) is a three-year specialist music degree which enables students to develop their musicianship and their musical skills in general in preparation for professional work in music in areas as diverse as performance, private teaching, broadcasting, recording, arts

administration, concert planning, music and general arts journalism, arranging and composition. Students undertake studies in professional practices, musicology and ethnomusicology – including music history, style, musical perception and analysis, music in its cultural contexts – and musical technology, performance, jazz studies and composition. At the same time students have enough flexibility in their course to enable them to combine music studies with some work in a related discipline like theatre, film and dance, or in languages, English literature and language, history, philosophy, among others.

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: Music 2u or 3u or 3u AMEB or equivalent qualification.

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 (refer to School handbook for details).

Consistently good work in the BMus may lead to a fourth (honours) year of study, completing a BMus(Hons).

3. The Bachelor of Music Bachelor of Education (BMusBEd) is a four-year specialist double degree in music education which aims to enhance the career prospects of graduating students and to serve the wide range of teaching opportunities open to music graduates. The BMusBEd offers an integrated training in six major areas: Musicology, Musicianship, Music Education Studies, Performance Studies, Education Studies and Contextual Studies. As well as developing many skills in teaching classroom music from early primary to final secondary grades (K-12), the BMusBEd provides a specialist sequence of courses designed to train conductors and teachers of instrumental and vocal ensembles. A special feature of the BMusBEd is the attention given to music history, aural training and musicianship courses as core units in the first three years of the program. In addition to the thorough grounding provided in Western art music, specialist courses dealing with music in its cultural contexts (ethnomusicology), musical technology and contemporary pop/jazz styles broaden and enrich the academic and professional capacities of all graduates. Graduates are qualified to teach classroom and instrumental/vocal music from kindergarten to year 12, and are accredited to teach in all Australian states. The final phase of the student's training involves, in addition to practice teaching sessions in Years 1, 2 and 3 of the course, a ten-week extended internship in practice teaching in Year 4.

Admission to the program is subject to a satisfactory audition/interview and acceptable level of attainment in year 12 studies or equivalent.

Assumed knowledge: Music 2u or 3u or 3u AMEB or equivalent qualification.

At the end of Year 4, students may be permitted to enter an Honours Year in either Music or Music Education. Students who satisfy the requirements for Honours as well as those for the award of the BMusBEd double degree will graduate with the award BMusBEd (Hons).

4. The Bachelor of Music Bachelor of Arts (BMusBA) 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 BMusBA graduates. In additional the BA will qualify them for public and private sector administrative and policy positions.

Admission to the program is subject to satisfactory audition/interview and an acceptable level of attainment in year 12 studies or equivalent.

Assumed knowledge: Music 2u or 3u or 3u AMEB or equivalent qualification.

5. Fundamentals of Music A and B, taken over 2 sessions, serves as an introductory course in musicianship and musical techniques. These courses are open to all undergraduates and do not have a musical prerequisite.

6. The Diploma in Music (program 3418) is a new program and may be taken either concurrently with a 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, involve the active development of the student's musicianship and develop practical abilities. Performance groups run by the School of Music and Music Education include: The Collegium Musicum Choir, The University of New South Wales Orchestra, The Pipers Wind Band (Concert Band), a vocal chamber group "The Burgundian Consort", Chamber Music ensembles, Bush Band, Hand Bell ensemble, Jazz Ensemble.

The Collegium Musicum Choir of the University of New South Wales, founded in 1975, 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 based on the Australia Ensemble, resident at the University of New South Wales. For audition and further details, please phone the School of Music and Music Education on extensions 4871, 4874, 4872 or 4870.

The University of New South Wales Orchestra and Concert Band were founded in 1989 and are open to students and staff of the University with the necessary instrumental performance standards. The orchestra rehearses each Tuesday evening from 6.30-8.30 pm and the Concert Band rehearses each Tuesday from 4:00-6:00 pm during session. Both give several public performances each year. For further details, please phone the School of Music and Music Education on extensions 4874, 4871 or 4872.

MUSI1141	Musicology 1A
MUSI1142	Musicology 1B
MUSI1241	Musicianship 1A
MUSI1242	Musicianship 1B
MUSI1301	Fundamentals of Music Part A
MUSI1302	Fundamentals of Music Part B
MUSI1401	Professional Practices 1A
MUSI1402	Professional Practices 1B
MUSI1501	Music Performance 1A
MUSI1502	Music Performance 1B
MUSI1801	Music Education 1A
MUSI1802	Music Education 1B
MUSI2111	History of Performance Conventions Part A
MUSI2112	History of Performance Conventions Part B
MUSI2121	Orchestration and Arrangement Part A
MUSI2122	Orchestration and Arrangement Part B
MUSI2141	Musicology 2A
MUSI2142	Musicology 2B
MUSI2241	Musicianship 2A
MUSI2242	Musicianship 2B
MUSI2311	Musicology 2E
MUSI2312	Musicology 2F
MUSI2321	BA Music Performance 2A
MUSI2322	BA Music Performance 2B
MUSI2341	Musicianship 2E
MUSI2342	Musicianship 2F
MUSI2351	Advanced Program in Music 1 Part A
MUSI2352	Advanced Program in Music 1 Part B
MUSI2401	Professional Practices 2A
MUSI2402	Professional Practices 2B
MUSI2501	Music Performance 2A
MUSI2502	Music Performance 2B
MUSI2801	Music Education 2A
MUSI2802	Music Education 2B
MUSI3111	Seminar in Musicology Part A
MUSI3112	Seminar in Musicology Part B
MUSI3121	Jazz and Popular Music Studies S1
MUSI3141	Musicology 3A
MUSI3142	Musicology 3B
MUSI3241	Musicianship 3A
MUSI3242	Musicianship 3B
MUSI3311	Musicology 3G
MUSI3312	Musicology 3H
MUSI3341	Musicianship 3G
MUSI3342	Musicianship 3H
MUSI3351	Advanced Program in Music 2 Part A
MUSI3352	Advanced Program in Music 2 Part B
MUSI3401	Professional Practices 3A
MUSI3402	Professional Practices 3B
MUSI3412	Performance Recital
MUSI3501	Music Performance 3A

MUSI3502	Music Performance 3B
MUSI3801	Music Education 3A
MUSI3802	Music Education 3B
MUSI3812	Principles & Processes of Music Education S2
MUSI4101	Advanced Professional Practices S1
MUSI4501	Music Performance 4
MUSI4801	Music Education 4A
MUSI4802	Music Education 4B S1 or S2
MUSI4812	Extended Practice Teaching S1 or S2

Honours Level

MUSI4000	Bachelor of Music Honours
MUSI4005	Music Honours (BA)
MUSI4610	Music Education Honours

Philosophy

Administrative Assistant: Janene Robertson
Tel: 9385 2371
Fax: 9385 1029
Email: philosophy@unsw.edu.au

Philosophy is a wide-ranging discipline, the scope of which is indicated by the courses listed below. Apart from providing considerable choices for students majoring in Philosophy, the diversity of Upper Level courses makes it possible for students majoring in other disciplines to select courses complementing their main interest.

Level 1

There are six 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 of historical developments in the treatment of issues.

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 at least 42 units of credit including no more than 12 units of credit in Level 1 courses. 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 Science and Technology Studies 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. Students must normally also have a grade average of at least 70 per cent in their Philosophy courses, including at least one Distinction result.

For students commencing university study prior to 1996, their Upper Level courses must include PHIL3106 Pre-Honours Seminar (now PHIL3910), and at least 18 units of credit chosen from courses which are primarily oriented toward the history of philosophy. At least 6 units of this credit must be in some area of the history of modern European philosophy.

For students commencing university study in 1996 or later, the history of philosophy requirements have been changed. In addition to PHIL3910 Pre-Honours Seminar (AUL) (was PHIL3106), intending Honours students are required to complete the following two courses (totalling 12 units of credit): PHIL3900 Themes in Seventeenth Century Philosophy (AUL) (was PHIL2228), and PHIL3901 Themes in Eighteenth Century Philosophy (AUL) (was PHIL2229). There are no other specific course requirements.

Courses which satisfy the **history of philosophy** requirement are the following:

PHIL2116	Scientific Method
PHIL2208	Contemporary Epistemology
PHIL2209	Epistemology (Knowledge and Justification)
PHIL2226	Twentieth Century Analytic Philosophy
PHIL2309	The Heritage of Hegel*
PHIL2310	Heidegger and the Tradition
PHIL2506	Classical Political Philosophy*
PHIL2507	The Ethics of Plato and Aristotle
PHIL2508	Theories in Moral Philosophy*
PHIL2516	Philosophical Foundations of Marx's Thought
PHIL2518	Greek Philosophy
PHIL2607	Philosophy and Literature
PHIL3900	Themes in Seventeenth Century Philosophy* (Was PHIL2228)
PHIL3901	Themes in Eighteenth Century Philosophy* (Was PHIL2229)

*Courses satisfying also the history of modern European philosophy requirement

For Combined Honours (Research), the requirement is normally 48 units of credit in Philosophy, consisting of 6 or 12 units of credit at Level I, and the remainder at Upper Level. Upper Level courses must include PHIL3910 Pre-Honours Seminar (AUL) (was PHIL3106) and, for students commencing university study prior to 1996, at least 12 units of credit chosen from courses which are primarily oriented towards the history of philosophy, of which at least 6 units of credit must be in some area of the history of modern European philosophy. For students commencing university study in 1996 or later, the history of philosophy requirements have been changed: in addition to PHIL3910 Pre-Honours Seminar (AUL) (was PHIL3106), students are required to complete the following two courses (totalling 12 units of credit): PHIL3900 Themes in Seventeenth Century Philosophy (AUL) (was PHIL2228) and PHIL3901 Themes in Eighteenth Century Philosophy (AUL) (was PHIL2229). 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 – either in terms of the prescribed number of units of credit or in terms of the requirement that 12 units of credit be chosen from the specified range of courses. Students are invited to consult the School about this matter in their particular situations.

Subject to the 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.

Students contemplating Honours are urged to seek advice from the School early in their course.

Level 1

PHIL1007	Knowledge and Reality	S2
PHIL1008	Ethics and Society	S2
PHIL1010	Thinking about Reasoning	S1
PHIL1011	Minds, Bodies and Persons	S1

Upper Level

PHIL2117	Philosophical Logic	S2
PHIL2118	Philosophy of Biology	S1
PHIL2206	Philosophy of Mind	S1
PHIL2207	Philosophy of Psychology	S2
PHIL2208	Contemporary Epistemology	S2
PHIL2218	Philosophical Foundations of Artificial Intelligence	S2
PHIL2309	The Heritage of Hegel	S1
PHIL2310	Heidegger and the Tradition	S2
PHIL2316	Philosophy of Religion	S1
PHIL2407	Contemporary European Philosophy	S1
PHIL2416	Nietzsche and Philosophy	S1
PHIL2420	Environmental Ethics	S1
PHIL2421	Philosophy of Education and Society	S2
PHIL2508	Theories in Moral Philosophy	S1
PHIL2509	Philosophy of Law	S2
PHIL2518	Greek Philosophy	S2
PHIL2519	Introduction to Chinese Philosophy	S2
PHIL2520	Aspects of Chinese Thought	S2
PHIL2708	Reading Option	S1, S2

Advanced Upper Level Courses

PHIL3900	Themes in Seventeenth Century Philosophy (Advanced)	S1
PHIL3901	Themes in Eighteenth Century Philosophy (Advanced)	S2
PHIL3910	Pre-Honours Seminar	S2

Honours Level

PHIL4000	Philosophy Honours (Research) Full-Time
PHIL4050	Philosophy Honours (Research) Part-Time
PHIL4500	Combined Philosophy Honours (Research) F/T
PHIL4550	Combined Philosophy Honours (Research) P/T

Philosophy of Science

Coordinator: Michaelis Michael, School of Philosophy, Room G43, Morven Brown Building.

The Philosophy of Science program is jointly taught by the School of Philosophy and the School of Science and Technology Studies. 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 Science and Technology Studies.

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.

Suitably qualified students may proceed from the program to a fourth-year honours program in Philosophy or in Science and Technology Studies, or to a joint-honours program in the Schools of Philosophy and Science and Technology Studies.

Level 1

6 units of credit obtained from one of the following courses:

HPST1108	Science Good, Bad and Bogus
HPST1109	Cosmos and Culture
HPST1110	Modern Science and its Discontents
PHIL1001	Encountering Western Philosophy I
PHIL1002	Encountering Western Philosophy II
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:

HPST2106	Scientific Theory in Practice
PHIL2106	Logic

and either

PHIL2107	Advanced Philosophy of Science

or

PHIL2117	Philosophical Logic

12 units of credit obtained in the following:

HPST2109	Computers, Brains and Minds
HPST2116	Defining Science: A History
HPST2139	Galileo, Science and Religion
HPST3900	Revolution, Rationality and Progress
*PHIL2107	Advanced Philosophy of Science
PHIL2109	Contemporary Metaphysics
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
PHIL2226	Twentieth Century Analytic Philosophy

*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.

Physics

The School of Physics is in the Faculty of Science. The 1st Year Office is in room 67, Old Main Building. Enquiries about Upper Level courses are dealt with by the Physics Friend, School Office, Room 62, OMB. Our Email address is info@phys.unsw.edu.au

Level 1

PHYS1111	Fundamentals of Physics
PHYS1121	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
PHYS2310	Nuclear Science and Technology
PHYS2410	Biophysics 1
PHYS2520	Einstein's Relativity and Spacetime
PHYS2630	Electronics
PHYS2810	Atmospheric Physics
PHYS3020	Statistical Physics
PHYS3040	Experimental Physics A1
PHYS3050	Nuclear Physics
PHYS3060	Advanced Optics
PHYS3070	Experimental Physics A2
PHYS3080	Solid State Physics
PHYS3160	Astrophysics
PHYS3210	Quantum Mechanics
PHYS3230	Electromagnetism
PHYS3630	Electronics
PHYS3710	Lasers and Applications
PHYS3720	Optoelectronics
PHYS3760	Laser and Optoelectronics Laboratory

Politics and International Relations

Head of School: Professor Marc Williams
Administration: Pat Hall-Ingrey
Tel: 93853786
Email: p.hall-ingrey@unsw.edu.au
Nola Hancock & Elsa Casamento Emails: n.hancock@unsw.edu.au & e.casamento@unsw.edu.au
Tel: 93852381 **Office Fax:** 93851555
Email: politics_ir@unsw.edu.au
Web Address: www.arts@unsw.edu.au/politics/

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 in Politics and International Relations. However, provided that 6 Level 1 units in Politics and International Relations have been obtained, ARTS1100 or ARTS1001 will be accepted as part of the School major.

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	S1
POLS1005	Politics and Crisis: An Introduction to Western Political Theory	S1
POLS1008	Politics of Post-Communist Systems	S2
POLS1010	State and Society: An Introduction to Political Sociology	S1
POLS1014	Global Politics and the Environment	S2
POLS1017	International Relations in the 20th Century	S1
POLS1018	Politics, Power, Principle: An Introduction to Modern Political Theory	S2
POLS1019	Power and Prejudice: Sex, Race, Class in Australia	S2

Upper Level

Courses commencing with the numbers POLS2... have as their minimum prerequisite 36 units of credit; those commencing with the numbers POLS390. 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 POLS391. 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	S2
POLS2005	International Relations	S1
POLS2008	Public Policy Making	S2
POLS2020	Sex, Gender and Justice	S1
POLS2023	Globalisation and Uneven Development	S2
POLS2032	Globalisation, Power & Development in Australia	S1

POLS2033	Jews in Modern Society	S1
POLS2034	Jews, States and Citizenship	S2
POLS2035	Multiculturalism in Law and Political Theory	S2
POLS2036	Political Development in Northeast Asia	S1
POLS2037	International Law & the Globalisation of Politics	S2
POLS2040	Politics and Business	S2
POLS2041	Sexuality and Power: The Social Relations of Sex and the Sexes	S2

Advanced Upper Level Course

POLS3901	States, Nations and Ethnic Identities	S1

Upper Level Seminar Courses

POLS3023	International Security	S1
POLS3032	The Party System in Australia	S1
POLS3044	Electoral Studies	S2
POLS3047	Theories of the Market and its Critics	S1
POLS3053	Problem of Language in Modern Social Theory	S2
POLS3057	International Relations in Northeast Asia	S2

Advanced Upper Level Courses

POLS3910	The Art of Political Science	S1
POLS3911	Asia and the International Political Economy	S2

Honours Entry

Coordinator: Dr Michael Wesley
Email: m.wesley@unsw.edu.au

POLS4000 Politics and International Relations Honours (Research) Full-Time

For entry to the Politics and International Relations Honours Program (Research) students must normally have completed 54 units of credit (9 courses) at 65% average, including at least 6 Level 1 units of credit and 12 units of credit at Credit level from Advanced Upper Level POLS39.. courses of which at least 6 units of credit must come from an Advanced Upper Level POLS391. seminar course. With the permission of the Head of School, a student may include up to 12 units of credit from related courses in other schools.

In other words, your 9 courses in POLS must include two Advanced Upper Level (AUL) courses, at least one of which must be a seminar course.

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 in Politics and International Relations, including at least 6 Level 1 units of credit and 12 units of credit at Credit level from Advanced Upper Level POLS39.. courses of which at least 6 units of credit must come from an Advanced Upper Level POLS391. seminar course.

Portuguese

School Office: Reception Room 258
Email: languages@unsw.edu.au

Portuguese is spoken not only in Portugal but also in Brazil and the former colonies of Africa and Asia; it will also be the official language of East Timor. Though closely related to other Romance languages, it is significantly different and has a rich culture of its own. Courses in Portuguese aim to give students an understanding of Portugal and its former colonies through the study of language, literature, history and civilisation. With the assistance of the Instituto Camöes, the School of Modern Language Studies is initially offering two courses at beginners' level in 2002 and hopes to expand this to a major sequence in the next few years.

Level 1

PORT1000	Introductory Portuguese 1
PORT1001	Introductory Portuguese 2

Psychology

The School of Psychology is in the Faculty of Science.

Head of School: Associate Professor Sally Andrews
First Year Coordinator: Dr Branka Spehar
Senior Administrative Officer: Trevor Clulow

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 organisational 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 New South Wales, 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 New South Wales.

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, PSYC3221, PSYC3311, PSYC3321; Advanced Biological – PSYC3051, PSYC3241, PSYC3251; Advanced Social – PSYC3121, PSYC3271, PSYC3281.

Level I

PSYC1001	Psychology 1A S1
PSYC1011	Psychology 1B S2

Upper Level II

PSYC2001	Research Methods 2 S1
PSYC2061	Social and Developmental Psychology S1
PSYC2071	Perception and Cognition S2
PSYC2081	Learning and Physiological Psychology S1
PSYC2101	Assessment and Personality S2

Upper Level III

PSYC3001	Research Methods 3A S1
PSYC3011	Research Methods 3B S2
PSYC3051	Physiological Psychology S2
PSYC3121	Social Psychology S2
PSYC3141	Behaviour in Organisations S2
PSYC3201	Psychopathology S1
PSYC3221	Vision and Brain S1
PSYC3241	Psychobiology of Memory and Motivation S1
PSYC3271	Personality and Individual Differences S1

PSYC3301	Psychology and Law S1
PSYC3311	The Psychology of Language S1
PSYC3321	Cognitive Development S2
PSYC3331	Health Psychology S2

Russian Studies

Head of Department: Dr Ludmila Stern
Website: www.arts.unsw.edu.au/languages/russian
Email: russian@unsw.edu.au
Tel: 9385 1188/1681

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 (Stream A) and also for advanced or native speakers (Stream B) of Russian. 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.

Major Sequence

Major sequences require 42 units of credit in Russian Studies and students are advised to consult with the Russian staff to plan their program.

Stream A: Year 1: RUSS1111/1112 Year 2: RUSS2111/2112 plus 18 units of credit selected from RUSS3111/3112/2100*/2101/2102/2103

Stream B: Year 1: RUSS1113/1114/1115 Years 2 and 3: 30 units of credit selected from RUSS2101/2102/2103/3101/3102/3103/3104

* Not offered in 2002.

Further details are contained in the Russian Studies Handbook, available from the School of Modern Language Studies Student Information Desk.

Honours Level

Entry into the Honours program requires 54 units of credit in an approved sequence, including RUSS3900, with an average grade of credit or better in Russian courses or 48 units of credit in an approved sequence with an average of credit or better for entry to the Combined Honours program.

Level 1

RUSS1111	Introductory Russian 1 S1
RUSS1112	Introductory Russian 2 S2
RUSS1113	Russian Language (Native Speakers) 1 S1
RUSS1114	Russian Language (Native Speakers) 2 S2
RUSS1115	Russian Literature 1 S2

Upper Level

RUSS2101	Twentieth Century Russian Literature and Society S2
RUSS2102	The Great Terror S2
RUSS2103	The Russian Revolution S1
RUSS2111	Intermediate Russian 1 S1
RUSS2112	Intermediate Russian 2 S2
RUSS3111	Advanced Russian 1 S1
RUSS3112	Advanced Russian 2 S2

Advanced Upper Level Courses

RUSS3900	Intermediate Russian 1 (Advanced) S1
RUSS3901	Intermediate Russian 2 (Advanced) S2

Options

Students enrolling in their first option should enrol in RUSS3101 and then (if necessary) in subsequent option(s).

RUSS3101	Russian Option 1
RUSS3102	Russian Option 2
RUSS3103	Russian Option 3
RUSS3104	Russian Option 4
RUSS3105	Russian Option 5
RUSS3106	Russian Option 6
RUSS3107	Russian Option 7
RUSS3108	Russian Option 8

Honours Level

RUSS4000	Russian Honours (Research) Full-Time
RUSS4050	Russian Honours (Research) Part-Time
RUSS4500	Combined Russian Honours (Research) Full-Time
RUSS4550	Combined Russian Honours (Research) Part-Time

Russian Upper Level and Honours Options

a. Tolstoy
b. Gogol
c. Chekhov
d. Pushkin
e. Solzhenitsyn
f. 20th Century Russian Prose
g. Russian Women Writers
h. Contemporary Russian Drama

Note: The Department reserves the right to limit or increase the number of options available.

Science and Technology Studies

Contact: Dr John Schuster, Head, School of Science and Technology Studies, Room LG19, Morven Brown Building
Tel: 9385 2356
Email: j.a.schuster@unsw.edu.au

The School of Science and Technology Studies (STS) offers courses in two streams: History and Philosophy of Science and Technology (HPST); and Science, Technology, and Society (SCTS). A major sequence in the School may be made up of courses from both the HPST and the SCTS streams. Entry to most Upper Level courses is possible without having studied Level 1 HPST or SCTS courses.

Courses in the History and Philosophy of Science and Technology (HPST) stream examine the history of scientific and technological development, the nature and philosophical implications of the knowledge and methods involved in this development, and the historical dynamics of scientific and technological change. HPST courses make an ideal complement to courses in intellectual and social history, and philosophy. Courses in the Science, Technology, and Society (SCTS) stream examine the social, economic, and political dimensions of scientific and technological change, especially in the twentieth and twenty-first century. SCTS courses make an ideal complement to courses in sociology, political science, and public policy. The School employs the methods of the humanities and social sciences to understand the historical, cultural, economic, environmental and social role of science and technology. No previous study of mathematics or science is required.

Major Sequence

A major sequence in the School of STS consists of at least 42 units of credit in HPST and/or SCTS courses, of which no more than 12 units of credit may be from Level 1 courses. 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 in the School of STS.

Interdisciplinary Programs

The School coordinates interdisciplinary programs in Cognitive Science and Environmental Studies, and participates in the Philosophy of Science program. See entries under those headings for further information.

HPST Stream

Level 1

HPST1109	Cosmos and Culture	S1
HPST1108	Science Good, Bad and Bogus	S2
HPST1110	Modern Science and its Discontents	S2

Upper Level

HPST2106	Scientific Theory in Practice	S1
HPST2107	The 'Darwinian Revolution' and the Order of Nature 1790-1890	S1
HPST2108	Cheating Death: A History of Medicine	S1
HPST2109	Computers, Brains and Minds	S2
HPST2111	The Scientific Revolution	S1
HPST2116	Defining Science: A History	S2
HPST2126	God, Life, the Universe and Everything: Science and Meaning	S1
HPST2136	Agriculture and Civilisation in Historical Perspective	S1
HPST2138	Worrying Ourselves to Death? Health, Risk & Modern Medicine	S2
HPST2139	Galileo, Science & Religion	S1
HPST3113	Changing Images of Nature	S2
HPST3118	Reading Option in History and Philosophy of Science	S1 & S2
HPST3900	Revolution, Rationality and Progress	S2

SCTS Stream

Level 1

SCTS1106	Science, Technology and Society	S1
SCTS1107	Understanding Environmental Controversy	S2

Upper Level

SCTS2107	How Science Works: The Sociology of Science and Technology	S2
SCTS2108	Information Technology, Politics and the Media	S1
SCTS2109	The Challenge of the New Biotechnologies	S2

SCTS2118	Technology, Environment, Politics	S1
SCTS2120	Science and Technology in the Movies	S1
SCTS2122	Evolution, Innovation, Communications and the Future	S2
SCTS3106	Technology, Sustainable Development and the Third World	S1
SCTS3119	Reading Option in Science and Technology Studies	S1 & S2
SCTS3126	Society and Environmental Process: Botany Bay	S2
SCTS3127	Communicating Science: Theory & Practice	S2
SCTS3128	Energy and its Politics	S2
SCTS3900	Technology & Everyday Life: Key Themes in Technology Studies	S1

Honours Level

Students thinking of studying for Honours in the School of Science and Technology Studies 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 this should contact the School.

SCTS4000*	Science and Technology Studies Honours (Research) Full-Time
SCTS4050*	Science and Technology Studies Honours (Research) Part-Time
SCTS4200	Combined Honours (Research) in Environmental Studies F/T
SCTS4201	Combined Honours (Research) in Environmental Studies P/T
SCTS4500*	Science and Technology Studies Combined Honours (Research) Full-Time
SCTS4550*	Science and Technology Studies Combined Honours (Research) Part-Time

* Also available in HPST

Social Science and Policy

Head of School: Associate Professor Janet Chan (School of Social Science and Policy)
School Office: Room G30, Morven Brown Building

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. Combined undergraduate degree programs are also offered that combine the Bachelor of Social Science and the Bachelor of Commerce; and Economics; and Science; and Art Theory; Law. Similar combinations of combined degrees are available within the Bachelor of Arts with a major sequence in Policy Studies.

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 and their working life 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 degree 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.

In addition, students undertake elective courses, totalling at least 42 units of credit, from the courses offered in the Faculty of Arts and Social Sciences and courses carrying the equivalent of 12 units of credit chosen from the University's General Education program.

The degree may be taken at pass or honours level. The pass degree is a three year full-time program requiring the completion of 144 units of credit including the required general education courses. Honours students complete, in addition to the pass degree program, an extra year of full-time study or an extra eighteen months of part-time study. To be eligible to enter the honours year students must perform at a credit or better average in both the Social Science and Policy core as well as in their major study.

The Core Program in the Bachelor of Social Science

The core program is a 48 units of credit sequence consisting of eight courses taken over three years.

		UOC
SLSP1000	Social Science and Policy	6
or		
SLSP1002	Introduction to Policy Analysis	6
and		
SLSP1001	Research and Information Management	6
SLSP2000	Economy and Society	6
SLSP2001	Applied Social Research 1	6
SLSP2002	Policy Analysis Case Studies	6
SLSP3000	Social Theory and Policy Analysis	6
SLSP3001	Applied Social Research 2	6
SLSP3002	Social Science and Policy Project	6

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.

The Level 1 courses must include SLSP1002 and may include either SLSP1000 or SLSP1001. The upper level courses may include any combination of Upper level courses offered by the School of Social Science and Policy subject to satisfaction of prerequisities and up to 6 units of credit from approved courses offered by other schools in the Faculty.

Approved courses offered by other schools include the following:

MDCM3101	Media, Culture and Policy
POLS2008	Public Policy Making
SCTS2118	Technology, Environment and Politics
SCTS3115	Politics of the Atmosphere
SOCA3603	Economic Rationalism and Public Policy
SOCA3704	Social Movements and Society

Honours Level

The BSocSc Honours degree may be taken in three ways. All programs require completion of 4th year seminars, an internship of three weeks in an organisation approved by the School, working in an area of policy, and a substantial research project:

1. Social Science and Policy Honours, with a Major in an approved area

Prerequiste: Completion of the minimum requirements for a BSocSc Pass degree including the 48 units of credit BSocSc Core program, SLSP3911, and a Major concentration in an approved area, both with a good Credit 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 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.

For details concerning requirements, see Program and Course Information, and the appropriate entries of schools/departments offering Combined Honours.

3. BSocSc – Honours in Economics

Prerequisites: Completion of minimum of 54 units of credit in Economics and 36 units of credit in Social Science and Policy in accordance with the core program set out below at an average of credit or better. The BSocSc Honours in Economics core program in Years 1, 2 and 3 is as follows:

Year 1		**UOC**
ECON1101	Microeconomics 1	6
ECON1102	Macroeconomics 1	6
SLSP1001	Research and Information Management	6
and either,		
SLSP1000	Social Science and Policy *or*	6
SLSP1002	Introduction to Policy Analysis	6

Year 2

2 Elective Economic courses		12
ECON2101	Microeconomics 2	6
ECON2102	Macroeconomics 2	6
ECON2291	Quantitative Methods A	6
ECON2292	Quantitative Methods B	6
SLSP2000	Economy and Society	6
SLSP2002	Policy Analysis Case Studies	6

Year 3

2 Elective Economic courses		12
ECON3290	Introductory Econometrics	6
SLSP3000	Social Theory and Policy Analysis	6
SLSP3002	Social Science and Policy Project	6

In **Year 4** students will enrol in:

SLSP4006 Social Science and Policy–Honours in Economics (F/T)
or
SLSP4007 Social Science and Policy–Honours in Economics (P/T)

Honours in Policy Studies in the Bachelor of Arts

Entry to honours in Policy Studies requires completion of 54 units of credit with at least a credit level average in courses offered by the School of Social Science and Policy. These courses may include up to 12 units of credit taken from approved courses offered by other schools. The 54 units of credit must include the following:

SLSP1002 Introduction to Policy Analysis
SLSP2000 Economy and Society
SLSP2002 Policy Analysis Case Studies
SLSP3000 Social Theory and Policy Analysis
SLSP3911 Inquiry and Interpretation in the Social Sciences

Students in their honours year will enrol either in SLSP4100 or in SLSP4150.

Bachelor of Social Science (Honours) Program (3423)

The Bachelor of Social Science (Honours) program is available for students to undertake advanced study in the social sciences leading to an honours degree. In addition to the Bachelor of Social Science program students will undertake studies in policy analysis and gain first hand experience of policy work in an organisation through completion of a policy analysis internship program.

The BSocSc(Honours) core program is as follows:

First Year

ARTS1001	Modernity and the Humanities	S1
SLSP1001	Research and Information Management	S2
SLSP1000	Social Science and Policy	S1
or		
SLSP1002	Introduction to Policy Analysis	S2

Second Year

SLSP2000 Economy and Society
SLSP2001 Applied Social Research 1
SLSP3900 Advanced Policy Analysis

Third Year

SLSP3000 Social Theory and Policy Analysis
SLSP3001 Applied Social Research 2
SLSP3002 Social Science and Policy Project
SLSP3911 Inquiry and Interpretation in the Social Sciences

Fourth Year

Honours program which consists of seminars, internship and a research thesis.

Level 1

SLSP1000	Social Science & Policy	S1
SLSP1001	Research & Information Management	S2
SLSP1002	Introduction to Policy Analysis	S2

Upper Level

SLSP2000	Economy and Society	S1
SLSP2001	Applied Social Research 1	S1
SLSP2002	Policy Analysis Case Studies	S2
SLSP2201	Social Research and Policy Analysis	S2
SLSP2301	Information Systems and Policy Analysis	S2
SLSP2601	Social Policy	S2
SLSP2701	The Theory and Practice of Development	S1
SLSP3000	Social Theory and Policy Analysis	S1
SLSP3001	Applied Social Research 2	S1
SLSP3002	Social Science and Policy Project	S2

Advanced Upper Level Courses

SLSP3900	Advanced Policy Analysis	S2
SLSP3910	Policy Studies Internship	S1/S2
SLSP3911	Inquiry and Interpretation in the Social Sciences	S2

Honours Level

SLSP4000 Social Science and Policy Honours (Research) Full-Time
SLSP4006 Social Science and Policy Honours Economics Full-Time
SLSP4007 Social Science and Policy Honours Economics Part-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

Head of School: Dr Carmen Moran
School Office: Room 1519, Mathews Building
Administrative Assistants: Siobhan Cunliffe, Christine Mangos
Email: Social.Work@unsw.edu.au
Website: www.arts.unsw.edu.au/socialwork

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.

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.

Bachelor of Social Work BSW

Year 1
Session 1

SOCW1001 Introduction to Social Work*
Psychology Elective
Sociology Elective
Elective

Session 2

SOCW1002 Communication and Social Work Practice*
SOCW1003 Human Behaviour 1*
Elective
Elective

Year 2
Session 1

SOCW2001 Human Behaviour 2*
SOCW2002 Society and Social Work 1*
SOCW2003 Social Work Practice – Casework
General Education Elective
General Education Elective

Session 2

SOCW2004 Society and Social Work 2*
SOCW2005 Research for Social Work*
SOCW2006 Social Work Practice – Community Work
Elective
SOCW2007 Social Work Practice – Bridge **

Year 3
Session 1

SOCW3003 Human Behaviour 3*
SOCW3002 Social Work Practice – Groupwork

SOCW3001 Social Work Practice – Third Year Practicum

Session 2

SOCW3004 Social Policy 1*
SOCW3008 Social Work Practice – Selected Studies 1
SOCW3006 Socio-Legal Practice*
SOCW3005 Research Honours
or
Research Elective

Year 4
Session 1

SOCW4002 Social Work Practice – Administration
SOCW4003 Social Work Practice – Selected Studies 2
SOCW4004 Social Philosophy*
SOCW4005 Social Policy Honours
or
SOCW4006 Social Policy 2*

Session 2

SOCW4001 Social Work Practice – Fourth Year Practicum
General Education Elective
General Education Elective

Honours
Year 5
Session 1

SOCW4800 Honours Thesis

*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

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. Access to an Honours program will be available to students with appropriate results.

For details regarding a Bachelor of Social Work/Bachelor of Arts program, refer to the 'How to Structure your Program' section of the Handbook.

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. Access to an Honours program is be available to students with appropriate results.

For details regarding a Bachelor of Social Work/Bachelor of Social Science program, refer to the 'How to Structure your Program' section of the Handbook.

Level 1

SOCW1001	Introduction to Social Work	S1
SOCW1002	Communication and Social Work Practice	S2
SOCW1003	Human Behaviour 1 (Life Stress and the Life Span)	S2

Upper Level

SOCW2001	Human Behaviour 2 (Physical and Psychological Health)	S1
SOCW2002	Society and Social Work 1	S1
SOCW2003	Social Work Practice: Casework Session	S1
SOCW2004	Society and Social Work 2	S2
SOCW2005	Research for Social Work	S2
SOCW2006	Social Work Practice: Community Work	S2
SOCW2007	Social Work Practice: Bridge	S1
SOCW3001	Social Work Practice – Third Year Practicum	S1
SOCW3002	Social Work Practice – Group Work	S1
SOCW3003	Human Behaviour 3 (The Individual in the Social World)	S1
SOCW3004	Social Policy 1	S2
SOCW3005	Research Honours	S2
SOCW3006	Socio-Legal Practice in Social Work Settings	S2
SOCW3007	Research Methods 2	S2
SOCW3008	Social Work Practice – Selected Studies 1	S2
SOCW4006	Social Policy 2	S1
SOCW4002	Social Work Practice – Administration	S1
SOCW4003	Social Work Practice – Selected Studies 2	S1
SOCW4004	Social Philosophy	S1
SOCW4005	Social Policy Honours	S1
SOCW4001	Social Work Practice – 4th Year Practicum	S2

Sociology

Head of School: Associate Professor Michael Humphrey
School Office: Morven Brown Building, Room 157/159
Email: sociology@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 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 2002 of studying sociology must take at least one of the five introductory courses on offer if they wish to major in Sociology. 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.

SOCA1001	Cultural Identities	S1
SOCA1002	Australian Society	S2
SOCA1003	Modern Sociology: Key Ideas	S1
SOCA1004	Relationships: Sociology and Everyday Life	S2
SOCA1005	Australia's Media: Sociological Perspectives	S2

Major Sequence

Students must complete 42 units of credit in order to gain a major in Sociology, including no more than 12 units of credit in Level 1 courses. Provided six units of credit have been completed in Level 1 Sociology, ARTS1001 or ARTS1100 can be completed as part a major in Sociology. 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

SOCA2101	Encountering Modernity: Sociological Theory	S1
SOCA2103	Globalisation and Fragmentation	S2
SOCA2106	Cities	S2
SOCA2108	Social Anthropology: Diversity, Difference, Identity	S1
SOCA2110	Anthropology, Identity and the Cinema	S2
SOCA2201	Sociological Research Methods	S1
SOCA2204	Pacific Island Research Fieldwork (Nov 2002)	X1
SOCA2205	Society and Desire	S2
SOCA3104	Travel	S2
SOCA3201	Culture: Anthropological Accounts	S1
SOCA3204	Modernity and Development in the Pacific Islands	S2
SOCA3205	Modern South East Asia: Society and Cultures	S1
SOCA3206	Current Debates in Social Anthropology	S2
SOCA3208	Colonisation and Indigenous Identity Formation	S1
SOCA3209	Indigenous Australia: Gendered Identities	S2
SOCA3210	Whiteness-beyond Colour: Identity and Difference	S2
SOCA3301	Critical Reason: Modern Sociological Theories	S1
SOCA3310	The German Jewish Experience	S1
SOCA3311	The Attractions of Fascism	S2
SOCA3315	Gender, Race, Nature and Reason	S2
SOCA3407	Australian Migration Issues	X1
SOCA3410	Deviance	X1
SOCA3605	Quality of Life in Australia	S1
SOCA3701	Discipline of Law	S1 X2
SOCA3702	Social Power: Theories and Structures	S1
SOCA3703	Nationalism, Citizenship and Cultural Identity	S2
SOCA3706	Media and Public Sphere	S1
SOCA3707	Social Forms of Television	S1
SOCA3708	Cybersociety	S2
SOCA3803	Food, Body and Soul: Magic and Myth for Modern Times	S2
SOCA3804	Living and Dying	S1
SOCA3806	Medicine and Society	S1
SOCA3810	The Space of Terror	S1
SOCA3811	Creativity and Knowledge: Performing Sociology	S1
SOCA3812	Post-Human Subjects	S1

Advanced Upper Level Courses

SOCA3910	Social Critique as Social Research	S2
SOCA3912	Risk and Trust in Modern Society	S2

Honours Program

Honours in Sociology 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.

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 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
- have achieved an average of 70%
- students who are interested in Honours, must also complete two pre Honours courses from the SOCA3910-SOCA3915 range.

Students who enrolled in their degree before 1999, who are interested in Honours, are strongly advised to enrol in these courses as well. 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
- have achieved an average of 70%
- completed at least one course from the SOCA3910-SOCA3915 range
- 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 Full-Time (Research)
SOCA4050	Sociology Honours Part-Time (Research)
SOCA4500	Combined Sociology Honours (Research) Full-Time
SOCA4550	Combined Sociology Honours (Research) Part-Time

Spanish and Latin American Studies

Website: www.arts.unsw.edu.au/languages/spanish/spanish.html

Courses in Spanish and Latin American Studies are available in language, literature and history. Major sequences may be followed in language and literature and/or history. In the case of language, entry to one of two streams depends on the level of knowledge a student has of the Spanish language. Intensive oral and written language work is an essential element for the elementary and intermediate streams and classes for both are conducted wherever possible in Spanish. 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

Students with no prior knowledge

Year 1	**UOC**
SPAN1001	6
SPAN1002	6

Years 2 and 3

SPAN2003	6
SPAN2004	6
SPAN3003	6
SPAN3004	6

+ 6 Upper Level units of credit from literature, and/or history options to total 42 units of credit.

Students with no prior knowledge

Year 1	**UOC**
SPAN1021	6
SPAN1022	6

Years 2 and 3

SPAN2023	6
SPAN2024	6

+ 18 Upper Level units of credit from literature, language and/or history options to total 42 units of credit. Fluent speakers and writers of Spanish may have the language component waived in the First Year. Such students will in subsequent years have to make up the required number of units of credit from the Upper Level options offered by the Department.

Non-Language and Literature
Year 1

Other approved 12 units of credit in Level 1 courses from History, Economic History, Politics and International Relations, Sociology or Spanish and Latin American Studies.

Years 2 and 3	**UOC**
SPAN2401 and SPAN2424	12

+ 18 Upper Level units of credit from history, and/or literature options (entry to literature options dependent on level of fluency of Spanish) to total 42 units of credit.

Level 1

SPAN1001	Introductory Spanish 1A	X1, S1
SPAN1002	Introductory Spanish 1B	X1, S2
SPAN1021	Introductory Spanish 1C	S1
SPAN1022	Introductory Spanish 1D	S2

Upper Level

1. Language

SPAN2003	Intermediate Spanish A	S1
SPAN2004	Intermediate Spanish B	S2
SPAN2023	Intermediate Spanish C	S1
SPAN2024	Intermediate Spanish D	S2
SPAN3003	Advanced Spanish A	S1
SPAN3004	Advanced Spanish B	S2
SPAN3031	An Introduction to Translation	S1

2. Literature

SPAN3310	The Theatre of García Lorca	S1
SPAN3350	Passion and Pain: The Case of Frida Kahlo	S2

3. History

SPAN2401	Colonising the Americas: The Spanish and Portuguese Empires	S2
SPAN2406	Spain: From Loss of Empire to European Integration	S1
SPAN2421	Special Topic in Latin American History 1	S1
SPAN2422	Special Topic in Latin American History 2	S2
SPAN2424	Dictatorship and Democracy in the Americas	S2
SPAN2425	Pre-Columbian Empires: Aztecs and Incas	S2
SPAN2429	Making/Unmaking the Third World: History and Global Development II	S1

Advanced Upper Level Course

SPAN3900	Special Topic in Hispanic Studies (Advanced)	S2

Honours Level

Students from the elementary stream complete the normal major sequence as well as 12 additional Upper Level units of credit in literature or history including SPAN2401, SPAN2424 and SPAN3900 completed at Credit Level or better to total 54 units of credit. Students are reminded that they must have a proven reading competence in Spanish before they can be admitted to an Honours program.

Students with prior knowledge complete the normal major sequence as well as 12 additional Upper Level units of credit in literature, language and/or history including SPAN2401, SPAN2424 and SPAN3900 completed at Credit Level or better to total 54 units of credit. Students majoring in non-language and literature major complete the normal major sequence as well as 12 additional Upper Level units of credit in history options completed at Credit Level or better and reading knowledge of Spanish to total 54 units of credit.

Combined Honours

Students wishing to undertake study at Honours Level in Spanish and Latin American Studies and another discipline should enrol in SPAN4500 Combined Honours (Research). Students normally take half the required number of additional courses for Honours entry, but should seek the advice and approval of the Head of Department prior to enrolling in the third year of study.

SPAN4000	Spanish and Latin American Studies Honours Full-Time
SPAN4050	Spanish and Latin American Studies Honours Part-Time

SPAN4500	Combined Spanish and Latin American Studies Honours F/T
SPAN4550	Combined Spanish and Latin American Studies Honours P/T

Surveying and Spacial Information Systems

The School of Surveying and Spacial 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.

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);
- Hydrography (mapping the seabed and waterways for navigation and off-shore resource management);
- 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 (GIS) (computer-based information systems for environmental assessment and monitoring);
- Photogrammetry and Remote Sensing (the use of airborne and spaceborne remotely sense images for mapping, monitoring and resource surveys).

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. Students entering these courses are expected to have mathematical knowledge equivalent to that represented by a score of 60 in HSC 2 Unit Mathematics. Further details can be obtained from the School.

Upper Level

GMAT0753	Introduction to Spatial Information Systems
GMAT3500	Photogrammetry & Remote Sensing

Theatre, Film and Dance

Head of School: Associate Professor Jim Davis
School Office: Webster Building, Room 205

The School of Theatre, Film and Dance is concerned with the theoretical and historical study of theatre, film and performance studies. It also offers courses in dance theory, history and practice. Whilst practical work is undertaken in all areas, this is not in order that students achieve proficiency as performers or directors, but in order that they may develop a critical language for the discussion and analysis of theatre, film and dance as performance events and reach a fuller appreciation of the production processes in the respective media.

Major Sequence

Students may take a major sequence, which will consist of no fewer than 42 units of credit and normally involve two year's Upper Level study, in 1. Film, or 2. Performance Studies, or 3. Theatre. Alternatively they may take a major sequence which will consist of 60 units of credit in 4. Film/Performance Studies, or 5. Film/Theatre, or 6. Performance Studies/Theatre.

The School also offers a Bachelor of Arts (Dance) Bachelor of Education (BA(Dance)BEd) program. For details, see *How to Structure Your Program* at the beginning of the Faculty section of this Handbook.

For the benefit of students completing a major sequence in the School who commenced Upper Level studies prior to 2002, the following 3 units of credit courses will be available for the last time in 2002:

THST2102	Shakespeare, his Contemporaries and the Actor	S2
THST2106	The Rise of the Modern Theatre	S1
THST2107	Melodrama and Popular Culture	S1

Before proceeding to a major sequence at upper level, all students must take 6 or 12 units of credit at Level 1 from any of the following courses:

Level 1		**UOC**
FILM1101	Introduction to Film S1	6
PFST1103	Introduction to Dance S2	6
THFI1002	Reading Performance S2	6
THST1101	Introduction to Theatre S1	6

Upper Level

1. Film

The major in Film concentrates on the theoretical, historical and practical study of film. At upper level students must take at least 30 or 36 units of credit (depending on number of units from Level 1), which must include the following:

FILM2001	Contemporary Approaches to the Cinema S2	6

and at least 24 or 30 units of credit (depending on number of units from Level 1) must be from FILM courses offered in the School.

(THFI3901 Problems in Film History and THFI3903 Issues in Contemporary Film Theory, may also be counted as FILM courses).

2. Performance Studies

The major in Performance Studies concentrates on the history, theory and practice of performance. At upper level students must take 30 or 36 units of credit (depending on number of units from Level 1), which must include:

PFST2009	Performance and Culture S2	6

and at least 6 units of credit from

PFST2004	Performance and the Visual Arts S2	6
PFST2011*	Performance Composition	

and at least 6 units of credit from

PFST2000	Dance Analysis and Composition 1 S1	6
PFST2012*	Performance Cultures Exercise A	
PFST2013*	Performance Cultures Exercise B	
THST2145	Writing for Performance S1	6
THST2149	Performance Making S1	6

3. Theatre

The major in Theatre concentrates on the theoretical, historical and practical study of theatre and drama. At upper level students must take 30 or 36 units of credit from Theatre and Performance Studies courses (depending on number of units from Level 1), which must include at least 6 units of credit from

THFI2002*	Early Australian Theatre and Film	
THFI3900	Interpreting the Theatrical Past S2	6
THST2110*	Classical Greek Theatre	
THST2111	Revolution and Change: European Theatre S1	6
THST2112*	The Comic Theatre of Molière	
THST2113	The Shakespearean Actor Onstage and Off S2	6
THST2150	Performance Space: Performance Reception S2	6
THST2163	Staging Australia S2	6
THST2164*	Australian Playwriting	
THST2166*	Building a Repertoire	
THST2181*	Farce	

and at least 6 units of credit from

PFST2004	Performance and the Visual Arts S2	6
PFST2009	Performance Culture S2	6
THFI2004*	Performing Bodies	
THFI2011*	Theatres of Cruelty	
THFI3902	Performance and Performativity S2	6
THFI2142	Improvisation and the Actor S1	6
THST2144*	Contemporary Theories of Performance	
THST2190	Gender and Performance S1	6
THST2201*	Asian Theatre and Performance	

and at least 6 units of credit from

THST2135	Production Exercise S1 and S2	6
THST2137	Workshop Exercise S2	6

4. Film/Performance Studies

The major in Film/Performance Studies will consist of 48 or 54 units of credit (depending on the number of units taken at Level 1), which must include at least 24 units of credit from FILM courses including

FILM2001	Contemporary Approaches to the Cinema S2	6

plus at least 24 units of credit from Performance Studies and Theatre courses including

PFST2009	Performance and Culture S2	6

and at least 6 units of credit from

PFST2004	Performance and the Visual Arts S2	6
PFST2011*	Performance Composition	

and at least 6 units of credit from

PFST2000	Dance Analysis and Composition 1 S1	6
PFST2012*	Performance Cultures Exercise A	
PFST2013*	Performance Cultures Exercise B	
THST2145	Writing for Performance S1	6
THST2149	Performance Making S1	6

(THFI3901 Problems in Film History and THFI3903 Issues in Contemporary Film Theory, may also be counted as FILM courses).

5. Film/Theatre

The major in Film/Theatre will consist of 48 or 54 units of credit (depending on the number of units taken at Level 1), which must include at least 24 units of credit from FILM courses including

FILM2001	Contemporary Approaches to the Cinema S2	6

plus at least 24 units of credit from Theatre and Performance Studies courses, including at least 6 units of credit from

THFI2002*	Early Australian Theatre and Film	
THFI3900	Interpreting the Theatrical Past S2	6
THST2110*	Classical Greek Theatre	
THST2111	Revolution and Change: European Theatre S1	6
THST2112*	The Comic Theatre of Molière	
THST2113	The Shakespearean Actor Onstage and Off S2	6
THST2150	Performance Space: Performance Reception S2	6
THST2161	Contemporary Theatre S1	6
THST2163	Staging Australia S2	6
THST2164*	Australian Playwriting	
THST2166*	Building a Repertoire	
THST2181*	Farce	

and at least 6 units of credit from

PFST2004	Performance and the Visual Arts S2	6
PFST2009	Performance and Culture S2	6
THFI2004*	Performing Bodies	
THFI2011*	Theatres of Cruelty	
THFI3902	Performance and Performativity S2	6
THST2144*	Contemporary Theories of Performance	
THST2190	Gender and Performance S1	6
THST2201*	Asian Theatre and Performance	

and at least 6 units of credit from

THST2135	Production Exercise S1 and S2	6
THST2137	Workshop Exercise S2	6

(THFI3901 Problems in Film History and THFI3903 Issues in Contemporary Film Theory, may also be counted as FILM subjects).

6. Performance Studies/Theatre

The major in Performance Studies/Theatre will consist of 48 or 54 units of credit (depending on number of units from Level 1), which must include

PFST2009	Performance and Culture S2	6

and at least 6 units of credit from

PFST2004	Performance and the Visual Arts S2	6
PFST2011*	Performance Composition	

and at least 6 units of credit from either

PFST2000	Dance Analysis and Composition 1 S1	6
PFST2012*	Performance Cultures Exercise A	
PFST2013*	Performance Cultures Exercise B	
THST2145	Writing for Performance S1	6
THST2149	Performance Making S2	6

plus at least 6 units of credit from

THFI2002*	Early Australian Theatre and Film	
THFI3900	Interpreting the Theatrical Past S2	6
THST2110*	Classical Greek Theatre	
THST2111	Revolution and Change: European Theatre S1	6
THST2112*	The Comic Theatre of Molière	
THST2113	The Shakespearean Actor Onstage and Off S2	6
THST2150	Performance Space: Performance Reception S2	6
THST2161	Contemporary Theatre S1	6
THST2163	Staging Australia S2	6
THST2164*	Australian Playwriting	
THST2166*	Building a Repertoire	
THST2181*	Farce	

and at least 6 units of credit from

THFI2004*	Performing Bodies	
THFI2011*	Theatres of Cruelty	
THFI3902	Performance and Performativity S2	6
THST2144*	Contemporary Theories of Performance	
THST2190	Gender and Performance S1	6
THST2201*	Asian Theatre and Performance	6

and at least 6 units of credit from

THST2135	Production Exercise S1 and S2	6
THST2137	Workshop Exercise S2	6

*Not offered in 2002.

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
EDST1102	Social Foundations of Education S2

plus 12 units of credit in Level 1 courses from the approved major sequences plus

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
DANC2014	Dance and Technology 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
DANC2204	Dance Teaching Practice S2
DANC2209	Dance Method A S1
DANC2211	Dance Method B S2
EDST4080	Special Education S1
EDST4081	Professional Issues in Teaching S1
EDST4091	Microteaching 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 Entry

Qualifications for entry to Year 4 are determined by the School. The minimum requirements, however, for students proposing to undertake in 2002 a single Honours degree in Film or Performance Studies or Theatre are that they must have obtained 54 units of credit in the School of Theatre, Film and Dance, or 48 units of credit for Combined Honours, and have passed all courses in the School at an average of a good Credit grade (70%) or better. This total must include not only those courses required for one of the three major sequences, but also any additional prerequisites.

BA students proposing to undertake a single or combined Honours degree in either Film/Performance Studies or Film/Theatre or Performance Studies/Theatre should consult the School prior to making their enrolment.

BA(Dance)BEd students seeking to undertake Dance Honours must have completed the 192 units of credit as prescribed and achieved a minimum average grade of Credit in dance courses. These students must consult the Dance Program Coordinator during their second or third year in order to plan an appropriate program of study.

Honours in Film

All students undertaking an Honours degree in Film must have completed 54 units of credit within the School. These must include the fulfillment of the requirements for a major sequence in Film and the completion of at least two of the following three advanced upper level courses within the School:

FILM3904 Theories of Cinema Spectatorship
THFI3901 Problems in Film History
THFI3903 Issues in Contemporary Film Theory

Honours in Performance Studies

All students undertaking an Honours degree in Performance Studies must have completed 54 units of credit within the School. These must include the fulfillment of the requirements for a major sequence in Performance Studies and the completion of the following advanced upper level courses in the School

THFI3902 Performance and Performativity

plus at least one of the following courses:

FILM3904 Theories of Cinema Spectatorship
THFI3900 Interpreting the Theatrical Past
THFI3901 Problems in Film History
THFI3903 Issues in Contemporary Film Theory

Honours in Theatre

All students undertaking an Honours degree in Theatre must have completed 54 units of credit within the School. These should have included the fulfillment of the requirements for a major sequence in Theatre and the completion of the following two advanced upper level courses within the School:

THFI3900 Interpreting the Theatrical Past
THFI3902 Performance and Performativity

Honours in Film/Performance Studies

All students undertaking an Honours degree in Film/Performance Studies must have completed at least 60 units of credit within the School and have fulfilled the requirements for major sequences in Film/Performance Studies. They must also have completed at least two advanced upper level courses in the School, one of which must be

THFI3902 Performance and Performativity

plus at least one of the following courses:

FILM3904 Theories of Cinema Spectatorship
THFI3901 Problems in Film History
THFI3903 Issues in Contemporary Film Theory

Honours in Film/Theatre

All students undertaking an Honours degree in Film/Theatre must have completed at least 60 units of credit within the School and have fulfilled the requirements for a major sequence in Film/Theatre. They must also have completed at least two advanced upper level courses in the School, one of which must be selected from

THFI3900 Interpreting the Theatrical Past
THFI3902 Performance and Performativity

plus one from the following courses:

FILM3904 Theories of Cinema Spectatorship
THFI3901 Problems in Film History
THFI3903 Issues in Contemporary Film Theory

Honours in Performance Studies/Theatre

All students undertaking an Honours degree in Performance Studies/Theatre must have completed at least 60 units of credit within the School and have fulfilled the requirements for major sequences in Performance Studies/Theatre. They must also have completed the following two advanced upper level courses in the School:

THFI3900 Interpreting the Theatrical Past
THFI3902 Performance and Performativity

Level 1

FILM1101 Introduction to Film
PFST1103 Introduction to Dance
THFI1002 Reading Performance
THST1101 Introduction to Theatre

The following courses are available only to **BA(Dance)BEd** students:

DANC2000 Dance Analysis and Composition 1
DANC2002 Theatre Production
DANC2005 Dance Analysis and Composition 2
DANC2007 History of Dance
DANC2010 Dance and Film
DANC2014 Dance and Technology
DANC2103 Dance Styles 3
DANC2104 Dance Styles 4
DANC2105 Dance Styles 5
DANC2106 Dance Styles 6
DANC2107 Dance Styles 7
DANC2201 The Teaching-Learning Process in Dance
DANC2204 Dance Teaching Practice
DANC2209 Dance Method A
DANC2211 Dance Method B

Upper Level Studies in Film (see also Upper Level Studies in Film/Theatre)

FILM2001 Contemporary Approaches to the Cinema
FILM2002 Australian Cinema
FILM2008 Film Genres
FILM2010 Electronic Media in Perspective
FILM2013 Theories of Cinema Spectatorship
FILM2014 Film Comedy: The Theory and Practice of Comedic Performance in Cinema
FILM2018 Cinemas of Asia and the Pacific Rim
FILM2019 French Cinema: Aesthetics and Representation
FILM2021 The Hollywood System
FILM3001 Video Exercise

Advanced Upper Level Course

FILM3904 Theories of Cinema Spectatorship

Upper Level Studies in Performance Studies

PFST2000 Dance Analysis and Composition 1
PFST2002 Theatre Production
PFST2007 History of Dance
PFST2009 Performance and Culture

Upper Level Studies in Theatre (see also Upper Level Studies in Film/Theatre)

THST2102 Shakespeare, his Contemporaries and the Actor
THST2106 The Rise of the Modern Theatre
THST2107 Melodrama and Popular Culture
THST2111 Revolution and Change: European Theatre
THST2113 The Shakespearean Actor Onstage and Off
THST2135 Production Exercise
THST2137 Workshop Exercise
THST2142 Improvisation and the Actor
THST2145 Writing for Performance
THST2147 The Performance Text: Theory and Practice
THST2149 Performance Making
THST2150 Performance Space: Performance Reception
THST2161 Contemporary Theatre
THST2163 Staging Australia
THST2190 Gender and Performance

Upper Level Studies in Film/Theatre

THFI2010 Comedy and Power

Advanced Upper Level Courses

THFI3900 Interpreting the Theatrical Past
THFI3901 Problems in Film History
THFI3902 Performance and Performativity
THFI3903 Issues in Contemporary Film Theory

Honours Level

DANC4000	Dance Honours (Research) Full-Time
DANC4050	Dance Honours (Research) Part-Time
THFI4000	Theatre, Film and Dance Honours (Research) Full-Time
THFI4050	Theatre, Film & Dance Honours (Research) Part-Time
THFI4500	Combined Theatre and Film Studies Honours (Research) Full-Time
THFI4550	Combined Theatre and Film Studies Honours (Research) Part-Time

Women's Studies

Convenor: Dr Hélène Bowen Raddeker (School of History), Room 361, Morven Brown Building

The undergraduate program in Women's Studies enables students to construct an interdisciplinary major focusing on feminist issues and issues of gender and sexuality. It provides an important extension to major sequences in both Arts and the Social Sciences.

The Level 1 core course WOMS1001 is designed to introduce students to some important issues and debates in feminism and to questions of sexuality. Upper Level courses are taught and administered through different Schools in the Faculty and offer a range of disciplinary and interdisciplinary approaches.

Major Sequence

A major sequence in Women's Studies may only be taken as an additional major sequence together with a home-based major. It requires the completion of 36 units of credit in Women's Studies approved courses (listed below), including at least 6 units of credit at Level 1. Students may take 12 units of credit at Level 1 if they wish, however in 2002 only one Level 1 core course is offered.

Level 1

WOMS1001	Introduction to Feminism	S2

Level 1 Elective

HIST1020	Women, Gender and World History	S1

Upper Level List

AUST2108	Gender and Frontier
CHIN2303	Chinese Gender Formations and Identities
EDST2042	Theory and Practice in the Classroom
EDST2070	Culture, Identity and Education
ENGL2101	Women on the Apron Stage
ENGL2400	Twentieth-century Women Writers
ENGL2505	Australian Children's Literature & Literacy
ENGL3750	Creative Writing A
ENGL3751	Creative Writing B
GREK3202	Greek Women Writers
GREK3205	Pandora's Box: Gender Issues in Greek Mythology and Tragedy
HIST2015	Women in the Modern World
HIST2047	Winners and Losers: Poverty, Welfare, Justice in Australia
HIST2050	Women in Southeast Asian Societies
HIST2080	Rights and Riots: Women, Gender and Politics in 18th-century France
KORE2601	Gender/Politics in Korean Literature
PFST2009	Performance and Culture
POLS2020	Sex, Gender and Justice
POLS2041	Sexuality and Power: The Social Relations of Sex and the Sexes
SOCA2205	Society and Desire
SOCA3208	Colonisation and Indigenous Identity Formation
SOCA3209	Indigenous Australia: Gendered Identities
SOCA3410	Deviance
SOCA3804	Living and Dying
SOCA3810	The Space of Terror
SOCA3812	Post-Human Subjects
SOCW2002	Society and Social Work 1
SOCW2004	Society and Social Work 2
SOCW3004	Social Policy
SOCW3006	Socio-Legal Practice
SOCW4006	Social Policy 2
THST2149	Performance Making
THST2190	Gender and Performance

Honours

Students who have completed 48 units of credit in Women's Studies courses, including 6 units of credit at Level 1, at the level of Credit or above, may apply to be admitted to a Combined Honours program in Women's Studies if they have satisfied the prerequisite for Combined Honours in another School in the BA program, and have that School's approval to complete a thesis on an interdisciplinary topic. (Students may request to substitute up to 6 units of credit of the Women's Studies component with other courses particularly relevant to their proposed topic areas. This will be decided at the discretion of the Program Convenor.) In their honours year, students will be required to complete coursework nominated by the Women's Studies Convenor (either 2 HPW seminar or reading program for one session, see WOMS4500 or WOMS4550) in addition to a thesis on an approved topic, with joint supervision, if appropriate.

WOMS4500	Combined Women's Studies Honours (Research) Full-Time
WOMS4550	Combined Women's Studies Honours (Research) Part-Time

Program and Course Information Undergraduate Study

3400 Bachelor of Arts Program

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 *CHIN Chinese Studies, EDST Education, ENGL English, FREN French, GERS German Studies, GREK Greek (Modern), HIST History, INDO Indonesian Studies, JAPN Japanese Studies, KORE Korean Studies, LING Linguistics, MUSI Music, PHIL Philosophy, POLS Politics and International Relations, RUSS Russian Studies, SCTS/HPST Science and Technology Studies, SLSP Policy Studies, SOCA Sociology, SPAN Spanish and Latin American Studies, DANC/FILM/PFST/THFI/THST Theatre, Film, Dance*

List B *AUST Australian Studies, Cognitive Science, COMD Comparative Development, Environmental Studies, EURO European Studies, JWST Jewish Studies, LATN* Latin, Philosophy of Science, PORT* Portuguese*, SOCW* Social Work, WOMS Women's Studies*

List C *BIOS* Biological Science, CHEM* Chemistry, COMP Computer Science, ECOH Economic History, ECON Economics, GEOG Geography, GEOL Geology, GMAT* Surveying and Spacial Information Systems, IBUS International Business, IROB Human Resource Management/ Industrial Relations, MATH Mathematics, PHYS* Physics, PSYC Psychology, SAHT Art History and Theory*

*Major sequence not offered.

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 144 units of credit in accordance with 1.-7. 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.

3401 Bachelor of Arts (Honours) Program

To qualify for the award of the Honours degree - which may be awarded in any of three classes: Class 1, Class 2 in two Divisions and Class 3 - a student must obtain, over no fewer than 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, including ARTS1001;
2. no more than 12 Level 1 units of credit in any one sequence of study from Lists A, B and C of the BA Rules;
3. a major sequence of 42 units of credit from List A of the BA Rules;
4. at least 66 units of credit, including a minimum of 24 at Level 1, from sequences in Lists A and B of the BA Rules;
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 of the BA Rules;

6. at least 24 Upper level units of credit in advanced courses;
7. 12 units of credit from the General Education program, normally taken in the second and third year of study;
8. 48 units of credit in a fourth year honours program for which the appropriate prerequisites have been satisfied.

The Honours degree is awarded in three classes (Class 1, Class 2 in two Divisions and Class 3).

3402 Bachelor of Arts (Media and Communications) Program

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. 12 units of credit from the General Education program, normally taken in the second and third year of study.

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 144 units of credit in accordance with 1.-4. 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.

3408 Bachelor of Arts (Dance) Bachelor of Education Program

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, 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/Commerce, FREN French, GEOG Geography, GERS German, HIST History, INDO Indonesian, JAPN Japanese, Literacy/English as a Second Language *(ESL), SPAN Spanish, THST Theatre*

*Students wishing to specialise in ESL should complete a major sequence in LING Linguistics or a Language other than English.

Honours Degree

To qualify for the award of the degree at Honours level in one or two Schools/specialisations, a student must:

4. have obtained 192 units of credit in accordance with 1.-3. above and satisfied the appropriate prerequisites for entry to the Honours level program;
5. 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.

3413 Bachelor of International Studies in Asian Studies Program

Pass Degree

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. a sequence of at least 36 units of credit from CHIN Chinese, INDO Indonesian, JAPN Japanese or KORE Korean;
2. a major sequence from List D below;
3. at least 24 units of credit in ASIA and Asia-related 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 and C of the BA Rules;
5. at least 54 units of credit, including a minimum of 24 at Level 1, from Lists A and B of the BA Rules;
6. at least 54 units of credit outside the List D major sequence;
7. 12 units of credit from the General Education program;
8. 6 units of credit from a third year ARTS elective;
9. an approved program at an overseas institution of one or two semesters of study, normally undertaken during the third and/or fourth years of study, and equivalent to 24 units of credit in each semester. Students who enrol for only one semester overseas must complete an alternative approved program of 24 units of credit at the University of New South Wales.

List D *ECOH Economic History, ECON Economics, GEOG Geography, HIST History, IBUS International Business, IROB Human Resource Management/Industrial Relations, LING Linguistics, PHIL Philosophy, POLS Politics and International Relations, PSYC Psychology, SCTS/HPST Science and Technology Studies, SLSP Policy Studies, SOCA Sociology*

Honours Degree

To qualify for the award of the degree at Honours level in one or two Schools/specialisations, a student must:

10. have obtained 192 units of credit in accordance with 1.-9. above and satisfied the appropriate prerequisites for entry to the Honours level program;
11. 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.

3414 Bachelor of International Studies in European Studies Program

Pass Degree

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. a major sequence (36 units of credit) in EURO European Studies;
2. a sequence of at least 36 units of credit from FREN French, GERS German, GREK Greek (Modern), RUSS Russian or SPAN Spanish;
3. a further sequence of at least 36 units of credit from List D;
4. a major sequence in either 2. or 3.;
5. 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;
6. 12 units of credit from the General Education program;
7. 6 units of credit from a third year ARTS elective;
8. an approved program at an overseas institution of one or two semesters of study, normally undertaken during the third and/or fourth years of study and equivalent to 24 units of credit in each semester. Students who enrol for only one semester overseas must complete an alternative approved program of 24 units of credit at the University of New South Wales.

List D *ECOH Economic History, ECON Economics, GEOG Geography, HIST History, IBUS International Business, IROB Human Resource Management/Industrial Relations, LING Linguistics, PHIL Philosophy, POLS Politics and International Relations, PSYC Psychology, SCTS/HPST Science and Technology Studies, SLSP Policy Studies, SOCA Sociology*

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.-8. 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.

3415 Bachelor of International Studies in Globalisation Program

Pass Degree

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. the core program (36 units of credit) in INST International Studies;
2. a major sequence from List D* below;
3. 36 units of credit in approved International Studies related 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 and C of the BA Rules;
5. at least 54 units of credit, including a minimum of 24 at Level 1, from Lists A and B of the BA Rules;

6. at least 54 units of credit outside the List D major sequence;
7. 12 units of credit from the General Education program;
8. 6 units of credit from a third year ARTS elective;
9. an approved program at an overseas institution of one or two semesters of study, normally undertaken during the third and/or fourth years of study, and equivalent to 24 units of credit in each semester. Students who enrol for only one semester overseas must complete an alternative approved program of 24 units of credit at the University of New South Wales.

List D* *ECOH Economic History, ECON Economics, GEOG Geography, HIST History, IBUS International Business, IROB Human Resource Management/Industrial Relations, LING Linguistics, PHIL Philosophy, POLS Politics and International Relations, PSYC Psychology, SCTS/HPST Science and Technology Studies, SLSP Policy Studies, SOCA Sociology*

** Within the Globalisation stream, a major in COMD Comparative Development may also be taken in fulfillment of this requirement.*

Honours Degree

To qualify for the award of the degree at Honours level in one or two Schools/specialisations, a student must:

10. have obtained 192 units of credit in accordance with 1.-9. above and satisfied the appropriate prerequisites for entry to the Honours level program;
11. 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.

3416 Bachelor of International Studies in Languages Program

Pass Degree

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. two major sequences from CHIN Chinese, FREN French, GERS German, GREK Greek (Modern), INDO Indonesian, JAPN Japanese, KORE Korean, RUSS Russian or SPAN Spanish;
2. at least 24 units of credit in ASIA, EURO, LING or INST courses;*
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. 12 units of credit from the General Education program;
5. 6 units of credit from a third year ARTS elective;
6. an approved program at an overseas institution of one or two semesters of study, normally undertaken during the third and/or fourth years of study, and equivalent to 24 units of credit in each semester. Students who enrol for only one semester overseas must complete an alternative approved program of 24 units of credit at the University of New South Wales.

* With the approval of the Coordinator, other courses offered by Schools and programs of the Faculty may be substituted.

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 192 units of credit in accordance with 1.-6. 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.

3420 Bachelor of Social Science Program

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 *ECOH Economic History, ECON Economics, GEOG Geography, GEOL Geology, HIST History, IBUS International Business, IROB Human Resource Management/Industrial Relations, PHIL Philosophy, POLS Politics and International Relations, PSYC Psychology, SCTS/HPST Science and Technology Studies, SOCA Sociology, SPAN Spanish and Latin American Studies (history stream), DANC/FILM/PFST/THFI/THST* Theatre, Film and Dance*

* Students majoring in Theatre, Film and Dance must complete at least 24 units of credit in other sequences from **List F**.

Honours Degree

To qualify for the award of the degree at Honours level in one or two Schools/specialisations, a student must:

6. have obtained 144 units of credit in accordance with 1.-5. 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.

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 Program

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 and 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.

Honours Degree

To qualify for the award of the degree at Honours level, a student must:

6. have obtained 144 units of credit in accordance with 1.-5. above and satisfied the appropriate prerequisites for entry to the Honours level program;
7. 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.

3423 Bachelor of Social Science (Honours) Program

Pass Degree

To qualify for the award of the Honours degree, a student must obtain, over no fewer than four years of study, a minimum of 192 units of credit in approved courses including:

1. the honours core program (54 units) in SLSP Social Science and Policy;
2. a major sequence from List F in the Bachelor of Social Science program;
3. a total of 48 Level 1 units of credit, including ARTS1001;
4. no more than 12 Level 1 units of credit in any one sequence of study from Lists A, B and C of the BA Rules;
5. at least 24 Level 1 units of credit, including 12 in SLSP, from Lists A, and B of the BA Rules;
6. 12 units of credit from the General Education program, normally taken in the second and third years of study;
7. 48 units of credit in an approved honours program for which the appropriate prerequisites have been satisfied.

The Honours degree is awarded in three classes (Class 1, Class 2 in two Divisions and Class 3).

3425 Bachelor of Music Program

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 and 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.

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 144 units of credit in accordance with 1.-4. 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.

3426 Bachelor of Music Bachelor of Education Program

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 and 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.

Honours Degree

To qualify for the award of the degree at Honours level in one or two Schools/specialisations, a student must:

4. have obtained 192 units of credit in accordance with 1.-3. above and satisfied the appropriate prerequisites for entry to the Honours level program;
5. 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.

3427 Bachelor of Music Bachelor of Arts Program

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 of the BA Rules, other than MUSI courses;
3. 96 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 and 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.

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.-7. 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.

4031 Bachelor of Social Work Program

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 and C of the BA Rules;
3. an additional 6 Upper level units of credit from Lists A, B and C of the BA Rules;
4. 12 units of credit from the General Education program, normally taken in the second and third year of study.

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.-4. 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.

4035 Bachelor of Social Work Bachelor of Arts Program

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 and 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, normally taken in the second and fifth year of study.

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.

4036 Bachelor of Social Work Bachelor of Social Science Program

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 150 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. 30 units of credit from Lists A, B and C (excepting SOCW and SLSP) of the BA Rules;
5. 12 units of credit from the General Education program, normally taken in the third and fifth year of study.

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.

4055 Bachelor of Arts Bachelor of Education Program

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 of 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/Commerce, FREN French, GEOG Geography, GERS German, HIST History, INDO Indonesian, JAPN Japanese, Literacy/English as a Second Language *(ESL), SPAN Spanish, THST Theatre*

* Students wishing to specialise in ESL should complete a major sequence in LING Linguistics or in ENGL English.

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 192 units of credit in accordance with 1.-6. 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.

3417 Diploma in Languages

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.

3418 Diploma in Music

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.

6. at least 54 units of credit outside the List D major sequence;
7. 12 units of credit from the General Education program;
8. 6 units of credit from a third year ARTS elective;
9. an approved program at an overseas institution of one or two semesters of study, normally undertaken during the third and/or fourth years of study, and equivalent to 24 units of credit in each semester. Students who enrol for only one semester overseas must complete an alternative approved program of 24 units of credit at the University of New South Wales.

List D* *ECOH Economic History, ECON Economics, GEOG Geography, HIST History, IBUS International Business, IROB Human Resource Management/Industrial Relations, LING Linguistics, PHIL Philosophy, POLS Politics and International Relations, PSYC Psychology, SCTS/HPST Science and Technology Studies, SLSP Policy Studies, SOCA Sociology*

** Within the Globalisation stream, a major in COMD Comparative Development may also be taken in fulfillment of this requirement.*

Honours Degree

To qualify for the award of the degree at Honours level in one or two Schools/specialisations, a student must:

10. have obtained 192 units of credit in accordance with 1.-9. above and satisfied the appropriate prerequisites for entry to the Honours level program;
11. 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.

3416 Bachelor of International Studies in Languages Program

Pass Degree

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. two major sequences from CHIN Chinese, FREN French, GERS German, GREK Greek (Modern), INDO Indonesian, JAPN Japanese, KORE Korean, RUSS Russian or SPAN Spanish;
2. at least 24 units of credit in ASIA, EURO, LING or INST courses;*
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. 12 units of credit from the General Education program;
5. 6 units of credit from a third year ARTS elective;
6. an approved program at an overseas institution of one or two semesters of study, normally undertaken during the third and/or fourth years of study, and equivalent to 24 units of credit in each semester. Students who enrol for only one semester overseas must complete an alternative approved program of 24 units of credit at the University of New South Wales.

* With the approval of the Coordinator, other courses offered by Schools and programs of the Faculty may be substituted.

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 192 units of credit in accordance with 1.-6. 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.

3420 Bachelor of Social Science Program

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 *ECOH Economic History, ECON Economics, GEOG Geography, GEOL Geology, HIST History, IBUS International Business, IROB Human Resource Management/Industrial Relations, PHIL Philosophy, POLS Politics and International Relations, PSYC Psychology, SCTS/HPST Science and Technology Studies, SOCA Sociology, SPAN Spanish and Latin American Studies (history stream), DANC/FILM/PFST/THFI/THST* Theatre, Film and Dance*

* Students majoring in Theatre, Film and Dance must complete at least 24 units of credit in other sequences from **List F**.

Honours Degree

To qualify for the award of the degree at Honours level in one or two Schools/specialisations, a student must:

6. have obtained 144 units of credit in accordance with 1.-5. 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.

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 Program

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 and 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.

Honours Degree

To qualify for the award of the degree at Honours level, a student must:

6. have obtained 144 units of credit in accordance with 1.-5. above and satisfied the appropriate prerequisites for entry to the Honours level program;
7. 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.

3423 Bachelor of Social Science (Honours) Program

Pass Degree

To qualify for the award of the Honours degree, a student must obtain, over no fewer than four years of study, a minimum of 192 units of credit in approved courses including:

1. the honours core program (54 units) in SLSP Social Science and Policy;
2. a major sequence from List F in the Bachelor of Social Science program;
3. a total of 48 Level 1 units of credit, including ARTS1001;
4. no more than 12 Level 1 units of credit in any one sequence of study from Lists A, B and C of the BA Rules;
5. at least 24 Level 1 units of credit, including 12 in SLSP, from Lists A, and B of the BA Rules;
6. 12 units of credit from the General Education program, normally taken in the second and third years of study;
7. 48 units of credit in an approved honours program for which the appropriate prerequisites have been satisfied.

The Honours degree is awarded in three classes (Class 1, Class 2 in two Divisions and Class 3).

3425 Bachelor of Music Program

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 and 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.

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 144 units of credit in accordance with 1.-4. 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.

3426 Bachelor of Music Bachelor of Education Program

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 and 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.

Honours Degree

To qualify for the award of the degree at Honours level in one or two Schools/specialisations, a student must:

4. have obtained 192 units of credit in accordance with 1.-3. above and satisfied the appropriate prerequisites for entry to the Honours level program;
5. 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.

3427 Bachelor of Music Bachelor of Arts Program

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 of the BA Rules, other than MUSI courses;
3. 96 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 and 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.

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.-7. 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.

4031 Bachelor of Social Work Program

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 and C of the BA Rules;
3. an additional 6 Upper level units of credit from Lists A, B and C of the BA Rules;
4. 12 units of credit from the General Education program, normally taken in the second and third year of study.

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.-4. 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.

4035 Bachelor of Social Work Bachelor of Arts Program

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 and 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, normally taken in the second and fifth year of study.

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.

4036 Bachelor of Social Work Bachelor of Social Science Program

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 150 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. 30 units of credit from Lists A, B and C (excepting SOCW and SLSP) of the BA Rules;
5. 12 units of credit from the General Education program, normally taken in the third and fifth year of study.

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.

4055 Bachelor of Arts Bachelor of Education Program

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 of 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/Commerce, FREN French, GEOG Geography, GERS German, HIST History, INDO Indonesian, JAPN Japanese, Literacy/English as a Second Language *(ESL), SPAN Spanish, THST Theatre*

* Students wishing to specialise in ESL should complete a major sequence in LING Linguistics or in ENGL English.

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 192 units of credit in accordance with 1.-6. 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.

3417 Diploma in Languages

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.

3418 Diploma in Music

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.

A Message from the Dean

Welcome to the Faculty of Built Environment (FBE) at UNSW. I hope you will 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.

Recently, FBE has implemented an academic structure aimed at encouraging synergy among the disciplines in the Faculty as well as providing flexibility for students in the range of courses the Faculty offers. Students have the opportunity to gain both expertise in their chosen disciplines as well as being offered the opportunity to become familiar with the concepts and ideas of the other disciplines in the Faculty. In reading this handbook, you will find the wide range of courses that we offer in the Faculty.

The undergraduate and postgraduate programs offered by the Faculty are well established and internationally renowned. Each program integrates the academic discipline as well as the practical skills required for professional practice. Undergraduate students also have the option to select from a number of combined degrees that are offered in conjunction with other Faculties.

About twenty percent of our students are international students. FBE has a reputation for academic excellence and is recognised professionally, nationally and internationally. The Faculty receives strong industry support and extensive international academic links providing extensive opportunities for exchange and collaboration in 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 **http://www.fbe.unsw.edu.au/.**

Chung-Tong Wu
Dean
Faculty of the Built Environment

Faculty of the Built Environment

Contents

Faculty Information and Assistance

Program and Course Information 85
Some people who can help you 85
Enrolment Procedures 85
Course Descriptions 85
Faculty Electives 85
General Education Requirements 85
Student Exchange 85
Faculty of the Built Environment Resource Centre 85
Student Ownership of Personal Computers 85

Faculty Regulations for Undergraduate Study 86

Architecture Program 86
3260 Bachelor of Architecture 86
Degree Rules 87
Faculty Regulations for the BArch 87
Science (Architecture) Program 87
3265 Bachelor of Science (Architecture) 87
Degree Rules 88
Faculty Regulations for the BSc(Arch) 88
Interior Architecture Program 88
3255 Bachelor of Interior Architecture 89
Degree Rules 89
Faculty Regulations for the BIA 89
Building Construction Management Program 89
3331 Bachelor of Building Construction Management 89
Degree Rules 90
Faculty Regulations for the BBCM 90
Industrial Design Program 91
3385 Bachelor of Industrial Design 91
Degree Rules 91
Faculty Regulations for the BIndDes 92
Landscape Architecture Program 92
3380 Bachelor of Landscape Architecture 92
Degree Rules 92
Faculty Regulations for the BLArch 93
Planning and Urban Development Program 93
3360 Bachelor of Town Planning 93
Degree Rules 94
Faculty Regulations for the BTP 94
Combined Architecture and Arts Program 94
3262 Bachelor of Architecture Bachelor of Arts 94
Degree Rules 95
Faculty Regulations for the BArch BA 95
Combined Architecture and Social Science Program 95
3263 Bachelor of Architecture Bachelor of Social Science 95
Degree Rules 96
Faculty Regulations for the BArch BSocSc 96
Combined Architecture and Laws Program 97
4701 Bachelor of Architecture Bachelor of Laws 97
Degree Rules 97
Faculty Regulations for the BArch LLB 98
Combined Town Planning and Laws Program 98
4707 Bachelor of Town Planning Bachelor of Laws 98
Degree Rules 99
Faculty Regulations for the BTP LLB 99
Architecture and Master of Commerce 99
3266 Bachelor of Architecture Master of Commerce 99

Degree Rules 100
Faculty Regulations for the BArch MCom 100
Interior Architecture and Master of Commerce 100
3258 Bachelor of Interior Architecture Master of Commerce 101
Degree Rules 101
Faculty Regulations for the BIA MCom 101
Industrial Design and Master of Commerce 102
3388 Bachelor of Industrial Design Master of Commerce 102
Degree Rules 102
Faculty Regulations for the BIndDes MCom 102
Town Planning and Master of Commerce 103
3365 Bachelor of Town Planning Master of Commerce 103
Degree Rules 103
Faculty Regulations for the BTP MCom 103
Town Planning and Master of Environmental Management 104
3366 Bachelor of Town Planning Master of Environmental Management 104
Degree Rules 105
Faculty Regulations for the BTP MEM 105

Faculty Information and Assistance

Program and Course Information

The Faculty of the Built Environment offers the following undergraduate degree programs: BArch, BSc(Arch), BIA, BBCM, BIndDes, BLArch and BTP. These programs provide professional education in the fields of architecture, industrial design, building, quantity surveying, interior architecture, landscape architecture and town 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 an expanding range of combined degrees (with programs like Law, Arts and Social Science) and fast-track programs (leading into Masters programs such as Commerce and Environmental Management).

Some people who can help you

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 Foyer, Red Centre Building.

To speak to the Associate Dean (Undergraduate Studies) or 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 (BECU) office located in room 2032, Level 2 of the Red Centre Building.

Note also the Faculty web site where you will find ready information on almost any matter that affects your life within the FBE: **www.fbe.unsw.edu.au**

Enrolment Procedures

All students re-enrolling in the Faculty will re-enrol via the NewSouth Student website. Instructions can be found on the FBE website.

Course Descriptions

Course descriptions offered in 2002 can be found in alphabetical order by the course code at the back of this handbook. For a full list of courses offered by the University contact NewSouth Student or **www.student.unsw.edu.au**.

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 prerequisite 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 semester and students are advised to check availability and timetabling for these electives on the Faculty web site.

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 web site.

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 examines 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 fulfil 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 fulfilment 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 the International Student Centre for detailed information on course options and scholarships.

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 also provides 20 computers with access to library catalogues and other on-line databases, e-mail facilities and the Internet. Six computers have word processing facilities. Photocopying facilities are provided.

Assistance is provided by the librarian in using the Centre's resources and development of 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.

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 from the Web Site, providing advice to students regarding the purchase of personal computers.

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 fulfil 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 appropriate Program Head. 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/unit-of-credit/week during session, 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 that level of time commitment to 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. Transfer between Programs in the Faculty should not be considered automatic, and is always subject to the approval of the Program Head in which admission is being sought. Applications are assessed on academic performance and approval is subject to places being available in the Program.

5. 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.

6. 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.

7. 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.

8. 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.

9. 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.

10. Students may not enrol in two design studios as core courses in any one session.

Architecture Program

Program Head: Desley Luscombe

Architecture today is an art, a technology and a business. In the modern building industry the architect is the one person who considers the building as a whole end product: serving a purpose, built of materials using technology, to a cost, for a client, providing an environment of space, light and climate, changing its context by its location and form and conveying artistic and social meaning.

For small buildings the architect can lead and manage the whole process. As projects become larger and more complex the architect becomes a member of a team, sometimes captain of the team, often just one member but always from the beginning seeing the end product as a whole. From a comprehensive study of the requirements for a building the architect prepares a design concept which is continually adjusted and refined over the life of the project. The architect's role is one of continual creativity.

The BArch program provides graduates with an understanding of the forces that shape buildings and with the skills to guide those forces to a desired end product.

3260 Bachelor of Architecture

BArch

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 with six months work experience that must be completed prior to the Graduation Project. 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:

1. Architectural Design
2. Architectural Communications
3. Architectural History and Theory
4. Architectural Technology
5. Architectural Practice

Progression through the program is by years, each comprising two semester-long design studios and their corresponding corequisites. 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, 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.

Registration/Professional Recognition

The Degree of Bachelor of Architecture from the University of New South Wales is recognised by the Board of Architects of New South Wales for the purpose of legal registration. In addition, to become registered the candidate 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 a special examination in Architectural Practice administered by the Board of Architects.

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) are eligible to become Student Members of the Royal Australian Institute of Architects.

Table 3260–1 Program Schedule

Year 1	**Session 1**	**UOC**
BENV1101	Design Fundamentals: Studio 1	8
BENV1121	Architectural History and Theory 1	4
BENV1141	Computers and Information Technology	3
BENV1171	Architectural Technologies 1	9
	Total	**24**
	Session 2	
ARCH1102	Architectural Design Workshop 1	8
BENV1122	Architectural History and Theory 2	4
ARCH1142	Communications 1	4
BENV1172	Architectural Technologies 2	8
	Total	**24**
Year 2	**Session 1**	
ARCH1201	Architectural Design Workshop 2	8
ARCH1221	Architectural History and Theory 3	4
ARCH1241	Communications 2	3
ARCH1271	Architectural Technologies 3	6
	General Education	3
	Total	**24**

	Session 2	
ARCH1202	Architectural Design Workshop 3	8
ARCH1222	Architectural History and Theory 4	3
BENV1242	Computer-Aided Design	3
ARCH1272	Architectural Technologies 4	4
ARCH1282	Research Practice	3
	General Education	3
	Total	**24**
Year 3	**Session 1**	
ARCH1301	Architectural Design Studio 1	8
ARCH1321	Architectural History and Theory 5	3
BENV1341	Design Modelling and Visualisation	3
		UOC
ARCH1371	Architectural Technologies 5	4
	Electives	3
	General Education	3
	Total	**24**
	Session 2	
ARCH1302	Architectural Design Studio 2	9
ARCH1382	Practicum	3
	Electives	9
	General Education	3
	Total	**24**

Opportunity for alternate off-campus Exchange Program with the approval of the Program Head.

Year 4	**Session 1**	
ARCH1401	Architectural Design Studio 3	9
ARCH1470	Building Services 1 & 2	6
	Electives	9
	Total	**24**

Opportunity for alternate off-campus Exchange Program with the approval of the Program Head.

	Session 2	
ARCH1402	Architectural Design Studio 4	9
BENV1381	Professional Practice 1	3
	Electives	12
	Total	**24**

Opportunity for alternate off-campus Exchange Program with the approval of the Program Head.

Additional Requirement (completed after Yr 1 and before Yr 5):

ARCH1583	Work Experience	**24**
Year 5	**Session 1**	
ARCH1501	Investigation Workshop	9
ARCH1581	Politics, Community and Practice	3
	Electives	12
	Total	**24**
	Session 2	
ARCH1502	Graduation Studio	9
ARCH1582	Professional Practice 2	3
	Electives	12
	Total	**24**

Degree 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 requirements.

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.

Faculty Regulations for the BArch

Core Courses

The core courses prescribed for the program are all those named in Table 3260–1 Program Schedule.

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.

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.

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 in the following academic session even where that means enrolling in up to 48 units of credit.

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.

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.

Science (Architecture) Program

Program Head: Desley Luscombe

Program Co-ordinator: Stephen Peter

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 Co-ordinator. 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.

3265 Bachelor of Science (Architecture)

BSc(Arch)

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 specialize in an area of computing such as: computer-aided design (CAD), building modelling, rendering, animation, multimedia and IT management.

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.

Table 3265–1 Program Schedule

Year 1	**Session 1**	**UOC**
BENV1101	Design Fundamentals: Studio 1	8
BENV1121	Architectural History and Theory 1	4
BENV1141	Computers and Information Technology	3
BENV1171	Architectural Technologies 1	9
	Total	**24**
	Session 2	
ARCH1102	Architectural Design Workshop 1	8
ARCH1142	Communications 1	4
BENV1122	Architectural History and Theory 2	4
BENV1172	Architectural Technologies 2	8
	Total	**24**
Year 2	**Session 1**	
ARCH1241	Communications 2	3
	Electives	18
	General Education	3
	Total	**24**
	Session 2	
BENV1242	Computer-Aided Design	3
ARCH1282	Research Practice	3
	Electives	15
	General Education	3
	Total	**24**
Year 3	**Session 1**	
ARCH1398	Research Project 1	6
BENV1382	Social Responsibility & Professional Ethics	3
	Electives	12
	General Education	3
	Total	**24**
	Session 2	
ARCH1399	Research Project 2	9
	Electives	12
	General Education	3
	Total	**24**
Year 4 (Honours only)		
	Session 1	
ARCH1498	Honours Project 1	24
	Total	**24**
	Session 2	
ARCH1499	Honours Project 2	24
	Total	**24**

Table 3265–2 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 (and the 2 projects) to receive the major, while this recommended program includes 42 units of computing electives. It should be noted that students are not obliged to complete these electives in the order set out in the table. Also, the list below is not an exhaustive list of the available computing electives, so some students may choose to complete courses not listed here.

Year 2	**Session 1**	**UOC**
BENV1042	World Wide Web in Pres. & Comm.	6
	Electives	12
	Total	**18**
	Session 2	
BENV1043	Multimedia in Design Presentation	6
BENV2403	Info Tech for Design and Construction	3
BENV2410	Advanced Webpage Design	6
	Total	**15**
Year 3	**Session 1**	
BENV2405	Computer Graphics Programming	6
BENV2406	Design and Computation	3
BENV1341	Design Modelling and Visualisation	3
	Total	**12**
	Session 2	
BENV2404	CAD Management for Architects	3
BENV2409	Advanced Multimedia	6
	Electives	3
	Total	**12**

Degree 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.
- 57 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.

Faculty Regulations for the BSc(Arch)

Core Courses

The core courses prescribed for the Program are all those named in Table 3265–1 Program Schedule.

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.

Interior Architecture Program

Program Head: Harry Stephens

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 focussed practical education in both the art and the 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).

3255 Bachelor of Interior Architecture

BIA

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.

Student Exchange

Students in the BIA Program may go on exchange any time after the completion of Year 2.

Registration/Professional Recognition

The Degree of Bachelor of Interior Architecture from the University of New South Wales is recognised, through the Design Institute of Australia (DIA - the professional body representing Interior Architecture/Design in Australia), by the International Federation of Interior Architects (IFI). Students enrolled in the program are eligible to apply for Student membership of the Design Institute of Australia and Associate membership upon graduation. Full membership requires two years of approved professional experience after graduation.

Table 3255–1 Program Schedule

Year 1	**Session 1**	**UOC**
INTA2101	Design Studio 1	6
INTA2111	Theory 1	3
INTA2121	History 1	3
INTA2141	Communication 1	6
INTA2171	Technology 1	6
	Total	**24**
Session 2		
INTA2102	Design Studio 2	6
INTA2112	Theory 2	3
INTA2122	History 2	3
INTA2142	Communications 1	6
INTA2172	Technology 2	6
	Total	**24**
Year 2		
Session 1		
INTA2201	Design Studio 3	6
INTA2211	Theory 3	3
INTA2221	History 3	3
INTA2241	Communications 3	3
INTA2271	Technology 3	3
	General Education/Open Electives	6
	Total	**24**
	Session 2	
INTA2202	Design Studio 4	6
INTA2212	Theory 4	3
INTA2222	History 4	3
BENV1242	Computer Aided Design	3
INTA2272	Technology 4	3
	General Education/Open Electives	6
	Total	**24**
Year 3	**Session 1**	
INTA2301	Design Studio 5	6
BENV1341	Design Modelling and Visualisation	3
INTA2371	Technology 5	3
	General Education/Open Electives	12
	Total	**24**
	Session 2	
INTA2302	Design Studio 6	6
INTA2372	Technology 6	3
INTA2382	Professional Practice 1	3
	General Education/Open Electives	12
	Total	**24**
Year 4	**Session 1**	
INTA2401	Design Studio 7	6
INTA2441	Project Research	6
INTA2411	Dissertation	6
	Open Electives	6
	Total	**24**
	Session 2	
INTA2402	Graduation Project	15
	Professional Practice 2	3
	Open Electives	6
	Total	**24**

Degree 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;
- 36 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 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.

Faculty Regulations for the BIA

Core Courses

The core courses prescribed for the program are all those listed in Table 3255–1 Program Schedule.

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.

Building Construction Management Program

Program Head: Paul Marsden

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.

3331 Bachelor of Building Construction Management

BBCM

The Bachelor of Building Construction Management is a four-year full-time program which allows students to specialize 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.

Assumed Knowledge

Before entry to the Bachelor of Building Construction Management program it is strongly recommended that students complete studies in at least 2 unit Mathematics and 2 unit General English (or their equivalent). Students who have not achieved a mark of 65% or better in 2 unit Mathematics (or equivalent) are advised to complete a bridging course in Mathematics prior to commencing the Program.

Registration/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 the following electives in addition to all compulsory courses:

BENV2709 Construction 6
BLDG4275 Dispute Avoidance and Resolution

BLDG4303	Quantity Surveying 3
BLDG4314	Building Economics 3
BLDG9998	Quantity Surveying Industry Program to be taken as 6 months employment in a quantity surveying environ ment, and to be completed before the start of the final year of the program.

3. The Institution of Surveyors Malaysia, subject to completion of the following electives in addition to all compulsory courses:

BENV2709	Construction 6
BLDG4275	Dispute Avoidance and Resolution
BLDG4303	Quantity Surveying 3
BLDG4314	Building Economics 3
BLDG9998	Quantity Surveying Industry Program to be taken as 6 months employment in a quantity surveying environment, and to be completed before the start of the final year of the course.

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.

BENV2807	Management 7
BENV2808	Law for Builders 3
BLDG4314	Building Economics 3
BLDG4492	Property Development and Valuation
BENV2911	Land Economics
BENV2912	Property Management

Table 3331–1 Program Schedule

Year 1	**Session 1**	**UOC**
BLDG1010	Communications and Resource Usage	3
BLDG1091	Built Environment 1	3
BLDG1111	Building Science 1 (Materials)	4
BLDG1201	Construction 1 (Domestic Construction)	4
BLDG1210	Construction Mathematics	3
BLDG1261	Management 1 (Management Principles)	4
BENV1141	Computers & Information Technology	3
	Total	**24**
	Session 2	
BLDG1002	Construction 2 (Low Rise Residential)	4
BLDG1051	Structures 1	4
BLDG1411	Building Economics 1 (Micro Economics)	4
PHYS1250	Physics 1 (Building)	3
GMAT0411	Surveying in Building and Construction	3
BLDG2400	Research Methods	3
BLDG1271	Law for Builders 1	3
	Total	**24**
Year 2	**Session 1**	
ACCT9001	Introduction to Accounting A	3
BLDG2003	Construction 3 (Framed Buildings)	4
BLDG2261	Management 2 (Planning and Control)	4
BLDG3272	Law for Builders 2	3
BLDG2411	Building Economics 2 (Macro Economics)	3
BLDG3052	Structures 2	4
BLDG1151	Building Services 1 (Hydraulics)	3
	Total	**24**
	Session 2	
ACCT9002	Introduction to Accounting B	3
BLDG2112	Building Science 2 (Concrete and Metals)	4
BLDG2152	Building Services 2 (Mechanical)	3
BLDG2301	Quantity Surveying 1	4
BLDG2500	Construction Management Project 1	3
BLDG2264	Management 3 (Contracts)	4
	General Education	3
	Total	**24**
Year 3	**Session 1**	
BLDG3004	Construction 4 (High Rise Buildings)	4
BLDG3266	Management 4 (People Management)	3
BLDG3321	Estimating 1	4
BLDG3303	Quantity Surveying 2	4
BLDG3280	Occupational Psychology, Health and Safety	3
BENV1382	Social Responsibility and Professional Ethics	3
	General Education	3
	Total	**24**
	Session 2	
BLDG3005	Construction 5 (Techniques)	4
BLDG3070	Geotechnical Engineering for Building	3
BLDG3275	Management 5 (Construction and Quality Management)	4
BLDG3282	Computer Applications in Building	4
BLDG3500	Construction Management Project 2	3
	General Education	6
	Total	**24**
Additional Requirement (completed before start of Year 4)		
BLDG9999	Building Industry Program	12
or		
BLDG9998	Quantity Surveying Industry Program	12
Year 4	**Session 1**	
BLDG4501	Thesis Foundation	6
	Electives	18
	Total	**24**
	Session 2	
BLDG4502	Thesis	9
	Electives	15
	Total	**24**

Degree 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.
- 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 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.

Faculty Regulations for the BBCM

Core Courses

The core courses prescribed for the Program are all those named in Table 3331–1 Program Schedule.

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.

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 Institution of Surveyors Malaysia, 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.

Program Guidelines

Electives

Students' attention is drawn to the list of suggested electives given in Table 3331–2 BBCM Electives. These courses are offered specifically to meet the requirements for membership of professional bodies as defined earlier in this Handbook.

Table 3331–2 BBCM Electives

Session 1		UOC
BENV2805	Project Management and Design Process	6
BENV2806	Organisational Behaviour	3
BENV2709	Construction 6 (Industrialisation & Technological Change)	3
BENV2807	Management 7 (Marketing)	3
BENV2808	Law for Builders 3	3
BLDG4314	Building Economics 3	6
BLDG4422	Estimating 2	6
Session 2		
BENV2408	Building Information Systems	6
BLDG4303	Quantity Surveying 3	6
BLDG4366	Management 6 (Corporate Strategy & Small Business)	3
BENV2911	Land Economics	6
BLDG4492	Property Development and Valuation	3
BENV2912	Property Management	3
BENV2710	International Housing Practice	3
BLDG4275	Dispute Avoidance and Resolution	3

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 8 including General Education.
- the total contact hours do not exceed 20 per week.

Industrial Design Program

Program Head: Jonathan Talbot

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 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 specialize in aspects of marketing, engineering, product management or design management.

3385 Bachelor of Industrial Design

BIndDes

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 with 50 days work experience taken concurrently with course progress and prior to the Major Project. 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. Design Studio
2. Computer Aided Design
3. Commerce and Marketing
4. Science and Engineering
5. Materials and Manufacturing

Student Exchange

Students in the Industrial Design program can go on exchange any time from the middle of Year 3 (as indicated in the Program Schedule).

Registration/Professional Recognition

The Degree of Bachelor of Industrial Design from the University of New South Wales is recognised by the Design Institute of Australia.

Table 3385–1 Program Schedule

Year 1	Session 1	UOC
BENV1101	Design Fundamentals: Studio 1	8
BENV1141	Computers and Information Technology	3
IDES1011	Workshop Technology	4
MATH1011	General Mathematics 1B	6
IDES1051	Geometrical and Mechanical Drawing A	3
	Total	**24**
	Session 2	
IDES1031	Industrial Design Studio 1	6
IDES1082	Engineering Design Mechanics	4
IDES1052	Geometrical and Mechanical Drawing B	4
MATH1021	General Mathematics 1C	6
PHYS1259	Physics 1 (Industrial Design)	4
	Total	**24**
Year 2	**Session 1**	
IDES2161	Industrial Design Studio 2 A	6
ACCT9003	Introduction to Accounting Principles	3
IDES1121	History of Industrial Design	3
IDES2201	Ergonomics	6
IDES2101	Perspective and Rendering Techniques	6
	Total	**24**
	Session 2	
IDES2162	Industrial Design Studio 2 B	6
IDES2171	Computer Aided Design	6
IDES2182	Materials & Manufacturing Processes for Industrial Design A	3
MATH2839	Statistics SM	3
MARK1012	Marketing Fundamentals	6
	Total	**24**
Year 3	**Session 1**	
IDES3221	Industrial Design Studio 3A	6
IDES3202	Materials & Manufacturing Processes for Industrial Design B	3
IDES3231	Computer Graphic Applications	6
MARK2051	Consumer Behaviour	6
IDES2091	Design Methodology	3
	Total	**24**
	Session 2	
IDES3222	Industrial Design Studio 3 B	6
ELEC0806	Electrical Engineering for Industrial Design	6
IDES3262	Production Design & Technology for Industrial Design	3
IDES4311	Graphic Design	3
	General Education	6
	Total	**24**
Additional Requirement (completed after Year 3)		
IDES4391	Industrial Experience	12
Year 4	**Session 1**	
IDES4291	Industrial Design Studio 4	6
IDES4301	Project Research	6
MARK3091	New Product and New Service Development	6
	General Education	6
	Total	**24**
	Session 2	
IDES4351	Project	15
IDES4371	Design Management for Industrial Design	3
IDES4321	Environmental and Interior Design	3
	Elective	3
	Total	**24**

Degree 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 204 units of credit.

2. To fulfil these requirements, students must complete:

- 177 units of core courses, being all those prescribed in the faculty regulations for this program.
- 12 units of work experience following Year 3 as prescribed in the faculty regulations for this program.
- 3 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.

Faculty Regulations for the BIndDes

Core Courses

The core courses prescribed for the program are all those named in Table 3385–1 Program Schedule.

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.

Work Experience

Each student is required to gain 50 days of work experience in an organisation that is involved in Industrial Design. The Program Head must approve the organisation prior to negotiation of a student placement.

Landscape Architecture Program

Program Head: Linda Corkery

Landscape architecture is a design discipline that is concerned with the environment as a whole; its design, development, planning and management. It aims to create and sustain habitats for people and other living things in ways which conserve and celebrate ecological relationships, cultural values and symbolic associations.

The principal focus of landscape architecture is the theory and practice of landscape design with a strong emphasis on landscape planning, cultural studies and conservation of the environment.

At the University of New South Wales students are strongly encouraged to consider the study of landscape architecture as both a powerful way of thinking and as education for a specific vocation. On graduating from the program, students should have developed a critical awareness of social and environmental issues, a creative approach to landscape design and landscape planning, and a sound foundation in the technical and professional requirements of Landscape Architecture practice. In addition, the program aims to instil an ethical commitment to care of the environment and a strongly responsible attitude to the wider community.

3380 Bachelor of Landscape Architecture

BLArch

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 Schools is assured by the inclusion of courses from the School of Geography, other programs in the Faculty of the Built Environment, the University's General Studies 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.

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 the strands: environment, history and theory, communication, technology and practice.

Registration/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.

Table 3380–1 Program Schedule

Year 1	Session 1	UOC
BENV1101	Design Fundamentals: Studio 1	8
BENV1141	Computers and Information Technology	3
LAND1121	Introduction to Landscape Architecture	3
LAND1151	Horticulture	4
GEOG1701	Environmental Systems and Analysis	6
	Total	**24**
	Session 2	
LAND1152	Landscape Analysis	8
LAND1142	Design Communication	4
LAND1102	Landscape Design 2: Design Process	4
LAND1171	Landscape Technology 1	4
LAND1122	History of Landscape Architecture	4
	Total	**24**
Year 2	**Session 1**	
LAND1221	Environmental Sociology for Landscape Architects	3
LAND1201	Landscape Design 3: Site Planning	8
LAND1251	Advanced Horticulture	3
LAND1271	Landscape Technology 2	4
	General Education	6
	Total	**24**
	Session 2	
LAND1202	Landscape Design 4: Landform and Planting Design	8
LAND1222	History and Theory Elective*	3
LAND1272	Landscape Technology 3	3
LAND1281	Professional Practice 1	3
LAND1351	Landscape Management	4
	General Education	3
	Total	**24**

*see course description for LAND1222

Additional Requirement (completed before start of Year 3)

LAND1381	Landscape Practice 1	12
Year 3	**Session 1**	
LAND1301	Landscape Design 5: Design with a Complex Program	9
LAND1371	Landscape Engineering	3
LAND1382	Professional Practice 2	3
BENV1242	Computer Aided Design	3
	General Education	3
	Electives	3
	Total	**24**
	Session 2	
LAND1302	Landscape Design 6: Design Resolution & Documentation	9
LAND1321	Research Methods	3
	Electives	12
	Total	**24**

Additional Requirement (completed before start of Year 4)

LAND1481	Landscape Practice 2	12
Year 4	**Session 1**	
LAND1421	Landscape Thesis	15
	Electives	9
	Total	**24**
	Session 2	
LAND1401	Landscape Design 7: Urban Landscape Design	12
LAND1402	Landscape Design 8: Graduating Studio	12
	Total	**24**

Degree 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 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 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.

Faculty Regulations for the BLArch

Core Courses

The core courses presented for the Program are all those named in Table 3380 – 1 Program Schedule.

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.

Work Experience

Students of the undergraduate program must obtain a total of four months work experience prior to graduation, of which a minimum of 45 days must be in landscape industry work and a minimum of 45 days in a landscape design office. This normally takes the form of employment during long vacations between sessions supervised by a landscape architect, landscape contractor or nursery. Each student undertaking work experience must obtain prior approval of the Work Experience Co-ordinator. 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.

Planning and Urban Development Program

Program Head: Robert Freestone

Planners are interested in the design, conservation and management of the environment in its broadest sense. They work most intensively with the processes that shape land use. Planners must be multidisciplinary in their approach, combining expert research skills, strategic vision and strong communication techniques with an understanding of urban and regional development, policy formulation, design issues and environmental context. Successful planners learn to write well, communicate clearly with clients, politicians and the general public, and apply strong analytical, design and decision making skills in a variety of roles in the private and public sectors.

3360 Bachelor of Town Planning

BTP

The Bachelor of Town 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 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 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 and roles, 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.

Registration/Professional Recognition

The Bachelor of Town Planning Degree is recognised by the Royal Australian Planning Institute as an academic qualification for Corporate Membership after one additional year of practical experience following graduation. Corporate Membership of the Royal Australian Planning Institute confers reciprocal recognition in many countries.

Table 3360–1 Program Schedule

Year 1	**Session 1**	**UOC**
BENV1101	Design Fundamentals	8
BENV1141	Computers and Information Technology	3
GEOG1701	Environmental Systems and Process	6
PLAN1011	Urban Society and Sociology	3
PLAN1041	The Language of Planning	4
	Total	**24**
	Session 2	
PLAN1062	Effective Communication	3
PLAN1012	Principles of Political Economy	3
PLAN1022	The Development Process	3
PLAN1042	Planning Processes	6
PLAN1052	Quantitative Methods	6
GMAT0753	Introduction to Spatial Information Systems	3
	Total	**24**
Year 2	**Session 1**	
PLAN2011	Economy of Cities	3
PLAN2021	History of Urban Development	3
PLAN2032	Integrated Planning 1 - Urban Design	6
PLAN2041	Critical Research Seminars	6
	Electives	6
	Total	**24**
	Session 2	
PLAN2012	Economic Development Planning	3
PLAN2042	History of Urban Planning	3
PLAN2051	Economics of Resource Management	3
	Electives	9
	General Education	6
	Total	**24**
Year 3	**Session 1**	
PLAN3031	Integrated Planning 2 - Existing Areas	6
PLAN3041	Planning Law and Administration	6
PLAN3051	Development Control	6
GEOG3671	Transport, Land Use and Environment	6
	Total	**24**
	Session 2	
PLAN0081	Work Experience	**24**
Year 4	**Session 1**	
PLAN0082	Work Experience	**24**
	Session 2	
PLAN3015	Social Planning	6
PLAN3032	Integrated Planning 3 - New Development	6
PLAN3052	Qualitative Methods	6
	Electives	6
	Total	**24**
Year 5	**Session 1**	
PLAN4021	Metropolitan Policy	3
PLAN3021	Heritage and Conservation Planning	3
PLAN4031	Research Design	3
	Electives	9
	General Education	6
	Total	**24**
Session 2		
PLAN4032	Thesis	15
PLAN4043	Planning in Practice	3
	Electives	6
	Total	**24**

Degree Rules

1. The degree of Bachelor of Town 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:

- 144 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.
- 36 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 sessions of full-time study (24 units of credit per semester) plus 2 semesters of required work experience.

4. General Education courses may not be taken before a student enters Year 2 of the Program.

Faculty Regulations for the BTP

Core Courses

The core courses prescribed for the Program are all those named in Table 3360–1 Program Schedule.

Honours

Honours are awarded in the Bachelor of Town Planning degree on the basis of quality of performance throughout the whole program and in accordance with current program 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.

Work Experience

During the program, students must undertake 48 weeks of approved employment related to planning practice. 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 Schedule. 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 taken in the year sequence listed in Table 3360-1, except with the permission of the Head of the Planning and Urban Development Program.

Program Guidelines

Program Minor

Students are strongly encouraged to use the elective courses to develop a Minor program of study – a specialisation in addition to their core planning studies.

Combined Architecture and Arts Program

Program Head: Desley Luscombe

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.

3262 Bachelor of Architecture Bachelor of Arts

BArch BA

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.

Registration/Professional Recognition

Please refer to the BArch professional recognition section for complete details.

Table 3262–1 Program Schedule

Year 1	Session 1	UOC
BENV1101	Design Fundamentals: Studio 1	8
BENV1121	Architectural History and Theory 1	4
BENV1141	Computers and Information Technology	3
BENV1171	Architectural Technologies 1	9
	Total	**24**
	Session 2	
ARCH1102	Architectural Design Workshop 1	8
BENV1122	Architectural History and Theory 2	4
ARCH1142	Architectural Communications 1	4
BENV1172	Architectural Technologies 2	8
	Total	**24**
Year 2	**Session 1**	
ARCH1201	Architectural Design Workshop 2	8
ARCH1221	Architectural History and Theory 3	4
ARCH1241	Architectural Communications 2	3
ARCH1271	Architectural Technologies 3	6
	FBE Electives	3
	Total	**24**
	Session 2	
ARCH1202	Architectural Design Workshop 3	8
ARCH1222	Architectural History and Theory 4	3
BENV1242	Computer-Aided Design	3
ARCH1272	Architectural Technologies 4	4
ARCH1282	Research Practice	3
	FBE Electives	3
	Total	**24**
Year 3	**Session 1**	
ARCH1301	Architectural Design Studio 1	8
ARCH1321	Architectural History and Theory 5	3
BENV1341	Design Modelling and Visualisation	3
ARCH1371	Architectural Technologies 5	4
	BA Courses	6
	Total	**24**
	Session 2	
ARCH1302	Architectural Design Studio 2	9
ARCH1382	Practicum	3
	BA Courses	12
	Total	**24**

Opportunity for alternate off-campus Exchange Program with the approval of the Program Head.

Year 4	Session 1	
ARCH1401	Architectural Design Studio 3	9
ARCH1470	Building Services 1 & 2	6
	BA Courses	6
	FBE Electives	6
	Total	**24**

Opportunity for alternate off-campus Exchange Program with the approval of the Program Head.

	Session 2	
ARCH1402	Architectural Design Studio 4	9
BENV1381	Professional Practice 1	3
	BA Courses	12
	Total	**24**

Opportunity for alternate off-campus Exchange Program with the approval of the Program Head.

Additional Requirement **(After Year 1 and before Year 5)**		**UOC**
ARCH1583	Work Experience	24

Year 5	Session 1	
ARCH1501	Investigation Workshop	9
ARCH1581	Politics, Community and Practice	3
	BA Courses	12
	Total	**24**
	Session 2	
ARCH1502	Graduation Studio	9
ARCH1582	Professional Practice 2	3
	FBE Electives	6
	BA Courses	6
	Total	**24**

Year 6	Session 1	UOC
	BA Courses	24
	Total	**24**

Degree 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 Programs. 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 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 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 Table 3262–1 Program Schedule.

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.

Honours

Students may be awarded an honours BA 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 the University of New South Wales. Where appropriate, BArch Honours is conferred at graduation for the combined degree unless students carry out the additional BA honours program.

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 in the following academic session even where that means enrolling in up to 48 units of credit.

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.

Combined Architecture and Social Science Program

Program Head: Desley Luscombe

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 the specialised studies 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.

3263 Bachelor of Architecture Bachelor of Social Science

BArch BSocSc

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 final 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 Arts and Social Science Faculty describes the options available. 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.

Students will also need to refer to the Faculty of Arts and Social Sciences for complete program and course details.

Registration/Professional Recognition

Please refer to the BArch professional recognition section for complete details.

Table 3263–1 Program Schedule

Year 1	**Session 1**	**UOC**
BENV1101	Design Fundamentals: Studio 1	8
BENV1121	Architectural History and Theory 1	4
BENV1141	Computers and Information Technology	3
BENV1171	Architectural Technologies 1	9
	Total	**24**
	Session 2	
ARCH1102	Architectural Design Workshop 1	8
BENV1122	Architectural History and Theory 2	4
ARCH1142	Architectural Communications 1	4
BENV1172	Architectural Technologies 2	8
	Total	**24**
Year 2	**Session 1**	
ARCH1201	Architectural Design Workshop 2	8
ARCH1221	Architectural History and Theory 3	4
ARCH1241	Architectural Communications 2	3
ARCH1271	Architectural Technologies 3	6
	FBE Electives	3
	Total	**24**
	Session 2	
ARCH1202	Architectural Design Workshop 3	8
ARCH1222	Architectural History and Theory 4	3
BENV1242	Computer-Aided Design	3
ARCH1272	Architectural Technologies 4	4
ARCH1282	Research Practice	3
	FBE Electives	3
	Total	**24**
Year 3	**Session 1**	
ARCH1301	Architectural Design Studio 1	8
ARCH1321	Architectural History and Theory 5	3
BENV1341	Design Modelling and Visualisation	3
ARCH1371	Architectural Technologies 5	4
	BSocSc Courses	6
	Total	**24**
	Session 2	
ARCH1302	Architectural Design Studio 2	9
ARCH1382	Practicum	3
	BSocSc Courses	12
	Total	**24**

Opportunity for alternate off-campus Exchange Program with the approval of the Program Head.

Year 4	**Session 1**	
ARCH1401	Architectural Design Studio 3	9
ARCH1470	Building Services 1 & 2	6
	BSocSc Courses	6
	FBE Electives	3
	Total	**24**

Opportunity for alternate off-campus Exchange Program with the approval of the Program Head.

	Session 2	
ARCH1402	Architectural Design Studio 4	9
BENV1381	Professional Practice 1	3
	BSocScCourses	12
	Total	**24**

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

Year 5		
Session 1		**UOC**
ARCH1501	Investigation Workshop	9
ARCH1581	Politics, Community and Practice	3
	BSocScCourses	12
	Total	**24**
Session 2		
ARCH1502	Graduation Studio	9
ARCH1582	Professional Practice 2	3
	FBE Electives	6
	BSocSc Courses	6
	Total	**24**

Year 6		
Session 1		
	BSocSc Courses	24
	Total	**24**

Degree Rules

1. The degrees of Bachelor of Architecture and Bachelor of Social Science 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 Social Science Program. The combined total units of credit is 288. To gain Honours in Social Science 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 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 faculty regulations for this program.
- 78 units of credit from the Social Science Policy Core and a Major in accordance with Faculty of the Arts and Social Sciences 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. Social Science 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 BSocSc component of the program, students must complete a Social Science and Policy core and a Major (30 units of credit) in one of the approved disciplinary streams identified in the faculty regulations for this program.

Faculty Regulations for the BArch BSocSc

Core Courses in Architecture

The core courses prescribed for the Program are all those named in Table 3263–1 Program Schedule.

FBE Electives

Faculty of the Built Environment (FBE) electives must be selected from those offered by the FBE and listed in Table BENV–1.

Social Science Major

For Social Science Majors 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 BSocSc program.

Honours

Students may be awarded Honours in the BSocSc 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. Where appropriate, BArch Honours is conferred at graduation for the combined degree unless students carry out the additional BSocSc Honours program.

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 in the following academic session even where that means enrolling in up to 48 units of credit.

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.

Combined Architecture and Laws Program

Program Head: Desley Luscombe

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. It is considered to have a significant workload throughout these thirteen sessions.

4701 Bachelor of Architecture Bachelor of Laws

BArch LLB

The BArch LLB course is administered by the Faculty of Law, however the final program and timetable is also subject to the approval of the Head of the Architecture Program in the Faculty of the Built Environment.

Students will need to refer to both the Faculty of Built Environment and Faculty of Law sections of this handbook.

Registration/Professional Recognition

Please refer to the BArch and LLB professional recognition section for details.

Table 4701–1 Program Schedule

Year 1		
Session 1		**UOC**
BENV1101	Design Fundamentals: Studio 1	8
BENV1121	Architectural History and Theory 1	4
BENV1141	Computers and Information Technology	3
BENV1171	Architectural Technologies 1	9
	Total	**24**
Session 2		
ARCH1102	Architectural Design Workshop 1	8
BENV1122	Architectural History and Theory 2	4
ARCH1142	Architectural Communications 1	4
BENV1172	Architectural Technologies 2	8
	Total	**24**
Year 2		
Session 1		
ARCH1201	Architectural Design Workshop 2	8
ARCH1221	Architectural History and Theory 3	4
ARCH1271	Architectural Technologies 3	6
LAWS1051	Legal System	3
LAWS7410	Legal Research and Writing	3
	Total	**24**
Session 2		
ARCH1202	Architectural Design Workshop 3	8
ARCH1222	Architectural History and Theory 4	3
BENV1242	Computer-Aided Design	3
ARCH1272	Architectural Technologies 4	4
LAWS1061	Torts	6
	Total	**24**
Year 3		
Session 1		
ARCH1301	Architectural Design Studio 1	8
ARCH1321	Architectural History and Theory 5	3
BENV1341	Design Modelling and Visualisation	3
ARCH1371	Architectural Technologies 5	4
LAWS1071	Contracts 1	3
LAWS2140	Public Law	3
	Total	**24**
Session 2		
ARCH1302	Architectural Design Studio 2	9
ARCH1382	Practicum	3
LAWS1072	Contracts 2	6
LAWS2160	Administrative Law	6
	Total	**24**
Year 4		
Session 1		
ARCH1401	Architectural Design Studio 3	9
ARCH1470	Building Services 1 & 2	6
LAWS1001	Criminal Law 1	6
ARCH1241	Architectural Communications 2	3
	Total	**24**
Session 2		
ARCH1402	Architectural Design Studio 4	9
BENV1381	Professional Practice 1	3
LAWS1011	Criminal Law 2	6
LAWS6210	Law, Lawyers and Society	6
	Total	**24**
Additional Requirement (completed after Yr 1 and before Yr 5):		
ARCH1583	Work Experience	**24**
Year 5		
Session 1/2		
ARCH1501	Investigation Workshop	9
ARCH1581	Politics, Community and Practice	3
LAWS1081	Property and Equity and Trusts 1	6
LAWS8820	Law and Social Theory or	
LAWS8320	Legal Theory	6
	Total	**24**
Session 2		
ARCH1502	Graduation Studio	9
ARCH1582	Professional Practice 2	3
LAWS1082	Property and Equity	6
LAWS2150	Federal Constitutional Law	6
	Total	**24**
Year 6		
Session 1		
LAWS2311	Litigation 1	6
LAWS4011	Business Associations	6
LAW Electives		12
	Total	**24**
Session 2		
LAWS2321	Litigation 2	6
LAWS7420	Advanced Legal Research	2
LAW Electives		16
	Total	**24**
Year 7		
Session 1		
LAW Electives		**24**

Degree Rules

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 fulfil 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.

Faculty Regulations for the BArch LLB

Core Courses

The core courses prescribed for the Combined Program are all those named in Table 4701–1 Program Schedule.

Admission and Transfer Requirements

The course is open to all 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. Transfer after the second year may result in the student taking more than the minimum time to complete the combined degree. Transfer from the combined BArch LLB program into either the BArch or LLB programs may occur at the discretion of the respective Head of Program. All applications for transfer must be lodged with the University Admissions Centre.

Those students wishing to gain advanced standing in the combined degree must apply to the Head of Program in Architecture, Faculty of the Built Environment. (Generally advanced standing for this combined degree will not be accepted from a completed BArch Degree or LLB Degree).

Honours

The Bachelor of Architecture degree may be awarded with honours based on the quality of performance in the program of study undertaken to fulfil the requirements of that degree (264 units of credit, including Law courses), and in accordance with current Faculty regulations. 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.

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 in the following academic session even where that means enrolling in up to 48 units of credit.

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.

Combined Town Planning and Laws Program

Program Head: Robert Freestone

This program provides an opportunity to obtain two professional degrees. It allows students to add the professionally recognised Law program to the professionally accredited Town 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 Town 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 BTP 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 BTP program, which consists of eight academic sessions and two sessions (12 months) of compulsory Work Experience.

4707 Bachelor of Town Planning Bachelor of Laws

BTP LLB

The BTP LLB course is administered by the Faculty of Law. However, students are required to obtain approval from the Head of the Planning and Urban Development Program in the Faculty of the Built Environment for the Town Planning components of their program.

Registration/Professional Recognition

Please refer to the BTP professional recognition section for complete details.

Table 4707–1 Program Schedule

Year 1		
Session 1		**UOC**
BENV1101	Design Fundamentals	8
BENV1141	Computers and Information Technology	3
GEOG1701	Environmental Systems and Process	6
PLAN1011	Urban Society and Sociology	3
PLAN1041	The Language of Planning	4
	Total	**24**
Session 2		
PLAN1062	Effective Communication	3
PLAN1012	Principles of Political Economy	3
PLAN1022	The Development Process	3
PLAN1042	Planning Processes	6
PLAN1052	Quantitative Methods	6
GMAT0753	Introduction to Spatial Information Systems	3
	Total	**24**
Year 2		
Session 1		
PLAN2011	Economy of Cities	3
PLAN2021	History of Urban Development	3
PLAN2032	Integrated Planning 1 - Urban Design	6
PLAN2041	Critical Research Seminars	6
LAWS1051	Legal System	3
LAWS7410	Legal Research and Writing	3
	Total	**24**
Session 2		
PLAN2012	Economic Development Planning	3
PLAN2042	History of Urban Planning	3
PLAN2051	Economics of Resource Management	3
PLAN3021	Heritage and Conservation Planning	3
LAWS1061	Torts	6
LAWS2160	Administrative Law	6
	Total	**24**
Year		**3**
Session 1		
PLAN3031	Integrated Planning 2 - Existing Areas	6
PLAN3041	Planning Law and Administration	6
PLAN3051	Development Control	6
LAWS1071	Contracts 1	3
LAWS2140	Public Law	3
	Total	**24**
Session 2		
PLAN0081	Work Experience	**24**
Year 4		
Session 1		
PLAN0082	Work Experience	**24**
Session 2		
PLAN3015	Social Planning	6
PLAN3032	Integrated Planning 3 - New Development	6
PLAN3052	Qualitative Methods	6
LAWS1072	Contracts 2	6
	Total	**24**
Year 5		
Session 1		
PLAN4021	Metropolitan Policy	3
PLAN4031	Research Design	3
GEOG3671	Transport, Land Use and Environment	6
LAWS1001	Criminal Law 1	6
LAWS1081	Property and Equity and Trusts 1	6
	Total	**24**

Session 2

PLAN4032	Thesis	15
PLAN4043	Planning in Practice	3
LAWS1011	Criminal Law 2	6
	Total	**24**

Year 6
Session 1

LAWS6210	Law, Lawyers and Society	6
LAWS8820	Law and Social Theory or	
LAWS8320	Legal Theory	6
LAWS2311	Litigation 1	6
LAWS4010	Business Associations 1	6
	Total	**24**

Session 2

LAWS1082	Property and Equity 2	6
LAWS2150	Federal Constitutional Law	6
	Law Electives	12
	Total	**24**

Year 7
Session 1

	Law Electives	**24**

Session 2

LAWS2321	Litigation 2	6
LAWS7420	Advanced Legal Research	2
	Law Electives	16
	Total	**24**

Degree Rules

1. The degrees of Bachelor of Town Planning and Bachelor of Laws are awarded at pass level after successful completion of a minimum of 192 units of credit from the Town Planning Program and 144 units of credit from the Laws Program. The Bachelor of Town Planning may be awarded at honours level in accordance with the faculty regulations for this program.

2. To fulfil these requirements, students must complete:

- 144 units core courses in Town 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.
- 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 semesters of required work experience

4. Law units may not be taken until after the student has successfully completed 48 units of credit of the Town Planning program.

Faculty Regulations for the BTP LLB

Core Courses

The core courses prescribed for the combined program are all those named in Table 4707–1 Program Schedule.

Transfer Arrangements

Students may enter directly in Year 1 or may apply to transfer from the Town Planning 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.

Transfer from the combined BTP LLB program into either the BTP or LLB programs may occur at the discretion of the respective Head of Program. All applications for transfer must be lodged through the University Admissions Centre.

Honours

The Bachelor of Town Planning degree may be awarded with honours based on the quality of performance in the program of study undertaken to fulfil the requirements of that degree (being 240 units of credit including 144 units of prescribed core and the first 48 units of Law courses undertaken for the combined program), and in accordance with current faculty regulations. Honours are Class 1 or Class 2 Division 1 or Class 2 Division 2.

Work Experience

Students must undertake 48 units of Work Experience in a planning or planning-related area (which could be with a professional practice specialising in environmental law). Although Work Experience is normally undertaken after the completion of five academic sessions, BTP LLB students may elect to undertake the one year (two sessions) of compulsory Work Experience required for the award of the single BTP degree after the completion of their BTP and LLB coursework. In addition, students may undertake the compulsory Work Experience in flexible ways (subject to the approval of the Head of the Planning and Urban Development program), thereby reducing the overall length of the BTP LLB Program.

Architecture and Master of Commerce

Program Head: Desley Luscombe

This program provides an opportunity to obtain two professional degrees. It allows students to fast-track to the Master of Commerce degree offered by the faculty of Commerce and Economics within the professionally accredited Bachelor of Architecture program offered by the Faculty of the Built Environment. Because the Architecture program contains a percentage of open electives which can be replaced by MCom courses, the fast-tracked program requires only two additional sessions of study to gain both qualifications. In general, this study is taken after completion of the BArch program and both can be completed in a minimum of twelve sessions.

Students may only enter this program by transferring from the BArch program after completing at least 144 units of credit with a weighted average mark of at least 65.

3266 Bachelor of Architecture Master of Commerce

BArch MCom

The BArch MCom program is administered by both the Faculty of Built Environment (Years 1-5) and the Faculty of Commerce and Economics (Year 6). The final program and timetable must be approved by the Head of the Architecture Program in the Faculty of the Built Environment.

Students will need to refer to both the Faculty of Built Environment and Faculty of Commerce and Economics sections in this handbook.

Registration/Professional Recognition

Please refer to the BArch professional recognition section for complete details.

Table 3266–1 Program Schedule

Year 1
Session 1

		UOC
BENV1101	Design Fundamentals: Studio 1	8
BENV1121	Architectural History and Theory 1	4
BENV1141	Computers and Information Technology	3
BENV1171	Architectural Technologies 1	9
	Total	**24**

Session 2

ARCH1102	Architectural Design Workshop 1	8
BENV1122	Architectural History and Theory 2	4
ARCH1142	Architectural Communications 1	4
BENV1172	Architectural Technologies 2	8
	Total	**24**

Year 2
Session 1

ARCH1201	Architectural Design Workshop 2	8
ARCH1221	Architectural History and Theory 3	4
ARCH1241	Architectural Communications 2	3
ARCH1271	Architectural Technologies 3	6
	General Education	3
	Total	**24**

Session 2

ARCH1202	Architectural Design Workshop 3	8
ARCH1222	Architectural History and Theory 4	3
BENV1242	Computer-Aided Design	3
ARCH1272	Architectural Technologies 4	4
ARCH1282	Research Practice	3
	General Education	3
	Total	**24**

Year 3
Session 1

ARCH1301	Architectural Design Studio 1	8
ARCH1321	Architectural History and Theory 5	3
BENV1341	Design Modelling and Visualisation	3
ARCH1371	Architectural Technologies 5	4
	Elective	3
	General Education	3
	Total	**24**

Session 2

ARCH1302	Architectural Design Studio 2	9
ARCH1382	Practicum	3
	Electives	9
	General Education	3
	Total	**24**

Year 4
Session 1

ARCH1401	Architectural Design Studio 3	9
ARCH1470	Building Services 1 & 2	6
	Electives or MCom courses	9
	Total	**24**

Session 2

ARCH1402	Architectural Design Studio 4	9
BENV1381	Professional Practice 1	3
	Electives or MCom courses	12
	Total	**24**

Additional Requirement (completed after Yr 1 and before Yr 5):

ARCH1583	Work Experience	**24**

Year 5
Session 1*/2*

ARCH1501	Investigation Workshop	9
ARCH1581	Politics, Community and Practice	3
	Electives or MCom courses	12
	Total	**24**

Session 2

ARCH1502	Graduation Studio	9
ARCH1582	Professional Practice 2	3
	Electives or MCom courses	12
	Total	**24**

Year 6
Session 1

	MCom Electives	**24**

Session 2

	MCom Electives	**24**

Degree Rules

1. The degree of Bachelor of Architecture will be awarded at either pass or honours level after the successful completion of a minimum of 264 units of credit including 24 units of credit from the MCom Program. The degree of Master of Commerce will be awarded at pass level after the successful completion of 72 units of credit from the MCom Program, 24 of which are carried out during the five years of the BArch Program.

2. To fulfil these requirements, students must complete:

- 171 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.
- 18 units of FBE elective courses, selected in accordance with the faculty regulations for this program.
- 15 units of open electives, selected in accordance with the faculty regulations for undergraduate study in the Faculty of the Built Environment.
- 24 units of core courses in Commerce and Economics, being all those prescribed in the faculty regulations for this program.
- 12 units of General Education in accordance with University requirements.
- 48 units of program electives in Commerce and Economics selected in accordance with the faculty regulations for the MCom program.

3. The standard duration of the program is 6.5 years consisting of 12 semesters of full-time study (24 units of credit per semester) plus 1 semester of required work experience.

4. Commerce and Economics courses may not be taken until after the student has completed 144 units of credit of the BArch Program.

Faculty Regulations for the BArch MCom

Core Courses in Architecture

The core courses prescribed for the Architecture Program are all those named in Table 3266–1 Program Schedule.

FBE Electives

FBE electives must be selected from those offered by the Faculty of the Built Environment and listed in Table BENV–1.

Transfer Arrangements

Students may transfer to this program following the successful completion of at least 144 units of credit in the Bachelor of Architecture program provided they have achieved a weighted average mark across all graded courses of 65 or higher.

Students in the fast-track BArch/MCom program may transfer back to the BArch program. They will receive credit toward their BArch degree of up to 24 units of credit for MCom courses completed while undertaking the fast-track program. Students in the fast-track BArch/MCom program who do not complete the BArch degree including 24 units of credit of MCom courses cannot transfer directly to the MCom program, but may subsequently apply for admission to the MCom upon completion of the BArch and may request credit for MCom subjects completed while they were undertaking the fast-track program.

Course Selection Restrictions

During the final five semesters of the BArch Program students must complete the three MCom core courses listed in Table 3266-2 below as well as one additional core elective course selected from those offered by the Faculty of Commerce and Economics.

Table 3266-2 MCom Core Courses

ACCT5901	Accounting: A User Perspective
ECON5103	Business Economics
ECON5203	Statistics for Business

Honours

The Bachelor of Architecture degree may be awarded with honours based on the quality of performance in the program of study undertaken to fulfil 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. 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.

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 in the following academic session even where that means enrolling in up to 48 units of credit.

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.

Interior Architecture and Master of Commerce

Program Head: Harry Stephens

This program provides an opportunity to obtain two professional degrees. It allows students to add the Masters in Commerce program to the professionally recognised Interior Architecture program offered by the Faculty of the Built Environment. Because the Interior Architecture

program contains a percentage of open electives which can be replaced by MCom courses, the fast-track program requires only two additional sessions of study to gain both qualifications. In general, this study is taken concurrently with the BIA program and both can be completed in a minimum of ten sessions.

3258 Bachelor of Interior Architecture Master of Commerce

BIA MCom

The BIA course is administered by both the Faculty of Built Environment years 1-4 and the Faculty of Commerce and Economics Year 5. The final program and timetable must be approved by the Head of the Interior Architecture Program in the Faculty of the Built Environment.

Registration/Professional Recognition

Please refer to the BIA professional recognition section for complete details.

Table 3258-1 Program Schedule

Year 1		
Session 1		**UOC**
INTA2101	Design Studio 1	6
INTA2111	Theory 1	3
INTA2121	History 1	3
INTA2141	Communication 1	6
INTA2171	Technology 1	6
	Total	**24**
Session 2		**UOC**
INTA2102	Design Studio 2	6
INTA2112	Theory 2	3
INTA2122	History 2	3
INTA2142	Communications 2	6
INTA2172	Technology 2	6
	Total	**24**
Year 2		
Session 1		
INTA2201	Design Studio 3	6
INTA2211	Theory 3	3
INTA2221	History 3	3
INTA2241	Communications 3	3
INTA2271	Technology 3	3
	General Education/Open Electives	6
	Total	**24**
Session 2		
INTA2202	Design Studio 4	6
INTA2212	Theory 4	3
INTA2222	History 4	3
BENV1242	Computer Aided Design	3
INTA2272	Technology 4	3
	General Education/Open Electives	6
	Total	**24**
Year 3		
Session 1		
INTA2301	Design Studio 5	6
BENV1341	Design Modelling and Visualisation	3
INTA2371	Technology 5	3
	General Education	6
	Open Electives	6
	Total	**24**
Session 2		
INTA2302	Design Studio 6	6
INTA2372	Technology 6	3
BENV2381	Professional Practice 1	3
	MCom Core or Core Elective	12
	Total	**24**
Year 4		
Session 1		
INTA2401	Design Studio 7	6
INTA2441	Project Research	6
INTA2411	Dissertation	6
	MCom Core or Core Elective	6
	Total	**24**
Session 2		
INTA2402	Graduation Project	15
INTA2482	Professional Practice 2	3
	MCom Core or Core Elective	6
	Total	**24**
Year 5		
Session 1		
	MCom Electives	**24**
Session 2		
	MCom Electives	**24**

Degree Rules

1. The degree of Bachelor of Interior Architecture is awarded at either pass or honours level after successful completion of a minimum of 192 units of credit from the Interior Architecture program including 24 units of credit from the MCom program. The MCom is awarded at pass level after successful completion of 72 units of credit from the MCom Program, 24 of which are completed during the four years of the BIA.

2. To fulful these requirements, students must complete:

- 144 units of core courses, being all those prescribed in the faculty regulations for this program.
- 12 units of open electives selected in accordance with the faculty regulations for undergraduate study in the Faculty of the Built Environment.
- 24 units of core courses in Comerce and Economics being all those prescribed in the faculty regulations for this program.
- 12 units of General Education in accordance with University requirements.
- 48 units of program electives in Commerce and Economics selected in accordance with the faculty regulations for the MCom program.

3. The standard duration of the program is 5 years consisting of 10 Sessions of full-time study (24 units of credit per semester).

4. The student must complete up to the end of Session 1, Year 3 (120 units of credit) of the Interior Architecture program before attempting any courses from the MCom program.

Faculty Regulations for the BIA MCom

Core Courses in Interior Architecture

The core courses prescribed for the BIA program are all those named in Table 3258-1 Program Schedule up to and including the end of Year 4.

Transfer Arrangements

Students may transfer to this program following the successful completion of at least 120 units of credit in the Bachelor of Interior Architecture program providing that they have achieved a weighted average mark across all courses of 65 or higher.

Students in the fast-track BIA MCom program may transfer back to the BIA program. They will receive credit toward their BIA degree of up to 24 units of credit for MCom courses completed while undertaking the fast-track program. Students in the fast-track BIA MCom program who do not complete the BIA degree including 24 units of credit of MCom courses cannot transfer directly to the MCom program, but may subsequently apply for admission to the MCom upon completion of the BIA and may request credit for MCom subjects completed while they were undertaking the fast-track program.

Course Selection Restrictions

During the final five semesters of the BIA Program students must complete the three MCom core courses listed in Table 3258-2 below as well as one additional core elective course selected from those offered by the Faculty of Commerce and Economics.

Table 3258-2 MCom Core Courses

		UOC
ACCT5901	Accounting: A User Perspective	6
ECON5103	Business Economics	6
ECON5203	Statistics for Business	6

Honours

The Bachelor of Interior Architecture degree may be awarded with honours based on the quality of performance in the class and in accordance with current Faculty regulations. Honours are Class 1 or Class 2 Division 1 or Class 2 division 2.

Industrial Design and Master of Commerce

Program Head: Jonathan Talbot

This program provides an opportunity to obtain two professional degrees. It allows students to add the Masters in Commerce program to the Bachelor of Industrial Design program offered by the Faculty of the Built Environment. Because the Industrial Design program contains a percentage of parallel subjects that can replace MCom courses, the combined program requires only two additional sessions of study to gain both qualifications. In general, this study is taken concurrently with the BIndDes program and both can be completed in a minimum of ten sessions.

3388 Bachelor of Industrial Design Master of Commerce

BIndDes MCom

The B.IndDes MCom course is administered by both the Faculty of Built Environment years (1-4) and the Faculty of Commerce and Economics (year 5). The final program and timetable must be approved by the Head of the Industrial Design Program in the Faculty of the Built Environment.

Registration/Professional Recognition

Please refer to the BInd Des professional recognition section for complete details.

Table 3388-1 Program Schedule

Year 1		
Session 1		**UOC**
BENV1101	Design Fundamentals Studio 1	8
BENV1141	Computers & Info Tech	3
IDES1011	Workshop Technology	4
MATH1011	General Mathematics 1B	6
IDES1051	Geometrical & Mechanical Drawing A	3
	Total	**24**
Session 2		
IDES1031	Industrial Design Studio 1	6
IDES1082	Engineering Design Mechanics	4
IDES1052	Geometrical & Mechanical Drawing B	4
MATH1021	General Mathematics 1C	6
PHYS1259	Physics 1 (Industrial Design)	4
	Total	**24**
Year 2		
Session 1		
IDES2161	Industrial Design Studio 2 A	6
ACCT9003	Intro to Accounting Principles	3
IDES1121	History of Industrial Design	3
IDES2201	Ergonomics	6
IDES2101	Perspective & Rendering Techniques	6
	Total	**24**
Session 2		
IDES2162	Industrial Design Studio 2B	6
IDES2171	Computer Aided Design	6
IDES2182	Materials & Manufacturing Processes for Industrial Design A	3
MATH2839	Statistics SM	3
MARK1012	Marketing Fundamentals	6
	Total	**24**
Year 3		
Session 1		
IDES3221	Industrial Design Studio 3A	6
IDES3202	Materials & Manufacturing Processes for Industrial Design B	3
IDES3231	Computer Graphic Applications	6
MARK2051	Consumer Behaviour	6
IDES2091	Design Methodology	3
	Total	**24**
Session 2		
IDES 3222	Industrial Design Studio 3B	6
IDES3262	Production Design & Tech for IDES	3
IDES3262	Graphic Design	3
	General Education	12
	Total	**24**
Additional requirement (completed after Year 3)		
IDES 4391	Industrial Experience	**12**
Year 4		
Session 1		
IDES4291	Industrial Design Studio 4	6
IDES4301	Project Research	6
	MCom Core Elective	12
	Total	**24**
Session 2		
IDES4351	Project	15
IDES4371	Design Mgmt for IDES	3
	MCom Core Elective	6
	Total	**24**
	Total (BIndDes)	**204**
Year 5		
Session 1		
	Master of Commerce Electives	**24**
Session 2		
	Master of Commerce Electives	**24**
	Total (BindDes MCom)	**252**

Degree Rules

1. The degree of Bachelor of Industrial Design will be awarded at either pass or honours level after successful completion of a minimum of 204 units of credit including 24 units of credit of the Master of Commerce program. The degree of Master of Commerce will be awarded at pass level after the successful completion of 72 units of credit from the MCom program, 24 of which are completed during the four years of the BIndDes program.

2. To fulfil these requirements, students must complete:

- 162 units of core courses in Industrial Design, being all those prescribed in the faculty regulations for this program.
- 18 units of work experience following year 3 as prescribed in the faculty regulations for this program.
- 24 units of core courses in Commerce and Economics, being all those prescribed in the faculty regulations for this program.
- 12 units of General Education in accordance with University requirements.
- 48 units of program electives in Commerce and Economics selected in accordance with the faculty regulations for the MCom program.

3. The standard duration of the program is 5 years consisting of 10 semesters of full-time study (24 units of credit per semster) plus the required work experience.

4. The student must complete 96 units of credit in the Bachelor of Industrial Design program before attempting any courses from the MCom program.

Faculty Regulations for the BIndDes MCom

Core Courses in Industrial Design

The core courses prescribed for the BIndDes program are those named in Table 3388-1 Program Schedule up to and including the end of year 5.

Transfer Arrangements

Students may transfer to this program following the successful completion of at least 96 units of study in the Bachelor of Industrial Design program providing that they have achieved a weighted average mark across all courses of 65 or higher.

Students in the fast-track BIndDes MCom program may transfer back to the BIndDes program. They will receive credit toward their BIndDes degree of up to 24 units of credit for MCom courses completed while undertaking the fast-track program. Students in the fast-track BIndDes MCom program who do not complete the BIndDes degree including 24 units of credit of MCom courses cannot transfer directly to the MCom program, but may subsequently apply for admission to the MCom upon completion of the BIndDes and may request credit for MCom subjects completed while they were undertaking the fast-track program.

Course Selection Restrictions

During the final two semesters of the BIndDes program students must complete the three MCom core courses listed in Table 3388-2 below.

Table 3388-2 M. Com Courses

ACCT5901	Accounting: A User Perspective
ECON5103	Business Economics
ECON5203	Statistics for Business.

Note that exemption is given for MARK5900 based on successful completion of MARK1012 and MARK2051

Honours

The Bachelor of Industrial Design degree may be awarded with honours based on the quality of performance in the class and in accordance with current Faculty regulations. Honours are Class 1 or Class 2 Division 1 or Class 2 division 2.

Work Experience

Each student is required to gain 50 days of work experience in an organisation that is involved in Indusrial Design. The Program Head must approve the organisation prior to a student placement.

Town Planning and Master of Commerce

Program Head: Robert Freestone

This program provides an opportunity to obtain two professional degrees. It allows students to add the Master of Commerce degree offered by the Faculty of Commerce and Economics to the professionally accredited Bachelor of Town Planning offered by the Faculty of the Built Environment. Because the BTP contains a percentage of open electives which can be replaced by MCom 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.

Students may only enter this program by transferring from the BTP after completing at least 144 units of credit with a weighted average mark of at least 65.

3365 Bachelor of Town Planning Master of Commerce

BTP MCom

The BTP MCom course is administered by both the Faculty of Built Environment (Years 1-5) and the Faculty of Commerce and Economics (Year 6). The final program must be approved by the Head of the Planning and Urban Development Program in the Faculty of the Built Environment.

Students will need to refer to both the Undergraduate and Postgraduate Handbooks.

Registration/Professional Recognition

Please refer to the BTP professional recognition section.

Table 3365–1 Program Schedule

Year 1		
Session 1		**UOC**
BENV1101	Design Fundamentals	8
BENV1141	Computers and Information Technology	3
GEOG1701	Environmental Systems and Process	6
PLAN1011	Urban Society and Sociology	3
PLAN1041	The Language of Planning	4
	Total	**24**
Session 2		
GMAT0753	Introduction to Spatial Information Systems	3
PLAN1012	Principles of Political Economy	3
PLAN1022	The Development Process	3
PLAN1042	Planning Processes	6
PLAN1052	Quantitative Methods	6
PLAN1062	Effective Communication	3
	Total	**24**
Year 2		
Session 1		
PLAN2011	Economy of Cities	3
PLAN2021	History of Urban Development	3
PLAN2032	Integrated Planning 1 – Urban Design	6
PLAN2041	Critical Research Seminars	6
	Electives	6
	Total	**24**
Session 2		
PLAN2012	Economic Development Planning	3
PLAN2042	History of Urban Planning	3
PLAN2051	Economics of Resource Management	3
	Electives	6
	General Education	9
	Total	**24**
Year 3		
Session 1		
PLAN3031	Integrated Planning 2 – Existing Areas	6
PLAN3041	Planning Law and Administration	6
PLAN2051	Development Control	6
GEOG3671	Transport, Land Use and Environment	6
	Total	**24**
Session 2		
PLAN0081	Work Experience	**24**
Year 4		
Session 1		
PLAN0082	Work Experience	**24**
Session 2		
PLAN3015	Social Planning	6
PLAN3032	Integrated Planning 3 – New Development	6
PLAN3052	Qualitative Methods	6
	MCom Core or Core Elective	6
	Total	**24**
Year 5		
Session 1		
PLAN4021	Metropolitan Policy	3
PLAN3021	Heritage and Conservation Planning	3
PLAN4031	Research Design	3
	General Education	3
	MCom Core or Core Elective	12
	Total	**24**
Session 2		
PLAN4032	Thesis	15
PLAN4043	Planning in Practice	3
	MCom Core or Core Elective	6
	Total	**24**
Year 6		
Session 1		
	MCom Electives	**24**
Session 2		
	MCom Electives	**24**

Degree Rules

1. The degree of Bachelor of Town 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 MCom Program. The degree of Master of Commerce will be awarded at pass level after the successful completion of 72 units of credit from the MCom Program, 24 of which are carried out during the five years of the BTP Program.

2. To fulfil requirements, students must complete:

- 144 units of core courses in Town 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.
- 12 units of open electives selected in accordance with the faculty regulations for undergraduate study in the Faculty of the Built Environment.
- 24 units of core courses in Commerce and Economics, being all those prescribed in the Faculty regulations for this program.
- 12 units of General Education in accordance with University requirements.
- 48 units of program electives in Commerce and Economics selected in accordance with the faculty regulations for the MCom 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 2 semesters of required work experience.

4. The student must complete 144 units of credit in the Bachelor of Town Planning Program before attempting any courses from the MCom Program.

Faculty Regulations for the BTP MCom

Core Courses in Planning

The core courses prescribed for the BTP program are all those named in Table 3365–1 Program Schedule.

Transfer Arrangements

Students may transfer to this program following the successful completion of at least 144 units of credit in the Bachelor of Town Planning program provided they have achieved a weighted average mark across all graded courses of 65 or higher.

Students in the fast-track BTP MCom program may transfer back to the BTP program. They will receive credit toward their BTP degree of up to 24 units of credit for MCom courses completed while undertaking the fast-track program. Students in the fast-track BTP MCom program who do not complete the BTP degree including 24 units of credit of MCom courses cannot transfer directly to the MCom program, but may subsequently apply for admission to the MCom upon completion of the BTP and may request credit for MCom subjects completed while they were undertaking the fast-track program.

Course Selection Restrictions

During the final three sessions of the BTP Program students must complete the three MCom core courses listed in Table 3365-2 below as well as one additional core elective course selected from those offered by the Faculty of Commerce and Economics.

Table 3365-2 MCom Core Courses

ACCT5901	Accounting: A User Perspective
ECON5103	Business Economics
ECON5203	Statistics for Business

Honours

The Bachelor of Town Planning degree may be awarded with honours based on the quality of performance in the program of study undertaken to fulfil 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 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 Schedule. Work experience requirements must be completed prior to graduation. The type of employment proposed must be submitted to the Program Head for approval.

Town Planning and Master of Environmental Management

Program Head: Robert Freestone

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 Town Planning Program offered by the Faculty of the Built Environment. Because the Town 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 Town Planning Program having achieved a weighted average of 65 or higher in all graded courses undertaken

Students in the BTP/MEM Program will not be eligible for the award of the Graduate Certificate in Environmental Management nor the Graduate Diploma in Environmental Management.

3366 Bachelor of Town Planning Master of Environmental Management

BTP MEM

The BTP MEM course is administered by both the Faculty of 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 BTP professional recognition section for complete details.

Table 3366–1 Program Schedule

Year 1 **Session 1**		**UOC**
BENV1101	Design Fundamentals	8
BENV1141	Computers and Information Technology	3
GEOG1701	Environmental Systems and Process	6
PLAN1011	Urban Society and Sociology	3
PLAN1041	The Language of Planning	4
	Total	**24**
Session 2		
PLAN1062	Effective Communication	3
PLAN1012	Principles of Political Economy	3
PLAN1022	The Development Process	3
PLAN1042	Planning Processes	6
PLAN1052	Quantitative Methods	6
GMAT0753	Introduction to Spatial Information Systems	3
	Total	**24**
Year 2 **Session 1**		
PLAN2011	Economy of Cities	3
PLAN2021	History of Urban Development	3
PLAN2032	Integrated Planning 1 – Urban Design	6
PLAN2041	Critical Research Seminars	6
	Electives	3
	General Education	3
	Total	**24**
Session 2		
PLAN2012	Economic Development Planning	3
PLAN2042	History of Urban Planning	3
PLAN2051	Economics of Resource Management	3
	Electives	9
	General Education	6
	Total	**24**
Year 3 **Session 1**		
PLAN3031	Integrated Planning 2 – Existing Areas	6
PLAN3041	Planning Law and Administration	6
PLAN2051	Development Control	6
GEOG3671	Transport, Land Use and Environment	6
	Total	**24**
Session 2		
PLAN0081	Work Experience	**24**
Year 4 **Session 1**		
PLAN0082	Work Experience	**24**
Session 2		
PLAN3015	Social Planning	6
PLAN3032	Integrated Planning 3 – New Development	6
PLAN3052	Qualitative Methods	6
IEST5001	Frameworks for Environmental Management	6
	Total	**24**
Year 5 **Session 1**		
PLAN4021	Metropolitan Policy	3
PLAN3021	Heritage and Conservation Planning	3
PLAN4031	Research Design	3
CVEN9895	FKEM: Engineering	6
BIOS9001	FKEM: Ecology *	6
	General Education	3
	Total	**24**
Session 2		
PLAN4032	Thesis	15
PLAN4043	Planning in Practice	3
CHEM7300	FKEM: Physical Science	6
	Total	**24**
Year 6		
Session 1		
IEST5002	Tools for environmental management	6
ECON5125	FKEM: Economics	6
	MEM electives **	12
	Total	**24**

Session 2

IEST5003	Addressing environmental issues	6
	MEM Electives **	18
	Total	**24**

* BIOS9001 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

Degree Rules

1. The degree of Bachelor of Town 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 BTP Program.

2. To fulfil these requirements, students must complete:

- 144 units of core courses in Town 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.
- 12 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 Eduction 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 2 years of required work experience.

4. The student must complete 144 units of credit in the Bachelor of Town Planning program before attempting any courses from the MEM Program.

Faculty Regulations for the BTP MEM

Core Courses in Planning

The core courses prescribed for the BTP Program are all those named in Table 3366–1 Program Schedule up to and including the end of Year 5 and excluding the four courses named in Table 3366-2 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 Town Planning program provided they have achieved a weighted average mark across all graded courses of 65 or higher.

Students in the fast-track BTP MEM program may transfer back to the BTP program. They will receive credit toward their BTP degree of up to 24 units of credit for MEM courses completed while undertaking the fast-track program. Students in the fast-track BTP MEM program who do not complete the BTP 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 BTP and may request credit for MEM courses completed while they were undertaking the fast-track program.

Course Selection Restrictions

During the final three sessions of the BTP Program students must complete the four MEM courses listed in Table 3366-2 below.

Table 3366-2 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 Town Planning degree may be awarded with honours based on the quality of performance in the program of study undertaken to fulfil 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 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 Schedule. Work experience requirements must be completed prior to graduation. The type of employment proposed must be submitted to the Program Head for approval.

A Message from the Dean

The College of Fine Arts is one of the nine 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, printmedia, 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-disciplinarity 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 1700, 190 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 art 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, A/V 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

Contents

Information and Assistance **107**
Schools of the College of Fine Arts 107
Academic Assistance 107
Course Descriptions 107
Units of Credit 107
Prerequisite and Corequisite Requirements 107
General Education Requirements 107
Advanced Standing 108
Attendance 108
Computing Requirements 108
Technical Resources Centre 108
The Clement Semmler Library 108
Ivan Dougherty Gallery 108
Support for Students 108
Indebtedness to the University 108
Building Rules 108
Traffic and Parking Rules 108

Program and Course Information
4800 Bachelor of Fine Arts BFA **109**
Program Structure: 4800 Bachelor of Fine Arts 109
Selection of Major Studies 109
Honours 109
4801 Bachelor of Art Education BArtEd **111**
4808 Bachelor of Design Bachelor of Art Education BDes BArtEd **111**
4811 Bachelor of Digital Media Bachelor of Art Education BDM BArtEd **111**
The Programs 111
Honours 111
Program Structure: 4801 Bachelor of Art Education 111
Program Rules 111
Program Structure: 4808 Bachelor of Design Bachelor of Art Education 114
Program Rules 114

Program Structure: 4811 Bachelor of Digital Media
Bachelor of Art Education 114
4802 Bachelor of Design BDes 114
Program Structure 117
Honours 117
4803 Bachelor of Art Theory BArtTh 117
4806 Bachelor of Art Theory Bachelor of Arts BArtTh BA 117
4807 Bachelor of Art Theory Bachelor of Social Science BArtTh BSocSc 117
4703 Bachelor of Art Theory Bachelor of Laws BArtTh LLB 117
The Programs 117
Program Structure 4803 Bachelor of Art Theory 117
Program Rules 119
Bachelor of Art Theory and Graduate Diploma 121
Program Structure: 4806 Bachelor of Art Theory Bachelor of Arts 121
Program Rules 121
Program Structure: 4807 Bachelor of Art Theory Bachelor of Social Science 121
Program Rules 121
Program Structure: 4703 Bachelor of Art Theory Bachelor of Laws 122
Program Rules – Art Theory 122
Program Rules – Law 122
4804 Bachelor of Applied Arts (Craft Arts) 122
4810 Bachelor of Digital Media BDM 122
Program Structure 124
Elective Courses for Undergraduate Programs 124
History and Theory Electives 124
Studio Electives in Visual Arts 124
Studio Workshops in Visual Arts 125
Art Education Electives 125
Design Studies Workshops and Electives 125

Information and Assistance

The location of the College of Fine Arts is:
Greens Road
Paddington NSW 2021 Australia
Tel: (02) 9385 0888
Fax: (02) 9385 0706
email: administration@cofa.unsw.edu.au
web address: www.cofa.unsw.edu.au

All enquiries should be addressed to:
The Dean,
College of Fine Arts,
The University of New South Wales
PO Box 259
Paddington NSW 2021
Telephone (02) 9385 0888

Schools of the College of Fine Arts

Research and scholarship in the disciplines of art and design is organised and administered through five schools. 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 and COFA Exhibition Space and two research centres, the International Drawing Research Institute and the iiCinema Centre.

The School of Art
Web address: www.art.cofa.unsw.edu.au

The School of Art Education
Web address: www.arted.cofa.unsw.edu.au

The School of Art History and Theory
Web address: www.artht.cofa.unsw.edu.au

The School of Design Studies
Web address: www.design.cofa.unsw.edu.au

The School of Media Arts
Web address: www.media-arts.cofa.unsw.edu.au

Academic Assistance

Enquiries about degree requirements, enrolment and progression within programs and any other general Faculty matters should be made to the staff in the Student Centre, ground floor B Block, phone 9385 0684. Faculty timetables and official University forms are also available from the Student Centre.

Course Descriptions

Course descriptions for 2002 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 through New South Student or at www.student.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 HECS and student fees. Students who take more than the standard load for that year of a program will pay more HECS.

Prerequisite and Corequisite Requirements

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

General Education Requirements

College of Fine Arts students are required to undertake their General Education in other Faculties of the University. The objectives of General Education, and details of the courses offered across the University are available at the front of this handbook.

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
Bachelor of Digital Media Bachelor of Art Education

GENB4001	Psychology of the Individual and the Group
GENP0100	Student Learning, Thinking and Problem Solving
GENP0110	Introduction to Educational Psychology
GENP0120	Ethics and Education
GENP0140	Social Foundations of Education
GENP0150	Learning Process and Instructional Procedures
GENP0435	School and Society

Bachelor of Applied Arts
Bachelor of Art Education
Bachelor of Design Bachelor of Art Education
Bachelor of Digital Media Bachelor of Art Education
Bachelor of Art Education
Bachelor of Art Theory
Bachelor of Design
Bachelor of Fine Arts

GENP0010	Visual Arts of the Pacific: Tradition and Change
GENP0070	Arts of Aboriginal People and Torres Strait Islanders
GENT1304	Television and Video Culture

General Education courses offered by the College of Fine Arts are not available to COFA students even when they are taught on the Kensington Campus.

Applications for:

exemptions from General Education courses on the basis of prior studies,

or

approval to undertake "mainstream" courses offered in other degree programs as GE subjects (General Education section of the handbook), should be made in writing to the Chair, Faculty Education Committee, c/- Administration, College of Fine Arts.

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 all classes of courses in which they are enrolled;
- where absences in excess of 3 classes occur, students may be given a fail grade (UF).

Computing Requirements

For general details of computing services at the College of Fine Arts, see General University Rules and Student Information in this handbook. 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. It should be noted that students who alter or delete another person's work may be committing a criminal offence.

Technical Resources Centre

The TRC provides computing and audio visual services to the Faculty in the form of equipment and expertise. The Centre has a number of computer and language laboratories, audio and video editing equipment, a recording studio and a wide range of audio and video equipment. The TRC also has satellite receiving equipment capable of receiving video and radio transmissions directly from China, France, Germany, Indonesia and Spain.

The Clement Semmler Library

See UNSW Library Facilities, under General Student Services and Information in this handbook.

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 and 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: Mon-Fri 10 – 5; Sat 1– 5 (closed public holidays).

Web address: www.cofa.unsw.edu.au/units/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 10-5

Support for Students

The Counselling Service and compass PROGRAMS focus on helping students to help themselves by enhancing their personal or academic development. The programs and services are available free of charge to students. The Counselling Service provides confidential and professional consultations for any student who experiences personal or academic difficulties during their university enrolment. Students are offered:

counselling for individuals on personal and academic matters;

orientation to Uni and UNIPREP programs;

motivational support;

personal skills development;

advice on University administrative procedures and other issues plus referrals to appropriate persons or organisations;

stress and anxiety management;

staff consultancy on student related issues.

compass PROGRAMS also provides seminars and workshops for students covering topics such as procrastination, time management, management of various types of anxiety and depression.

COFA - telephone 9385 0733 or go to Room 05, Ground Floor, G Block.

Kensington campus - telephone: 9385 5418 or use the drop-in service on Level 2, East Wing, Quadrangle Building.

Website resources and information: http://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, issue a "second parking warning notice" and attach a wheel clamp to the vehicle. The driver shall be required to pay a minimum fine of $50.

Students may appeal in writing to the Dean against imposition of any penalty for infringement of the Traffic and Parking Rules.

Program and Course Information

4800 Bachelor of Fine Arts

BFA

The Program

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.

The program aims:

- 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;
- 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;
- to encourage students to develop an increased self-motivation and commitment to their studies;
- 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 course:
  – 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;
  – an understanding of the historical and theoretical underpinning of contemporary fine art practice.
- to encourage students to realise their own intellectual and creative potential;
- to increase students' awareness of, and sensitivity to, their environment.

To qualify for the award of Bachelor of Fine Arts a student must accrue a total of 144 units of credit within a minimum of six and a maximum of twelve academic sessions, and successfully complete certain prescribed courses.

Program Structure: 4800 Bachelor of Fine Arts

If students are unsure of their program structure and requirements they should contact the Student Centre in the Faculty Office.

1. A student must complete 144 units of credit.

2. Each student's program must include 12 units of credit of General Education.

3. Students must complete the prescribed core courses including two of the three Introductory Studies in Session 1 and an approved sequence in a major of at least 56 units of credit selected from the major disciplines.

4. Students may not commence level 2 courses or General Education before 24 units of credit of level 1 courses have been completed.

5. A student must complete at least 48 units of credit but no more than 60 units of credit of level 1 courses from the Faculty.

6. A student must complete a studio elective in Session 2 in a discipline other than that chosen for their major.

7. For entry to Honours a student must have achieved a distinction average in 40 units of credit of core courses from years two and three.

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. Further information can be found under Elective Courses for Undergraduate Programs at the end of the College of Fine Arts section.

General Education

Students are required to complete 12 units of credit in General Education. General Education contributes to the broad educational objectives of university study, and are usually taken at the Kensington campus.

Selection of Major Studies

Following the completion of Introductory Studies in Session 1, placement of students in core study majors will be based on the results for Session 1 courses and student preferences and the availability of places.

Students will be allocated to the highest preference that their aggregate of marks determines.

Failures

Students who fail an Introductory Study in Session 1 will progress to Session 2 in the following manner:

(a) Where a core course is offered in only one session students who fail will be required to repeat that course in the first available session;

(b) Students may take additional elective courses in the following session to maintain units of credit but will not be permitted to enrol in a major sequence where the student has outstanding/failed prerequisites.

Progression Rules

Where a student wishes to change their major study at the end of Session 2 approval will be given provided that:

(a) The student would have otherwise been eligible under the criteria set for the allocation of students to major disciplines;

(b) There are places available in the discipline area nominated;

(c) The student has satisfactorily completed another unit one major and a studio elective course in the discipline area of the new choice, at distinction level or above;

(d) Where there are more applications for change than places in a given major students' results in their studio elective will be used to establish a priority list.

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, must apply for entry to the program by the end of Session 6 for entry to Honours a students must have achieved a distinction average in 40 units of credit of core courses from years two and three.

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 will undertake the Research Seminar program and other practical classes as advised during the year.

	SESSION 1			SESSION 2			SESSION 3			SESSION 4			SESSION 5			SESSION 6		
	Course Number		uoc	Course Number		uoc	Course Number		uoc	Course Number		uoc	Course Number		uoc	Course Number		uoc
CORE COURSES	SART 1301 SART 1302 SDES 1303	***Choose two from:*** Introductory Studies: Drawing, Painting, Printmedia **or** Introductory Studies: Photomedia, Sculpture, Time Based Art **or** Introductory Studies: Ceramics, Jewellery, Textiles 6HPW	16	SART 1311 **or** 1312 **or** 1313 **or** 1314 **or** 1315 **or** SDES 1316 **or** 1317 **or** 1318	Drawing/Painting 1 **or** Photomedia 1 **or** Printmedia 1 **or** Sculpture, Performance and Installation 1 **or** Time Based Art 1 **or** Ceramics 1 **or** Jewellery 1 **or** Textiles 1 6HPW Studio Workshop 3HPW	8 4	SART 2320 **or** 2321 **or** 2322 **or** 2323 **or** 2324 **or** SDES 2325 **or** 2326 **or** 2327	Draw/Painting 2 **or** Photomedia 2 **or** Printmedia 2 **or** Sculpture, Performance and Installation 2 **or** Time Based Art 2 **or** Ceramics 2 **or** Jewellery 2 **or** Textiles 2 8HPW Studio Workshop 3HPW	8 4	SART 2330 **or** 2331 **or** 2332 **or** 2333 **or** 2334 **or** SDES 2335 **or** 2336 **or** 2337	Draw/Painting 3 **or** Photomedia 3 **or** Printmedia 3 **or** Sculpture, Performance and Installation 3 **or** Time Based Art 3 **or** Ceramics 3 **or** Jewellery 3 **or** Textiles 3 8HPW Studio Workshop 3HPW	8 4	SART 3340 **or** 3341 **or** 3342 **or** 3343 **or** 3344 **or** SDES 3345 **or** 3346 **or** 3347	Draw/Painting 4 **or** Photomedia 4 **or** Printmedia 4 **or** Sculpture, Performance and Installation 4 **or** Time Based Art 4 **or** Ceramics 4 **or** Jewellery 4 **or** Textiles 4 8HPW Studio Workshop 3HPW	8 4	SART 3350 **or** 3351 **or** 3352 **or** 3353 **or** 3354 **or** SDES 3355 **or** 3356 **or** 3357	Draw/Painting 5 **or** Photomedia 5 **or** Printmedia 5 **or** Sculpture, Performance and Installation 5 **or** Time Based Art 5 **or** Ceramics 5 **or** Jewellery 5 **or** Textiles 5 8HPW	8
	SART 1810	Introduction to Computing 2HPW	4	SART 1319	Drawing 3HPW	4												
	SAHT 1101	Mapping the Modern 4HPW	4	SAHT 1102	Mapping the Postmodern 4HPW	4				SAHT 2103	Aesthetics for Contemporary Practice 2HPW	6	SAHT 3105	Art Since 1990 2HPW	6	SART 3800	Professional Practice 2HPW	4
ELECTIVES					Studio Elective 3HPW	4		Electives x2	8		Elective	4		Electives x2	8		Elective	4
GENERAL EDUCATION								General Education 2HPW	3		General Education 2HPW	3		General Education 2HPW	3		General Education 2HPW	3
Total Units of Credit 144			24			24						48						48

HONOURS YEAR 4

Course Number		UOC	
SART 4030	Honours Paper	12	
SART 4044	Honours Studio Practice	36	Total Units of Credit 48

Participation in the Annual Exhibition is a requirement for students in the Honours degree.
Honours students are required to attend practical classes relevant to their discipline and the weekly Honours seminar

Program Structure: 4800 Bachelor of Fine Arts

4801 Bachelor of Art Education BArtEd

4808 Bachelor of Design Bachelor of Art Education BDes BArtEd

4811 Bachelor of Digital Media Bachelor of Art Education BDM BArtEd

The Programs

The Bachelor of Art Education is a four year full-time degree in art education and specialist fine arts studies. The Bachelor of Design/ Bachelor of Art Education is a five year full time combined degree in design and art education. The Bachelor of Digital Media/Bachelor of Art Education is a four year full time combined degree in digital media and art education.

Each of the three art education programs incorporate flexibility in structure in order that students may develop their individual potential as future art educators in a variety of roles.

Professional experience placements are undertaken in primary and secondary schools, and other educational, community, cultural and industry based settings, including a full session Professional Experience Internship. Students studying a combined degree also complete a design or digital media industry placement.

4801 Bachelor of Art Education

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.

4808 Bachelor of Design Bachelor of Art Education

Students are prepared as 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. Students are able 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.

4811 Bachelor of Digital Media Bachelor of Art Education

Students are prepared to function as an art teacher with specialist digital media skills in secondary schools, primary schools, community organisations, museums and galleries and in curriculum development and instructional design and production. Professional roles in digital media include design and production in film and video, animation, multimedia, internet based media, sound production, 2D and 3D imaging and non-network based media (CD and DVD).

Honours

It is possible to complete the Bachelor of Art Education and the Bachelor of Digital Media Bachelor of Art Education with honours. Students may apply for entry into the honours program at the beginning of session 5, though later year entry can be made under special circumstances. It is possible to complete the Bachelor of Design Bachelor of Art Education with honours. Students may apply for entry into the honours program at the beginning of session 7, though later year entry can be made under special circumstances.

Students must have a fail free record and a distinction average in 40 units of credit in Core Studies in Art Education taken above Level 1. Students in the honours program are exempt from 20 units of credit and complete additional coursework and an Honours Research Project in Art and Design Education.

Program Structure: 4801 Bachelor of Art Education

Program Structure

The Bachelor of Art Education comprises an art education double major, courses in the fine arts, including art history and theory that may be taken as a major or minor, electives and General Education courses.

The Foundation Year

All students complete foundation courses in art education (including school field experiences), the 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.

Art Education Honours

The Bachelor of Art Education may be completed with Honours.

Fine Arts

Courses in fine arts include: ceramics, drawing, jewellery, painting, photomedia, printmedia, sculpture, performance and installation, textiles and time based art. Students may plan sequences of courses in the fine arts as a major (at least 36 units of credit) or a minor (at least 18 units of credit). In completing a fine arts major students may choose courses offered as electives, workshops and the core in the Bachelor of Fine Arts.

Art History and Theory

Students complete Mapping the Modern and Mapping the Postmodern in their foundation year, and are required to elect a further 4 units of credit in art history and theory courses.

Electives

Electives allow students to plan their studies to specific needs, interests and career aspirations. Students are encouraged to take at least one art education elective. Some students may choose electives to focus and deepen their studies, others will choose electives across a broad range of 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

Students are required to complete 12 units of credit in General Education. General Education contributes to the broad educational objectives of university study, and are usually taken at the Kensington campus.

Program Rules

1. A student must complete 192 units of credit:

72 units of credit in Core Studies in Art Education

30 units of credit and 100 days Professional Experience in Art Education

32 units of credit in Fine Arts

12 units of credit in Art History Theory

30 units of credit in Elective Studies

4 units of credit in computer studies

12 units of credit in General Education.

2. For entry to honours students must have a Distinction average in at least 40 units of credit in Core Studies in Art Education above Level 1.

3. A major study comprises at least 36 units of credit.

4. A minor study comprises at least 18 units of credit.

5. Students may complete no more than 60 units of credit at Level 1.

	SESSION 1			SESSION 2			SESSION 3			SESSION 4			SESSION 5			SESSION 6			SESSION 7	SESSION 8		
	Course Number		uoc	Course Number		uoc	Course Number		uoc	Ourse Number		uoc	Course Number		uoc	Course Number		uoc		Course Number		uoc
ART EDUCATION CORE	SAED 1401	Human Growth & Development 3HPW	6	SAED 1402	Teacher Development 1 + 10 days Professional Experience 3HPW	6	SAED 2402	Teacher Development 2 3HPW	6	SAED 2401	Educational Psychology 3HPW	6	SAED 3407	Curriculum Studies in Art Education 3HPW	6	SAED 3402	Teacher Development 3 3HPW	6	SAED 4491	SAED 4403	Theory of Aesthetics in Art Education 3HPW	6
	SAED 1403	Foundations of Art Education 3HPW	6	SAED 1404	Visual Arts Workshop 1 3HPW	6	SAED 2405	Special Education 2HPW	4	SAED 2406	Sociology of Education 3HPW	6	SAED 3404	Theories & Practices of Art History in Art Education 3HPW	6					SAED 4406	Philosophical Issues * 3HPW	6
HONOURS																				SAED 4055	Honours Research Project	8
																SAED 4051	Practices of Research in Art, Design & Education. (Honours only) 3 HPW	6		SAED 4053	Curriculum in Art, Design and Education (Honours only) 3HPW	6
FIELD EXPERIENCE - PRACTICUM							SAED 2491	10 Days Professional Experience	3							SAED 3491	10 Days Inter-session Period Secondary Sch	3				
COURSES IN VISUAL ARTS	SART 1401	Foundation Studies 1 6HPW	8	SART 1402	Foundation Studies 2 6HPW	8	SART	Ceramics **or** Drawing **or** Jewellery **or** Painting **or** Photomedia **or** Printmedia **or** Sculpture **or** Textiles **or** Time Based Art	4	SART	Ceramics **or** Drawing **or** Jewellery **or** Painting **or** Photomedia **or** Printmedia **or** Sculpture **or** Textiles **or** Time Based Art	4	SART	Ceramics **or** Drawing **or** Jewellery **or** Painting **or** Photomedia **or** Printmedia **or** Sculpture **or** Textiles **or** Time Based Art	4	SART	Ceramics **or** Drawing **or** Jewellery **or** Painting **or** Photomedia **or** Printmedia **or** Sculpture **or** Textiles **or** Time Based Art	4	I N T E R N S H I P			
	SART 1810	Introduction to Computing 2HPW	4																			
ELECTIVES								Fine Arts &/or Design &/or Art History and Theory &/or Art Education &/or Open	4		Fine Arts &/or Design &/or Art History and Theory &/or Art Education &/or Open	8		Fine Arts &/or Design &/or Art History and Theory &/or Art Education &/or Open	8		Fine Arts &/or Design &/or Art History and Theory &/or Art Education &/or Open	8			Fine Arts &/or Design &/or Art History and Theory &/or Art Education &/or Open	6
HISTORY THEORY CORE	SAHT 1101	Mapping the Modern 4HPW	4	SAHT 1102	Mapping the Postmodern 4HPW	4																
GENERAL EDUCATION							General Education 2HPW		3							General Education 2 HPW		3		2 x General Education 2HPW x 2		6
Total Units of Credit 192			24			24			24			24			24			24	24			24

The Bachelor of Art Education Structure should be read with the Program Rules.
* Students undertaking Honours substitute SAED4051, SAED4053 & SAED4055 for SAED4406 and 14 units of credit from Electives.

Program Structure: 4801 Bachelor of Art Education (Fine Arts Major) #

	SESSION 1	SESSION 2	SESSION 3	SESSION 4	SESSION 5	SESSION 6	SESSION 7	SESSION 8	SESSION 9	SESSION 10
ART EDUCATION CORE	SAED1403 4 Foundations of Art Education 2HPW	SAED1402 6 Teacher Development 1 & 1491 (10 days field experience practicum) 3HPW	SAED1404 6 Visual Arts Workshop 3HPW	SAED2402 6 Teacher Development 2 3HPW	SAED2405 4 Special Education 2HPW	SAED2406 6 Sociology of Education 3HPW	SAED3402 6 Teacher Development 3 3HPW	SAED3404 6 Theories & Practices of Art History in Education 3 HPW	SAED 4491 24 Professional Experience Internship	SAED4403 6 Theory of Aesthetics in Art Education 3 HPW
		SAED1401 6 Human Growth 3HPW	SAED2401 6 Educational Psychology 3HPW	SAED2491 3 10 days Professional Experience	4 Art Education Elective 2HPW	SAED3407 6 Curriculum Studies in Art Education 3HPW	SAED3491 3 10 days Professional Experience	SAED3403 6 Issues in Contemporary Design Education 3 HPW		SAED4406 6 Philosophical Issues in Education 3 HPW
Design	SDES1101 6 Design Studio 1A 4HPW	SDES1102 6 Design Studio 1B 4HPW	4 Design Studio 2A 3HPW	4 Design Studio 2B 3HPW	4 Design Studio 3A 3HPW	4 Design Studio 3B 3HPW		SDES4102 8 Professional Experience Program		SDES4101 8 Design Studio Project 8 HPW
	SDES1109 3 Measured Drawing 2HPW	SDES1333 4 Drawing 3HPW	4 Design Studio 2A 3HPW	4 Design Studio 2B 3HPW	4 Design Studio 3A 3HPW	4 Design Studio 3B 3HPW				
	SART1810 4 Introduction to Computers 2HPW	SDES1104 4 Interactive Systems 2HPW	SDES2107 4 Design & Computers 2A 4HPW	SDES2115 4 Design & Computers 2B 4HPW	SDES3107 4 Design & Computers 3 4HPW	SDES1104 4 Interactive Systems 2HPW				
	SDES 1108 3 Typography & Composition 2HPW									
	SAHT1301 4 Design HTR 1 2HPW				SAHT2301 4 Design HTR 2 2HPW		SAHT3301 4 Design HTR 3 2HPW	SAHT4301 4 Design HTR 4 2HPW		
							Elective 8			Elective 4
GENERAL EDUCATION				3 General Education 2HPW			3 General Education 2HPW			
	24	24	24	24	24	24	24	24	24	24

Honours: Replace SAED 3403 [6] and SAED 4406 [6] and 8 units of credit electives to total 20 CP - as shaded on schema - with SAED 4051 [6] and any one of the following: SAED 4052, 4053, 4056, 4057 [6] and 4055 [8].

Program Structure: 4808 Bachelor of Design/Bachelor of Art Education

Program Structure: 4808 Bachelor of Design Bachelor of Art Education

The Bachelor of Design Bachelor of Art Education comprises an art and design education double major, courses in design, including design, 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.

Bachelor of Design Bachelor of Art Education Honours

The Bachelor of Design Bachelor of Art Education may be completed with Honours.

Design

Courses in design include: applied, ceramics, environments, graphics, jewellery and textiles. Students may plan sequences of courses in design as a major (at least 36 units of credit) or a minor (at least 18 units of credit). In completing a design major students may choose courses offered as Design Studios with related Design and Computer courses.

Design History, Theory and Aesthetics

Students complete 16 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. Students are required to take at least one art education elective. Some students may choose electives to focus and deepen their studies, others will choose electives across a broad range of art education, design, digital media, art history and theory courses. Electives may be taken as courses offered by other faculties of the university. Further information can be found under Elective Courses for Undergraduate Programs at the end of the College of Fine Arts section.

General Education

Students are required to complete 6 units of credit in General Education. General Education contributes to the broad educational objectives of university study, and courses are usually taken at the Kensington campus.

Program Rules

1. A student must complete 240 units of credit:

78 units of credit in Core Studies in Art Education

4 units of credit in Elective Studies in Art Education

30 units of credit and 100 days Professional Experience in Art Education

74 units of credit in Design

16 units of credit in Design History Theory and Aesthetics

28 units of credit in Elective Studies

4 units of credit in computer studies

6 units of credit in General Education.

2. For entry to honours students must have a Distinction average in at least 40 units of credit in Core Studies in Art Education taken above Level 1.

3. A major study comprises at least 36 units of credit.

4. A minor study comprises at least 18 units of credit.

5. Students may complete no more than 60 units of credit at Level 1.

Program Structure: 4811 Bachelor of Digital Media Bachelor of Art Education

The Bachelor of Digital Media Bachelor of Art Education comprises an art education double major, courses in digital media, including digital media, art history and theory that may be taken as a major or minor, electives and General Education courses.

The Foundation Year

All students complete foundation courses in art education (including school field experiences), digital media 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 digital media, 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.

Bachelor of Digital Media Bachelor of Art Education Honours

The Bachelor of Digital Media Bachelor of Art Education may be completed with Honours.

Digital Media

Courses in digital media include: the language of digital media, lighting, digital composite, digital video, writing for digital media, web authoring, sound, graphics and modelling, multimedia authoring.

Art History and Theory

Students complete Mapping the Modern and Mapping the Postmodern in their foundation year, a course on Screen Culture and may elect further digital media, art history and theory courses.

Electives

Electives allow students to plan their studies to specific needs, interests and career aspirations. Students are encouraged to take at least one art education elective. Some students may choose electives to focus and deepen their studies, others will choose electives across a broad range of art education, design, digital media, art history and theory courses. Electives may be taken as courses offered by other faculties of the university. Further information can be found under Elective Courses for Undergraduate Programs at the end of the College of Fine Arts section.

General Education

Students are required to complete 12 units of credit in General Education. General Education contributes to the broad educational objectives of university study, and courses are usually taken at the Kensington campus.

4802 Bachelor of Design BDes

The Program

The Bachelor of Design is a 4 year degree 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, for example: 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 (or 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 students' studio projects are designed to parallel professional practice while integrating theoretical design studies and a period of work experience leading into a graduation project/exhibition.

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 applied arts base 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.

	SESSION 1			SESSION 2			SESSION 3			SESSION 4			SESSION 5			SESSION 6			SESSION 7	SESSION 8		
	Course		uoc			uoc			uoc			uoc			uoc			uoc				uoc
ART EDUCATION CORE	SAED 1401	Human Growth & Development 3HPW	4	SAED 1402	Teacher Development 1 + 10 days practice teaching 3HPW	6	SAED 2402	Teacher Development 2 3HPW	6	SAED 2401	Educational Psychology 3HPW	6	SAED 3407	Curriculum Studies in Art Education 3HPW	6	SAED 3402	Teacher Development 3 3HPW	6	SAED 4491 T E A C H I N G			
	SAED 1403	Foundations of Art Education 2HPW	4	SAED 1404	Visual Arts Workshop 1 3HPW	6	SAED 2405	Special Education 2HPW	4	SAED 2406	Sociology of Education	6	SAED 3404	Theories & Practices of Art History in Art Education 3HPW	6	SAED 3411	Digital Technologies &Instructional Design 2HPW	4		SAED 4406	Philisophical Issues	6
HONOURS																				SAED 4055	Honours Research Project	8
																SAED 4051	Practices of Research in Art, Design & Education. (Honours only) 3HPW	6		SAED 4053	Curriculum in Art, Design and Education (Honours Only) 3HPW	6
FIELD EXPERIENCE PRACTICUM							SAED 2491	10 Days Inter-session Period Secondary School 3								SAED 3491	10 Days Inter-session Period Secondary School 3					
COURSES IN DIGITAL MEDIA	SART 1604	Intoduction to Digital Media 3HPW	4	SART 1605	Lighting 3HPW	4	SART 1603	Digital Video 1 3HPW	4	SART 1602	Web Authoring 3HPW	4	SART 3616	Professional Practice	4	SART 3603	Video 2 Or			SART 3611	Industry Placement	4
	SART 1810	Computing 3HPW The Language of Digital Media 2HPW	4	SART 2815	Digital Composite 1 3HPW	4	SART 2610	Writing for Digital Media	4	SART 2812	Sound Media 1 3HPW	4	SART 2609	3D-1 Graphics & Modelling 3HPW	4	SART 3609	3D –2 Graphics & Modelling	4		SART 2607	Multimedia Authoring 1 3HPW	4
	SART 1600		4																			
ELECTIVES											Drawing Elective	4					Electives	4			Electives	4
HISTORY THEORY CORE	SAHT 1101	Mapping the Modern 4HPW	4	SAHT 1102	Mapping the Postmodern 4HPW	4							SAHT 3614	Screen Culture 2HPW	4				I P			
GENERAL EDUCATION							General Education 2HPW 3									General Education 2HPW 3						
Total Units of Credit 192	24			24			24			24			24			24			24	24		

Program Structure: 4811 Bachelor of Digital Media/Bachelor of Art Education

	SESSION 1 and/or SESSION 2						SESSION 3			SESSION 4			SESSION 5			SESSION 6			SESSION 7 or SESSION 8 ****		
	Course Number		uoc	Course Number		uoc	Course Number		uoc	Course Number		uoc	Course Number		uoc	Course Number		uoc	Course Number		uoc
CORE COURSES	SDES 1101	Design Studio 1A Session 1 only 4HPW	6	SDES 1102	Design Studio 1B Session 2 only 4HPW	6	SDES 2101 2102 2103	Design Studio 2A – Applied **or** Environments **or** Graphics/Media 3HPW *	4	SDES 2108 2109 2110	Design Studio 2B – Applied **or** Environments **or** Graphics/Media 3HPW *	4	SDES 3101 3102 3103	Design Studio 3A – Applied **or** Environments **or** Graphics/Media 3HPW *	4	SDES 3108 3109 3110	Design Studio 3B – Applied **or** Environments **or** Graphics/Media 3HPW *	4	SDES 4101	Design Studio Project 4 8HPW	8
							SDES 2101 2102 2103 2104 2105 2106	Design Studio 2A – Applied **and/or** Environments **and/or** Graphics/Media **and/or** Ceramics **and/or** Jewellery **and/or** Textiles 3HPW **	4	SDES 2108 2109 2110 2111 2112 2113	Design Studio 2B – Applied **and/or** Environments **and/or** Graphics/Media **and/or** Ceramics **and/or** Jewellery **and/or** Textiles 3HPW **	4	SDES 3101 3102 3103 3104 3105 3106	Design Studio 3A – Applied **and/or** Environments **and/or** Graphics/Media **and/or** Ceramics **and/or** Jewellery **and/or** Textiles 3HPW **	4	SDES 3108 3109 3110 3111 3112 3113	Design Studio 3B – Applied **and/or** Environments **and/or** Graphics/Media **and/or** Ceramics **and/or** Jewellery **and/or** Textiles 3HPW **	4	SDES 4102	Professional Experience 8	8
	SAHT 1810	Introduction to Computing	4																		
	SAHT 1301	Design History, Theory & Aesthetics 1 2HPW	4				SAHT 2301	Design History, Theory & Aesthetics 2 2HPW	4				SAHT 3301	Design History, Theory & Aesthetics 3 2HPW	4				SAHT 4301	Design History, Theory & Aesthetics 4 2HPW	4
	SDES 1103	Design and Human Functioning 2HPW	4	SDES 1104	Interactive Systems 2HPW	4				SDES 2114	Design and Social Theory 2HPW	4									
	SDES 1105	Presentation Techniques 2HPW	3	SDES 1106	Design and Computers 4HPW	4	SDES 2107	Design and Computers 2A 4HPW	4	SDES 2115	Design and Computers 2B 4HPW	4	SDES 3107	Design and Computers 3 4HPW	4				SDES 4103	Design and Computers 4 4HPW	4
	SART 1333	Drawing: Object, Life and Landscape 3HPW	4	SDES 1109	Measured Drawing 2HPW	3							SDES 2116	Design Practice 2HPW	4						
	SDES 1107	Modelmaking – Communicating in 3D 2HPW	3	SDES 1108	Typography and Composition 2HPW	3															
ELECTIVES				Elective		4	Elective		4	Elective		4				Elective ***		6	Electives History Theory Elective		14 4
HONOURS																			SDES 4104	Honours Project	6
GENERAL EDUCATION																2 x General Education		6	2 x General Education		6
Total Units of Credit: 192			28			24			24			24			24			24			48

* One of three design studio courses to be chosen.
** Two of six design studio courses to be chosen.
*** Students wishing to do Honours must undertake SAED4051 Practices of Research in Art and Design Education.

Program Structure: 4802 Bachelor of Design

Program Structure: 4802 Bachelor of Design

The degree of Bachelor 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.

2. Each student's program must include 12 units of General Education.

3. Students must complete the prescribed core courses including a sequence of 16 units of credit in one of the strands selected from Applied/ Object, Graphics/Media or Environments/Spatial.

4. Students must complete 32 units of credit from the core elective strand in at least two disciplines other than that chosen in the Core sequence.

5. Students may not commence level 2 courses or General Education before 24 units of credit of level 1 courses have been completed.

6. A student must complete at least 48 units but no more than 60 units of level 1 courses from the faculty.

7. For entry to Honours a student must have achieved a distinction average in 40 units of core courses from years two and three.

General Education

Students are required as part of their studies, to complete 12 units of credit in General Education courses or their equivalent. General Education must be undertaken in courses taught by faculties of the University other than the College of Fine Arts.

Elective Courses

Students are required to undertake 4 elective courses (refer to schema on Structure of the Bachelor of Design). These elective courses are chosen from the selection listed under Elective Courses for Undergraduate Programs at the end of the College of Fine Arts section.

Honours

The degree of Bachelor of Design is awarded as a pass degree on completion of four years full time study, or a degree with Honours where eligible students have completed the Honours pathway in the program. Students wishing to undertake Honours may do so in the following ways:

1. Current students must have achieved a distinction average in 40 units of core courses from years two and three. Nominations are due at the end of year 3.

2. Students may be identified as an Honours candidate during year 3. Academic staff may support an application for entry to the Honours pathway on the basis of the student's academic performance.

3. Past graduates may be admitted to the Honours pathway after an interview and the presentation of a portfolio, if they have achieved a distinction average for one year prior to being admitted.

Additional Honours requirement:

SDES4104
Honours Project

4803 Bachelor of Art Theory

BArtTh

4806 Bachelor of Art Theory Bachelor of Arts

BArtTh BA

4807 Bachelor of Art Theory Bachelor of Social Science

BArtTh BSocSc

4703 Bachelor of Art Theory Bachelor of Laws

BArtTh LLB

The Programs

The Bachelor of Art Theory offers an intensive study of the visual arts, design and culture. 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, design management, curatorship, art and design criticism and writing, public programming and policy formation, and project officers.

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 will have benefited from the opportunity to combine theoretical and historical studies with studio-based subjects in art, craft and design and to draw on a wide range of electives offered within the University. They will have gained an understanding of and experience in the arts and design industries.

The combined programs recognise the needs of some students to develop their particular interests and/or career aspirations, by providing the opportunity to combine studies in visual arts and culture with the ranges of offerings in the Bachelor of Arts, Bachelor of Social Sciences and Bachelor of Laws.

	SESSION 1			SESSION 2			SESSION 3 and 4			SESSION 5 and 6		
	Course Number		uoc	Course Number		uoc	Course Number		uoc	Course Number		uoc
THEORY MAJOR	SAHT 1101	Mapping the Modern 4HPW	4	SAHT 1102	Mapping the Postmodern 4HPW	4		Upper Level Theory courses (Session 1 or 2) See List A	12		Upper Level Theory courses (Session 1 or 2) See List A	18
	SAHT 1211	Theories of the Image 3HPW	6	SAHT 1211	Methods of Research and Writing on Art 3HPW	6		Art/Design Theory courses (Session 1 or 2)	12			
		Level 1 Theory courses See List A (Session 1 or 2)	12									
CO-MAJOR		Co-Major Level 1 courses (Session 1 or 2) See List B	12					Co-Major Upper Level Courses (Session 1 or 2)			Co-Major Upper Level Courses (Session 1 or 2)	
	SART1810	Introduction to Computing 2HPW	4					See List B	6		See List B	12
OPEN ELECTIVES								Electives	12		Electives	12
GENERAL EDUCATION								General Education (Session 1 or 2)	6		General Education (Session 1 or 2)	6
Total Units OF credit 144			**48**						**48**			**48**

	SESSION 1			SESSION 2		
	Course Number		uoc	Course Number		uoc
HONOURS YEAR 4 COURSE WORK		Elective	6			
	SAHT 4212	Specialist Studies 3HPW	6			
THESIS	SAHT 4211	Thesis	12	SAHT 4211	Thesis	24
Total Units of Credit			**48**			

Program Structure 4803 Bachelor of Art Theory

	SESSION 1			SESSION 2			SESSION 3			SESSION 4			SESSION 5			SESSION 6		
	Course Number		uoc	Course Number		uoc	Course Number		uoc	Course Number		uoc	Course Number		uoc	Course Number		uoc
THEORY MAJOR	SAHT 1101	Mapping the Modern 4HPW	4	SAHT 1102	Mapping the Postmodern 4HPW	4	SAHT 2211	Grand Narratives of Western Art 3HPW	6	SAHT 2212	Art and Cultural Difference 3HPW	6	SAHT 3211	Theories of Meaning/Meaning of Theories 3HPW	6	SAHT 3212	Art and the Culture of Everyday Life' 3HPW	6
	SAHT 1211	Theories of the Image 3HPW	6	SAHT 1211	Methods of Research and Writing on Art 3HPW	6										SAHT 3213	Museum Studies: Exhibitions Collections, and Material Culture 3HPW	6
	SAHT 1213	Approaches to Australian Art 3HPW	6	SAHT 1212	Theories of Art History & Culture 3HPW	6		Art/Design Theory courses	12									
CO-MAJOR	SAHT 1221	Audiences for Art 3HPW	6	SAHT 1222	The Production of Art 3HPW	6	SAHT 2221	Genres of Art Writing 3HPW					SAHT 3221	Contexts, Professions & Practices 3HPW	6	SAHT 3222	Industry Placement	6
	SAHT 1810	Introduction to Computing 2HPW	4					3HPW	6									
OPEN ELECTIVES								Electives	12					Electives	12			
GENERAL EDUCATION								General Education Session 1 or 2)	6					General Education Session 1 or 2)	6			
Total Units of Credit 144			**48**						**48**						**48**			

	SESSION 1			SESSION 2		
	Course Number		uoc	Course Number		uoc
HONOURS YEAR 4						
COURSE WORK		Elective	6			
	SAHT 4212	Specialist Studies 3HPW	6			
THESIS	SAHT 4211	Thesis	12	SAHT 4211	Thesis	24
Total Units of Credit			**48**			

Sample Program: 4803 Bachelor of Art Theory

Program structure: 4803 Bachelor of Art Theory

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 major methodological tools and concerns in Art and Design History. These courses provide a framework for other studies in the degree.

Co-majors

In addition, students take a co-major, normally a sequence of study in Art and/or Design contexts. Students may take a different co-major, subject to the approval of relevant course authorities.

Art 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, curating, and the avenues for funding, culminating in the Industry Placement.

Design Contexts includes practical courses, such as Design Studio, Design and Computers, and Design Management as well as courses which explore the workings of the design industry and provide 'hands-on' experience in writing and publishing.

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 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, including by the Faculty of Arts and Social Sciences, subject to prerequisite requirements.

General Education

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.

Prerequisites

One or both of SAHT1101 Mapping the Modern and/or SAHT1102 Mapping the Postmodern and one or both of SAHT1211 Theories of the Image and/or SAHT1212 Theories of Art History and Culture are prerequisite for Upper Level Theory Major courses.

Program Rules

1. Students must complete a program of study of 144 units of credit, over 3 years of full time study or the equivalent part time study. This comprises:

(a) 48 units of credit in Level 1 courses, to a maximum of 60 level 1 units; with at least 24 units of credit of level 1 courses being successfully completed before commencement of level 2 courses;

(b) 12 units of credit in approved General Education courses;

(c) a Major in Art and Design Theory, made up of 74 units of credit;

(d) a Co-Major in Art and Design Contexts, made up of 34 units of credit, and

(e) up to 24 units of credit in electives.

2. The Major in Art and Design Theory shall consist of :

(a) 32 units of credit from approved Level1 courses [see list A], which shall include SAHT1101 Mapping the Modern. SAHT1102 Mapping the Postmodern, SAHT1211 Theories of the Image, and SAHT1214 Methods of Research and Writing on Art; and

(b) 42 units of credit from approved Upper Level courses [see List A]., with up to 12 units of credit able to be taken from Art and Design History and Theory electives;

3. The Co-Major in Art and Design contexts shall consist of :

(a) 16 units of credit from approved Level1 courses, which shall include SART1810 Introduction to Computing, and

(b) 18 units of credit from approved Upper Level courses.

4. For entry to Honours a student must complete the Theory Major and have achieved an average of 70% across Theory Major courses in Session 4, 5 and 6. Students with a 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 or the equivalent of those prerequisites.

List A: Approved courses for the Major in Art and Design Theory

Level 1

SAHT1101	Art History and Theory 1A: Mapping the Modern
SAHT1102	Art History and Theory 1B: Mapping the Postmodern
SAHT1211	Theories of the Image
SAHT1214	Methods of Writing and Research
SAHT1212	Theories of Art History and Culture
SAHT1213	Approaches to Australian Art

Level 1 courses for which there are no pre-requisites, subject to approval by Program Authority.

Upper level

SAHT2211	Grand Narratives of Western Art
SAHT2212	Art and Cultural Difference
SAHT2213	Memory and Self
SAHT2301	Design History and Theory 2
SAHT2501	Digital Media History and Theory 1: Screen Culture
SAHT3211	Theories of Meaning/Meaning of Theory
SAHT3212	Art and the Culture of Everyday Life
SAHT3213	Museum Studies
SAHT3301	Design History and Theory 3
SAHT4301	Design History and Theory 4
SAHT3502	Digital Media History and Theory 2: Digital Theory and Aesthetics
SDES2114	Design and Social Theory

Upper Level courses subject to approval by Program Authority.

List B: Approved courses for the Co-Major in Art and Design Contexts

Level 1

SAHT1221	Audiences for Art
SAHT1222	The Production of Art
SART1810	Introduction to Computing
SDES1101	Design Studio 1A
SDES1102	Design Studio 1B
SDES1106	Design and Computers 1
SDES1103	Design and Human Functioning
SDES1104	Interactive Systems

Upper level

SAHT2221	Genres of Art Writing
SAHT3221	Contexts, Professions and Practices
SAHT3222	Industry Placement
SDES2107	Design and Computers 2A
SDES2115	Design and Computer 2B
SDES2171	Design Management
SDES2116	Design Practice

Program Structure: 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 (MArtAdm) 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 courses by a full session.

Program Rules

1. Admission in the first instance is to the Bachelor of Art Theory, course 4803. At the end of Year 2, candidates will be permitted to transfer to the Fast Track program plan, 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. A student must complete a total of 192 units of credit.

3. The undergraduate component of the degree must include:

- A Major [62 units of credit] in Art and Design Theory
- A Co-major [28 units of credit] in Art and Design Contexts

	SESSION 1			SESSION 2			SESSION 3 and 4			SESSION 5			SESSION 6		
	Course Number		uoc	Course Number		uoc	Course Number		uoc	Course Number		uoc	Course Number		uoc
THEORY MAJOR & MARTADM CORE & ELECTIVES	SAHT 1101	Mapping the Modern 4HPW	4	SAHT 1102	Mapping the Postmodern 4HPW	4		Upper Level Theory courses (Session 1 or 2) See List A	12		Upper Level Theory course See List A	6		Upper Level Theory course See List A	6
	SAHT 1211	Theories of the Image 3HPW	6	SAHT 1211	Methods of Research and Writing on Art 3HPW	6		Art/Design Theory courses (Session 1 or 2)	12	SAHT9111	Management & Orgnaisation: Systems, Service & Survival 3HPW	6	SAHT 9113	Cultural Property, Ethics and the Law 3HPW	6
		Level 1 Theory courses See List A (Session 1 or 2)	12								MArtAdm Core Option	6		MArtAdm Core Option	6
CO-MAJOR		Co-Major Level 1 courses (Session 1 or 2) See List B	12					Co-Major Upper Level Courses (Session 1 or 2)			Co-Major Upper Level Course				
	SART1810	Introduction to Computing 2HPW	4					See List B	6		3HPW	6			
OPEN ELECTIVES								Electives	12						
GENERAL EDUCATION								General Education (Session 1 or 2)	6					General Education	6
Total Units of Credit 192			**48**						**48**			**24**			**24**

Program Structure: 4803 Bachelor of Art Theory/9302 Master of Art Administration Fast Track Program

	SESSION 7			SESSION 8		
	Course Number		uoc	Course Number		uoc
MArtAdm Core	SAHT 9115	Internship	6	SAHT 9116	Research Paper	6
MArtAdm Core Options		MartAdm Core Option	6		MArtAdm Core Option	6
		MartAdm Core Option	6		MArtAdm Core Option	6
		MartAdm Core Option	6		MArtAdm Core Option	6
Total Units of Credit 192			**48**			

- 12 units of credit in General Education

4. The postgraduate component of the degree must include:

- Four Core courses from the Master of Art Administration, including SAHT9115 Internship and SAHT9116 Research Paper.
- 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 70% across Theory Major courses in Session 4, 5 and 6. Students would normally complete an honours year at the completion of the Fast Track program.

Bachelor of Art Theory and Graduate Diploma

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 are permitted to exit with the Bachelor of Art Theory and Graduate Diploma of Art Administration (3.5 years fulltime equivalent study).

Bachelor of Art Theory (Honours)/Master of Art Administration Fast Track Course

Program Rules for Bachelor of Art Theory (Honours) apply to the Honours program for the Fast Track Program.

Combined Programs

Program Structure: 4806 Bachelor of Art Theory Bachelor of Arts

The BArtTh BA degree program enables students to combine the broad range of offerings available in the BA with the focussed study of the visual arts and visual culture provided by the BArtTh. The Co-Major in Art and Design Contexts 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.

Students undertaking this combined degree program complete the core requirements of both the Bachelor of Art Theory and the Bachelor of Arts, together with approved electives.

Program Rules

1. Students must complete a program of study carrying 192 units of credit, over 4 years of full time study or the equivalent part time study, of which

(a) at least 90 units of credit must be obtained in courses offered by the College of Fine Arts;

(b) at least 78 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) 24 units of credit may be in electives.

2. The BArtTh component of the combined degree must include:

(a) a major (at least 60 units of credit) in approved Art & Design Theory courses,

(b) of the 60 units in the Major, 24 units shall be taken from Level 1 courses and 36 units from Upper Level courses.

(c) a co-major (at least 30 units of credit) in approved Art & Design Contexts courses.

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 School, Department, Unit or Interdisciplinary Program;

(b) no more than 54 units of credit in total may be from any one School, Department, Unit or Interdisciplinary Program;

(c) at least 12 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) 42 units of credit must be obtained in one of the following major sequences within the Faculty of Arts and Social Sciences:

CHIN	Chinese Studies	LING	Linguistics
EDST	Education	MUSI	Music
ENGL	English	PHIL	Philosophy
FREN	French	POLS	Politics and International Relations
GERS	German Studies	RUSS	Russian Studies
GREK	Greek (Modern)	SCTS/HPST	Science & Technology Studies
HIST	History*	SLSP	Policy Studies
INDO	Indonesian Studies	SOCA	Sociology
JAPN	Japanese Studies	SPAN	Spanish and Latin American Studies
KORE	Korean Studies	THFI/FILM/THST/DANC/PFST	Theatre, Film and Dance

4. No student may commence Upper Level subjects until 24 Level 1 units of credit have been successfully completed.

5. Students may be eligible for entry to Honours in either the BArtTh or the BA. For entry to the BArtTh Honours program a student must complete at least 24 units of credit at Level 3 in the relevant theory major and co-major, and have the permission of the Head of School.

6. 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).

Program Structure: 4807 Bachelor of Art Theory Bachelor of Social Science

The BArtTh BSocSc degree course 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 and General Education courses.

Program Rules

1. Students must complete a program of study carrying 192 units of credit over 4 years of full time study or the equivalent part time study, of which

(a) at least 88 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 (58 units of credit) in Art & Design Theory;

(b) a co-major (42 units of credit), or a minor (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:

SLSP1000	Introduction to Social Science and Policy ***OR***
SLSP1002	Introduction to Policy Analysis
SLSP1001	Introduction to Research and Information Mgt
SLSP2000	Social and Economic Theory and Policy
SLSP2001	Research Methods in the Social Sciences
SLSP2002	Policy Analysis Case Studies
SLSP3000	Research for Policy
SLSP3001	Quantitative Social Research
SLSP3002	Social Science and Policy Project

and

(b) a major sequence in one of the following areas:

ECOH	Economic History
ECON	Economics
GEOG	Geography
HIST	History Studies
IROB	Industrial Relations/Human Resource Management
PHIL	Philosophy
POLS	Political Science
PSYC	Psychology
SCTS HPST	Science and Technology
SOCA	Sociology
SPAN	Spanish and Latin American Studies (History Stream)

THFI/FILM/ THST/DANC Theatre, Film and Dance 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).

Program Structure: 4703 Bachelor of Art Theory Bachelor of Laws

The Course Authority for this combined program is the Faculty of Law

Program Rules – Art Theory

1. 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).

2. The first three years of the course include Law subjects totalling 60 units of credit studied alongside COFA courses which will lead to the completion of the BArtTh degree. The final two years of the degree consists of Law courses.

3. The BArtTh component of the combined degree must include:

(a) a major (48 units of credit) in Art & Design Theory,

(b) a co-major (36 units of credit)or a minor (30 units of credit).

4. There are no general Faculty prerequisites to courses offered by the Faculty of Law, but students must study law courses in a sequence approved by the Faculty of Law.

5. Students who wish to undertake Honours in Art Theory are required to discuss this with the Head of the School of Art History and Theory as early as possible. The honours program requires completion of an honours thesis in Year 4, alongside elective studies in law. Completion of honours will extend the time needed to complete the degree by a further session.

6. A student who does not wish to proceed to the combined degree BArtTh LLB may apply to transfer to the BArtTh program with credit for all courses completed. The transferring student will need to complete the General Education requirements of the BArtTh.

7. In limited circumstances students may apply to graduate with the BArtTh degree prior to the completion of their law program. This may require the completion of additional courses to fully meet course requirements.

Program Rules – Law

1.Students will complete 92 units of credit in the following core law courses:

	UOC
LAWS1051 Legal System	3
LAWS2160 Administrative Law	6
LAWS1061 Torts	6
LAWS6210 Law Lawyers and Society	6
LAWS7410 Legal Research and Writing	3
LAWS1081 Property and Equity 1	6
LAWS1071 Contracts 1	3
LAWS1082 Property and Equity 2	6
LAWS1072 Contracts 2	6
LAWS2311 Litigation 1	6
LAWS2140 Public Law	3
LAWS2321Litigation	2
(incorporating Advanced Legal Research)	8
LAWS1001 Criminal Law 1	6
LAWS8320 Legal Theory OR	
LAWS8820 Law and Social Theory	6
LAWS1011 Criminal Law 2	6
LAWS2150 Federal Constitutional Law	6
LAWS4010 Business Associations 1	6

2. Students will complete 56 units of credit in non-core LAWS courses.

3. Students may choose to complete 8 units of credit in non-core courses chosen from elective courses offered within the law or non-law program.

4810 Bachelor of Digital Media

BDM

The Program

The Bachelor of Digital Media (BDM) is a three-year degree, designed to meet industry demand for creative practitioners and content developers who possess multiple skills and breadth of knowledge in interactive design, sound, web design, digital imaging, 3D modeling, 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.

This program gives students who are interested in the pursuit of careers in the arts, digital media and entertainment industries the opportunity to combine specialist knowledge and practice drawn from digital technology, theory, art and design.

The degree offers a fourth year as Honours study for students who excel and which to pursue research careers.

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.

Career opportunities include

* Animation
* Creative content producers
* Designers and producers in the film/video industries
* Data casting
* Digital Imaging
* Entertainment industries
* Interactive Media
* Internet based media
* Information design
* Information technology industries
* Illustration
* Non-networked based media such as CD and DVD production
* Production management
* Sound
* 3D imaging/visualisation

BDM Program Structure and Schema over page.

4804 Bachelor of Applied Arts (Craft Arts)

BAppA

The Program

The Bachelor of Applied Arts (Craft Arts) is no longer being offered to commencing students.

4804 Bachelor of Applied Arts (Craft Arts)

HONOURS YEAR 4	SESSION 1			SESSION 2		
	Course Number		uoc			uoc
	SDES 4503	Research in the Applied Arts 3HPW	6			
	SDES 4501	Project A Honours	18	SDES 4502	Project B Honours	24
Total Units of Credit						48

Session 1	Session 2	Session 3	Session 4	Session 5	Session 6	Session 7&8	
SART1604 INTRODUCTION TO DIGITAL MEDIA 4U 3HR	SART1602 WEB AUTHORING 4U 3HR	SART2610 WRITING FOR DIGITAL MEDIA 4U 2HR			SART3612		
SART1600 THE LANGUAGE OF DIGITAL MEDIA 4U 2HR	SART1605 LIGHTING 4U 3HR	SART1603 DIGITAL VIDEO 1 4U 3HR	SART3603 VIDEO 2 4U 3HR	SART3616 PROFESSIONAL PRACTICE 4U 3HR	PROFESSIONAL PORTFOLIO 8U 4HR		
SART1810 COMPUTING 4U 3HR	SART2812 SOUND MEDIA1 4U 3HR	SART2607 MULTIMEDIA AUTHORING 1 4U 3HR	SART2606 MULTIMEDIA AUTHORING 2 4U 3HR			HONOURS	100
SART1319 DRAWING 4U 3HR	SART2815 DIGITAL COMP 1 4U 3HR	SART2608 DIGITAL COMP 2 4U 3HR			SAHT3611 INDUSTRY PLACEMENT		
SDES1601 COLOUR, COMPOSITION & TYPOGRAPHY 4U 3HR		SART2609 **3D -1** GRAPHICS & MODELLING 4U 3HR	SART3609 **3D -2** GRAPHICS & MODELLING 4U 3HR	SART3610 DIGITAL STUDIO 6U 6HR			
COFA2001 Mapping the Modern 4U 4HR	COFA2002 Mapping the Postmodern 4U 4HR	SAHT3614 HT1 SCREEN CULTURE 4U 2HR		SAHT3613 HT2 DIGITAL THEORY &AESTHETICS 4U 2HR			4
	Drawing ELECTIVE 4U	SART3615 SOUNDMedia 2 4U 3HR	SART2858Narrative & Gameplay 4U	SART3608 DIGITAL COMP 3 4U 3HR	ELECTIVES 12U		28
			ELECTIVES 6U				
			General Education 3U	General Education 3U			12
			General Education 3U	General Education 3U			
PROGRAM CORE	ELECTIVE PROGRAMS						
Units of Credit 24	24	24	24	24	24	48	144

Program Structure: 4810 Bachelor of Digital Media

Other courses provide students with fundamental and elective studies in the history and theory of craft arts, practical studies and professional development. The history and theory courses aim to provide students with knowledge, appreciation and critical appraisal of specific historical achievements in European and non-European cultures by studying the applied arts within the social, economic and political context of those selected cultures.

Program Structure: 4810 Bachelor of Digital Media

The degree of Bachelor of Digital Media 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.

1. A student must complete 144 units of credit.

2. Each student's program must include 12 units of General Education.

3. Students must complete the prescribed core courses and

4. An approved sequence of at least 36 units of credit selected from the major disciplines offered in the program

5. Students may not commence level 2 courses or General Education before appropriate level 1 courses have been completed.

6. Students must complete at least 48 units but no more than 60 units of level 1 courses from the faculty.

7. For entry to Honours a student must have achieved a distinction average in 40 units of core courses from years two and three.

General Education

Students are required as part of their studies, to complete 12 units of credit in General Education courses or their equivalent. General Education must be undertaken in courses taught by faculties of the University, other than the College of Fine Arts.

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 (ie 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 Course 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 three year period. Course Descriptions of electives offered in 2002 appear at the end of this Handbook.

Elective studies will deal in-depth with issues of a theoretical nature concerning the craft arts in historical, contemporary and future-oriented social perspectives and in the application of theory to practice. Studio-oriented electives will include a theoretical examination of the nature of practice and critical inquiry that will extend knowledge, skill and understanding.

History and Theory Electives

History and Theory electives offered by the School of Art History and Theory are rotated through a 3-year cycle. Not all currently approved electives, listed below, are offered this year. Course descriptions for electives likely to be offered in 2002, subject to student enrolments and staffing, appear in the Course Descriptions section of this handbook.

The Western Tradition

SAHT2601 Art of Ancient Cultures
SAHT2602 Early Christian, Islamic and Other Cultures [not offered 2002]
SAHT2603 Medieval and Renaissance Cultures of Europe
SAHT2604 Mannerism, Baroque and Revolution [not offered 2002]
SAHT2605 Avant-Garde, Academy and Colonialism: Early 19th century European Art [not offered 2002]
SAHT2606 The Painting of Modern Life: French and British Painting 1850-1890
SAHT2607 Modernism and the Twentieth Century Experience of Modernity 1891-1951
SAHT2608 Reading the Country [not offered 2002]
SAHT2609 Postindustrialisation, Postmodernity and Postmodernism 1952-2000
SAHT2610 Histories of Women Artists [not offered 2002]
SAHT2611 Art and Revolution [not offered 2002]
SAHT2612 'Art and its Others" tendencies in international contemporary art [subject to approval]

Australian Art History

SAHT1627 Aboriginal Art
SAHT2721 Terra Australis: Contact, Aboriginal Art and Settlement [not offered 2002]
SAHT2622 Australian art and culture 1870-World War Two
SAHT2623 Angry Penguins: Australian Art and Culture WWII – 1973 [not offered 2002]
SAHT2624 Contemporary Australian Art and Culture [not offered 2002]
SAHT2625 Australian Identity in Art and Design [not offered 2002]
SAHT2626 Koori and Associated Cultures [not offered 2002]

Art and Asia-Pacific

SAHT2631 Colonialism and Art: Orientalism and Primitivism
SAHT2632 Peripheral Visions 1: Postcolonial Perspectives on Art
SAHT2633 The Arts of the Pacific
SAHT3634 Peripheral Visions 2: Postcolonial Perspectives on Colonial and 'Peripheral' Art Practices in Asia, India, South East Asia and Australasia

Critical and Cultural Theory

SAHT2213 Memory and Self
SAHT2641 Introduction to Modern Aesthetics
SAHT2642 Theories of Subjectivity and the Body [not offered 2002]
SAHT2643 Pornography, Art and Politics
SAHT2644 Psychoanalysis and Art
SAHT2645 Art and the Politics of Identity [not offered 2002]
SAHT2646 Seminar in Women's Studies [not offered 2002]
SAHT2647 The Artist and the Writer [not offered 2002]
SAHT2648 Writing on Art [not offered 2002]
SAHT2649 Creative Writing for Artists
SAHT2650 Literature and Art [not offered 2002]
SAHT2651 Women, Art and Power [not offered 2002]
SAHT2652 Art and Activism [not offered 2002]
SAHT2653 Dance-Party Culture
SAHT2654 Vision and Visuality [subject to approval]

Media Studies

SAHT2661 Vampires, Dopplegangers and Doubles in Film [not offered 2002]
SAHT2662 History of Video Art [not offered 2002]
SAHT2663 History of Avant Garde Cinema
SAHT2664 The Art of Sound [not offered 2002]
SAHT2665 History and Theory of Performance [not offered 2002]
SAHT2666 Sculpture and the Modern [not offered 2002]
SAHT2667 Installation, Structures and Spaces
SAHT2668 Photography: Historical Perspectives
SAHT2669 Critical Theories of Photography
SAHT2670 Crafts: Contexts and Sources [not offered 2002]
SAHT2671 Social and Cultural Issues in Contemporary Craft Practice [not offered 2002]
SAHT2672 A History of Jewellery
SAHT2673 Histories and Theories of Ceramics [not offered 2002]
SAHT2674 A History of Drawing
SAHT2675 A History of Printmaking [not offered 2002]
SAHT2676 Art, Technology and New Media
SAHT2677 Time-based Art: Histories and Themes

Special themes and projects

For further information, see Head of School of Art History and Theory

SAHT3690 Special Project

Studio Electives in Visual Arts

COFA7000 Creative Village Interdisciplinary Studio
SART1502, SART2502, SART3502 Drawing Elective 1 to 3
SART1361, SART2361, SART3361 Etching Elective 1 to 3
SART1421, SART2421, SART3421 Flim Elective 1 to 3
SART1461, SART2461, SART3461 Lithography Elective 1 to 3
SART1501, SART2501, SART3501 Painting Elective 1 to 3
SART1521, SART2521, SART3521 Photomedia Elective 1 to 3
SART1431, SART2531, SART3531 Clay Sculpture Elective 1 to 3
SART1551, SART2441, SART3551 Sound Studio Elective
SART1561, SART2561, SART3561 Relief Printing Elective 1 to 3
SART1581, SART2581, SART3581 Screen Printing Elective 1 to 3
SART1591, SART2591, SART3591 Printmedia Elective 1 to 3
SART1601, SART2601, SART3601 Sculpture Elective 1 to 3

SART1621, SART2621, SART3621	Installation Elective 1 to 3
SART1641, SART2641, SART3641	Video Elective 1 to 3
SART1651, SART2651, SART3651	Animation Elective 1 to 3
SART1661, SART2661, SART3661	Performance Elective 1 to 3
SART1681, SART2681, SART3681	Multimedia Computing Elective 1 to 3

These courses are available as single units or can be built into a sequence of two or three courses. They are intended to introduce students to the theoretical and practical basis of the discipline and provide an extensive introduction to contemporary practice.

Studio Workshops in Visual Arts

These courses involve basic workshop technologies and basic skill development to permit students to experiment with materials, approaches and technologies across the range of disciplines provided in the College. Students will be encouraged to broaden their skills base in order to underpin the individual development of studio practice. Through an increased understanding of materials, processes and technologies, students will be equipped to resolve ideas at an increasingly professional standard.

SART1810	Introduction to Computing
SART2811	Multimedia Computing Workshop
SART2812	Sound Studio: Introductory Workshop
SART2813	Video Workshop
SART2814	Cinematography Workshop
SART2815	Photomedia: Digital Imaging Workshop
SART2816	Photomedia: Analogue Workshop
SART2817	Extended Photomedia Workshop
SART2818	Print Workshop: How to set up and maintain
SART2819	PhotoTechniques for Printmedia Workshop
SART2820	Unique State Print Workshop
SART2821	Metal Joining Techniques Workshop
SART2822	Plastic Technology Workshop
SART2823	Sculpture: Casting Workshop
SART2826	3D Fabrication Workshop
SART2827	Alternative Sculptural Processes Workshop
SART2828	Artists' Books Workshop
SART2829	Anatomy for Artists Workshop
SART2830	Performance Workshop
SART2831	Spatial Constructions Drawing Workshop
SART2832	Life Drawing Workshop
SART2833	Drawing Workshop
SART2834	Experimentation in Mixed Media WorkshopSART2835 Composition and Design Workshop
SART2836	Colour Workshop
SART2837	Sound Studio: Advanced Workshop
SART2838	Writing/Text Workshop
SART2839	Animation Workshop
SART2841	Electronics Workshop
SART2842	Metal Casting Workshop
SART2845	Drawing/Painting Workshop, Field Studies
SART2846	Figurative Sculpture Workshop
SART2848	Drawing Workshop, Field Research
SART2849	Alternative Printmedia Workshop
SART2850	Non-Toxic Printmedia Workshop
SART2851	Print as Object Workshop
SART2852	Light Sensitive Printmedia Workshop
SART2853	Printmedia Colour Workshop
SART2854	Digital Illustration and Text Workshop
SART2856	Digital Printmedia Workshop
SART2857	Paper Technology Workshop
SART3840	Advanced Multimedia Computing Workshop
SART3858	Advanced Analogue – Studio Lighting and Camera Workshop
SART3859	Advanced Digital Imaging – 3D Workshop

Art Education Electives

Contexts and Diversity

SAED2474	Art Education and the Primary School
SAED2475	Multicultural Contexts
SAED2476	Art as Therapy
SAED2477	Art Education and the Environment
SAED 2478	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 Curriculum
SAED 4471	Visual Arts Workshop

Politics, Practices and Education

SAED 2471	Histories of Australian Education
SAED 2472	Creativity in Art, Design and Education
SAED 2473	Seminar Art Education
SAED4472	Independent Study in Art Education
SAED 4473	Politics, Identity and Art Education
SAED4474	Dilemmas of Praxis: the State, the School and the Educator

Design Studies Workshops and Electives

Ceramics

SDES1155	Ceramics Workshop
SDES2140	Ceramic Technology Workshop
SDES2141	Moulding and Casting in Clay Workshop
SDES2142	Drawing, Photographic and Print Techniques on Clay Workshop
SDES2143	Low Impact and Alternative Ceramic Processes Workshop
SDES2160	Ceramics 1 Elective: The Contemporary Vessel
SDES2161	Ceramics 2 Elective: Multiples: Meanings and Methods
SDES2187	Ceramics 1
SDES2188	Ceramics 2
SDES3162	Ceramics 3 Elective: Non –functional, Three Dimensional Ceramics

Textiles

SDES1144	Textiles Workshop
SDES2145	Textiles 3D Workshop
SDES2146	Textiles 2D Workshop
SDES2167	Textiles for Fashion
SDES2168	Textiles Commercial Design and Industry
SDES2184	Textiles 1
SDES2185	Textiles 2
SDES3169	Textiles New Technologies
SDES3170	Textiles Thermoplastic
SDES3186	Textiles 3

Jewellery

SDES1154	Jewellery Workshop
SDES2147	Jewellery Materials and Technologies Workshop
SDES2148	Jewellery Workshop/Hand Tools and Bench Processes
SDES2149	Metal Forming Workshop
SDES2150	Jewellery Workshop/Processes for Multiple Production
SDES2151	Jewellery Workshop/Surface
SDES2152	Jewellery Workshop in Colour
SDES2153	Jewellery Workshop in Emerging Technologies
SDES2163	Jewellery Elective 1 Contemporary Wearables
SDES2164	Jewellery Elective 2 3D Jewellery and Small Scale Objects
SDES2181	Jewellery 1
SDES2182	Jewellery 2
SDES3165	Jewellery Elective 3: The Replicated Object - Jewellery Multiples
SDES3166	Jewellery Design for Fashion

Professional Practice

SDES2171	Design Management Elective
SDES2180	Professional Presentation

Digital Design

SDES2172	Computer Technology 1
SDES3171	Digital Design – Video and Interactive
SDES3172	Digital Design - Interactive Media
SDES3173	ComputerTechnology2
SDES3174	Web Design and Screen Interface
SDES3176	Digital Design Pre-press
SDES3177	Digital Design - Object and Space

Performance/Theatre

SDES2174	Fashion and Costume Design 1
SDES2176	The Contemporary Mask
SDES2177	Design in Performance
SDES2179	Design in the Theatre
SDES3175	Fashion and Costume Design 2

Independent Study

SDES2178	Independent Study
SDES3178	Independent Study 2

A Message from the Dean

Welcome to the Faculty of Commerce and Economics. One of the primary aims of the Faculty is to offer both graduate and undergraduate programs which are relevant to a wide range of careers and professional interests in the commercial and industrial world, in the public service, and in teaching at both the secondary and tertiary level. Graduates of the Faculty are held in high regard and are eagerly sought by the business community. The Faculty has produced outstanding leaders in industry, government, politics, the trade union movement and academia. The Faculty is concerned to combine the strong development of fundamental conceptual issues with an emphasis upon the application of knowledge in the disciplines of commerce and economics.

A feature of undergraduate courses in the Faculty is a range of core courses that provide a foundation for subsequent specialisation.

At the undergraduate level the Faculty offers the Bachelor of Commerce, the Bachelor of Economics and the Bachelor of Commerce in Marketing, Tourism and Hospitality Management degrees. It is possible to combine the Bachelor of Commerce or Bachelor of Economics with a Bachelor of Laws degree, a Bachelor of Arts degree, a Bachelor of Social Science degree or a Bachelor of Science degree. The Bachelor of Commerce allows students to major or double major, and take options from a range of disciplines. Disciplinary studies are offered in: accounting, actuarial studies, business economics, business law, business statistics, business strategy and economic management, economic history, finance, financial economics, information management, information systems, industrial relations, international business, human resource management, management, marketing and taxation. The Bachelor of Economics provides a thorough education in economics, econometrics and/or economic history with the possibility of taking major or optional studies in other disciplines of the Faculty. The Bachelor of Commerce (Marketing, Tourism and Hospitality Management) is an innovative four year program which combines practical operational training with a double major degree. The four year Accounting Co-op Program, Actuarial Studies Co-op Program or Information Systems and Management Co-op Program provides students with valuable scholarships and industry experience while they study.

Students are encouraged to aim for excellence, to upgrade from the undergraduate pass level to Honours, and to continue on to postgraduate study.

The Faculty continues to review and redesign programs and courses in the light of research, teaching experience, the practical needs of employers, and student feedback. This ensures that the education provided remains closely focused on meeting the needs of both students and employers. This aim is assisted by the substantial interaction between the community and the Faculty through its research centres and its consulting and continuing education activities in both the public and private sectors.

I encourage you to contact program advisers in the Faculty or the Faculty Academic Advisor if you have any questions about our programs, or need support as a student of the Faculty. I sincerely hope your experience with the Faculty is memorable, challenging, and ultimately rewarding.

Again, I warmly welcome you to the Faculty of Commerce and Economics.

RA Layton
Dean
Faculty of Commerce and Economics

Faculty of Commerce and Economics

Contents

Faculty Information and Assistance

Some People Who Can Help You 127
Education Development Unit 127
Assumed Knowledge 127
Course Timetables 127
Course Descriptions 127
Enrolment Procedures 127
Examinations 127
Use of Calculators 128
Library/ Reading Room 128

Information on Schools and Disciplines 128

School of Accounting 128
Actuarial Studies 128
School of Banking and Finance 129
School of Business Law and Taxation 129
School of Economics 129
School of Industrial Relations and Organisational Behaviour 130
School of Information Systems, Technology and Management 130
School of International Business 130
School of Marketing 131
Professional Recognition of Programs Offered by the Faculty of Commerce and Economics 131

Program and Course Information

Program Outlines

Undergraduate Programs Offered in 2002 133
Rules Governing the Award of the Degrees of Bachelor of Commerce and Bachelor of Economics 136
Rules Governing the Award of the Degree of Bachelor of Commerce (Actuarial Studies Co-op) 138

Rules Governing the Award of the Degree of Bachelor of Commerce (Information Systems and Management) Honours 138
Rules Governing the Award of the Degree of Bachelor of Commerce in Marketing, Tourism and Hospitality Management 139

Disciplinary Streams

Combined Programs leading to the award of the Degrees of:
Bachelor of Commerce/Bachelor of Arts and
Bachelor of Economics/Bachelor of Arts 153
Combined Degree Programs leading to the award of the Degrees of:
Bachelor of Commerce/Bachelor of Social Science and
Bachelor of Economics/Bachelor of Social Science 155
Combined Course leading to the award of Degree of Bachelor of Commerce/Bachelor of Science 156

Faculty Information and Assistance

Some People Who Can Help You

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 3189, fax (02) 9313 7767. The Student Centre is staffed during teaching weeks between 9am and 6.15pm from Monday to Thursday and between 9am and 5pm on Fridays. During non-teaching weeks the Student Centre is staffed Monday to Friday between 9am and 5pm.

For information and advice about course content and requirements, contact the appropriate schools/teaching units.

Academic Advisor

The Academic Advisor for the Faculty is Dr. Judith Watson, G17, Goodsell Building, ph 9385 3285, fax 9385 2947 email J.Watson@unsw.edu.au

The Academic Advisor provides assistance to:

- Students on probation or referral under that University's Academic Standing rules
- AusAID scholarship holders
- Other students experiencing difficulties or seeking advice on academic matters

Education Development Unit

The Faculty of Commerce and Economics has established the Education Development Unit (EDU) to support all students in the development and enhancement of their academic skills. The EDU provides a range of strategies including:

- undergraduate orientation programs (offered in Orientation Week in both sessions 1 and 2)
- discipline-specific workshops (designed to assist students in developing the oral and written communication and study skills required in particular subject areas)
- academic skills workshops (eg. time management, critical thinking, critical reading, listening and note-taking, exam preparation)
- language and communication workshops (eg. essay writing, report writing, case analysis, presentation skills)
- individual and small group consultations (with a learning adviser or peer assistant)
- a wide range of resources and handouts
- a website

Students are welcome to visit the EDU and talk to staff about their learning and language needs, collect appropriate support materials, register for workshops or make appointments for consultations. Students are also encouraged to arrange small group consultations to address needs in specific subject areas.

For further information and a current list of programs being offered, you are welcome to visit the EDU, located in Room 3054, level 3, South Wing, Quadrangle Building or contact a Learning Adviser in the EDU on 9385 6163/6087.

Assumed Knowledge

The Bachelor of Commerce, Bachelor of Commerce (Marketing, Tourism and Hospitality Management), Bachelor of Economics 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 Undergraduate 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.

Course Descriptions

Descriptions of courses offered in 2002 can be found in alphabetical order by the course code at the back of this handbook. For a full list of courses offered by the University contact New South Student or www.student.unsw.edu.au

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 students are e-mailed information with regards to Enrolment Appointments to enable them to enrol on-line using New South Student.

Examinations

Additional information on examinations and assessment, rules and restrictions, is included in the University Calendar.

For courses under the control of the various schools in the Faculty of Commerce and Economics 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 early 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.

Library/ Reading Room

The library/reading room for undergraduate honours and graduate students in the Faculty of Commerce and Economics is located on the first floor of the John Goodsell Building. The reading room contains books and periodicals covering a wide range of subjects, and provides photocopying facilities and CD Rom access.

During session the reading room is open from 9 am to 9 pm Mondays to Thursdays and 9 am to 5 pm on Fridays.

Out of session the hours are 9 am to 5 pm. The reading room is closed each day between 12.00 - 1.00 pm.

Students wishing to use these library facilities, should register at the Enquiry Desk located in Room 127 on the first floor of the building.

Information on Schools and Disciplines

The Faculty of Commerce and Economics includes the Schools of Accounting, Actuarial Studies, Banking and Finance, Business Law and Taxation, Economics, Industrial Relations and Organisational Behaviour, Information Systems, Technology and Management, International Business, and Marketing.

School of Accounting

Head of School: Professor W F 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 organisations knowledge base, its supplier/customer relationships, its brands etc.

Accounting concepts lie 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). Students of Accounting end up not just as accountants but 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 Management and 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.

The Australian Centre for Management Accounting Development (ACMAD):

Operating nationally as *Insite Connect*, ACMAD is a research centre jointly associated with the School of Accounting and the School of Information Systems, Technology and Management. ACMAD's mission is to promote innovation in resource management and the use of information technologies. Constituted as a network of over 70 corporations and universities, the centre conducts regular industry-based forums and workshops as well as applied research for its member firms. ACMAD provides research support and Scholarship opportunities for undergraduate Honours students interested in field-based research.

The Centre for Accounting and Assurance Services Research:

Professor Ken Trotman, Director, Professor Roger Simnett, Associate Director, Mr. Michael Coleman (KPMG), Chairperson of the Advisory Board.

Established in December 2000 the centre will provide a focus for interdisciplinary research, in the areas of accounting, financial management and assurance services, together with other relevant schools within UNSW and public and private sector parties. The centre aims to undertake the following:

- Initiate and conduct pure and applied research;
- Form links with the accounting and related professions to identify emerging issues of concern or interest to the profession and thereby identify appropriate research subjects and sites;
- Conduct research conferences;
- Plan and conduct continuing education activities on emerging issues to attract participation from professionals, and senior level managers;
- Carry out surveys for private and public sector organisations; and
- Provide staff training in such areas as accounting and assurance services.

Actuarial Studies

Head: Professor M 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 statstics, 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 practice 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 in Australia requires the completion of, or exemption from, subjects in Parts I, II and III of the professional syllabus of the Institute of Actuaries of Australia.

Part II is studied after graduating or possibly in an honours year and is made up of the Actuarial Control Cycle subjects. Part III consists of two subjects 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. Students select these two Part III subjects from

the five practice areas of Investment Management, Life Insurance, General Insurance, Superannuation and Finance.

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 1

ACCT1501	Accounting and Financial Management 1A
ECON1101	Microeconomics 1
MATH1151	Mathematics for Actuarial Studies & Finance 1A
Option*	

Session 2

ACCT1511	Accounting and Financial Management 1B
ECON1102	Macroeconomics 1
MATH1251	Mathematics for Actuarial Studies & Finance 1B
ACTL1001	Actuarial Studies and Commerce

* This option should normally be a course towards the co-major or minor or a computing course.

Year 2

Session 1

ACTL2001	Financial Mathematics
ACTL2002	Probability and Statistics for Actuaries
ECON2101	Microeconomics 2
Option	

Session 2

ACTL2003	Stochastic Models for Actuarial Applications
FINS1613	Business Finance
ACCT2542	Corporate Financial Reporting and Analysis (formerly Accounting and Financial Management 2B)
Option	

Year 3

Session 1

ACTL3001	Actuarial Statistics
ACTL3002	Life Insurance and Superannuation Models
Option	
Option	

Session 2

ACTL3003	Insurance Risk Models
ACTL3004	Financial Economics for Insurance and Superannuation
Option	
Option	

School of Banking and Finance

Head of School: Associate Professor Toan Pham
Administrative Officers: Shirley Webster and Clarissa Zappia

Finance is the study of financial and capital markets. It is concerned with decision making within those markets, and how values or prices of financial assets are determined. It is concerned with investment decisions (for example portfolio selection), financing decisions of a firm (dividend policy, debt and equity structures, and lease purchase decisions), and the development of risk-hedging strategies so as to minimise the damaging effects of adverse movements in share prices, interest rates, exchange rates, and other uncertainties.

Global financial market integration has led to the emergence of multinational corporations. Financial Management of multinational corporations and the study of these corporations financial and investment strategies in the international market, particularly in the Asia-Pacific region are the focus of the program in finance. Furthermore, the increasing expansion of insurance services and funds management in Australia and this region are other important issues in finance.

The growth of interest towards the financial sector has been accredited to greater public awareness of the financial market as an investment opportunity. The public at large have taken to purchasing stocks and bonds as a means of securing higher returns, and with it a greater degree of consumer awareness towards financial matters. One major growth area in the world of finance is the advent and expansion of funds management. Funds managers pool investor money together to form specific portfolios to suit different investor needs. For example, some investors prefer high capital gains over short time horizons, whilst others prefer not to take as much risk and hope for a steady stream of income over a longer period of time. Funds managers must understand the needs of the customer, design portfolios consisting of different assets to suit those needs, and ensure the returns from the funds are what is expected of them. The funds management, international finance, corporate finance and banking courses offered in the School of Banking & Finance provide the basis for a graduate to enter this growing and complex market, with the necessary skills and knowledge to advance rapidly within the industry.

A student may specialise in Finance or combine Finance with other disciplines of the Faculty, Mathematics or Law. Depending on the program selected, Finance provides training for a wide range of vocations including: multinational financial managers, multinational bank and insurance managers, multinational funds managers, investment analysts in stock exchange markets, corporate financial managers or treasurers, portfolio managers for trust funds, superannuation funds and insurance companies, investment analysts and financial researchers in stockbroking firms, merchant banks, trading banks and government departments, management consultants and takeover specialists in corporate advisory divisions of merchant banks, public accounting firms, and management consulting firms.

School of Business Law and Taxation

Head of School: Professor Andrew Terry

Law and commerce are inextricably intertwined. The whole 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 J Piggott
Associate Head of School: Dr Hazel Bateman

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 Degree, 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 degree gives a solid grounding in economic analysis and quantitative techniques. The Bachelor of Economics 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 courses 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 all specialisations, 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 Head of School.

School of Industrial Relations and Organisational Behaviour

Head of School: Professor Philip Bohle
Administrative Assistant: Terry O'Callaghan

The School of Industrial Relations and Organisational Behaviour offers students the opportunity to undertake coursework and advanced research covering all aspects of employment relations, from industrial relations to human resource management and the management of work organisations. In the undergraduate programs, the School offers two distinct disciplinary streams to honours level: Human Resource Management and Industrial Relations. In conjunction with the School of International Business, 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 program in Industrial Relations 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, the programs in 'IR' are designed to furnish a detailed and practical understanding of current employment relations issues, developments and practices. The specialisation in industrial employment 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.

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.

School of Information Systems, Technology and Management

Head of School: Professor G Low
Administrative Officer: Toni Benton

Information Systems is concerned with planning, analysis, design and operation of computerised systems used to process information in commerce, industry, government and research organisations. The data processing needs of the organisation are studied by systems analysts. Solutions to these needs, generally involving computerised equipment, are determined, and systems of processing information are designed and implemented.

Graduates often follow careers as programmers, systems analysts, business analysts, information technology specialists, data administrators, EDP auditors and database administrators. Major employers of Information Systems graduates include government departments, banks, oil companies, insurance companies, large manufacturing enterprises, retail companies, service industries, universities and other research organisations, and computer marketing organisations.

The School offers the Information Systems and Management Co-op Program. This is an industry linked education course leading to the award of the Bachelor of Commerce degree. The program gives students the skills, qualifications and opportunities in the area of business management, the use of information systems, commercial practice and the application of information systems to business opportunities. The program combines the normal requirements for the degree with coordinated experience in the sponsoring organisations. In this program students can combine the compulsory major study in information systems with another approved major or minor area of study. Admission to the program is through the scholarship selection procedures administered by the University Co-op Office.

Information Management is concerned with the intriguing and socially challenging in issues involved in documenting organisational and social activity through evidence in the form of records, as well as sources of records in all their variety and complexity. Academically, this process is studied in the context of individual and institutional needs for information, changing information technologies, and an overarching framework of evolving social roles and responsibilities. Professionally, this process is institutionalised as the responsibility of technical and management personnel in libraries, archives and related "information" agencies. The advent of digitised data and telecommunication networks has led the School to place increasing emphasis on anticipating and responding to rapid change in the information environment, understanding and using a range of information storage and retrieval technologies.

School of International Business

Head of School: Professor Sid Gray
Administrative Assistant: Sue Richardson

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. Business is becoming increasingly international and the most effective business leaders and professionals of the future will be those who know how to deal with the problems of doing business and managing organisations in a complex and uncertain global business environment.

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. International business offers students an exciting and challenging opportunity to enhance their knowledge and skills in courses highly relevant to the business challenges of the 21st century.

International Business can be studied as a single major and co-major in the BCom program and as a co-major in the BEc program.

Languages such as Japanese, Korean, Chinese, French, German, Greek, Spanish and Russian are also offered as co-majors in collaboration with the School of Modern Languages. The combination of language studies with International Business provides a very attractive option to students with an interest in developing their language skills in the international business context.

Management is also offered as a major in collaboration with the School of Industrial Relations and Organisational Behaviour. 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.

School of Marketing

Head of School: Professor Mark Uncles
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, 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 management, customer services, 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 are also a popular option. 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 Market Research Society of Australia. Also, there are affiliations with professional organisations such as the Advertising Federation of Australia, the Australian Marketing Institute, The Radio Marketing Bureau, 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, mathematics 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 Marketing, Tourism and Hospitality Management: A specialist four-year undergraduate degree program in Marketing, Tourism and Hospitality Management is available within the School. This program adds tourism and hospitality management courses to the full range of marketing courses. These additional courses include human resource management, tourism and hospitality law, together with hospitality management for hotels, resorts and restaurants. Students are provided with practical training at an approved training college as part of the program, adding to the richness of the degree. Graduates will find careers in major hotels, resorts, airlines and tourism, both in general management as well as in marketing.

The Centre for Applied Marketing: 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 Centre for Tourism Policy Studies: The focus of this Centre is tourism policy. Strong links exist with Federal and State Government organisations, and with tourism authorities. The Centre is in the CRC for Tourism with a special focus on tourism economics, forecasting and marketing.

Professional Recognition of Programs Offered by the Faculty of Commerce and Economics

The degree programs offered by this Faculty are recognised by professional organisations in accordance with the details set out below:

CPA Australia

CPA Australia has accepted this University 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 the inclusion of auditing, Australian business law, Australian company law and Australian income taxation, *or* a coherent group or sequence of courses in one of the following disciplines:

- finance
- management accounting
- information technology or
- other approved combination.

Graduates who complete the MCom program in Professional Accounting may be eligible for associate membership of CPA Australia. Although the program is accredited, CPA Australia assesses every applicant for membership requirements, which include a rule that each applicant must hold a degree which is considered comparable by the National Office of Overseas Skills Recognition (NOOSR) to an Australian Bachelor's degree. If requested, CPA Australia will provide an assessment of an overseas qualification.

In addition, the MCom program in Professional Accounting is accredited by CPA Australia.

Students seeking professional recognition are advised to confirm membership requirements with CPA Australia.

The Institute of Actuaries of Australia

The following courses offered in the Bachelor of Commerce cover the syllabus of the Part I examinations of The Institute of Actuaries of Australia (Institute subjects in brackets):

ECON1102	Macroeconomics 1 or
ECON1101	Microeconomics 1 (Subject 107 Economics)
ACTL2001	Financial Mathematics (Subject 102 Financial Mathematics)
ACTL2002	Probability and Statistics for Actuaries (Subject 101 Statistical Modelling)
ACTL2003	Stochastic Models for Actuarial Applications (Subject 103 Stochastic Modelling)
ECON2101	Microeconomics 2 or
ECON2102	Macroeconomics 2 (Subject 107 Economics)
FINS1613	Business Finance (Subject 108 Finance and Financial Reporting)
ACCT2542	Corporate Financial Reporting and Analysis (Subject 108 Finance and Financial Reporting)
ACTL3001	Actuarial Statistics (Subject 104 Survival Models)
ACTL3002	Life Insurance and Superannuation Models (Subject 105 Actuarial Mathematics 1)
ACTL3003	Insurance Risk Models (Subject 106 Actuarial Mathematics 2)
ACTL3004	Financial Economics for Insurance and Superannuation (Subject 109 Financial Economics)

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 a Fellow of The Institute of Actuaries of Australia (F.I.A.A.) requires the completion of subjects in Parts I, II and III of the professional actuarial examinations. Qualification as an Associate of The Institute of Actuaries of Australia (A.I.A.A.) is attained on completion of the courses in Parts I and II. The syllabus of the Part I courses is covered in the undergraduate Bachelor of Commerce program as set out above.

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. Students select these two subjects from the five practice area subjects of Investment Management, Life Insurance, General Insurance, Superannuation and 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 practice in North America.

Fellowship of The Institute of Actuaries of Australia (F.I.A.A.) 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.

The Institute of Chartered Accountants in Australia (ICAA)

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, provided they have included in their program the following courses:

ACCT2522	Management Accounting: Process Improvement and Innovation
or	
ACCT2532	Management Accounting: Process Improvement and Innovation (Honours)
ACCT2542	Corporate Financial Reporting and Analysis
or	
ACCT2552	Corporate Financial Reporting and Analysis (Honours)
or	
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)
ACCT3708	Auditing and Assurance Services
or	
ACCT3718	Auditing and Assurance Services (Honours)
FINS1613	Business Finance
INFS1602	Computer Information Systems
LEGT1711	Legal Environment of Commerce
LEGT7721	Business Transactions
LEGT7741	Business Entities
LEGT7751	Business Taxation

Students undertaking the combined Bachelor of Commerce/Bachelor of Laws Programs should substitute the following six courses for the last four courses listed above.

LAWS1071	Contracts 1
LAWS1072	Contracts 2
LAWS2140	Public Law
LAWS4010	Business Associations 1
LAWS1092	Business Associations 2
LAWS2051	Elements of Income Tax Law
LAWS2052	Advanced Revenue Law

Students are also advised to contact the Institute in writing for current requirements.

Recognition of PY and CPA Program

The successful completion of:

(a) the Professional Year Program (PY) of the Institute of Chartered Accountants in Australia, or

(b) the CPA Program of CPA Australia, is deemed the equivalent of two UNSW advanced accounting courses in the Master of Commerce (Program 8404) provided that four accounting courses at an advanced level from the accounting disciplinary stream (Program ACCTAS8404) are taken for an advanced accounting specialisation in the Master of Commerce.

Chartered Institute of Company Secretaries in Australia Ltd. (CICSA)

This CICSA is the professional association for 10,000 company secretaries and corporate managers in Australia. It also operates as the Australian Division of the International, 70,000 member strong, Institute of Chartered Secretaries and Administrators to which most CICSA members also belong.

The CICSA accredits subjects which, if completed, count towards the academic requirements of both professional associations. During the course of their studies, students are encouraged to become CICSA Student Members.

For details of accredited subjects and student membership contact Dr John Nelson, National Education Manager, CICSA, 70 Castlereagh Street, Sydney (telephone: 9223 5744).

The Australian Computer Society

The Australian Computer Society recognises that students who have completed the requirements for the award of the Bachelor of Commerce degree have achieved the standard of knowledge required for Level 1 entry to membership if they have included in their program any six (6) courses from INFS1602 Computer Information Systems, INFS2603 Systems Analysis and Design, INFS2607 Business Data Networks, INFS3605 Software Engineering, INFS3608 Advanced Database Systems, INFS3611 Advanced Analysis and Design, INFS4805 Information Systems Auditing. In addition the Society recognises that students who have successfully completed any four or five of the above courses have achieved the standard required for Level 2 entry to membership and successful completion of any three courses from the above list for Level 3 entry.

Students who have completed the Master of Commerce degree program are recognised as having achieved the standard of knowledge required for Level 1 entry if they have successfully completed any five courses from:

INFS3605	Implementation Workshop
INFS3608	Advanced Database Systems
INFS3611	Design Workshop
INFS5905	Information Systems Auditing
INFS5953	Information Systems Management
INFS5983	Business Data Communications
INFS5986	Research Topics in Information Systems 1
INFS5987	Research Topics in Information Systems 2
INFS5988	Business Information Systems
INFS5989	Information Systems Design
INFS5991	Decision Support Systems

and for Level 2 if they have included in their program any three or four of the courses listed.

The Securities Institute of Australia

The Securities Institute of Australia grants exemptions from certain courses leading to associate membership of the Institute to graduates who have completed finance courses offered in the BCom, BEc or MCom degree programs.

Applications for registration, exemption or admission should be made direct to the Institute.

The Australian Institute of Banking and Finance (AIBF)

The educational requirements for Senior Associateship will be satisfied if:

1. graduates awarded either a Bachelor of Commerce or Bachelor of Economics degree have included in their studies LEGT1761 Law of Banking and Finance, MARK1012 Marketing Fundamentals and IROB1712 Management of Organisations; or
2. graduates awarded a Master of Commerce degree have included in their studies LEGT5561 Legal Aspects of Finance, MARK5900 Elements of Marketing and IROB5901 Organisational Behaviour;

   and a further sequence of at least three coherent courses in banking or finance.

Students should note that Senior Associate also requires a minimum of two years employment in the banking and finance industry.

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.

The Australian Library and Information Association (ALIA)

The Graduate Diploma of Commerce in Information Management, the Master of Commerce in Information Management and the Master of Information Management programs are presently accredited by the ALIA. It is proposed that students who complete these programs be eligible for associate membership of ALIA, provided they have included the following courses in their studies:

IMGT5110	Information Retrieval Systems
IMGT5120	Organisation of Knowledge
IMGT5410	Knowledge and Society
IMGT5420	Information Sources: Access, Assessment and Acquisition

INFS5988 Business Information Systems
IROB5700 Management, Work and Organisation

Market Research Society of Australia (MRSA)

Undergraduate Marketing students at UNSW are able to obtain the Diploma of Market Research if they have successfully completed a number of approved courses. The Diploma of the MRSA is widely recognised by government and industry as a measure of competence in market research.

To qualify for the Diploma undergraduate students must complete and pass the following courses:

MARK1012 Marketing Fundamentals
MARK2051 Consumer Behaviour
MARK2052 Marketing Research
MARK2054 Market Analysis

Plus one from:

MARK3071 International & Global Marketing
MARK3072 Advanced Consumer Behaviour
MARK3092 Brand Management

Students who have successfully completed the required courses at UNSW must complete the application form which is available from School of Marketing Office, UNSW, Sydney NSW 2052 or by contacting The Market Research Society of Australia Ltd, P.O Box 697 North Sydney NSW 2059 (Tel. 02-9955 4830, Fax 02-9955 5746, email sydney@bigpond.com). Further information is also available from the Professional Associations section in the Marketing Careers web site http://www.marketing.unsw.edu.au/

Program and Course Information

Program Outlines

Undergraduate Programs Offered in 2002

The program numbers and corresponding plans are listed as a guide for enrolment purposes. Students must nominate a program and plan code at enrolment time. Subject to the Rules appearing below, students may change specialisations throughout their degree.

The plan codes listed are a guide only and may be subject to alteration.

Undergraduate Plans

Subject Area	Plan Type	Degree	Plan
Accounting			
	Double Major	BCom	ACCTAD3502
	Honours	BCom	ACCTAH3502
	Major	BCom	ACCTA13502
	Minor	BCom	ACCTA23502
	Double Major	BCom/BA	ACCTAD3525
	Honours	BCom/BA	ACCTAH3525
	Major	BCom/BA	ACCTA13525
	Minor	BCom/BA	ACCTA23525
	Honours	BCom/BSc	ACCTAH3529
	Major	BCom/BSc	ACCTA13529
	Double Major	BCom/BSocSc	ACCTAD3527
	Honours	BCom/BSocSc	ACCTAH3527
	Major	BCom/BSocSc	ACCTA13527
	Minor	BCom/BSocSc	ACCTA23527
	Honours	BCom/LLB	ACCTAH4732
	Major	BCom/LLB	ACCTA14732
	Double Major	BEc	ACCTAD3543
	Double Major	BEc/BA	ACCTAD3526
	Double Major	BEc/BSocSc	ACCTAD3528
Accounting Co-op	Major	BCom	ACCTB13502
Actuarial Studies	Double Major	BCom	ACTLBD3502
	Honours	BCom	ACTLBH3502
	Honours	BCom	ACTLBH3525
	Honours	BCom	ACTLBH3527
	Honours	BCom	ACTLBH3529
	Major	BCom	ACTLB13502
	Minor	BCom	ACTLB23502
	Double Major	BCom/BA	ACTLBD3525
	Major	BCom/BA	ACTLB13525
	Minor	BCom/BA	ACTLB23525
	Double Major	BCom/BSocSc	ACTLBD3527
	Major	BCom/BSocSc	ACTLB13527
	Minor	BCom/BSocSc	ACTLB23527
	Major	BCom/BSc	ACTLB13529
Actuarial Studies Co-op	Major	BCom	ACTLA13502
Business Economics	Double Major	BCom	CONFD3502
	Major	BCom	CONF13502
	Minor	BCom	CONF23502
	Double Major	BCom/BA	CONFD3525
	Major	BCom/BA	ECONF13525
	Minor	BCom/BA	CONF23525
	Major	BCom/BSc	CONF13529
	Double Major	BCom/BSocSc	CONFD3527
	Major	BCom/BSocSc	CONF13527
	Minor	BCom/BSocSc	CONF23527
Business Law	Double Major	BCom	LEGTAD3502
	Double Major	BCom	LEGTAD3525
	Double Major	BCom	LEGTAD3527
	Minor	BCom	LEGTA23525
	Minor	BCom	LEGTA23527
	Minor	BCom	LEGTA23502
	Double Major	BEc	LEGTAD3543
	Double Major	BEc	LEGTAD3526
	Double Major	BEc	LEGTAD3528
Business Statistics	Double Major	BCom	ECONHD3502
	Major	BCom	ECONH13502
	Minor	BCom	ECONH23502
	Double Major	BCom/BA	ECONHD3525
	Major	BCom/BA	ECONH13525
	Minor	BCom/BA	ECONH23525
	Double Major	BCom/BSocSc	ECONHD3527
	Major	BCom/BSocSc	ECONH13527
	Minor	BCom/BSocSc	ECONH23527
	Major	BCom/BSc	ECONH13529
Business Strategy and Economic Management	Double Major	BCom	ECONID3502
	Major	BCom	ECONI13502
	Minor	BCom	ECONI23502
	Double Major	BCom/BA	ECONID3525
	Double Major	BCom/BSocSc	ECONID3527
	Double Major	BCom/BSc	ECONID3529
Econometrics	Double Major	BEc/BA	ECONCD3526
	Honours	BEc/BA	ECONCH3526
	Major	BEc/BA	ECONC13526
	Double Major	BEc/BSocSc	ECONCD3528
	Honours	BEc/BSocSc	ECONCH3528
	Major	BEc/BSocSc	ECONC13528
	Double Major	BEc	ECONCD3543
	Honours	BEc	ECONCH3543
	Major	BEc	ECONC13543
Economic History	Double Major	BCom	ECOHBD3502
	Major	BCom	ECOHB13502
	Minor	BCom	ECOHB23502
	Double Major	BCom/BA	ECOHBD3525

	Honours	BCom/BA	ECOHBH3525
	Major	BCom/BA	ECOHB13525
	Minor	BCom/BA	ECOHB23525
	Major	BCom/BSc	ECOHB13529
	Double Major	BCom/BSocSc	ECOHBD3527
	Major	BCom/BSocSc	ECOHB13527
	Minor	BCom/BSocSc	ECOHB23527
	Major	BCom/LLB	ECOHB14750
	Double Major	BEc	ECOHBD3543
	Honours	BEc	ECOHBH3543
	Major	BEc	ECOHB13543
	Double Major	BEc/BA	ECOHBD3526
	Honours	BEc/BA	ECOHBH3526
	Major	BEc/BA	ECOHB13526
	Double Major	BEc/BSocSc	ECOHBD3528
	Honours	BEc/BSocSc	ECOHBH3528
	Major	BEc/BSocSc	ECOHB13528
Economics	Double Major	BEc	ECONAD3543
	Honours	BEc	ECONAH3543
	Major	BEc	ECONA13543
	Double Major	BEc/BA	ECONAD3526
	Honours	BEc/BA	ECONAH3526
	Major	BEc/BA	ECONA13526
	Double Major	BEc/BSocSc	ECONAD3528
	Honours	BEc/BSocSc	ECONAH3528
	Major	BEc/BSocSc	ECONA13528
	Honours	BEc/LLB	ECONAH4745
	Major	BEc/LLB	ECONA14745
Economics and	Honours	BEc	ECONDH3543
Econometrics	Major	BEc	ECOND13543
	Honours	BEc/BA	ECONDH3526
	Major	BEc/BA	ECOND13526
	Honours	BEc/BSocSc	ECONDH3528
	Major	BEc/BSocSc	ECOND13528
Finance	Double Major	BCom	FINSAD3502
	Honours	BCom	FINSAH3502
	Major	BCom	FINSA13502
	Minor	BCom	FINSA23502
	Double Major	BCom/BA	FINSAD3525
	Honours	BCom/BA	FINSAH3525
	Major	BCom/BA	FINSA13525
	Minor	BCom/BA	FINSA23525
	Honours	BCom/BSc	FINSAH3529
	Major	BCom/BSc	FINSA13529
	Double Major	BCom/BSocSc	FINSAD3527
	Honours	BCom/BSocSc	FINSAH3527
	Major	BCom/BSocSc	FINSA13527
	Minor	BCom/BSocSc	FINSA23527
	Honours	BCom/LLB	FINSAH4735
	Major	BCom/LLB	FINSA14735
	Double Major	BEc	FINSAD3543
	Double Major	BEc/BA	FINSAD3526
	Double Major	BEc/BSocSc	FINSAD3528
Financial	Double Major	BCom	ECONJD3502
Economics	Major	BCom	ECONJ13502
	Minor	BCom	ECONJ23502
	Double Major	BEc	ECONJD3543
	Double Major	BCom/BA	ECONJD3525
	Double Major	BEc/BA	ECONJD3526
	Double Major	BCom/BSocSc	ECONJD3527
	Double Major	BEc/BSocSc	ECONJD3528
Human Resource	Double Major	BCom	IROBCD3502
Management	Honours	BCom	IROBCH3502
	Major	BCom	IROBC13502
	Minor	BCom	IROBC23502
	Double Major	BCom/BA	IROBCD3525
	Honours	BCom/BA	IROBCH3525
	Major	BCom/BA	IROBC13525
	Minor	BCom/BA	IROBC23525
	Honours	BCom/BSc	IROBCH3529
	Major	BCom/BSc	IROBC13529
	Double Major	BCom/BSocSc	IROBCD3527
	Honours	BCom/BSocSc	IROBCH3527
	Major	BCom/BSocSc	IROBC13527
	Minor	BCom/BSocSc	IROBC23527
	Double Major	BEc	IROBCD3543
	Double Major	BEc/BA	IROBCD3526
	Double Major	BEc/BSocSc	IROBCD3528
Industrial Relations	Double Major	BCom	IROBAD3502
	Honours	BCom	IROBAH3502
	Major	BCom	IROBA13502
	Minor	BCom	IROBA23502
	Double Major	BCom/BA	IROBAD3525
	Honours	BCom/BA	IROBAH3525
	Major	BCom/BA	IROBA13525
	Minor	BCom/BA	IROBA23525
	Honours	BCom/BSc	IROBAH3529
	Major	BCom/BSc	IROBA13529
	Double Major	BCom/BSocSc	IROBAD3527
	Honours	BCom/BSocSc	IROBAH3527
	Major	BCom/BSocSc	IROBA13527
	Minor	BCom/BSocSc	IROBA23527
	Honours	BCom/LLB	IROBAH4750
	Major	BCom/LLB	IROBA14750
	Double Major	BEc	IROBAD3543
	Double Major	BEc/BA	IROBAD3526
	Double Major	BEc/BSocSc	IROBA13528
Info Systems &	Major	BCom	INFSF13502
Mngt Co-op	Double Major	BCom	INFSBD3502
Information	Double Major	BCom/BA	INFSBD3525
Management	Minor	BCom/BA	INFSB23525
	Double Major	BCom/BSocSc	INFSBD3527
	Minor	BCom/BSocSc	INFSB23527
	Minor	BCom	INFSB23502
Information	Double Major	BCom	INFSAD3502
Systems	Honours	BCom	INFSAH3502
	Major	BCom	INFSA13502
	Minor	BCom	INFSA23502
	Double Major	BCom/BA	INFSAD3525
	Honours	BCom/BA	INFSAH3525
	Major	BCom/BA	INFSA13525
	Minor	BCom/BA	INFSA23525
	Double Major	BEc/BA	INFSAD3526
	Double Major	BCom/BSocSc	INFSAD3527
	Honours	BCom/BSocSc	INFSAH3527
	Major	BCom/BSocSc	INFSA13527
	Minor	BCom/BSocSc	INFSA23527
	Double Major	BEc/BSocSc	INFSAD3528

	Honours	BCom/BSc	INFSAH3529
	Major	BCom/BSc	INFSA13529
	Double Major	BEc	INFSAD3543
	Honours	BCom/LLB	INFSAH4736
	Major	BCom/LLB	INFSA14736
International	Double Major	BCom	IBUSAD3502
Business	Major	BCom	IBUSA13502
	Minor	BCom	IBUSA23502
	Major	BCom	IBUSA13525
	Major	BCom	IBUSA13527
	Major	BCom	IBUSA13529
	Double Major	BCom/BA	IBUSAD3525
	Minor	BCom/BA	IBUSA23525
	Double Major	BEc/BA	IBUSAD3526
	Double Major	BCom/BSocSc	IBUSAD3527
	Minor	BCom/BSocSc	IBUSA23527
	Double Major	BEc/BSocSc	IBUSAD3528
	Double Major	BEc	IBUSAD3543
	Major	BCom/LLB	IBUSA14738
Management	Major	BCom	MGMTA13502
	Minor	BCom	MGMTA23502
	Double Major	BCom	MGMTAD3502
	Double Major	BEc	MGMTAD3543
	Major	BCom/BA	MGMTA13525
	Minor	BCom/BA	MGMTA23525
	Double Major	BCom/BA	MGMTAD3525
	Double Major	BEc/BA	MGMTAD3526
	Major	BCom/BSocSc	MGMTA13527
	Minor	BCom/BSocSc	MGMTA23527
	Double Major	BCom/BSocSc	MGMTAD3527
	Double Major	BEc/BSocSc	MGMTAD3528
	Double Major	BCom/BSc	MGMTAD3529
Marketing	Double Major	BCom	MARKAD3502
	Double Major	BCom	MARKAD3571
	Honours	BCom	MARKAH3502
	Major	BCom	MARKA13502
	Minor	BCom	MARKA23502
	Double Major	BCom/BA	MARKAD3525
	Honours	BCom/BA	MARKAH3525
	Major	BCom/BA	MARKA13525
	Minor	BCom/BA	MARKA23525
	Honours	BCom/BSc	MARKAH3529
	Major	BCom/BSc	MARKA13529
	Double Major	BCom/BSocSc	MARKAD3527
	Honours	BCom/BSocSc	MARKAH3527
	Major	BCom/BSocSc	MARKA13527
	Minor	BCom/BSocSc	MARKA23527
	Honours	BCom/LLB	MARKAH4710
	Major	BCom/LLB	MARKA14710
	Double Major	BEc	MARKAD3543
	Double Major	BEc/BA	MARKAD3526
	Double Major	BEc/BSocSc	MARKAD3528
Taxation	Double Major	BCom	LEGTFD3502
	Minor	BCom	LEGTF23502
	Double Major	BCom	LEGTFD3525
	Minor	BCom	LEGTF23525
	Double Major	BEc	LEGTFD3526
	Double Major	BCom	LEGTFD3527
	Minor	BCom	LEGTF23527
	Double Major	BEc	LEGTFD3528
	Double Major	BEc	LEFTFD3543
Tourism and Hospitality Management	Double Major	BCom	TAHMAD3571
Modern Languages			
Chinese Studies	Double Major	BCom	CHINAD3502
	Double Major	BCom	CHINAD3525
	Double Major	BCom	CHINAD3527
	Double Major	BEc	CHINAD3526
	Double Major	BEc	CHINAD3528
	Double Major	BEc	CHINAD3543
French	Double Major	BCom	FRENAD3502
	Double Major	BCom	FRENAD3525
	Double Major	BCom	FRENAD3527
	Double Major	BEc	FRENAD3526
	Double Major	BEc	FRENAD3528
	Double Major	BEc	FRENAD3543
German Studies	Double Major	BCom	GERSAD3502
	Double Major	BCom	GERSAD3525
	Double Major	BCom	GERSAD3527
	Double Major	BEc	GERSAD3526
	Double Major	BEc	GERSAD3528
	Double Major	BEc	GERSAD3543
Indonesian	Double Major	BCom	INDOAD3502
Studies	Double Major	BCom	INDOAD3525
	Double Major	BCom	INDOAD3527
	Double Major	BEc	INDOAD3526
	Double Major	BEc	INDOAD3528
	Double Major	BEc	INDOAD3543
Japanese Studies	Double Major	BCom	JAPNAD3502
	Double Major	BCom	JAPNAD3525
	Double Major	BCom	JAPNAD3527
	Double Major	BEc	JAPNAD3526
	Double Major	BEc	JAPNAD3528
	Double Major	BEc	JAPNAD3543
Korean Studies	Double Major	BCom	KOREAD3502
	Double Major	BCom	KOREAD3525
	Double Major	BCom	KOREAD3527
	Double Major	BEc	KOREAD3526
	Double Major	BEc	KOREAD3528
	Double Major	BEc	KOREAD3543
Modern Greek	Double Major	BCom	GREKAD3502
Studies	Double Major	BCom	GREKAD3525
	Double Major	BCom	GREKAD3527
	Double Major	BEc	GREKAD3526
	Double Major	BEc	GREKAD3528
	Double Major	BEc	GREKAD3543
Russian Studies	Double Major	BCom	RUSSAD3502
	Double Major	BCom	RUSSAD3525
	Double Major	BCom	RUSSAD3527
	Double Major	BEc	RUSSAD3526
	Double Major	BEc	RUSSAD3528
	Double Major	BEc	RUSSAD3543
Spanish/Latin	Double Major	BCom	SPANAD3502
	Double Major	BCom	SPANAD3525
	Double Major	BCom	SPANAD3527
	Double Major	BEc	SPANAD3526
	Double Major	BEc	SPANAD3528

Rules Governing the Award of the Degrees of Bachelor of Commerce and Bachelor of Economics

For rules relating to programs which are no longer offered to new students, please refer to earlier Faculty Handbooks. Copies of these rules are also available from the Faculty of Commerce and Economics Student Centre.

Rule 1 – Pass and Honours Degrees

The degrees of Bachelor of Commerce or 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 merit.

Rule 2 – Disciplinary Minors

Students not completing the requirements of two majors in the Bachelor of Commerce degree must choose options so that they complete a 'disciplinary minor' in a discipline other than their major. 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 of 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 (Marketing, Tourism and Hospitality Management), the Bachelor of Commerce/ Bachelor of Science, Bachelor of Commerce/ Bachelor of Arts or the Bachelor of Economics program. There is no automatic transfer between these programs. Candidates may seek to transfer between programs and decisions will be made by the Faculty Admissions Committee.

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 programs leading to the award of the degrees of Bachelor of Commerce or Bachelor of Economics normally consist 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 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 (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

Bachelor of Commerce 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 and Financial Management 1A
ACCT1511	Accounting and 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 12 units of approved General Education courses offered by faculties other than the Faculty of Commerce and Economics.

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 84 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 mainstream courses offered by other faculties as substitutes for General Education courses towards more than 6 units of General Education requirements.

2.2 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.

3. A student enrolled in a Co-op program must in addition 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 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, achieve a Pass with Merit, and obtain a minimum average of 71% 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.

Bachelor of Economics 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:

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

3. 12 units of approved General Education courses offered by faculties other than the Faculty of Commerce and Economics.

4. Each student must include the following in their degree program:

4.1 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);

4.2 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.

5. In addition to the pass degree requirements the award of a degree with Honours requires:

5.1 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

5.2 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.

6. Approved disciplinary streams are listed hereafter:

Approved Disciplinary Streams (Pass)

Accounting
Asian Studies†
Business Law *
Economics
Econometrics
Economics/Econometrics
Economic History
Finance
Financial Economics
Human Resource Management
Industrial Relations

Information Management*
Information Systems
International Business
Management
Marketing
Modern Languages*

Taxation*

†Available only as a co-major integrated Program with Economics

*Not available as a single major, but as a co-major only

Approved Disciplinary Streams (Honours)

To the end of fourth year:

Economics
Econometrics
Economics/Econometrics
Economic History

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 or Bachelor of Economics has been conferred shall not be admitted to candidature for the Honours degree of Bachelor of Commerce or Bachelor of Economics, 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 or Bachelor of Economics. 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

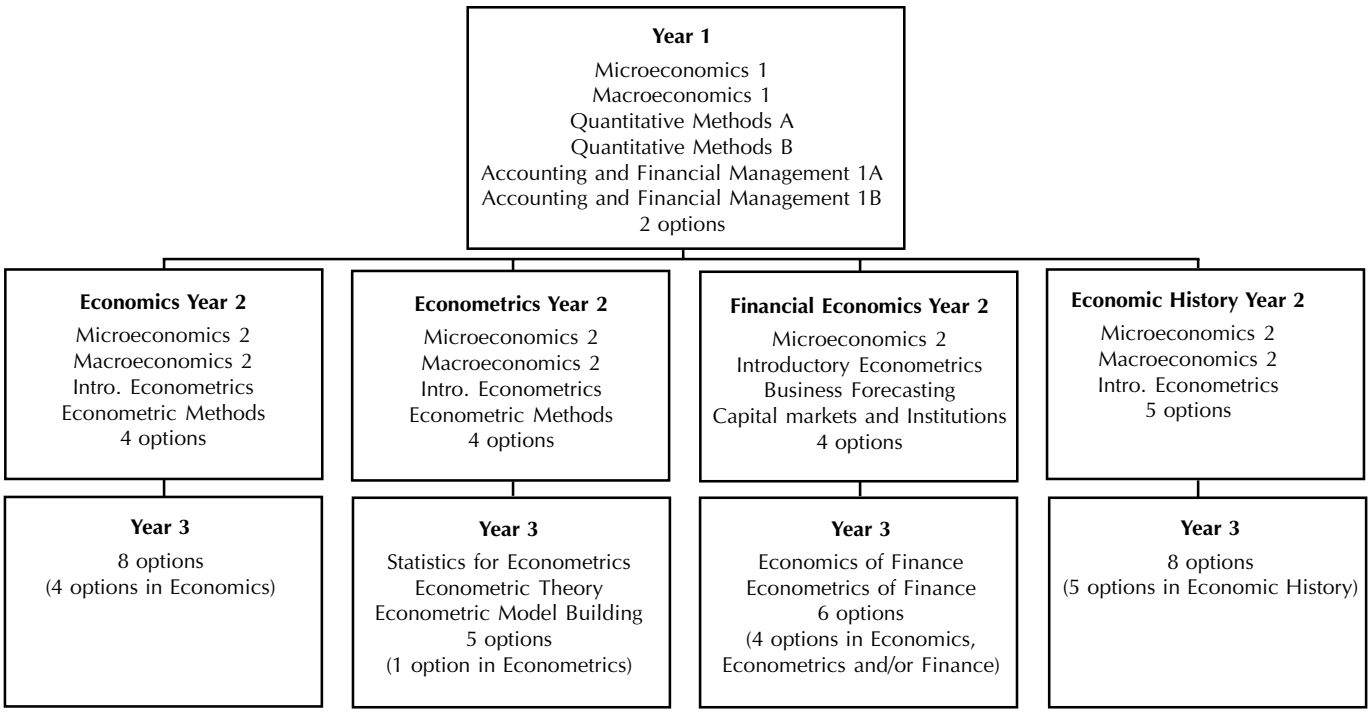
Subject to the requirements of the individual programs, students may choose options from any approved course taught in the University. The approval for courses (other than General Education electives) to count as options is given by the program authority. Heads of the Schools may, in exceptional circumstances, vary courses in prescribed programs. Apart from service courses for other faculties, all courses offered by the Faculty of Commerce and Economics will be automatically approved as options save that no course can be counted both as an option and as a prescribed course.

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

Structure of the Bachelor of Economics



Except in exceptional circumstances, a candidate shall not enrol in any course without having satisfied the prescribed prerequisite or corequisite requirements.

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 merit.

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 pre-requisites) 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 degrees 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 elective courses towards their degree;

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.

Program Structure
Actuarial Studies Co-op Program

Year 1

Session 1	UOC	Session 2	UOC
ACCT1501	6	ACCT1511	6
ECON1101	6	ECON1102	6
MATH1151	6	MATH1251	6
Option	6	ACTL1001	6

Year 2

Session 1	UOC	Session 2	UOC
ACTL2100 IT1**	6	ACTL2003	6
ACTL2001	6	Prof Subject Req.*	6
ACTL2002	6	Electives	6
Prof. Subject Req.*	6	Prof. Subject Req.*	6

Year 3

Session 1	UOC	Session 2	UOC
ACTL3001	6	ACTL3100 IT2	15
ACTL3002	6	Electives	6
Electives	12	General Education	3

Year 4

Session 1	UOC	Session 2	UOC
ACTL4100 IT3	15	ACTL3003	6
Electives	6	ACTL3004	6
General Education	3	Electives	6
		General Education	6

* Professional Requirements – These must include the following courses ACCT2542, ECON2101/ECON2102 and FINS1613

** Completed in 12 weeks during summer session Year 2

Rules Governing the Award of the Degree of Bachelor of Commerce (Information Systems and Management) Honours

Rule 1 – Pass and Honours Degrees

1.1 The degree of Bachelor of Commerce in Information Systems and Management is an Honours degree program. There shall be three classes of honours, namely Class 1, Class 2 in two Divisions and Class 3.

1.2 With the approval of the Head of School students who fail to meet the performance requirements for Honours may substitute approved Information Systems courses for level 4 courses and be awarded a pass degree (see also Rule 9.4)

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 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.

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 pre-requisites) 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 degrees 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 Information Systems in Level 1 – 3 courses, 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 Information Systems in Level 1 – 3 courses, 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 elective courses towards their degree;
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 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 71% 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.

Program Structure

Year 1

Session 1	UOC	Session 2	UOC
ACCT1501	6	ACCT1511	6
ECON1101	6	ECON1102	6
ECON1202	6	ECON1203	6
INFS1602	6	INFS1603	6

Year 2

Session 1	UOC	Session 2	UOC
INFS2603	6	INFS2607	6
INFS2791	6	G.E Elective	6
G.E Elective	6	Elective	6
Elective	6	Elective	6

Year 3

Session 1	UOC	Session 2	UOC
INFS3604	6	Elective	3
INFS4886	6	Hons Option	6
Elective	6	INFS3792	9
Elective	6	INFS4887	6

Year 4

Session 1	UOC	Session 2	UOC
INFS4793	9	Elective	6
INFS4795	6	INFS4796	18
Hons Option	6		
Elective	3		

Rules Governing the Award of the Degree of Bachelor of Commerce in Marketing, Tourism and Hospitality Management

To complete the requirements for the award of the degree of Bachelor of Commerce in Marketing, Tourism and Hospitality Management:

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 approved General Education courses offered by faculties other than the Faculty of Commerce and Economics;
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;
1.4 6 units of Economics of Tourism;
1.5 12 units of approved Commerce and Economics options;
1.6 12 units of approved tourism and hospitality operational training;
1.7 18 units of approved industry training, based on a minimum of 750 hours of employment.

Rule 2

2. A student cannot:
2.1 count more than 48 units of Level 1 core and elective courses towards their degree;
2.2 attempt General Education courses until they have attempted 36 units of mainstream courses;
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 Except when recommended to the contrary by the relevant Head of School, a student intending to enter the Honours year must;

3.4.1 satisfy the Pass degree requirements, achieve a Pass with Merit, and obtain a minimum average of 71% in Level 2 and Level 3 courses of the relevant disciplinary stream in the Pass degree component;

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 candidature for the Honours degree of Bachelor of Commerce.

Rule 4

4. Approved disciplinary streams are listed below:

Approved Disciplinary Streams (Pass)

Tourism and Hospitality Management
Marketing

Approved Disciplinary Streams (Honours)

To the end of Stage 4:

Marketing

Program Structure

Stage 1

Session 1	Session 2
ACCT1501	ECON1102
ECON1101	ECON1203
ECON1202	MARK1012
TAHM1666	TAHM1777

Stage 2

Session 1	Session 2
ACCT1511	MARK2053
MARK2051	TAHM2002
TAHM 2001	TAHM2888
ECON2117	OPTION

Stage 3

Session 1	Session 2
MARK2052	MARK2054
TAHM3001	TAHM3003
TAHM3002	TAHM3004
OPTION	TAHM3888

Stage 4

Session 1	Session 2
MARK3081	MARK3082
TAHM4001	TAHM4003
TAHM4002	TAHM4888
OPTION	OPTION

Note: The above courses are all 6 units of credit each. 12 units of credit from the Options in Stage 2 (Session 2) and Stage 3 (Session 1) should be approved General Education courses.

Disciplinary Streams

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 rules governing the award of degrees for details.

Accounting

Course ID	Course Name	Prerequisite	Session	HPW
ACCT1501	Accounting & Financial Management 1A	Nil	1 or 2	L2 T1.5
ACCT1511	Accounting & Financial Management 1B	ACCT1501	1 or 2	L2 T1.5
ACCT2522	Management Accounting: Process Improvement and Innovation	ACCT1511 **Excluded:** ACCT2532	1	L1 T2
ACCT2532	Management Accounting: Process Improvement and Innovation (Honours)	ACCT1511 **Excluded:** ACCT2522	1	L1 T2
ACCT2542	Corporate Financial Reporting and Analysis	ACCT1511 **Excluded:** ACCT2552	2	L2 T1.5
ACCT2552	Corporate Financial Reporting and Analysis (Honours)	ACCT1511 **Excluded:** ACCT2542	2	L2 T1.5
ACCT3563	Issues in Financial Reporting and Analysis	ACCT2542 **Excluded:** ACCT3573	1 or 2	L2 T1.5
ACCT3573	Issues in Financial Reporting and Analysis (Honours)	ACCT2552 **Excluded:** ACCT3563	1	L2 T2
ACCT3583	Stakeholder Value Management	ACCT2522 **Excluded:** ACCT3593	2	T3
ACCT3585	E-Business: Strategy and Processes	ACCT2522 or ACCT2532	2	L3
ACCT3593	Stakeholder Value Management (Honours)	ACCT2532 **Excluded:** ACCT3583	2	T3.5
ACCT3601	Global Financial Reporting and Analysis	ACCT2542 or ACCT2552	2	L3
ACCT3708	Auditing and Assurance Services	ACCT2542 or ACCT2552 or with the approval of the Head of School **Excluded:** ACCT3718	1 or 2	T3
ACCT3718	Auditing and Assurance Services (Honours)	ACCT2542 or ACCT2552 or with the approval of the Head of School **Excluded:** ACCT3708	1 or 2	T3.5
ACCT4818	Advanced Assurance and Auditing	ACCT3708 or ACCT3718	2	L3
ACCT4820	Management Accounting Issues and International Best Practice	ACCT3583 or ACCT3593 (or corequisite)	2	L3
ACCT4832	Public Sector Accounting and Financial Reporting	ACCT2542 or ACCT2552	1	L3
FINS3626	International Corporate Governance	ACCT1511 and FINS1613	1	L3

Accounting 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		Prerequisite	Session	HPW
ACCT2532	Management Accounting: Process Improvement and Innovation (Honours)	ACCT1511 **Excluded:** ACCT2522	1	L1 T2
ACCT2552	Corporate Financial Reporting and Analysis (Honours)	ACCT1511 **Excluded:** ACCT2542	2	L2 T1.5
ACCT3573	Issues in Financial Reporting and Analysis (Honours)	ACCT2552 **Excluded:** ACCT3563	1	L2 T2
ACCT3593	Stakeholder Value Management (Honours)	ACCT2532 **Excluded:** ACCT3583	2	T3.5
ACCT3718	Auditing and Assurance Services (Honours)	ACCT2542 or ACCT2552 or with the approval of the Head of School **Excluded:** ACCT3708	1 or 2	T3.5
Year 4				
ACCT4794	Thesis (Accounting)	Admission to	1 or 2	

		BCom degree course at Honours level majoring in Accounting		
ACCT4851	Current Developments in Accounting Research – Financial	Admission to BCom degree course at Honours level majoring in Accounting	1	L3
ACCT4852	Current Developments in Accounting Research – Managerial	Admission to BCom degree course at Honours level majoring in Accounting	1	L3
ACCT4897	Seminar in Research Methodology	Admission to BCom degree course at Honours level majoring in Accounting	1	L3
ACCT4809	Current Developments in Auditing Research	Admission to BCom degree course at Honours level majoring in Accounting	2	L3

Accounting Co-op Program

This Program is available as a single major or combined with Finance or Business Economics in the BCom degree only.

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.

Required

ACCT8691	Industrial Training 1	Admission to the Program by selection	Year 2, S1	26 wks
ACCT8692	Industrial Training 2	ACCT8691	Year 3, S2	26 wks
ACCT8693	Industrial Training 3	ACCT8692	Year 4, S1	26 wks

Students may not enrol in any courses concurrently with any of these required courses without the permission of the School of Accounting Co-op Program Coordinator.

Course List

		Prerequisite	Session	HPW
ACCT1501	Accounting & Financial Management 1A	Nil	1 or 2	L2 T1.5
ACCT1511	Accounting & Financial Management 1B	ACCT1501	1 or 2	L2 T1.5
ACCT2522	Management Accounting: Process Improvement and Innovation	ACCT1511 **Excluded:** ACCT2532	1	L1 T2
ACCT2532	Management Accounting: Process Improvement and Innovation (Honours)	ACCT1511 **Excluded:** ACCT2522	1	L1 T2
ACCT2542	Corporate Financial Reporting and Analysis	ACCT1511 **Excluded:** ACCT2552	2	L2 T1.5
ACCT2552	Corporate Financial Reporting and Analysis (Honours)	ACCT1511 **Excluded:** ACCT2542	2	L2 T1.5
ACCT3563	Issues in Financial Reporting and Analysis	ACCT2542 **Excluded:** ACCT3573	1 or 2	L2 T1.5
ACCT3573	Issues in Financial Reporting and Analysis (Honours)	ACCT2552 **Excluded:** ACCT3563	1	L2 T2
ACCT3583	Stakeholder Value Management	ACCT2522 **Excluded:** ACCT3593	2	T3
ACCT3585	E-Business: Strategy and Processes	ACCT2522 or ACCT2532	2	L3
ACCT3593	Stakeholder Value Management (Honours)	ACCT2532 **Excluded:** ACCT3583	2	T3.5
ACCT3601	Global Financial Reporting and Analysis	ACCT2542 or ACCT2552	2	L3
ACCT3708	Auditing and Assurance Services	ACCT2542 or ACCT2552 or with the approval of the Head of School **Excluded:** ACCT3718	1 or 2	T3
ACCT3718	Auditing and Assurance Services (Honours)	ACCT2542 or ACCT2552 or with the approval of the Head of School **Excluded:** ACCT3708	1 or 2	T3.5
ACCT4818	Advanced Assurance and Auditing	ACCT3708 or ACCT3718	2	L3
ACCT4820	Management Accounting Issues and International Best Practice	ACCT3583 or ACCT3593 (or corequisite)	2	L3
ACCT4832	Public Sector Accounting and Financial Reporting	ACCT2542 or ACCT2552	1	L3
FINS3626	International Corporate Governance	ACCT1511, FINS1613	1	L3

Actuarial Studies

Required

ACTL1001	Actuarial Studies and Commerce	Nil	2	L2 T1
ACTL2001	Financial Mathematics	ECON1202 or MATH1131 or MATH1141 or MATH1151	1	L2 T1
ACTL2002	Probability and Statistics for Actuaries	ECON1203 or MATH1231 or MATH1241 or MATH1251	1	L3 T1
ACTL2003	Stochastic Models for Actuarial Applications	ACTL2002 or MATH2801 and MATH2831	2	L3 T1

Options

To satisfy minimum requirements for an actuarial studies minor all courses from the required list ACTL1001, ACTL2001, ACTL2002 and ACTL2003 must be completed.

To satisfy minimum requirements for an actuarial studies major at least three options must be chosen from List A and at most one option from List B. To obtain maximum professional actuarial course exemptions all four ACTL options in List A should be completed and ACCT2542, ECON2101/ECON2102 and FINS2613 from List B.

List A

ACTL3001	Actuarial Statistics	ACTL1001, ACTL2003	1	L3 T1
ACTL3002	Life Insurance and Superannuation Models	ACTL1001, ACTL2003	1	L3 T1
ACTL3003	Insurance Risk Models	ACTL1001, ACTL2003	2	L3 T1
ACTL3004	Financial Economics for Insurance and Superannuation	ACTL2001	2	L3 T1

ACTL3005	Superannuation and Retirement Benefits	ECON1101, ECON1203	2	L2 T1
FINS3631	Risk and Insurance	FINS1613 and FINS2624	1	L3
FINS3651	International Insurance Management	FINS2624 (Corequisite)	2	L3
ACTL4001	Actuarial Theory and Practice A	Permission of Head of School	1	L3
ACTL4002	Actuarial Theory and Practice B	Permission of Head of School	2	L3

List B

ACCT2542	Corporate Financial Reporting and Analysis	ACCT1511	2	L2 T1.5
ECON2101	Microeconomics 2	ECON1101	1	L3
ECON2102	Macroeconomics 2	ECON1102	2	L3
ECON3202	Mathematical Economics	ECON1202	1	L3
ECON3203	Econometric Theory	ECON2215	2	L3
ECON3213	Comparative Economic Forecasting	ECON2206 or ECON2209	2	L3
FINS1612	Capital Markets and Institutions	ECON1101, ECON1202 (*co-requisite*)	1 or 2	L2 T1
FINS1613	Business Finance	FINS1612 or any two of ACCT1511, ECON1102, ECON1203 (*co-requisite*)	1 or 2	L2 T1
FINS3625	Applied Corporate Finance	FINS1613	1 or 2	L3
FINS3630	Bank Financial Management	FINS1612 and FINS1613	1 or 2	L3
FINS3635	Options, Futures and Risk Management	FINS2624	1 or 2	L3
FINS3636	Interest Rate Risk Management	FINS2624	2	L3
MATH1141	Higher Mathematics 1A	HSC 2 and 3 unit Mathematics (145-150) or 3 and 4 unit Mathematics (186-200)	1	L6
MATH1241	Higher Mathematics 1B	MATH1131 or MATH1141, each with a mark of at least 70	2	L6
MATH1151	Mathematics for Actuarial	**Excluded:** MATH1011, MATH1031, MATH1131 MATH1141, ECON1202 ECON2291	1	L6
MATH1251	Mathematics for Actuarial	MATH1151 **Excluded:** MATH1021, MATH1031, MATH1231, MATH1241, ECON1202 ECON2291	2	L6

Actuarial Studies Honours

Required
Year 4

ACTL4000	Thesis (Actuarial Studies)	Admission to Course	1,2 or 1 and 2	L6 or L3
ACTL4001	Actuarial Theory and Practice A	Permission of Head of School	1	L3
ACTL4002	Actuarial Theory and Practice B	Permission of Head of School	2	L3
ACTL4003	Research Topics in Actuarial Science	Admission to Course	1	L3

Plus one other course from Options list

Options

ACTL3001	Actuarial Statistics	ACTL1001, ACTL2003	1	L3, T1
ACTL3002	Life Insurance and Superannuation Models	ACTL1001, ACTL2003	1	L3, T1
ACTL3003	Insurance Risk Models	ACTL1001, ACTL2003	2	L3, T1
ACTL3004	Financial Economics for Insurance and Superannuation	ACTL2001	2	L3, T1
ACTL3005	Superannuation and Retirement Benefits	ECON1101, ECON1203	2	L2, T1
ECON3202	Mathematical Economics	ECON1202	1	L3
ECON3203	Econometric Theory	ECON2215	2	L3
FINS3631	Risk and Insurance	FINS1613, FINS2624	1	L3
FINS3635	Options, Futures and Risk Management Techniques	FINS2624	1 or 2	L3
FINS3636	Interest Rate Risk Management	FINS2624	2	L3
MATH5965	Mathematics of Security Markets 1	Consult Head of Actuarial Studies		
Other Courses		Permission of Head of Actuarial Studies and Subject to meeting Prerequisites.		

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	Course	Prerequisite	Session	HPW
ACTL1001	Actuarial Studies and Commerce	Nil	2	L2 T1
ACTL2001	Financial Mathematics	MATH1141 or MATH1151	1	L2 T1
ACTL2002	Probability and Statistics for Actuaries	MATH1241 or MATH1251	1	L3 T1
ACTL2003	Stochastic Models for Actuarial Applications	ACTL2002	2	L3 T1
ACTL2100	Industrial Training 1 (Year 2-12 wks)	ACTL1001	1	
ACTL3100	Industrial Training 2 (Year 3 - 26 wks)	ACTL2100	2	
ACTL4100	Industrial Training 3 (Year 4 - 26 wks)	ACTL3100	3	

Options

To satisfy minimum requirements of the Actuarial Studies Co-op Program, the following courses must be completed.

List A

ACTL3001	Actuarial Statistics	ACTL1001, ACTL2003	1	L3 T1
ACTL3002	Life Insurance and Superannuation Models	ACTL1001, ACTL2003	1	L3 T1
ACTL3003	Insurance Risk Models	ACTL1001, ACTL2003	2	L3 T1
ACTL3004	Financial Economics for Insurance and Superannuation	ACTL2001	2	L3 T1
ACCT2542	Corporate Financial Reporting and Analysis	ACCT1511	2	L2 T1.5
ECON2101	Microeconomics 2	ECON1101	1	L3
or				
ECON2102	Macroeconomics 2	ECON1102	2	L3
FINS1613	Business Finance	FINS1612 or any two of ACCT1511, ECON1102, ECON1203 (*co-requisite*)	1 or 2	L2 T1

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 ECOH2305 Modern Asian Economic History.

Business Economics (BCom students only)

Required	Course	Prerequisite	Session	HPW
ECON1101	Microeconomics 1	Nil	1 or 2	L3
ECON1102	Macroeconomics 1	ECON1101	1 or 2	L3

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	ECON1101	1	L3
ECON2102	Macroeconomics 2	ECON1102	2	L3
ECON2103	Business and Government	ECON1101 or ECON1103	2	L3
ECON2104	Applied Macroeconomics	ECON1102 or ECON1104	1	L3
ECON2105	Economics of Corporations	ECON1101 or ECON1103	2	L3
ECON2107	The Economics of Information and Technology	ECON1101 or ECON1103	1	L3
ECON2109	Economics of Natural Resources	ECON1101 or ECON1103	1	L3
ECON2111	The Economics of Global Interdependence	ECON1102 or ECON1104	2	L3
ECON2112	Game Theory and Business Strategy	ECON1101 or ECON1103	1	L3
ECON2113	Economics of E-Commerce	ECON1102 or ECON1104	2	L3
ECON2116	Economics of Japanese Business & Government	ECON1102 or ECON1104	1	L3
ECON2117	Economics of Tourism	ECON1102 or ECON1104	1	L3
ECON2127	Environmental Economics	ECON1101 or ECON1103	2	L3
ECON2206	Introductory Econometrics	ECON1203	1	L3
ECOH2319	Economic Policy in Australia	ECON1102	2	L3

List B

ECON2207	Econometric Methods	ECON2206	2	L3
ECON3101	Markets and Public Choice	ECON2101	1	L3
ECON3104	International Monetary Economics	ECON2102	1	L3
ECON3105	Economic Analysis of Productivity	ECON2101	2	L3
ECON3106	Public Finance	ECON1101 or ECON1103	2	L3
ECON3107	Economics of Finance	ECON2101	1	L3
ECON3109	Economic Growth, Technology and Structural Change	ECON2101 or ECON2103	1	L3
ECON3110	Development Economics	ECON2101 or ECON2103	2	L3
ECON3112	The Newly Industrialising Economies of East Asia	ECON1102 or ECON1104	2	L3
ECON3113	Economic Development in ASEAN Countries	ECON1102 or ECON1104	1	L3
ECON3116	International Economics	ECON2101 & ECON2102 or ECON2103 & ECON 2104	2	L3
ECON3119	Political Economy	ECON1102 or ECON1104	2	L3
ECON3120	Economic Reasoning	ECON2102 or ECON2104	2	L3
ECON3121	Managerial Economics	ECON2105 & ECON2112	1	L3
ECON3202	Mathematical Economics	ECON1202	1	L3
ECON3204	Econometric Model Building	ECON2207	1	L3
ECON3206	Financial Econometrics	ECON2206	2	L3
ACTL3005	Superannuation and Retirement Benefits	ECON1101 ECON1203	2	L3

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	Course	Prerequisite	Session	HPW
LEGT1711	Legal Environment of Commerce	Nil	1 or 2	L2 T1
LEGT7721	Business Transactions	LEGT1711	1 or 2	L2 T1
LEGT7741	Business Entities	LEGT7721	2	L3 T1

Options:

Four courses from the following list:

LEGT1715	International Business Law	Nil	1 or 2	L2 T1

LEGT1730	Business, Ethics and the Law	Nil	1 or 2	L2 T1
LEGT1731	Marketing and Distribution Law	Nil	1 or 2	L2 T1
LEGT1733	Franchising	Nil	1	L2 T1
LEGT7751	Business Taxation	LEGT7721	1	L3 T1
LEGT1761	Law of Banking and Finance	Nil	1	L2 T1
LEGT7771	Information Technology Law	LEGT1711 or INFS1602	1 or 2	L2 T1
LEGT7781	Regulation of Government Agencies	LEGT1711	2	L2 T1
LEGT7791	International Business Taxation	LEGT1711	1	L2 T1
LEGT7811	Corporate Law, Tax and Strategy	LEGT7741 and LEGT7751	2	L2 T1
LEGT7812	Corporate Fraud and Crime	LEGT7721 and LEGT7741 (or corequisite)	2	L2 T1
LEGT7821	Special Topic in Business Law	LEGT1711 and approval from Head of School	1 or 2	

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	Course Name	Prerequisite	Session	HPW
ECON1202	Quantitative Methods A	Nil	1 or 2	L3
ECON1203	Quantitative Methods B	ECON1202	1 or 2	L3

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

ECON2204	Dynamic Models	ECON1202	Not offered 2002	
ECON2206	Introductory Econometrics	ECON1203	1	L3
ECON2208	Operations Research	ECON1202	2	L3
ECON2209	Business Forecasting	ECON1203	1	L3
ECON2210	Applied Business Statistics	ECON1203	Not offered 2002	

List B

ECON2207	Econometric Methods	ECON2206	2	L3
ECON3202	Mathematical Economics	ECON1202	1	L3
ECON3206	Financial Econometrics	ECON2206	2	L3
ECON3213	Comparative Forecasting Techniques	ECON2206 or ECON2209	2	L3

Business Strategy & Economic Management (BCom students only)

Required	Course	Prerequisite	Session	HPW
ECON1101	Microeconomics 1	Nil	1 or 2	L3
ECON1102	Macroeconomics 1	ECON1101	1 or 2	L3
ECON2101	Microeconomics 2	ECON1101	1	L3
ECON2105	Economics of Corporations	ECON1101 or ECON1103	2	L3
ECON2112	Game Theory and Business Strategy	ECON1101 or ECON1103	1	L3
ECON3121	Managerial Economics	ECON2105 & ECON2112	1	L3

Options

ECON2102	Macroeconomics 2	ECON1102	2	L3
ECON2103	Business and Government	ECON1101 or ECON1103	2	L3
ECON2104	Applied Macroeconomics	ECON1102 or ECON1104	1	L3
ECON2107	The Economics of Information and Technology	ECON1101 or ECON1103	1	L3
ECON2113	Economics of E-Commerce	ECON1102 or ECON1104	2	L3
ECON2116	Economics of Japanese Business & Government	ECON1102 or ECON1104	1	L3
ECON2206	Introductory Econometrics	ECON1203	1	L3
ECON2208	Operations Research	ECON1202	2	L3
ECON2209	Business Forecasting	ECON1203	1	L3
ECON2207	Econometric Methods	ECON2206	2	L3
ECON3101	Markets and Public Choice	ECON2101	1	L3
ECON3105	Economic Analysis of Productivity	ECON2101	2	L3
ECON3106	Public Finance	ECON1101 or ECON1103	2	L3
ACCT2522	Management Accounting: Process Improvement and Innovation	ACCT1511	1	L3
ACCT2532	Management Accounting: Process Improvement and Innovation (Honours)	ACCT1511	1	L3
IBUS2101	International Business and Multinational Enterprises	ACCT1511, ECON1102, ECON1203	1	L3
IBUS3101	International Business Strategy	IBUS2101 & IBUS2102	1	L3
INFS3603	Business Intelligence Systems	INFS1602 & INFS1603	1	L3
INFS3685	Electronic Commerce Management	INFS1602 & INFS1603	1	L3
IROB3724	Strategic Human Resource 1 Management	IROB2718	2	L3
MARK3071	International and Global Marketing	MARK1012	1	L3
MARK3082	Strategic Marketing Management	MARK2054 & MARK3093	2	L4

Financial Economics

Required	Course	Prerequisite	Session	HPW
ECON2101	Microeconomics 2	ECON1101	1	L3
ECON3107	Economics of Finance	ECON2101	1	L3
ECON2206	Introductory Econometrics	ECON1203	1	L3
ECON2209	Business Forecasting	ECON1203	1	L3
ECON3206	Financial Econometrics	ECON2206	2	L3
FINS1612	Capital Markets & Institutions	Corequisites: 1 or 2 ECON1101 & ECON1202		L2 T1

Options

ECON2102	Macroeconomics 2	ECON1102	2	L3
ECON2104	Applied Macroeconomics	ECON1102 or ECON1104	1	L3
ECON2112	Game Theory and Business Strategy	ECON1101 or ECON1103	1	L3
ECON2207	Econometric Methods	ECON2206	2	L3
ECON2208	Operations Research	ECON1202	2	L3
ECON2215	Statistics for Econometrics	ECON1203	2	L3
ECON3101	Markets and Public Choice	ECON2101	1	L3
ECON3104	International Monetary Economics	ECON2102	1	L3
ECON3202	Mathematical Economics	ECON1202	1	L3
ECON3203	Econometric Theory	ECON2215	2	L3
ECON3204	Econometric Model Building	ECON2207	1	L3
ECON3213	Comparative Forecasting Techniques	ECON2206 or ECON2209	2	L3
FINS1613	Business Finance	FINS1612 or any two of ACCT1511, ECON1102 and ECON1203	1 or 2	L2 T1
FINS2622	Asian Capital Markets	FINS1612	1 or 2	L3
ACTL3005	Superannuation and Retirement Benefits	ECON1101 ECON1203	2	L3

Economics (BEc students only)

Required

ECON1101	Microeconomics 1	Nil	1 or 2	L3
ECON1102	Macroeconomics 1	ECON1101	1 or 2	L3
ECON2101	Microeconomics 2	ECON1101	1	L3
ECON2102	Macroeconomics 2	ECON1102	2	L3
ECON2206	Introductory Econometrics	ECON1203	1	L3
ECON2207	Econometric Methods	ECON2206	2	L3

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

ECOH2319	Economic Policy in Australia	ECON1102	2	L3
ECON2103	Business and Government	ECON1101 or ECON1103	2	L3
ECON2104	Applied Macroeconomics	ECON1102 or ECON1104	1	L3
ECON2105	Economics of Corporations	ECON1101 or ECON1103	2	L3
ECON2107	The Economics of Information and Technology	ECON1101 or ECON1103	1	L3
ECON2109	Economics of Natural Resources	ECON1101 or ECON1103	1	L3
ECON2111	The Economics of Global Interdependence	ECON1102 or ECON1104	2	L3
ECON2112	Game Theory and Business Strategy	ECON1101 or ECON1103	1	L3
ECON2113	Economics of E-Commerce	ECON1102 or ECON1104	2	L3
ECON2116	Economics of Japanese Business & Government	ECON1102 or ECON1104	1	L3
ECON2117	Economics of Tourism	ECON1102 or ECON1104	1	L3
ECON2127	Environmental Economics	ECON1101 or ECON1103	2	L3
ECON3106	Public Finance	ECON1101 or ECON1103	2	L3
ECON3107	Economics of Finance	ECON2101	1	L3
ECON3112	The Newly Industrialising Economies of East Asia	ECON1102 or ECON1104	2	L3
ECON3113	Economic Development in ASEAN Countries	ECON1102 or ECON1104	1	L3
ECON3119	Political Economy	ECON1102 or ECON1104	2	L3
ACTL3005	Superannuation and Retirement Benefits	ECON1101 ECON1203	2	L3

List B

ECON3101	Markets and Public Choice	ECON2101	1	L3
ECON3104	International Monetary Economics	ECON2102	1	L3
ECON3105	Economic Analysis of Productivity	ECON2101	2	L3
ECON3109	Economic Growth, Technology & Structural Change	ECON2101 or ECON2103	1	L3
ECON3110	Development Economics	ECON2101 or ECON2103	2	L3
ECON3116	International Economics	ECON2101 & ECON2102 or ECON2103 & ECON2104	2	L3
ECON3120	Economic Reasoning	ECON2102 or ECON2104	2	L3
ECON3121	Managerial Economics	ECON2105 & ECON2112	1	L3
ECON3202	Mathematical Economics	ECON1202	1	L3
ECON3204	Econometric Model Building	ECON2207	1	L3

Economics Honours (BEc students only)

Year 4

Required	Course	Prerequisite	Session	HPW
ECON4100	Advanced Economic Analysis	ECON2101 and ECON2102	1	L3
ECON4127	Economics Thesis	Admission to Honours	1 and 2	n.a.
Plus three further courses from:				
ECON4101	International Trade	ECON4100 (corequisite)	1	L3
ECON4102	Industrial Organisation	ECON4100 (corequisite)	2	L3
ECON4103	Business Cycles and Growth	ECON4100 (corequisite)	2	L3
ECON4104	Economics of Labour Markets	ECON4100 (corequisite)	1	L3
ECON4201	Applied Econometrics	ECON2207 & ECON2101 or ECON 2103	1	L3

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 (BEc students only)

Required (for single major)

ECON1202	Quantitative	Nil	1 or 2	L3

	Methods A				
ECON1203	Quantitative Methods B	ECON1202	1 or 2	L3	
ECON2101	Microeconomics 2	ECON1101	1	L3	
ECON2102	Macroeconomics 2	ECON1102	2	L3	
ECON2204	Dynamic Models	ECON1202	Not offered 2002		
ECON2206	Introductory Econometrics	ECON1203	1	L3	
ECON2207	Econometric Methods	ECON2206	2	L3	
ECON2215	Statistics for Econometrics	ECON1202	1	L3	
ECON3203	Econometric Theory	ECON2215	2	L3	
ECON3204	Econometric Model Building	ECON2207	1	L3	

Options

ECON2208	Operations Research	ECON1202	2	L3	
ECON2209	Business Forecasting	ECON1203	1	L3	
ECON3202	Mathematical Economics	ECON1202	1	L3	
ECON3206	Financial Econometrics	ECON2206	2	L3	
ECON3213	Comparative Economic Forecasting	ECON2206 or ECON2209	2	L3	

Required (for double major)

ECON1202	Quantitative Methods A	Nil	1 or 2	L3	
ECON1203	Quantitative Methods B	ECON1202	1 or 2	L3	
ECON2101	Microeconomics 2	ECON1101	1	L3	
ECON2102	Macroeconomics 2	ECON1102	2	L3	
ECON2206	Introductory Econometrics	ECON1203	1	L3	
ECON2207	Econometric Methods	ECON2206	2	L3	
ECON2215	Statistics for Econometrics	ECON1202	1	L3	
ECON3203	Econometric Theory	ECON2215	2	L3	

Econometrics Honours (BEc students only)

Year 4
Required

ECON4100	Advanced Economic Analysis	ECON2101 & ECON2102	1	L3	
ECON4201	Applied Econometrics	ECON2207 & ECON2101 or ECON2102	1	L3	
ECON4202	Advanced Econometric Theory	ECON3203	2	L3	
ECON4227	Thesis	Permission of the Head of School	1 and 2	n.a.	

Plus one option from the Economics Fourth Year Honours options list.

Economics/Econometrics (BEc students only)

Required

ECON1101	Microeconomics 1	Nil	1 or 2	L3	
ECON1102	Macroeconomics 1	ECON1101	1 or 2	L3	
ECON1202	Quantitative Methods A	Nil	1 or 2	L3	
ECON1203	Quantitative Methods B	ECON1202	1 or 2	L3	
ECON2101	Microeconomics 2	ECON1101	1	L3	
ECON2102	Macroeconomics 2	ECON1102	2	L3	
ECON2206	Introductory Econometrics	ECON1203	1	L	3
ECON2207	Econometric Methods	ECON2206	2	L3	
ECON2215	Statistics for Econometrics	ECON1202	1	L	3
ECON3203	Econometric Theory	ECON2215	2	L3	

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:

ECON2204	Dynamic Models	ECON1202	Not offered 2002	
ECON2208	Operations Research	ECON1202	2	L3
ECON2209	Business Forecasting	ECON1203	1	L3
ECON3202	Mathematical Economics	ECON1202	1	L3
ECON3204	Econometric Model Building	ECON2207	1	L3
ECON3206	Financial Econometrics	ECON2206	2	L3
ECON3213	Comparative Economic Forecasting	ECON2206 or ECON2209	2	L3

Economics/Econometrics Honours (BEc students only)

Year 4
Required

ECON4100	Advanced Economic Analysis	ECON2101 and ECON2102	1	L3
ECON4201	Applied Econometrics	ECON2207 and ECON2101 or ECON2102	1	L3
ECON4202	Advanced Econometric Theory	ECON3203	2	L3
ECON4227	Thesis	Permission of the Head of School	1 and 2	n.a.

Plus one option from the Economics Fourth Year Honours options list.

Economic History (BCom students only)

Required

ECON1101	Microeconomics 1	Nil	1 or 2	L3
ECON1102	Macroeconomics 1	ECON1101	1 or 2	L3

Options

ECOH1301	Australia in the Global Economy	Nil	1	L3
ECOH1302	Australia and the Asia-Pacific Economies	Nil	2	L3
ECOH2311	German Economy and Society	ECON1102	2	L3
ECOH2313	Australian Economic Development in the 20th Century	ECON1102	1	L3
ECOH2318	Making the Market	ECON1102	1	L3
ECOH2319	Economic Policy in Australia	ECON1102	2	L3
ECOH2322	Business and the New Europe	ECON1102	2	L3

Economic History (BEc students only)

Required

ECON1101	Microeconomics 1	Nil	1 or 2	L3
ECON1102	Macroeconomics 1	ECON1101	1 or 2	L3
ECON2101	Microeconomics 2	ECON1101	1	L3
ECON2102	Macroeconomics 2	ECON1102	2	L3
ECON2206	Introductory Econometrics	ECON1203	1	L3

Options

ECOH1301	Australia in the GlobalEconomy	Nil	1	L3
ECOH1302	Australia and the Asia-Pacific Economies	Nil	2	L3

ECOH2311	German Economy and Society	ECON1102	2	L3
ECOH2313	Australian Economic Development in the 20th Century	ECON1102	1	L3
ECOH2318	Making the Market	ECON1102	1	L3
ECOH2319	Economic Policy in Australia	ECON1102	2	L3
ECOH2322	Business and the New Europe	ECON1102	2	L3

Economic History Honours (BEc students only)

Year 4
Required

ECOH4323	Approaches to Economic and Social History	ECON1102	1	L3
ECOH4324	Aspects of Australian Economic Development	ECON1102	1	L3
ECOH4325	Seminar in Research Methods	ECON1102	2	L3
ECOH4326	Comparative Issues in Economic History	ECON1102	2	L3
ECOH4327	Thesis	Permission of Head of School	1 and 2	n.a.

Finance

Required	Course	Prerequisite	Session	HPW
FINS1612	Capital Markets and Institutions	ECON1101 (Corequisite) ECON1202 (Corequisite)	1 or 2	L2 T1
FINS1613	Business Finance	FINS1612 or any two of ACCT1511, ECON1102, ECON1203 (Corequisite)	1 or 2	L2 T1
FINS2624	Portfolio Management of Financial Assets	FINS1613	1 or 2	L2 T1
FINS3616	International Business Finance	FINS2624 (Corequisite)	1 or 2	L2 T1

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, Funds Management and International Finance** during their second and third years.

Year 1

FINS1612	Capital Markets and Institutions	ECON1101 (Corequisite) ECON1202 (Corequisite)	1 or 2	L2 T1
FINS1613	Business Finance	FINS1612 or any two of ACCT1511, ECON1102, ECON1203 (Corequisite)	1 or 2	L2 T1

Year 2

FINS2624	Portfolio Management of Financial Assets	FINS1613	1 or 2	L2 T1
FINS3616	International Business Finance	FINS2624 (Corequisite)	1 or 2	L2 T1

And optional Finance courses from the list below, in the areas of:

Banking
Corporate Finance
Funds Management
International Finance

Year 3

Optional Finance courses from the list below, in the areas of:

Banking
Corporate Finance
Funds Management
International Finance

Options

FINS2622	Asian Capital Markets	FINS1612	1 or 2	L3
FINS3623	Entrepreneurial and Small Business Finance	FINS1613	2	L3
FINS3625	Applied Corporate Finance	FINS1613	1 or 2	L2 T1
FINS3626	International Corporate Governance	ACCT1511 & FINS1613	1	L3
FINS3630	Bank Financial Management	FINS1612 & FINS1613	1 or 2	L3
FINS3631	Risk and Insurance	FINS1613 & FINS2624 (or Corequisite)	1	L3
FINS3633	Real Estate Finance and Investment	FINS2624	2	L3
FINS3634	Credit Analysis and Lending	FINS1612 and FINS1613	1	L3
FINS3635	Options, Futures and Risk Management Techniques	FINS2624	1 or 2	L3
FINS3636	Interest Rate Risk Management	FINS2624	2	L3
FINS3640	Financial Modelling for Funds Management	FINS2624	1 or 2	L3
FINS3641	International Investment & Funds Management	FINS3640	2	L3
FINS3642	Strategies for International Funds Management	FINS3640	1 or 2	L3
FINS3650	International Banking	FINS3616 (Corequisite)	2	L3
FINS3651	International Insurance Management	FINS2624 (Corequisite)	2	L3
FINS3774	Financial Decision Making Under Uncertainty	Credit or better in FINS2624	1	L3

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	ECON1101 (Corequisite) ECON1202 (Corequisite)	1 or 2	L2 T1
FINS1613	Business Finance	FINS1612 or any two of ACCT1511, ECON1102, ECON1203 (Corequisite)	1 or 2	L2 T1
FINS2624	Portfolio Management of Financial Assets	FINS1613	1 or 2	L2 T1
FINS3616	International Business Finance	FINS2624 (Corequisite)	1 or 2	L2 T1
FINS3774	Financial Decision Making Under Uncertainty	Credit or better in FINS2624	1	L3

To satisfy single major requirements, at least *three* Options must be chosen from List A following. To satisfy double major requirements, at least *two* Options must be chosen from List A following.

Year 4

FINS4775	Research Methods in Finance 1	Credit or better in FINS3774	1	L3
FINS4776	Advanced Topics in Asset Pricing	FINS3774	1	L3
FINS4777	Advanced Topics in Corporate Finance	FINS3774	1	L3
FINS4779	Research Methods in Finance 2	FINS4775	2	L3
FINS4793	Thesis A (Finance)	Permission of the Head of School	1	n.a.
FINS4794	Thesis B (Finance)	Permission of the Head of School	2	n.a.

List A

FINS2622	Asian Capital Markets	FINS1612	1 or 2	L3
FINS3623	Entrepreneurial and Small Business Finance	FINS1613	2	L3
FINS3625	Applied Corporate Finance	FINS1613	1 or 2	L2 T1
FINS3626	International Corporate Governance	ACCT1511 & FINS1613	1	L3
FINS3630	Bank Financial Management	FINS1612 and FINS1613	1 or 2	L3
FINS3631	Risk and Insurance	FINS1613 and FINS2624 (Corequisite)	1	L3
FINS3633	Real Estate Finance and Investment	FINS2624	2	L3
FINS3634	Credit Analysis and Lending	FINS1612 and FINS1613	1	L3
FINS3635	Options, Futures and Risk Management Techniques	FINS2624	1 or 2	L3
FINS3636	Interest Rate Risk Management	FINS2624	2	L3
FINS3640	Financial Modelling for Funds Management	FINS2624	1 or 2	L3
FINS3641	International Investment & Funds Management	FINS3640	2	L3
FINS3642	Strategies for International Funds Management	FINS3640	1 or 2	L3
FINS3650	International Banking	FINS3616 (Corequisite)	2	L3
FINS3651	International Insurance Management	FINS2624 (Corequisite)	2	L3

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.

Required	Course	Prerequisite	Session	HPW
IROB1701	Industrial Relations	Nil	1 or 2	L3
IROB1712	Management of Organisations	Nil	1	L3
IROB2718	Human Resource Management	IROB1701 or IROB1702 or IROB1712	1	L3

Options

List A

IROB3702	International Human Resource Management Practice	as for IROB2718	2	L3
IROB3724	Strategic Human Resource Management	IROB2718	2	L3
IROB3728	Managing Pay and Performance	as for IROB2718	2	L3
IROB3729	Managing Workplace Training	as for IROB2718	2	L3

List B

IROB1702	Labour Organisation	Nil	2	L3
IROB2702	Industrial Law	as for IROB2718 or approval of HOS	1	L3
IROB2703	International Employment Relations	as for IROB2718	1	L3
IROB2704	Social Organisation of Work	as for IROB2718	2	L3
IROB2715	Labour History	as for IROB2718	2	L3
IROB2724	Health and Safety at Work	as for IROB2718	1	L3
IROB3704	Analysing Work and Organisations	as for IROB2718	1	L3
IROB3705	Management and Employment Relations	as for IROB2718	1	L3
IROB3706	Industrial Relations Policies and Processes	as for IROB2718	1	L3
IROB3721	Negotiation, Bargaining and Advocacy	IROB1701 or IROB1702 or IROB1712	2	L3

Human Resource Management 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.

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

IROB1701	Industrial Relations	Nil	1 or 2	L3
IROB1712	Management of Organisations	Nil	1	L3
IROB2718	Human Resource Management	IROB1701 or IROB1702 or IROB1712	1	L3
IROB3708	History and Philosophy of Human Resource Management Thesis Workshop*	IROB3705 and with permission of the Head of School	2	L3

*IROB3708 History and Philosophy of Human Resource Management is a prerequisite for Year 4 Honours and should normally be taken in the session preceding the Honours year.

Year 4
Required

IROB4731	Case Studies A	IROB3706	1	L3
IROB4732	Case Studies B	IROB3706	2	L3
IROB4733	Honours Seminar	Admission to Honours	1 and 2	L3
IROB4738	Thesis (Human Resource Management)	IROB3708 and Admission to Honours	1 and 2	L3

Industrial Relations

Required

IROB1701	Industrial Relations	Nil	1 or 2	L3
IROB1702	Labour Organisation	Nil	2	L3
IROB2702	Industrial Law	IROB1701 or IROB1702 or IROB1712	1	L3

Options

List A

IROB2704	Social Organisation of Work	as for IROB2702	2	L3
IROB2715	Labour History	as for IROB2702	2	L3
IROB3705	Management and Employment Relations	as for IROB2702	1	L3
IROB3706	Industrial Relations Policies and Processes	as for IROB2702	2	L3

List B

IROB1712	Management of Organisations	Nil	1	L3
IROB2703	International Employment Relations	as for IROB2702	1	L3
IROB2718	Human Resource Management	as for IROB2702	1	L3
IROB2724	Health and Safety at Work	as for IROB2702	1	L3
IROB3702	International Human Resource Management Practice	as for IROB2718	1	L3
IROB3704	Analysing Work and Organisations	as for IROB2702	1	L3
IROB3707	History and Philosophy of Industrial Relations Research	Permission of Honours Co-ordinator	2	L3
IROB3721	Negotiation, Bargaining and Advocacy	IROB1701 or IROB1702	2	L3
IROB3724	Strategic Human Resource Management	IROB2718	2	L3
IROB3728	Managing Pay & Performance	as for IROB2702	2	L3
IROB3729	Managing Workplace Training	as for IROB2702	2	L3

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	Course	Prerequisite	Session	HPW
IROB1701	Industrial Relations	Nil	1 or 2	L3
IROB1702	Labour Organisation	Nil	2	L3
IROB2702	Industrial Law	IROB1701 or IROB1702 or IROB1712	1	L3
IROB3707	History and Philosophy of Industrial Relations Research	Permission of the Honours Co-ordinator	2	L3

*IROB3707 History and Philosophy of Industrial Relations Research is a prerequisite for Year 4 Honours and should normally be taken in the session preceding the Honours year.

Year 4
Required

IROB4731	Case Studies A	IROB3706	1	L3
IROB4732	Case Studies B	IROB3706	2	L3
IROB4733	Honours Seminar	Admission to Honours	1 and 2	L3
IROB4734	Thesis (Industrial Relations)	IROB3707 and Admission to Honours	1 and 2	L3

Information Management

This stream is not available as a single major, but as a co-major only.

Required	Course	Prerequisite	Session	HPW
INFS1602	Computer Information Systems	Nil	1 or 2	L3
INFS1603	Business Data Management	Nil	1 or 2	L3
IMGT2701	Information, Knowledge and Society	INFS1602	1	L3
IMGT2702	Information Services and Resource Discovery	Nil	2	L3
IMGT2703	The Role of Records in Organisations	INFS1602	2	L3
IMGT3701	Information Management and Organisation	INFS1602 and INFS1603	1	L3
IMGT3702	Text Information Retrieval	INFS1602 and INFS1603	2	L3

Information Systems

Required	Course	Prerequisite	Session	HPW
INFS1602	Computer Information Systems	Nil	1 or 2	L3
INFS1603	Business Data Management	Nil	1 or 2	L3
INFS2603	Systems Analysis and Design	INFS1602 and INFS1603	1 or 2	L3
INFS2607	Business Data Networks	INFS1602	2	L3

Options

INFS2609	Software Implementation	INFS1602 and INFS1603	1	L3
INFS2611	Requirements Elicitation	INFS1602	2	L1.5
INFS3603	Business Intelligence Systems	INFS1602 and INFS1603	1	L3
INFS3604	Information Technology Management	INFS2603	2	L3
INFS3605	Implementation Workshop	INFS2603 and either INFS2609 or COMP1021	1	L3
INFS3606	Telecommunications for Electronic Commerce	INFS2607	2	L3
INFS3608	Advanced Database Systems	INFS1602 and INFS1603	1	L3
INFS3611	Design Workshop	INFS2603	2	L3
INFS3618	Advanced Global Data Networks	INFS2607 or or INFS3607 INFS2617	2	L3
INFS3621	Alternative System Design Methodologies	INFS2603	1	L1.5
INFS3622	Distributed Application Design and Implementation	INFS2603	1	L1.5

INFS3623	Multimedia Systems Design	INFS2603	2	L1.5
INFS3685	Electronic Commerce Management	INFS2603	1	L3

Year 4
Required

INFS4795	Thesis Part A (Information Systems)	Admission to BCom Honours majoring in Information Systems	1	n.a.
INFS4796	Thesis Part B (Information Systems)	Admission to BCom Honours majoring in Information Systems	2	n.a.
INFS4886	Research Topics in 1 Information Systems	Admission to BCom Honours majoring in Information Systems	1	L3
INFS4887	Research Topics in 2 Information Systems	Admission to BCom Honours majoring in Information Systems	2	L3

Options

Two Options must be chosen from:

INFS4774	Information Systems Security	Admission to BCom Honours majoring in Information Systems	1	L3
INFS4805	Information Systems Auditing	Admission to BCom Honours majoring in Information Systems	2	L3
INFS4810	Advanced Data Management	Admission to BCom Honours majoring in Information Systems	1	L3
INFS4811	Knowledge Management Systems and Technology	Admission to BCom Honours majoring in Information Systems	2	L3
INFS4812	Software Engineering Management	Admission to BCom Honours majoring in Information Systems	1	L3
INFS4848	Information Systems Project Management	Admission to BCom Honours majoring in Systems	2 Information	L3
INFS4853	Information Systems Management	Admission to BCom Honours majoring in Information Systems	2	L3
INFS4857	Information and Decision Technology	Admission to BCom Honours majoring in Information Systems	1	L3
INFS4891	Decision Support Systems	Admission to BCom Honours majoring in Information Systems	1	L3
INFS4893	Special Topic in Information Systems andManagement	Admission to BCom Honours majoring in Information Systems	1 or 2	L3

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

INFS1602	Computer Information Systems	Nil	1 or 2	L3
INFS1603	Business Data Management	Nil	1 or 2	L3
INFS2603	Systems Analysis and Design	INFS1602 and INFS1603	2	L3
INFS2607	Business Data Networks	INFS1602	2	L3
INFS3604	Information Technology Management	INFS2603	2	L3
INFS4886	Research topics in Information Systems 1	Admission to BCom Honours majoring in Information Systems	1	L3
INFS4887	Research topics in Information Systems 2	Admission to BCom Honours majoring in Information Systems	2	L3
INFS4795	Thesis A	Admission to BCom Honours majoring in Information Systems	1	n.a.
INFS4796	Thesis B	Admission to BCom Honours majoring in Information Systems	2	n.a.
INFS2791	Industrial Training A	INFS1602 and INFS1603	1 (Year 2)	
INFS3792	Industrial Training B	INFS2603	2 (Year 3)	
INFS4793	Industrial Training C	INFS2603 and INFS3604	1 (Year 4)	

Options

INFS2609	Software Implementation	INFS1602 and INFS1603	1	L3
INFS2611	Requirements Elicitation	INFS1602	2	L1.5
INFS3603	Business Intelligence Systems	INFS1602 and INFS1603	1	L3
INFS3605	Implementation Workshop	INFS2603 and either INFS2609 or COMP1021	1	L3
INFS3606	Telecommunications for Electronic Commerce	INFS2607	2	L3
INFS3608	Advanced Database Systems	INFS1602 and INFS1603	1	L3
INFS3611	Design Workshop	INFS2603	2	L3
INFS3621	Alternative System Design Methodologies	INFS2603	1	L1.5
INFS3622	Distributed Application Design and Implementation	INFS2603	1	L1.5
INFS3623	Multimedia Systems Design	INFS2603	2	L1.5
INFS3685	Electronic Commerce Management	INFS2603	1	L3

Honours Options

Two Options must be chosen from:

INFS4774	Information Systems Security	Admission to BCom Honours majoring in Information Systems	1	L3
INFS4805	Information Systems Auditing	Admission to BCom Honours majoring in	2	L3

		Information Systems		
INFS4810	Advanced Data Management	Admission to BCom Honours majoring in Information Systems	1	L3
INFS4811	Knowledge Management Systems and Technology	Admission to BCom Honours majoring in Information Systems	2	L3
INFS4812	Software Engineering Management	Admission to BCom Honours majoring in Information Systems	1	L3
INFS4848	Information Systems Project Management	Admission to BCom Honours majoring in Information Systems	2	L3
INFS4853	Information Systems Management	Admission to BCom Honours majoring in Information Systems	2	L3
INFS4857	Information and Decision Technology	Admission to BCom Honours majoring in Information Systems	1	L3
INFS4891	Decision Support Systems	Admission to BCom Honours majoring in Information Systems	1	L3
INFS4893	Special Topic in Information Systems and Management	Admission to BCom Honours majoring in Information Systems	1 or 2	L3

Note: 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.

International Business

This program is available as a single major and co-major in the BCom (Pass) and as a co-major in the BEc (Pass) degrees. To satisfy minimum requirements for International Business minor students must take IBUS1101 & IBUS1102 Plus 2 IBUS Options.

Required	Course	Prerequisite	Session	HPW
IBUS1101	Global Business Environment	Nil	1 or 2	L3
IBUS1102	Managing Across Cultures	Nil	2	L3
IBUS2101	International Business and Multinational Operations	IBUS1101 (co-requisite)	1	L3
IBUS3101	International Business Strategy	IBUS1102, IBUS2101	1	L3
IBUS3102	Asia-Pacific Business	IBUS2101	2	L3
Options				
IBUS1001*	Communicating in Business	Nil	1	L3
IBUS2103	Japanese Business	48 UOC in Arts, Law or Commerce and Economics	2	L3
IBUS2104	Korean Business	48 UOC in Arts, Law or Commerce and Economics	2	L3
IBUS2105	Chinese Business Enterprise	48 UOC in Arts, Law or Commerce and Economics	1	L3
ACCT3601	Global Financial Reporting	ACCT2542 or ACCT2552	2	L3
		and Analysis		
ACCT4820	Management Accounting Issues and International Best Practice	ACCT3583 or ACCT3593	2	L3
ECOH2322	Business and the New Europe	ECON1102	2	L3
ECON2111	Economics of Global Interdependence	ECON1102 or ECON1104	2	L3
ECON2116	Economics of Japanese Business & Government	ECON1102 or ECON1104	1	L3
ECON2117	Economics of Tourism	ECON1102 or ECON1104	1	L3
ECON3104	International Monetary Economics	ECON2102	1	L3
ECON3110	Development Economics	ECON2101 or ECON2103	2	L3
ECON3112	The Newly Industrialising Economies of East Asia	ECON1102 or ECON1104	2	L3
ECON3113	Economic Development in ASEAN Countries	ECON1102 or ECON1104	1	L3
ECON3116	International Economics	ECON2101, ECON2102 or ECON2103, ECON2104	2	L3
FINS2622	Asian Capital Markets	FINS1612	1 or 2	L3
FINS3616	International Business Finance	FINS2624	1 or 2	L3
FINS3626	International Corporate Governance	ACCT1511 and FINS1613	1	L3
FINS3641	International Investment & Funds Management	FINS3640	2	L3
FINS3642	Strategies for International Funds Management	FINS3640	2	L3
FINS3650	International Banking	FINS3616 (corequisite)	2	L3
FINS3651	International Insurance Management	FINS2624 (corequisite)	2	L3
INFS3685	Electronic Commerce Management	INFS1602 or INFS1603	1	L3
IROB2703	International Employment Relations	IROB1701 or or IROB1702 IROB1712	1	L3
IROB3702	International Human Resource Management	IROB1701 or IROB1702 or IROB1712	1	L3
JAPN1000	Japanese Communication 1A†	Nil	1	L5
JAPN1001	Japanese Communication 1B	JAPN1000	2	L5
KORE1000	Korean Communication 1A†	Nil	1	L5
KORE1001	Korean Communication 1B	KORE1000	2	L5
LEGT1715	International Business Law	Nil	1 or 2	L3
MARK3071	International and Global Marketing	MARK1012	1	L2T1

* This course does not qualify as an option for the International Business major.

Note: Other modern languages may be taken as International Business options: Please see Modern Languages stream.

† For students with no Japanese or Korean. Students with HSC or equivalent competence will be enrolled at a suitable level course, subject to the results of a placement test.

Management

Required	Course	Prerequisite	Session	HPW
MGMT1001	Fundamentals of Management	Nil	1	L3
MGMT1002	Managing Organisational Behaviour	MGMT1001	2	L3
MGMT2001	Managing Innovation and Organisational Change	MGMT1001, MGMT1002	1	L3
MGMT2002	Managing Business Communication	MGMT1001	2	L3
MGMT3001	Managing Business Strategy	MGMT2001, MGMT2002 or co-requisite	2	L3
Options				
At least one option must be chosen from List A.				
List A				
ACCT2522	Management Accounting: Process Improvement & Innovation	ACCT1511	1	L3
ACCT3583	Stakeholder Value Management	ACCT2522	2	L3
ECON2112	Game Theory & Business Strategy	ECON1101 or ECON1103	1	L3
IBUS1102	Managing Across Cultures	Nil	2	L3
IROB2703	International Employment Relations	IROB1701 or IROB1702 or IROB1712	1	L3
IROB2718	Human Resource Management	IROB1701 or IROB1702 or IROB1712	1	L3
MARK1012	Marketing Fundamentals	Nil	1 or 2	L3
List B				
ACCT3585	E-Business: Strategy and Processes	ACCT2522, ACCT2532	2	L3
ECON2105	Economics of Corporations	ECON1101 or ECON1103	2	L3
ECON3121	Managerial Economics	ECON2105, ECON2112	1	L3
FINS1612	Capital Markets and Institutions	ECON1101, ECON1202	1 or 2	L2 T1
FINS1613	Business Finance	FINS1612 or any two of ACCT1511, ECON1102 ECON1103 (co-requisite)	1 or 2	L2 T1
INFS1602	Computer Information Systems	Nil	1 or 2	L3
LEGT1711	Legal Environment of Commerce	Nil	1 or 2	L3
LEGT1730	Business, Ethics & the Law	Nil	1	L3

Marketing

Required	Course	Prerequisite	Session	HPW
MARK1012	Marketing Fundamentals	NIL	1 or 2	L2 T2
MARK2051	Consumer Behaviour	MARK1012 Corequisite: MARK2052	1	L2 T2
MARK2052	Marketing Research	MARK1012 Corequisite: MARK2051	1	L2 T2
MARK2053	Marketing Communications & Promotions Management	MARK2051 Corequisite: MARK2054	2	L2 T2
MARK2054	Market Analysis	MARK2052 Corequisite: MARK2053	2	L2 T2
MARK3081	Distribution and Service Management	MARK2053, MARK2054	1	L2 T2
MARK3082	Strategic Marketing Management	MARK2054, MARK3081	2	L2 T2
Options				
MARK1014	Customer Relationship Management	NIL	2	L2 T1
MARK3071	International & Global Marketing	MARK1012	1	L2 T1
MARK3072	Advanced Consumer Behaviour	MARK2051, MARK2052	2	L2 T1
MARK3091	New Product & New Service Development	MARK1012, MARK2051 MARK2052	1	L2 T1
MARK3092	Brand Management	MARK2053, MARK2054	1	L2 T1
MARK3094	Marketing Implementation	MARK2054, MARK3081	2	L2 T1

Marketing Honours

This Program is available to the end of Year 4 for BCom students only.

Year 4 Required			
MARK7204	Thesis (Marketing)	Part A	S1	n.a.
MARK7210	Business Research Methods in Marketing	Admission to Honours	1	T2
MARK7211	Research Seminar in Marketing	Admission to Honours	1	T2
MARK7212	Advanced Quantitative Methods in Marketing	Admission to Honours	2	T2
MARK7213	Contemporary Research Methods in Marketing	Admission to Honours	2	T2
MARK7205	Thesis (Marketing) Part B	Admission to Honours	2	n.a.

Tourism and Hospitality Management (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 Marketing, Tourism and Hospitality Management degree – program code 3571.

Required	Course	Prerequisite	Session	HPW
TAHM1666	Tourism & Hospitality 1 Operational Studies	Admission to course 3571	1	L6*
TAHM1777	Tourism & Hospitality 2 Operational Studies	TAHM1666	2	L6*
TAHM2001	Tourism Policy & Planning 1	MARK1012	1	L3
TAHM2002	Tourism Marketing	TAHM2001	2	L3
TAHM2888	Applied Tourism & Hospitality Management	TAHM1777	2	0**
TAHM3001	Legal Aspects of Tourism	TAHM2002	1	L3

TAHM3002	Tourism & Hospitality Operations Management	TAHM2002	1	L3
TAHM3003	Tourism Policy & Planning 2	TAHM3002	2	L3
TAHM3004	Managing People in the Tourism & Hospitality Industry	TAHM3002	2	L3
TAHM3888	Applied Tourism & Hospitality Management 2	TAHM2888	2	0**
TAHM4001	Tourism & Hospitality Facilities Management	TAHM3004	1	L3
TAHM4002	Project Report in Tourism & Hospitality	TAHM3004	1	L3
TAHM4003	Strategic Management in Tourism & Hospitality	TAHM4001	2	L3
TAHM4888	Applied Tourism & Hospitality Management 3	TAHM3888	2	0**

• *Operational Training 6 hours per week at an approved tourism and hospitality training college

• ** Industry employment reporting, no lecture component

During the first two sessions candidates will undertake a Diploma in Hospitality and Tourism Operations at Kenvale College, usually one day per week for each session. A course fee of approximately $1800 is payable.

Sample program for Marketing, Tourism and Hospitality Management students:

Program Structure*

Stage 1

Session 1	**Session 2**
ACCT1501	ECON1102
ECON1101	ECON1203
ECON1202	MARK1012
TAHM1666	TAHM1777

Stage 2

Session 1	**Session 2**
ACCT1511	MARK2053
MARK2051	TAHM2002
TAHM 2001	TAHM2888
ECON2117	OPTION

Stage 3

Session 1	**Session 2**
MARK2052	MARK2054
TAHM3001	TAHM3003
TAHM3002	TAHM3004
OPTION	TAHM3888

Stage 4

Session 1	**Session 2**
MARK3081	MARK3082
TAHM4001	TAHM4003
THAM4002	TAHM4888
OPTION	OPTION

12 units from the Options in Stage 2 (Session 2) and Stage 3 (Session 1) should be approved General Education courses

* Available only as a co-major integrated Program with Marketing

Modern Languages

Language programs available:

Chinese, French, German, Greek (Modern), Indonesian, 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.

Taxation

This program is not available as a single major, but as a co-major only. This program is not available with the co-major in Business Law.

Required	**Course**	**Prerequisite**	**Session**	**HPW**	
LEGT1711	Legal Environment of Commerce	Nil	1 or 2	L2	T1
LEGT7721	Business Transactions	LEGT1711	1 or 2	L2	T1
LEGT7741	Business Entities	LEGT7721	2	L3	T1
LEGT7751	Business Taxation	LEGT7721	1	L3	T1
Options					
Three courses from the following list:					
LEGT7752	Taxation of Business Entities	LEGT7751	1	L2 T1	
LEGT7753	Capital Gains Tax	LEGT7751	2	L2	T1
LEGT7754	Goods and Services Tax	LEGT7751	1	L2	T1
LEGT7755	Tax Policy and Administration	LEGT7751	2	L2	T1
LEGT7791	International Business Taxation	LEGT1711 or approval from Head of School	1	L2 T1	
LEGT7811	Corporate Law, Tax and Strategy	LEGT7741 and LEGT7751	2	L2 T1	
LEGT7822	Special Topic in Taxation	LEGT7751 and approval from Head of School	1 or 2		

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.

Undergraduate Thesis*

Students enrolled for a degree at Honours level in the Faculty must present a thesis in their final year of study. The thesis is to be on a topic selected by the student and approved by the Head of the Teaching Unit concerned. The thesis must be written under the supervision of a member of staff nominated by the appropriate Head of Teaching Unit.

The length of the thesis for the Honours degree should not exceed 10,000 words.

For the Honours courses the topic selected must normally be submitted for approval no later than the end of the second session in the second last year of the course.

The thesis for any course leading to the award of a degree at Honours level must be presented not later than 30 November of the year in which the thesis is to be presented.

In writing theses students are expected to pay particular attention to matters of presentation. The thesis must include a bibliography and an acknowledgment of all source material and it must be accompanied by an abstract of approximately 200 words. Two copies of the thesis must be submitted in double-spaced typescript on paper size A4 with a 30 mm margin and suitably bound or stapled.

In exceptional circumstances the Head of the Teaching Unit may grant an extension of time for compliance with the requirements of the three immediately preceding paragraphs.

**Before choosing a thesis topic, students in Economics should seek from their department an information sheet outlining requirements for the undergraduate thesis. The School of Economics also supplies the form headed 'Undergraduate Thesis: Application for Approval of Topic'. Two copies of this form should be completed by the student and signed by a member of staff to show that the proposed topic is recommended for consideration. They should then be lodged at the School office.*

Combined Programs leading to the award of the Degrees of: Bachelor of Commerce/Bachelor of Arts *and* Bachelor of Economics/Bachelor of Arts

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 and the Bachelor of Economics/ Bachelor of Arts.

These are five year programs combining the strengths and flexibility of each single degree program. It is expected that these combined degree programs 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 or Bachelor of Economics degree.

Students graduating with a Bachelor of Commerce and a Bachelor of Arts degree or Bachelor of Economics and Bachelor of Arts degree are likely to be employed wherever employers seek Commerce or Economics graduates with, for example, additional language skills in languages offered by the Faculty of Arts and Social Sciences or with a perspective of the world not restricted to business disciplines only.

Rules Relating to the Bachelor of Commerce/Bachelor of Arts Program and Bachelor of Economics/Bachelor of Arts Program

Rules relating to the award of the degree of Bachelor of Commerce and Bachelor of Economics shall apply wherever relevant to students enrolled in the combined Bachelor of Commerce/Bachelor of Arts or Bachelor of Economics/Bachelor of Arts.

These are five year (240 units of credit) degree programs. Both the Bachelor of Commerce/Bachelor of Arts and Bachelor of Economics/ Bachelor of Arts programs consist 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.

3525 Bachelor of Commerce/Bachelor of Arts
BCom BA

Year 1 (48 units of credit)

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

2 Level 1 Arts and Social Science courses (12 units of credit)

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.

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 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 Management*
Information Systems
International Business
Management
Marketing
Modern Languages*
Taxation*

*Not available as a single major, but as a co-major only

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

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:

Chinese Studies
Education
English
French
German Studies
Greek, Modern
History
Indonesian Studies
Japanese Studies
Korean Studies
Linguistics
Music
Philosophy
Policy Studies
Politics and International Relations
Russian Studies
Science & Technology Studies
Sociology
Spanish and Latin American Studies
Theatre, Film and Dance

3526 Bachelor of Economics/Bachelor of Arts
BEc/BA

Year 1 (48 units of credit)

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

2 Level 1 Arts and Social Science courses (12 units of credit)

Years 2–5

In Years 2, 3, 4 and 5 students take a total of 4 Commerce and Economics courses (24 units of credit) and 4 Arts and Social Sciences courses (24 units of credit).

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
Economics/ Econometrics
Econometrics
Economic History
Finance
Financial Economics
Human Resource Management
Industrial Relations
Information Management*
Information Systems
International Business
Marketing Management
Modern Languages*
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 BEc/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)

To the end of sixth year:

Economics
Econometrics
Economics/Econometrics
Economic History

For **Rules Relating to the Bachelor of Arts Component** (see program 3525 Bachelor of Commerce Bachelor of Arts)

Combined Degree Programs leading to the award of the Degrees of:
Bachelor of Commerce/Bachelor of Social Science *and* Bachelor of Economics/Bachelor of Social Science

The Faculty of Commerce and Economics in conjunction with the Faculty of Arts and Social Sciences offers the combined Bachelor of Commerce/ Bachelor of Social Science and the Bachelor of Economics/ Bachelor of Social Science.

These are five year programs combining the strengths and flexibility of each single degree program. It is expected that these combined programs 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 Commerce, Bachelor of Economics or Bachelor of Social Science degree.

Students graduating with a combined Bachelor of Commerce/Bachelor of Social Science degree or Bachelor of Economics/Bachelor of Social Science degree are likely to be employed wherever employers seek Commerce or Economics graduates with additional skills in applied policy analysis, or with a perspective of the world not restricted to business disciplines only.

Rules Relating to the Bachelor of Commerce/Bachelor of Social Science program and Bachelor of Economics/Bachelor of Social Science program

Rules relating to the award of the degree of Bachelor of Commerce and Bachelor of Economics, shall apply wherever relevant to candidates for the course of Bachelor of Commerce/Bachelor of Social Science and Bachelor of Economics/Bachelor of Social Science.

These are five year degree programs (240 units of credit). Both the Bachelor of Commerce/Bachelor of Social Science and Bachelor of Economics/Bachelor of Social Science degrees consist 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.

3527 Bachelor of Commerce/Bachelor of Social Science
BCom BSocSc

Year 1 (48 units of credit)

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
SLSP1000	Introduction to Social Science and Policy OR
SLSP1002	Introduction to Policy Analysis
SLSP1001	Introduction to Research and Information Management

Years 2-5

In Years 2, 3, 4 and 5 students take a total of 4 Commerce and Economics courses (24 units of credit), 24 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.

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 Management*
Information Systems
International Business
Marketing
Management
Modern Languages*
Taxation*

*Not available as a single major, but as a co-major only

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:

Accounting
Finance
Human Resource Management
Industrial Relations
Information Systems
Marketing

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 units of credit 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 Bachelor of Social Science degree. (refer to Arts and Social Science section of this handbook).

2. candidates for Honours in Social Science 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 Social Science at Honours level must consult the Head of School of Social Science and Policy.

3528 Bachelor of Economics/Bachelor of Social Science BEc/BSocSc

Year 1 (48 units of credit)

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
SLSP1000	Introduction to Social Science and Policy OR
SLSP1002	Introduction to Policy Analysis
SLSP1001	Introduction to Research and Information Management

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) including at least 6 (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.

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, Economics 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 or Economic History 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 Management*
Information Systems
International Business
Marketing
Management
Modern Languages*
Taxation*

*Not available as a single major, but as a co-major only

3. Candidates for Honours must complete one year of study additional to the minimum of five years required for the BEc/BSocSc at pass level. 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 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:

Economics
Econometrics
Economics/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.

2. candidates for Honours in Social Science must complete one year of study additional to the minimum of five years required for the BEc/BSocSc 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.

Combined Course leading to the award of Degree of Bachelor of Commerce/Bachelor of Science

The University offers a four year combined program leading to the award of the degree of Bachelor of Commerce/Bachelor of Science.

This combined degree program will appeal to students wanting a strong, focused and highly regarded business course to complement a program of study in natural or physical sciences or mathematics. Students will complete a major stream in both a selected area of science and an approved disciplinary stream in Commerce and Economics. Students are unable to take a modern language as a major stream. With approval, students with an appropriate academic record may also enrol in an additional Honours year in Commerce and Economics or in Science.

Students may choose Information Systems as a major in the BCom component only. In selecting their combination of majors, students should note that while there is a wide range of choice, not every combination could be completed in four years of full-time study.

3529 Bachelor of Commerce/Bachelor of Science BCom/BSc

Rules Relating to the Bachelor of Commerce/Bachelor of Science Program

Entry to the course will be by quota with the admission requirements being not less than that 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 and Bachelor of Commerce/ Bachelor of Science programs. Students may apply to transfer between these courses and decisions will be made by the appropriate Faculty Admissions and Re-enrolment Committee.

For the award of the BCom/BSc combined degree, the following will be required:

Satisfaction of the following requirements:

- 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 single major in one of the approved areas of study in the Faculty of Commerce and Economics, as listed in this Faculty 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 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.

Core courses

All students must complete the following courses:

		UOC
ACCT1501	Accounting and Financial Management 1A	6
ECON1101	Microeconomics I	6
ACCT1511	Accounting and Financial Management 1B	6
ECON1102	Macroeconomics I	6

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 courses selected from:

ACTL2002, ECON1203, MATH1041, MATH2801, MATH2901, MATH2841, BIOS2041, PSYC2001 or alternative statistics courses approved by the program adviser.

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 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.

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 pass 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 as laid out in the Faculty of Commerce and Economics section of this handbook.

Rules Relating to the Bachelor of Science Component

3. Of the (minimum) 48 units of credit in courses related to an approved program of study in Science for the combined degree:

3.1 None may be from courses offered by the Faculty of Commerce and Economics.

3.2 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.

4. 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 fulfil 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 which they wish to undertake Honours at or prior to their third year of study.

A Message from the Dean

This Handbook provides information about undergraduate programs offered by the Faculty of Engineering at UNSW. It also contains descriptions of the programs offered.

The Faculty comprises the Schools of Chemical Engineering and Industrial Chemistry, Civil and Environmental Engineering, Computer Science and Engineering, Electrical Engineering and Telecommunications, Mechanical and Manufacturing Engineering, Mining Engineering, Petroleum Engineering, Surveying and Spatial Information Systems, the Key Centre for Photovoltaic Engineering as well as the Graduate School of Biomedical Engineering. The Faculty has several research Centres and is also actively engaged with nine Co-operative Research Centres (CRCs).

The Faculty of Engineering is dedicated to scholarship, teaching and research in technology and their application for the benefit of the community. The Schools of the Faculty offer undergraduate programs leading to the award of the Bachelor of Engineering (BE). There are also numerous combined programs leading to the award of the BE in combination with the BSc, BA and LLB degrees and concurrent programs for the BE and the Master of Biomedical Engineering as well as 'fast-track' programs leading to the Master of Commerce following an Engineering undergraduate program.

The Faculty is committed to developing the scientific, technical and creative skills of its students. Programs also focus on skills and knowledge required to direct and manage engineering activities. These latter require an ability to work in teams, an understanding of human and physical environments and a highly developed skill in communication with other members of the profession and the public.

As part of the development of the engineering professional, the Faculty encourages its students to play an active part in the entire life of the University. Student activities and professional organisations are amongst the opportunities to do this.

Tim Hesketh
Acting Dean
Faculty of Engineering

Faculty of Engineering

Contents

Faculty Information and Assistance **160**
Some People Who Can Help You 160
Faculty of Engineering Websites 160
Course Descriptions 160
English Language Requirements 160
Entrance Requirements 160
Program Assumed Knowledge 160
Enrolment Procedures 160
Faculty Centres 160
Professional Institutions 161

Program and Course Information

Summary of Programs

Full-time Programs 161
Combined Degree Programs 162
Concurrent Degree Programs 162
Other Engineering Programs at UNSW 162
Co-op Program 162
Transfer Programs 162
BE in Aerospace Engineering 163
BE in Naval Architecture 163
Program Revision 163
Faculty Rules for Progression 163
Honours 163
Industrial Experience Requirements 163
Access to Exam Information 163
General Education Program 163
Bachelor of Engineering Program Rules 163
Bachelor of Engineering Master of Engineering Science Program Rules 164
Bachelor of Science in Industrial Chemistry Program Rules 164

School of Chemical Engineering and Industrial Chemistry 164

Program Outlines 164

3040 Chemical Engineering 164
3041 Chemical Engineering/Master of Commerce 165
3042 Chemical Engineering/Bachelor of Science (Computer Science) 165
3048 Chemical Engineering/Master of Biomedical Engineering 166
3040 Chemical Engineering/Master of Engineering Science 167
3100 Industrial Chemistry 167
3101 Industrial Chemistry/Master of Commerce 168
3102 Industrial Chemistry/Bachelor of Science (Computer Science) 168
3043 Chemical Engineering/Bachelor of Arts 169
3103 Industrial Chemistry/Bachelor of Arts 169
3050 Chemical Engineering - Part-time Program 169
3110 Industrial Chemistry - Part-time Program 169

School of Civil and Environmental Engineering 169

Program Outlines

3620 Civil Engineering 170
3625 Environmental Engineering 171
3621 Civil Engineering/Bachelor of Arts 173
3626 Environmental Engineering/Bachelor of Arts 173
3730 Civil Engineering/Bachelor of Science 173
3730 Civil Engineering/Bachelor of Science (Computer Science) 174
3735 Environmental Engineering/Bachelor of Science 175
3735 Environmental Engineering/Bachelor of Science (Computer Science) 176
3631 Civil Engineering/Environmental Engineering 177

3146 Civil Engineering/Mining Engineering 177
4775 Civil Engineering/Law 178
4777 Environmental Engineering/Law 178
3620 Civil Engineering/Master of Commerce CVENE13620 179
3625 Environmental Engineering/Master of Commerce 179
3620 Civil Engineering/Master of Engineering Science 180
3625 Environmental Engineering/Master of Engineering Science 180

School of Computer Science and Engineering 180

Program Outlines
3645 Computer Engineering 181
3647 Bioinformatics 182
3978 Computer Science 183
3648 Software Engineering 183
3722 Computer Engineering/Bachelor of Arts 184
3726 Computer Engineering/Bachelor of Science 184
3645 Computer Engineering/Master of Engineering Science 185
3651 Software Engineering/Bachelor of Science 185
3652 Software Engineering/Bachelor of Arts 185
3648 Software Engineering/Master of Engineering Science 186
3728 Computer Engineering Joint Programs 186
3728 Computer Engineeering/Master of Biomedical Engineering 186
3731 Computer Engineering/Master of Commerce 186

School of Electrical Engineering and Telecommunications 187

Program Outlines
3640 Electrical Engineering 187
3643 Telecommunications Engineering 188
3640 Electrical Engineering – Part-time Program 188
3643 Telecommunications – Part-time Program 188
3725 Electrical Engineering/Bachelor of Science 189
3720 Electrical Engineering/Bachelor of Arts 189
3641 Telecommunications/Bachelor of Science 190
3646 Telecommunications/ Bachelor of Arts 190
3640 Electrical Engineering/Master of Engineering Science 190
3643 Telecommunications Engineering/Master of Engineering Science 190
3640 Electrical Engineering/Master of Commerce 190
3643 Telecommunications Engineering/Master of Commerce 190
3727 Electrical Engineering/Master of Biomedical Engineering 191
3723 Telecommunications/Master of Biomedical Engineering 191

School of Mechanical and Manufacturing Engineering (incorporating Aerospace Engineering, Mechatronic Engineering and Naval Architecture) 191

Program Outlines
3710 Bachelor of Engineering 191
Aerospace Engineering Plan 191
Manufacturing Engineering and Management Plan 191
Mechanical Engineering Plan 191
Mechatronic Engineering Plan 191
Naval Architecture Plan 191
3711 Bachelor of Engineering/Bachelor of Science 194
Aerospace Engineering (BSc) Plan 194
Manufacturing Engineering and Management (BSc) Plan 194
Mechanical Engineering (BSc) Plan 194
Mechatronic Engineering (BSc) Plan 194
Naval Architecture (BSc) Plan 194
3712 Bachelor of Engineering/Bachelor of Arts 194
Aerospace Engineering (BA) Plan 194
Manufacturing Engineering and Management (BA) Plan 194
Mechanical Engineering (BA) Plan 194
Mechatronic Engineering (BA) Plan 194
Naval Architecture (BA) Plan 194
3711 Bachelor of Engineering/Master of Engineering Science 195
Manufacturing Engineering and Management (BE MEngSc) 195
3710/3749 Mechanical and Mechatronic Engineering/ Master of Biomedical Engineering 195
3710/8404 Manufacturing Engineering and Management, Mechanical Engineering and Mechatronic Engineering/Master of Commerce 195

School of Mining Engineering 196

Program Outlines
3140 Mining Engineering 197
3140 Mining Engineering/Master of Commerce Program 197
3140 Mining Engineering/Master of Environmental Management Master-Track Program 198
3142 Mining Engineering/Bachelor of Science 198
3144 Mining Engineering/Bachelor of Arts 198
3146 Civil Engineering and Mining Engineering 198
3140 Mining Engineering/Master of Engineering Science 198

School of Petroleum Engineering 198

Program Outlines
3045 Petroleum Engineering - Full Time Program (Hons) 199
3045 Petroleum Engineering/Master Commerce 199

School of Surveying and Spatial Information Systems 200

Program Outlines
3741 Bachelor of Engineering in Surveying and Spatial Information Systems Program 200
3746 Bachelor of Engineering Surveying and Spatial Information Systems/Computer Science Program 200
3747 Bachelor of Engineering (Surveying and Spatial Information Systems)/Bachelor of Arts Program 200
3741 Bachelor of Engineering (Surveying & Spatial Information Systems)/Master of Engineering Science Program 201
3748 Bachelor of Engineering (Surveying and Spatial Information Systems)/Master of Commerce Program 201

Graduate School of Biomedical Engineering 203

Concurrent Degree Program Outlines 203
3048 Bachelor of Engineering (Chemical Engineering)/ Master of Biomedical Engineering 203
3728 Bachelor of Engineering (Computer Engineering)/ Master of Biomedical Engineering 203
3727 Bachelor of Engineering (Electrical Engineering)/ Master of Biomedical Engineering 203
3683 Bachelor of Engineering (Mechanical and Mechatronic Engineering)/Master of Biomedical Engineering 203
3723 Bachelor of Engineering (Telecommunications Engineering)/Master of Biomedical Engineering 203

Centre for Photovoltaic Engineering 204

3642 Photovoltaics and Solar Energy – Full-time 204
3642 Photovoltaic and Solar Energy – Part-time 205
3656 Photovoltaics and Solar Energy/Bachelor of Arts 206
3655 Photovoltaics and Solar Energy/Bachelor of Science 206
8512 Photovoltaics and Solar Energy/Master of Engineering Science 206

Faculty Information and Assistance

The entry for the Faculty of Engineering is divided into separate sections for each School/Unit. Before reading Conditions for the Award of Degrees you must read the general information at the front of this handbook 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,** which includes session/s offered, pre/corequisite 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 (NAVL) these courses are also included with the School.

Some People Who Can Help You

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 605, Building K17.
Tel: (02) 9385 6437

School of Chemical Engineering and Industrial Chemistry

Ms V Werfel, Room 314, Applied Science Building.
Tel: (02) 9385 4777

School of Civil and Environmental Engineering

Ms K Irvine, Room 406, Civil Engineering Building,
Tel: (02) 9385 5061

School of Computer Science and Engineering

Dr WH Wilson, 1ST Floor, K17 Building, Tel: (02) 9385 6876 or Ms C Nock, School Office, Ground Floor, K17 Building. Tel: (02) 9385 4728

School of Electrical Engineering and Telecommunications

Ms Cindy Fuller, School Office, Electrical Engineering Building,
Tel: (02) 9385 4000

School of Mechanical and Manufacturing Engineering

Dr JM Challen, Room 107, Mechanical and Manufacturing Engineering Building, Tel: (02) 9385 4154.

School of Mining Engineering

Dr C Daly, Room 37, Old Main Building, Tel: (02) 9385 4514.

School of Petroleum Engineering

Ms J Lippiatt, Room 115, Petroleum Engineering Building, Tel: (02) 9385 4144.

School of Surveying and Spatial Information Systems

Mr L Daras, School Office, Room 426, Electrical Engineering Building, Tel:. (02) 9385 4182.

Graduate School of Biomedical Engineering

Mr S Sadler, 5th Floor, Samuels Building, Tel: (02) 9385 3917.

Centre for Photovoltaic Engineering

Ms Lisa Cahill, Room 128, Electrical Engineering Building. Tel: (02) 9385 6155

Important: As changes may be made to information provided in this handbook, students should frequently consult the noticeboards of the schools and the official noticeboards of the University.

Faculty of Engineering Websites

Faculty of Engineering

www.eng.unsw.edu.au

School of Chemical Engineering and Industrial Chemistry

www.ceic.unsw.edu.au

School of Civil and Environmental Engineering

www.civeng.unsw.edu.au

School of Computer Science and Engineering

www.cse.unsw.edu.au

School of Electrical Engineering and Telecommunications

www.eet.unsw.edu.au

School of Mechanical and Manufacturing Engineering

www.mech.unsw.edu.au

School of Mining Engineering

www.mining.unsw.edu.au

School of Petroleum Engineering

www.petrol.unsw.edu.au

School of Surveying and Spatial Information Systems

www.gmat.unsw.edu.au

Graduate School of Biomedical Engineering

www.gsbme.unsw.edu.au

Centre for Photovoltaic Engineering

www.pv.unsw.edu.au

Course Descriptions

All course descriptions can be found in alphabetical order by course code at the back of this handbook. For a full list of courses offered by the University contact New South Student or www.student.unsw.edu.au.

English Language Requirements

Applicants whose first language is not English or who have not undertaken a previous degree where English was the primary language of instruction are required to provide proof of their competence by presenting acceptable results from one of the following tests or by satisfying the program authority as to their level of proficiency. A pass in the writing component of the tests listed below is strongly recommended.

Minimum Acceptable Score

1. The Test of English as a Foreign Language (TOEFL), (paper-based) 550* or (computer based) 213. The Test of written English (TWE) 5.0.

2. International English Language Testing Service (IELTS) 6.0 in each sub-band.

3. Combined Universities Language Test (CULT) 65%.

4. UNSW Institute of Languages, English Entry Course (UEEC) C (grade point = 6.5).

Entrance Requirements

Students 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.

Program Assumed Knowledge

Assumed Knowledge of Chemistry is recommended for all programs except Computer Science, Software Engineering and Telecommunications, and Surveying and Spatial Information Systems. Further information on available bridging courses may be obtained from the UAC guide or by calling the Admissions Office on 1300 36 8679.

Enrolment Procedures

All students are able to re-enrol via the Web using NewSouth Student Online. 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 2002 using the New South Student Online will be carried on the enrolled students web page: www.student.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

Key Centre for Photovoltaic Engineering
Director: **Professor Stuart R. Wenham**

The Key centre for Photovoltaic Engineering commenced in January 1999 and was one of only eight Key Centres established by the ARC Australia-wide across all disciplines. Massive growth in the photovoltaics industry is creating the need for new educational programs and collaborative research programs between manufacturers and institutions such as UNSW. Approximately half of the Key Centre's activities are devoted to research, with industry collaboration as a high priority. The

other half of the Key Centre's activities focus on teaching. The primary new initiative in the teaching area is the establishment of a new undergraduate engineering degree in Photovoltaics and Solar Energy. This new program commenced in the year 2000 with further details on educational programs provided in the section under the Centre for Photovoltaic Engineering. In 2001, a "partner" undergraduate degree will commence at Murdoch University being developed in conjunction with the Key Centre and relying heavily on cross-enrolments with UNSW.

Photovoltaic Special Research Centre

Directors: Associate Professor Armin Aberle - Thin-film Device Research
Associate Professor Christiana Honsberg - Commercial Bulk Technology Research
Dr J. Zhao - High Efficiency Device Program

The Photovoltaic Special Research Centre (PVSRC) was established in 1991 with major initiatives in commercial bulk technology research, thin-film device research and high efficiency devices. All three programs are active and highly successful within the Centre. The High Efficiency Device Program has achieved the distinction of holding the world efficiency record for silicon solar cells for more than a decade. The Commercial Bulk Technology Research has developed the buried contact solar cell, the most successfully commercialised new photovoltaic technology internationally in the last 15 years. The thin-film device research has led to the development of the thin-film multilayer technology which has become the focus of a major $50 million commercialisation program. New approaches, independent of Pacific Solar, are presently being investigated for the fabrication of highly efficient thin-film poly-si cells on glass. The facilities of the PVSRC are widely regarded as among the best internationally in the photovoltaic area.

Centre for Third Generation Photovoltaics

Director: Professor Martin A. Green
Deputy Directors: Associate Professor Armin Aberle
Dr. Richard Corkish

Since the early days of terrestrial photovoltaics (conversion of sunlight to electricity), a common perception has been that "first generation" silicon wafer-based solar cells would be replaced by a "second generation" of lower cost thin-film technology, probably also involving a different semiconductor. Historically, cadmium sulphide, amorphous silicon, copper indium diselenide, cadmium telluride and now thin-film silicon have been regarded as key materials for deposition as thin films onto a supporting substrate or superstrate. Since any mature solar cell technology must evolve to the stage where costs are dominated by those of the constituent materials, be it silicon wafers or glass sheet, it is likely that photovoltaics must evolve, in its most mature form, to a "third generation" of high-efficiency thin-film technology. By high-efficiency, what is meant is energy conversion values double or triple the 15-20% range presently targeted.

The Centre for Third Generation Photovoltaics was one of a small number of research Centres selected for funding as a Commonwealth Government Special Research Centre in the year 2000. It was established specifically to identify and accelerate the development of such "third generation" devices. The aim is to bring the most promising of these approaches to a "proof of concept" stage during the anticipated 9-year life of the Centre. There are outstanding opportunities with the Centre for "state of the art" research at postgraduate and postdoctoral levels in semiconductor device physics and technology, computer simulation of electro-optical devices, electronic materials engineering, and semiconductor device fabrication and characterisation areas.

For information relating to other Centres associated with the Faculty of Engineering, please refer to the Postgraduate Handbook.

Professional Institutions

1. 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 to promote 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, eg 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* and for a small fee they also receive 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, write to The Institution of Engineers, Australia, Sydney Division, 1st Floor, 118 Alfred Street, Milsons Point 2061, Tel: 9929 8544

2. The Institution of Surveyors, Australia

During their years as undergraduates, students in the Surveying and Spatial Information Systems course are encouraged to take the first steps in joining in the activities of the professional body which represents them – The Institution of Surveyors, Australia. The aims of the Institution 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 Institution, The Australian Surveyor, and Azimuth which is published by the New South Wales Division of the Institution. Membership also entitles the student to attend all meetings of the Institution and to attend the annual Congress at a special concessional rate. Membership application forms are available at the office of the School of Surveying and Spatial Information Systems and from the Institution Office, Third Floor, Guild House, 363 Pitt Street, Sydney 2000.

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 aspect 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, Tel: 9264 9500.

Program and Course Information
Summary of Programs

Full-time Programs

The Faculty of Engineering offers the following full-time undergraduate programs:

Bachelor of Engineering BE

in:

Aerospace Engineering	3710
Bioinformatics Engineering	3647
Chemical Engineering	3040
Civil Engineering	3620
Computer Engineering	3645
Electrical Engineering	3640
Environmental Engineering	3625
Manufacturing Engineering and Management	3710
Mechanical Engineering	3710
Mechatronic Engineering	3710
Mining Engineering	3140
Naval Architecture	3710
Petroleum Engineering	3045
Photovoltaics & Solar Energy	3642
Software Engineering	3648
Surveying and Spatial Information Systems	3741
Telecommunications	3643

Bachelor of Science BSc

Industrial Chemistry	3100
Computer Science	3978

Bachelor of Science (Technology) BSc(Tech)

Chemical Engineering	3050
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
Chemical Engineering	3042
Civil Engineering	3730
Computer Engineering	3726
Electrical Engineering	3725
Environmental Engineering	3735
Industrial Chemistry (BSc)	3102
Manufacturing Engineering and Management	3711
Mechanical Engineering	3711
Mechatronic Engineering	3711
Mining Engineering	3142
Naval Architecture	3711
Photovoltaics and Solar Energy	3655
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
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 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 Engineering Master of Engineering Science BE MEngSc

Students may undertake a 4.5 years (10 semesters) full-time combined 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.

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 combined 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:

Civil Engineering	3620
Environmental Engineering	3625
Chemical Engineering	3040
Computer Engineering	3645
Electrical Engineering	3640
Manufacturing & Management	3710
Mechanical Engineering	3710
Mechatronics	3710
Mining Engineering	3140
Photovoltaics and Solar Energy	8512
Software Engineering	3648
Surveying and Spatial Information Systems	3741
Telecommunications	3643

Bachelor of Engineering Master of Engineering/Master of Science

Admission Guidelines: An applicant for the BE ME or BE MSc program should, at the time of application, be enrolled in the 4.5 years 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.

Concurrent Degree Programs

Full-time programs are available for the award of the following degrees:

Bachelor of Engineering Master of Biomedical Engineering BE MBiomedE

(5 years duration) in:

Chemical Engineering	3048
Computer Engineering	3728
Electrical Engineering	3727
Mechanical Engineering	3710/3749
Mechatronics	3710/3749
Telecommunications	3723

Fast Track Programs Bachelor of Engineering Master of Commerce

Accelerated progression into a Master of Commerce program following a BE is possible from any of the engineering programs, permitting the BE and MCom to be completed in 5 years. Entry to the BE MCom is approved at the end of Year 3 of a BE program for students with weighted average exceeding 65%. Three electives from the Faculty of Commerce and Economics are taken in Year 4, followed by the MCom in Year 5.

Other Engineering Programs at UNSW

For further information please refer to the Faculty of Science section of this handbook.

Co-op Program

The University's Co-op Program in the Faculty of Engineering consists of industry-linked, five-year programs in Aerospace Engineering, Chemical Engineering and Industrial Chemistry, Civil Engineering, Computer Engineering, Electrical Engineering, Environmental Engineering, Manufacturing Engineering and Management, Mechanical Engineering, Mechatronic Engineering, Mining Engineering, Petroleum Engineering, Photovoltaics and Solar Energy, Naval Architecture, and Surveying and Spatial Information Systems.

Co-op scholars are selected largely on the basis of academic attainment, personal skills and motivation. Non-academic achievements are also considered.

Further information is available from the Office of Industry-Linked Education, telephone (02) 9385 5116.

Transfer Programs

Students transferring to the University of New South Wales 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 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 University of New South Wales 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 Australasian 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 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 Head of the School is satisfied that the courses studied at the other institution are equivalent, and he gives his recommendation.

Program Revision

Following each program revision students are assessed on the basis of the new program but retain credit for any course already completed and are not liable for the increased requirements if progression is normal.

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 Information 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.

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.

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 issue of the Notification of Result of Assessment form.

General Education Program

For a fuller 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.

Faculty Requirements

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. In general, the only restrictions, apart from the usual need for prerequisite knowledge, on the choice of courses is that, in all but exceptional circumstances, students may not take courses offered by the Faculty of Engineering, or by Schools which offer other courses already in the student's program.

Additional information for undergraduate students who first enrolled before 1996.

Transitional arrangements

It is intended that no student will be disadvantaged by the change to the new General Education Program. The old Program had specific requirements to complete four session length courses (or their equivalent) in designated categories A and B. The new General Education Program does not categorise courses in the same way.

As a result, students who enrolled prior to 1996 will be given full credit for any General Education courses completed up to the end of Session 2 1995.

From the Summer Session of 1995-96, students will be required to satisfy the unfilled portion of their General Education requirement under the terms of the new Program.

The exemption of General Education requirements for some double or combined degree programs will continue to apply for students who enrolled in these exempt programs prior to 1996.

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 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).

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 combined 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 HECS/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.

Bachelor of Science in Industrial Chemistry Program Rules

1. The BSc in Industrial Chemistry is awarded following the completion of a minimum of 192 units of credit.

2. The specific requirements for the BSc in Industrial Chemistry are set out 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 students has attempted at least 24 units of credit.

School of Chemical Engineering and Industrial Chemistry

Head of School: Associate Professor Michael Brungs
Administrative Officer: Vivienne Brennan
Director, Teaching and Learning: Dr Vicki Chen

The School provides a Bachelor of Engineering in Chemical Engineering and a Bachelor of Science in Industrial Chemistry. Both degrees are full-time four year degrees accredited by the Institute of Engineers Australia; the BE in Chemical Engineering is also accredited by the Institution of Chemical Engineers (UK).

Combined degrees are also available for suitably qualified students. The BEBSc (Computer Science) and BSc BSc (Computer Science) provide accredited degrees in Chemical Engineering and Industrial Chemistry plus professional skills in computing. The BE MCom and BSc MCom allow advanced standing in the Masters of Commerce and the BE MBiomedE allows advanced standing in the Masters of Biomedical Engineering. New combined programs BEBA (3043) and BSc BA (3103) are also available, and allows students to combine their professionally accredited CE/IC degree with their choice of an Arts major. Starting in 2002, the School offers a new combined program over 4.5 years full-time, Bachelor of Engineering and Master of Engineering Science (BE MEngSc) allowing flexibility of choice between formal coursework and project work.

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 are applied scientists, some of whom are engaged in solving problems in forefront research areas while others are responsible for the successful operations of Australia's chemical industry. Industrial Chemists analyse raw materials, apply computers to the simulation and control of chemical plant and verify the quality of the product. A particularly important activity is the control and management of the environment of industrial processes. Industrial Chemists are capable of fulfilling a multiplicity of roles as research scientists, development chemists, technical representatives and as plant/company managers.

For the award of Honours in the Chemical Engineering and Industrial Chemistry degree 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. 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.

Program Outlines

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.

3040 Chemical Engineering - Full-time Program

Bachelor of Engineering BE

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).

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.

The Director of Teaching and Learning may approve various program patterns involving full-time or part-time study.

This program can form part of combined degrees with BE (Chem Eng)BSc (Comp Sci), BE (Chem Eng)MCom and BE (Chem Eng)MBiomedE, BE (Chem Eng)BA and also BE MEngSc See below for more details or contact Director, Teaching and Learning.

		HPW		UOC	
		S1	S2	S1	S2
Stage1					
CEIC1010	Introduction to the Chemical Industry	3	0	3	0
CEIC1020	Introduction to Chemical Engineering	0	6	0	6
CHEM1011	Fundamentals of Chemistry 1A **OR**				
CHEM1031	Higher Chemistry 1C	6	0	6	0
CHEM1021	Chemistry 1B **OR**				
CHEM1041	Higher Chemistry 1D	0	6	0	6
MATH1131	Mathematics 1A **or**				
MATH1141	Higher Mathematics 1A	6	0	6	0
MATH1231	Mathematics 1B **or**				
MATH1241	Higher Mathematics 1B	0	6	0	6
MECH0130	Engineering Drawing and Solid Modelling	3	0	3	0
PHYS1169	Engineering Physics 1 **or**				
PHYS1111	Fundamentals of Physics *	6	0	6	0
CEIC1030	Communications and Business Skills **or**				
PHYS1229	Concepts in Engineering Physics	0	6	0	6

* if PHYS1111 is taken, then PHYS1229 MUST be taken in S2

Total	**HPW Session 1**	**24**
	HPW Session 2	**24**
	Units of Credit Session 1	**24**
	Units of Credit Session 2	**24**

		HPW		UOC	
		S1	S2	S1	S2
Stage 2					
CEIC2011	Instrumental Analysis - Theory	3	0	3	0
CEIC2012	Instrumental Analysis- Practical	0	3	0	3
CEIC2020	Introduction to Numeric Methods	3	0	3	0
CEIC2110	Material and Energy Balances	3	0	3	0
CEIC2120	Fluid Flow	3	0	3	0
CEIC2130	Heat Transfer	0	3	0	3
CHEN2050	Chemical Engineering Practice 1	0	3	0	3
CHEN2061	Introduction to Process Chemistry 1	6	0	6	0
CHEN2062	Introduction to Process Chemistry 2	0	3	0	3
CHEN2140	Mass Transfer	0	3	0	3
ELEC0809	Electrical Engineering1C	2	0	3	0
MATH2020	Mathematics 2A	2	0	3	0
MATH2030	Mathematics 2B	0	2	0	3
MATH2899	Applied Statistics CE	0	3	0	3
GENXXXX	General Education	0	2	0	3
Total	**HPW Session 1**	**22**			
	HPW Session 2	**22**			
	Units of Credit Session 1	**24**			
	Units of Credit Session 2	**24**			
Stage 3					
BIOT3100	Fermentation Processes	0	2	0	3
CEIC3070	Process Control	0	4	0	4
CEIC3010	Reaction Engineering	0	3	0	4
CEIC3110	Thermodynamics	3	0	3	0
CHEN3021	Systems Modelling and Analysis	2	0	3	0
CHEN3022	Process Modelling and Optimisation	0	3	0	3
CHEN3031	Advanced Transport Phenomena	0	3	0	3
CHEM3062	Unit Ops & Pressure Vessels	6	0	6	0
CHEN3065	Plant & Equipment Design	0	4	0	4
CHEN3067	Process Design & Economics	3	0	3	0
CHEN3068	Process Design & Safety	0	3	0	3
CHEN3080	Chemical Engineering Practice 2	3	0	3	0
GENXXXXX	General Education course/s	4	0	6	0
Total	**HPW Session 1**	**21**			
	HPW Session 2	**22**			
	Units of Credit Session 1	**24**			
	Units of Credit Session 2	**24**			
Stage 4					
CEIC4070	Automation Science	3	0	4	0
CEIC4101	Professional Electives Advanced	0	3	0	3
CEIC4102	Professional Electives Extended	3	0	3	0
CEIC4106	Professional Elective - Extended	0	3	0	3
CEIC4120	Management and Plant Operation	0	5	0	6
CHEN4031	Environmental Management 1	3	0	3	0
CHEN4081	Design Project	6	0	8	0
CHEN4091	Research Project Theory	3	0	3	0
CHEN4092	Research Project Practice	0	10	0	12
GENXXXXX	General Education course/s	2	0	3	0
Total	**HPW Session 1**	**20**			
	HPW Session 2	**21**			
	Units of Credit Session 1	**24**			
	Units of Credit Session 2	**24**			

3041 Chemical Engineering/Master of Commerce – Full-time Program

Bachelor of Engineering Master of Commerce BE MCom

The combined program of five years full-time study enables a student in the School to qualify for the award of the Bachelor of Engineering (Chemical Engineering) and Master of Commerce. Students undertake the first three years of their four year undergraduate BE (Chemical Engineering) degree program. In year four (4), they undertake three core Master of Commerce courses which leads to Advanced Standing in four MCom courses (an exemption is given for Statistics for Business based on the high level of mathematics and statistics already achieved in your BE (Chemical Engineering). Students need to apply to the Director of Teaching and Learning for entry into combined MCom program (normally students are required to achieve a weighted credit average (65 percent) as currently calculated for Honours standing, in the first three years of the BE (Chemical Engineering) degree. The School of Chemical Engineering and Industrial Chemistry administers the program until Stage 5.

Stage 1 to Stage 3

Same as program 3040
Total Units 24 each stage

		HPW		UOC	
		S1	S2	S1	S2
Stage 4					
ACCT5901	Accounting: A User's Perspective **OR**				
ACCT5930	Financial Accounting	3	0	6	0
CEIC4102	Professional Electives	3	0	3	0
CEIC4110	Plant Management and Operation	0	4	0	4
CHEN4093	Research Project Theory	4	0	4	0
CHEN4094	Small Research Project Practice	0	8	0	8
CHEN4031	Environmental Management 1	3	0	3	0
CHEN4081	Design Project	6	0	8	0
ECON5103	Business Economics	0	3	0	6
	CORE Commerce Elective *	0	3	0	6
	*see school office for complete listing				
Total	**HPW Session 1**	**19**			
	HPW Session 2	**18**			
	Units of Credit Session 1	**24**			
	Units of Credit Session 2	**24**			
Stage 5					
	Commerce Elective	3	0	6	0
	Commerce Elective	3	0	6	0
	Commerce Elective	3	0	6	0
	Commerce Elective	3	0	6	0
	Commerce Elective	0	3	0	6
	Commerce Elective	0	3	0	6
	Commerce Elective	0	3	0	6
	Commerce Elective	0	3	0	6
Total	**HPW Session 1**	**12**			
	HPW Session 2	**12**			
	Units of Credit Session 1	**24**			
	Units of Credit Session 2	**24**			

3042 Chemical Engineering/Bachelor of Science (Computer Science)

Bachelor of Engineering Bachelor of Science in Computer Science BE BSc

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.

Stage 1					
CEIC1020	Introduction to Chemical Engineering	0	6	0	6
CHEM1101	Fundamentals of Chemistry 1A **or**				
CHEM1031	Higher Chemistry 1C	6	0	6	0
CHEM1021	Chemistry 1B **or**				
CHEM1041	Higher Chemistry 1D	0	6	0	6
COMP1011	Computing 1A	6	0	6	0
COMP1021	Computing 1B	0	6	0	6
MATH1131	Mathematics 1A **or**				
MATH1141	Higher Mathematics 1A	6	0	6	0
MATH1231	Mathematics 1B **or**				
MATH1241	Higher Mathematics 1B	0	6	0	6
PHYS1169	Physics 1 (Chem & Mech Eng) **or**				
PHYS1111	Fundamentals of Physics	6	0	6	0
Total	**HPW Session 1**	**24**			
	HPW Session 2	**24**			
	Units Session 1	**24**			
	Units Session 2	**24**			
Stage 2					
CEIC2011	Instrumental Analysis - Theory	3	0	3	0
CEIC2110	Material and Energy Balances	3	0	3	0
CEIC2120	Fluid Flow	3	0	3	0
CEIC2130	Heat Transfer	0	3	0	3
CHEN2050	Chemical Engineering Practice 1	0	3	0	3
CHEN2061	Introduction to Process Chemistry 1	6	0	6	0
CHEN2062	Introduction to Process Chemistry 2	0	3	0	3
CHEN2140	Mass Transfer	0	3	0	3
COMP2011	Data Organisation	5	0	6	0
MATH2020	Mathematics 2A	2	0	3	0

MATH2030	Mathematics 2B	0	2	0	3
MATH1081	Discrete Maths	0	6	0	6
MATH2899	Applied Statistics CE	0	3	0	3
Total	**HPW Session 1**	**22**			
	HPW Session 2	**23**			
	Units of Credit Session 1	**24**			
	Units of Credit Session 2	**24**			

Stage 3

CEIC3070	Process Control	0	4	0	4
CEIC3010	Reaction Engineering	0	3	0	4
CEIC3110	Thermodynamics	3	0	3	0
CEIC4103	Professional Elective	3	0	3	0
CHEN3021	Systems Modelling and Analysis	2	0	3	0
CHEN3022	Process Modelling and Optimisation	0	3	0	3
CHEN3031	Advanced Transport Phenomena	0	3	0	3
CHEN3062	Unit Ops & Pressure Vessels	6	0	6	0
CHEN3065	Plant & Equipment Design	0	4	0	4
CHEN3080	Chemical Engineering Practice 2	3	0	3	0
COMP2021	Digital Systems Structures	5	0	6	0
COMP2041	Software Construction: Techniques and Tools	0	5	0	6
Total	**HPW Session 1**	**22**			
	HPW Session 2	**22**			
	Units of Credit Session 1	**24**			
	Units of Credit Session 2	**24**			

Stage 4

CEIC2012	Instrumental Analysis- Practical	0	3	0	3
CEIC4104	Professional Elective Extended	3	0	3	0
CHEN3067	Process Design & Economics	3	0	3	0
CHEN3068	Process Design & Safety	0	3	0	3
COMP*	Computing Elective	5	0	6	0
COMP*	2 x Computing Electives	5	5	6	6
COMP*	2 x Computing Electives	5	5	6	6
	Elective Course	0	6	0	6
Total	**HPW Session 1**	**21**			
	HPW Session 2	**22**			
	Units of Credit Session 1	**24**			
	Units of Credit Session 2	**24**			

Stage 5

CEIC4070	Automation Science	3	0	4	0
CEIC4101	Professional Electives Advanced	3	0	3	0
CEIC4102	Professional Electives Extended	0	6	0	6
CEIC4106	Professional Elective Extended	0	3	0	3
CEIC4120	Management and Plant Operation	0	5	0	6
CHEN4031	Environmental Management 1	3	0	3	0
CHEN4081	Design Project	6	0	8	0
CHEN4091	Research Project Theory	3	0	3	0
CHEN4092	Research Project Practice	0	10	0	12
	Elective Course *	2	0	3	0

* Either Computer Science or Chemical Engineering/Industrial Chemistry

Total	**HPW Session 1**	**20**
	HPW Session 2	**21**
	Units of Credit Session 1	**24**
	Units of Credit Session 2	**24**

3048 Chemical Engineering/Master of Biomedical Engineering - Full-time Program

Bachelor of Engineering Master of Biomedical Engineering
BE MBiomedE

Provides route to BE in 4 years and MBiomedE in 5th year. Program is based on modified 3040 with additional courses in preparation for Masters. A summary is provided below with details in the section 'Graduate School of Biomedical Engineering'.

Stage 1

BIOM1001	Professional Biomedical Studies	2	0	3	0
BIOM9010	Biomedical Engineering Practice	0	2	0	3
CEIC1020	Introduction to Chemical Engineering	0	6	0	6
CHEM1011	Fundamentals of Chemistry 1A	6	0	6	0
CHEM1021	Chemistry 1B	0	6	0	6
MATH1131	Mathematics 1A	6	0	6	0
MATH1231	Mathematics 1B	0	6	0	6
MECH1030	Engineering Drawing and Solid Modelling	3	0	3	0
PHYS1169	Physics for Engineering	6	0	6	0
GENXXXXX	General Education	0	2	0	3
Total	**HPW Session 1**	**23**			
	HPW Session 2	**22**			
	Units of Credit Session 1	**24**			
	Units of Credit Session 2	**24**			

Stage 2

BIOM9XXX	Biomed Eng Elective	0	3	0	6
CEIC2011	Instrumental Analysis - Theory	3	0	3	0
CEIC2012	Instrumental Analysis - Practical	0	3	0	3
CEIC2020	Introduction to Numeric Methods	3	0	3	0
CEIC2110	Material and Energy Balances	3	0	3	0
CEIC2120	Fluid Flow	3	0	3	0
CEIC2130	Heat Transfer	0	3	0	3
CHEN2050	Chemical Engineering Practice 1	0	3	0	3
CHEN2061	Introduction to Process Chemistry 1	6	0	6	0
CHEN2062	Introduction to Process Chemistry 2	0	3	0	3
CHEN2140	Mass Transfer	0	3	0	3
ELEC0809	Electrical Engineering 1C	2	0	3	0
MATH2020	Engineering Mathematics 2A	2	0	3	0
MATH2030	Engineering Mathematics 2B	0	2	0	3
Total	**HPW Session 1**	**22**			
	HPW Session 2	**21**			
	Units of Credit Session 1	**24**			
	Units of Credit Session 2	**24**			

Stage 3

BIOM9420	Clinical Laboratory Science	3	0	6	0
BIOT3100	Fermentation Processes	0	3	0	3
CEIC3070	Process Control	0	4	0	4
CEIC3010	Reaction Engineering	0	3	0	4
CEIC3110	Thermodynamics	3	0	3	0
CHEN3021	Systems Modelling and Analysis	2	0	3	0
CHEN3022	Process Modelling and Optimisation	0	3	0	3
CHEN3031	Advanced Transport Phenomena	0	3	0	3
CHEN3062	Unit Ops & Pressure Vessels	6	0	6	0
CHEN3065	Plant Equipment & Design	0	4	0	4
CHEN3080	Chemical Engineering Practice 2	3	0	3	0
MATH2899	Applied Statistics CE	0	3	0	3
GENXXXXX	General Education	2	0	3	0
Total	**HPW Session 1**	**19**			
	HPW Session 2	**23**			
	Units of Credit Session 1	**24**			
	Units of Credit Session 2	**24**			

Stage 4

BIOM5930	Research Project A	0	3	0	6
BIOM9XXX	Biomedical Engineering Elective	0	3	0	6
BIOM9XXX	Biomedical Engineering Elective	3	0	6	0
BIOM9XXX	Biomedical Engineering Elective	3	0	6	0
CEIC4130	Plant Operation	0	3	0	3
CHEN3067	Process Design & Economics	3	0	3	0
CHEN3068	Process Design & Safety	0	3	0	3
CEIC4104	Professional Elective Extended	3	0	3	0
PHPH2101	Physiology 1A	6	0	6	0
PHPH2201	Physiology 1B	0	6	0	6
Total	**HPW Session 1**	**18**			
	HPW Session 2	**18**			
	Units of Credit Session 1	**24**			
	Units of Credit Session 2	**24**			

Stage 5

BIOM5002	Research Project B	4	0	9	0
BIOM9913	Masters Thesis **OR**				
	2 Biomedical Electives	0	6	0	12
BIOM9XXX	Biomedical Engineering Elective	0	3	0	6
BIOM9XXX	Regulatory requirements for Biomedical Technology	0	3	0	6
CEIC4070	Automation Science	3	0	4	0
CHEN4031	Environmental Management	3	0	3	0
CHEN4081	Design Project	6	0	8	0
Total	**HPW Session 1**	**16**			
	HPW Session 2	**12**			
	Units of Credit Session 1	**24**			
	Units of Credit Session 2	**24**			

Biomedical Electives
Preferred electives

BIOM9311	Mass Transfer in Medicine	0	3	0	6

BIOM9321	Physiological Fluid Mechanics	0	3	0	6
BIOM9332	Biocompatibility	0	3	0	6
BIOM9613	Medical Instrumentation	3	0	6	0
BIOM9440	Biomedical Practical Measurement	0	3	0	6

Other electives

BIOM9027	Medical Imaging	0	3	0	6
BIOM9060	Biomedical Systems Analysis	3	0	6	0
BIOM9450	Clinical Information Sys.	0	3	0	6
BIOM9601	Biomed Applic of Microcomputers 1	3	0	6	0
BIOM9602	Biomed Applic of Microcomputers 2	0	3	0	6
BIOM9541	Mechanics of the human body	3	0	6	0
BIOM9621	Biolog. Signal Analysis	3	0	6	0
BIOM9551	Biomechanics of Physical Rehabilitation	3	0	6	0
BIOM9701	Dynamics of cardiovascular system	3	0	6	0
ANAT2511	Fundamentals of Anatomy	0	6	0	6

3040 Chemical Engineering/Master of Engineering Science – Full-time Program – CEICLI3040

Bachelor of Engineering Master of Engineering Science BE MEngSc

Students may undertake a 4.5 years (10 semesters) full-time combined 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 Program Rules under Conditions for 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).

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
Total Units 24 each stage

		HPW		UOC	
		S1	S2	S1	S2
Stage 4					
CEIC4070	Automation Science	3	0	4	0
	Selected Postgraduate Course	3	0	6	0
	Selected Postgraduate Course	0	3	0	6
CEIC4120	Management and Plant Operation	0	5	0	6
CHEN4031	Environmental Management 1	3	0	3	0
CHEN4081	Design Project	6	0	8	0
CHEN4091	Research Project Theory	3	0	3	0
CEIC4095	Special Research Project Practice	0	9	0	9
	General Education	0	2	0	3
Total	**HPW Session 1**	**18**			
	HPW Session 2	**19**			
	Units of Credit Session 1	**24**			
	Units of Credit Session 2	**24**			
Stage 5 (Summer Semester)					
CEIC8320	Graduate Thesis	6	0	12	0
Stage 5 (Session 1)					
	Selected Postgraduate Course	3	0	6	0
	Selected Postgraduate Course	3	0	6	0
	Selected Postgraduate Course	3	0	6	0
	Selected Postgraduate Course	3	0	6	0
Total	**HPW Summer Semester**	**6**			
	HPW Session 1	**12**			
	Units of Credit Summer Semester	**12**			
	Units of Credit Session 1	**24**			

3100 Industrial Chemistry - Full-time Program

Bachelor of Science BSc

Industrial Chemistry is a four-year professional (prescribed) science 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 BSc (Ind Chem)/ BSc (Comp Sci) , BSc (Ind Chem)/MCom and also BSc (Ind Chem)/BA. See below for more details or contact Director, Teaching and Learning.

Stage 1

CEIC1010	Introduction to the Chemical Industry	3	0	3	0
CEIC1020	Introduction to Chemical Engineering	0	6	0	6
CHEM1011	Fundamentals of Chemistry 1A **or**				
CHEM1031	Higher Chemistry 1C	6	0	6	0
CHEM1021	Chemistry 1B **or**				
CHEM1041	Higher Chemistry 1D	0	6	0	6
MATH1131	Mathematics 1A **or**				
MATH1141	Higher Mathematics 1A	6	0	6	0
MATH1231	Mathematics 1B **or**				
MATH1241	Higher Mathematics 1B	0	6	0	6
MECH0130	Engineering Drawing and Solid Modelling	3	0	3	0
PHYS1169	Engineering Physics ***or**				
PHYS1111	Fundamentals of Physics	6	0	6	0
CEIC1030	Communications and Business Skills **or**				
PHYS1229	Concepts in Engineering Physics	0	6	0	6

* if PHYS1111 is taken then PHYS1229 must be taken in S2

Total	**HPW Session 1**	**24**
	HPW Session 2	**24**
	Units of Credit Session 1	**24**
	Units of Credit Session 2	**24**

Stage 2

CEIC2011	Instrumental Analysis -Theory	3	0	3	0
CEIC2012	Instrumental Analysis - Practical	0	3	0	3
CEIC2020	Introduction to Numeric Methods	3	0	3	0
CEIC2110	Material and Energy Balances	3	0	3	0
CEIC2120	Fluid Flow	3	0	3	0
CEIC2130	Heat Transfer	0	3	0	3
CHEM2021	Organic Chemistry	0	6	0	6
CHEM2839	Inorganic Chemistry	0	6	0	6
INDC2040	Physical Process Chemistry	6	0	6	0
MATH2020	Mathematics 2A	2	0	3	0
MATH2030	Mathematics 2B	0	2	0	3
MATH2899	Applied Statistics CE	0	3	0	3
	General Education	2	0	3	0
Total	**HPW Session 1**	**22**			
	HPW Session 2	**23**			
	Units of Credit Session 1	**24**			
	Units of Credit Session 2	**24**			

Stage 3

BIOT3100	Fermentation Processes	0	2	0	3
CEIC3070	Process Control	0	4	0	4
CEIC3010	Reaction Engineering	0	3	0	4
CEIC3110	Thermodynamics	3	0	3	0
CHEM3829	Organic Chemistry	6	0	6	0
INDC3051	Process Chemistry and Operations	0	4	0	4
INDC3110	Industrial & Environmental Chemistry	6	0	6	0
INDC3120	Industrial Chemistry Practice	0	6	0	6
POLY3011	Polymer Science -Theory	3	0	3	0
POLY3012	Polymer Science-Practice	0	3	0	3
	General Education course/s	4	0	6	0
Total	**HPW Session 1**	**22**			
	HPW Session 2	**22**			
	Units of Credit Session 1	**24**			
	Units of Credit Session 2	**24**			

Stage 4

CEIC4070	Automation Science	3	0	4	0
CEIC4105	Professional Electives Extended	0	3	0	3
CEIC4120	Management and Plant Operation	0	5	0	6
INDC4061	Process Design A	4	0	4	0
INDC4062	Process Design B	4	0	4	0
INDC4091	Research Project Theory	11	0	12	0
INDC4092	Research Project Practice	0	12	0	12
	General Studies	0	2	0	3
Total	**HPW Session 1**	**22**			
	HPW Session 2	**22**			
	Units of Credit Session 1	**24**			
	Units of Credit Session 2	**24**			

3101 Industrial Chemistry/Master of Commerce – Full-time Program

Bachelor of Science Master of Commerce BSc MCom

The combined program of five years full-time study enables a student in the School to qualify for the award of the Bachelor of Science (Industrial Chemistry) and Master of Commerce. Students undertake the first three years of their four year undergraduate BSc (Industrial Chemistry) degree program. In year four (4), they undertake three core Master of Commerce courses which leads to Advanced Standing in four MCom courses (an exemption is given for Statistics for Business based on the high level of mathematics and statistics already achieved in your BSc (Industrial Chemistry). Students need to apply to the Director of Teaching and Learning for entry into combined MCom program (normally students are required to achieve a weighted credit average (65 percent) as currently calculated for Honours standing, in the first three years of the BSc (Industrial Chemistry) degree. The School of Chemical Engineering and Industrial Chemistry administers the program until Stage 5.

Stage 1 to Stage 3

Same as program 3100
Total Units 24 each stage

Stage 4

ACCT5901	Accounting: A users Perspective **or**				
ACCT5930	Financial Accounting	3	0	6	0
CEIC4120	Management and Plant Operation	0	5	0	6
ECON5103	Business Economics	0	3	0	6
INDC4093	Small Research Project Theory	8	0	8	0
INDC4094	Small Research Project Practice	0	8	0	8
INDC4061	Process Design A	4	0	4	0
INDC4062	Process Design B	0	4	0	4
INFS5988	Business Information Systems	3	0	6	0
Total	**HPW Session 1**	**18**			
	HPW Session 2	**20**			
	Units of Credit Session 1	**24**			
	Units of Credit Session 2	**24**			

Stage 5

	Commerce Elective	3	0	6	0
	Commerce Elective	3	0	6	0
	Commerce Elective	3	0	6	0
	Commerce Elective	3	0	6	0
	Commerce Elective	0	3	0	6
	Commerce Elective	0	3	0	6
	Commerce Elective	0	3	0	6
	Commerce Elective	0	3	0	6
Total	**HPW Session 1**	**12**			
	HPW Session 2	**12**			
	Units of Credit Session 1	**24**			
	Units of Credit Session 2	**24**			

3102 Industrial Chemistry/Bachelor of Science (Computer Science) - Full-time Program

Bachelor of Science, Bachelor of Science in Computer Science BSc BSc

The combined program of five years full-time study enables a student in the school to qualify for the award of the two Bachelor of Science degrees (BSc/BSc). Graduates from this new program will have a broader range of complementary computing, chemistry and engineering skills that will greatly enhance both their employment and career prospects. The School of Chemical Engineering and Industrial Chemistry administers the program.

Successful completion of the BSc (Industrial Chemistry) degree program is accepted by the Institute of Engineers, Australia and the Royal Australian Chemical Institute as sufficient academic qualification for corporate membership.

Stage 1

CEIC1020	Introduction to Chemical Engineering	0	6	0	6
COMP1011	Computing 1A	6	0	6	0
COMP1021	Computing 1B	0	6	0	6
CHEM1011	Fundamentals of Chemistry 1A **OR**				
CHEM1031	Higher Chemistry 1C	6	0	6	0
CHEM1021	Chemistry 1B **OR**				
CHEM1041	Higher Chemistry 1D	0	6	0	6
MATH1131	Mathematics 1A **OR**				
MATH1141	Higher Mathematics 1A	6	0	6	0
MATH1231	Mathematics 1B **OR**				
MATH1241	Higher Mathematics 1B	0	6	0	6
PHYS1169	Physics 1 (Chem & Mech Eng) **OR**				
PHYS1111	Fundamentals of Physics	6	0	6	0
Total	**HPW Session 1**	**24**			
	HPW Session 2	**24**			
	Units of Credit Session 1	**24**			
	Units of Credit Session 2	**24**			

Stage 2

CEIC2010	Instrumental Analysis -Theory	3	0	3	0
CEIC2011	Instrumental Analysis -Practical	0	3	0	3
CEIC2110	Material and Energy Balances	3	0	3	0
CEIC2120	Fluid Flow	3	0	3	0
CEIC2130	Heat Transfer	0	3	0	3
CHEM2021	Organic Chemistry	0	6	0	6
COMP2011	Data Organisation	5	0	6	0
INDC2040	Physical Process Chemistry	6	0	6	0
MATH2020	Mathematics 2A	2	0	3	0
MATH2030	Mathematics 2B	0	2	0	3
MATH1081	Discrete Maths	0	6	0	6
MATH2899	Applied Statistics CE	0	3	0	3
Total	**HPW Session 1**	**22**			
	HPW Session 2	**23**			
	Units of Credit Session 1	**24**			
	Units of Credit Session 2	**24**			

Stage 3

CEIC3070	Process Control	0	4	0	4
CEIC3010	Reaction Engineering	0	3	0	4
CEIC3110	Thermodynamics	3	0	3	0
CEIC4103	Professional Electives Extended	2	0	3	0
CHEM2031	Inorganic Chemistry and Structure	6	0	6	0
COMP2021	Digital Systems Structures	5	0	6	0
COMP2041	Software Construction: Techniques and Tools	0	5	0	6
INDC3051	Process Chemistry and Operations	0	4	0	4
INDC3110	Industrial & Environmental Chemistry	6	0	6	0
INDC3120	Industrial Chemistry Practice	0	6	0	6
Total	**HPW Session 1**	**22**			
	HPW Session 2	**22**			
	Units of Credit Session 1	**24**			
	Units of Credit Session 2	**24**			

Stage 4

CEIC4101	Professional Electives Advanced	0	3	0	3
CEIC4102	Professional Electives Extended	3	0	3	0
COMP*	Computing Elective	5	0	6	0
COMP*	2 x Computing Electives	5	5	6	6
COMP*	2 x Computing Electives	5	5	6	6
POLY3011	Polymer Science - Theory	3	0	3	0
POLY3012	Polymer Science - Practice	0	3	0	3
	Elective Course*	0	6	0	6

* Either Computer Science or Chemical Engineering/Industrial Chemistry

Total	**HPW Session 1**	**21**			
	HPW Session 2	**22**			
	Units of Credit Session 1	**24**			
	Units of Credit Session 2	**24**			

Stage 5

CEIC4070	Automation Science	3	0	4	0
CEIC4105	Professional Elective Extended	0	3	0	3
INDC4061	Process Design A	4	0	4	0
INDC4062	Process Design B	4	0	4	0
INDC4091	Research Project Theory	11	0	12	0
INDC4092	Research Project Practice	0	12	0	12
	Elective Course	0	2	0	3
Total	**HPW Session 1**	**22**			
	HPW Session 2	**22**			
	Units of Credit Session 1	**24**			
	Units of Credit Session 2	**24**			

3043 Chemical Engineering/Bachelor of Arts – Full-time Program

Bachelor of Engineering Bachelor of Arts BE BA (3043)

3103 Industrial Chemistry/Bachelor of Arts - Full-time Program

Bachelor of Science Bachelor of Arts BSc BA

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/Science and Bachelor of Arts. With these programs students can add their choice of an Arts major to the standard professionally accredited Chemical Engineering/Industrial Chemistry 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/BSc program and both can be completed within 10 sessions.

The programs are open to all students who satisfy both the Chemical Engineering/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/BSc BA programs are administered by the School of Chemical Engineering and 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 Chemical Engineering and Industrial Chemistry 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 (ie. 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:

Chinese Studies
Education
English
Environmental Studies*
French
German Studies
Modern Greek Studies
History
Indonesian Studies
Japanese Studies
Korean Studies
Linguistics
Music
Philosophy
Policy Studies
Political Science
Russian Studies
Science & Technology Studies
Sociology
Spanish & Latin American Studies
Theatre, Film and Dance

* 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/BSc 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, 3100 BSc in Industrial Chemistry except that they are exempt from the General Studies requirement of the BE/BSC program. However, students will not be eligible for graduation for the BE/BSc 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/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.

Part-time programs

Six-year part-time programs leading to the award of the degree of Bachelor of Science (Technology) in Chemical Engineering and in Industrial Chemistry are intended for students who are employed in relevant industries and who wish to prepare for a degree mainly by part-time attendance.

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.

Holders of the degree of BSc (Tech) or BSc (Eng) will be eligible to proceed to the award of the degree of Master of Science or Master of Engineering, refer to course regulations relating to these degrees.

Transfer is also possible from full-time programs to the part-time BSc (Tech) degree program, but a period of approved industrial experience must be gained before graduation. This requirement will apply to students transferring from BSc and BE degree programs within the Faculty.

Details of part time programs can be obtained from the Director of Teaching and Learning.

3050 Chemical Engineering - Part-time Program

Bachelor of Science (Technology) BSc(Tech)

3110 Industrial Chemistry - Part-time Program

Bachelor of Science (Technology) BSc(Tech)

Part time programs consist of first 3 years of the respective full time program – undertaken over a six year period.

Details of part time programs can be obtained from the Director of Teaching and Learning.

School of Civil and Environmental Engineering

Head of School: Professor RI Gilbert
Senior Administrative Officer: Ms KM Irvine
Executive Assistant: Dr B Uy

The School undertakes teaching and research in the specialist disciplines of engineering construction and management (civil engineering systems, engineering economics, project planning and management and civil engineering construction), geotechnical engineering (foundation, soil, rock, dam and pavement engineering, geomechanics and environmental geomechanics), structural engineering (structural analysis and design, concrete, steel and composite structures, and concrete and materials technology), transport engineering (planning design and operation of transport systems, land use and transport modelling, statistical analysis, economic evaluations and environmental impact studies), and water engineering (hydraulics, hydrology, groundwater, water resources, water and wastewater treatment, waste management and public health 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 and the Munro Centre for Civil and Environmental Engineering are also 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 is also involved in the UNSW Groundwater Centre which is a joint enterprise with the School of Geology in the Faculty of Science.

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 daytime. 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. These include the new BE BSc programs majoring in Computer Science.
- 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 year full-time programs3620 and 3625 leading to the award of the degrees of Bachelor of Engineering in Civil or Environmental Engineering and Master of Commerce.
- Four and one half year full-time programs 3622 and 3627 leading to the award of the degrees of Bachelor of Engineering in Civil and Environmental Engineering, respectively, and 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 LLProgram Objectives).

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
- General Education x 2
- Year 2 x 2
- Year 3 x 4
- Year 4 x 5

Industrial training is assigned a nominal value of 4 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. A weighted average mark of 75 and above will result in a recommendation for Honours 1.

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 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 the Year 4 Industrial Training course.

Computing Requirements

Information regarding recommended computing equipment for the programs offered by the School is available from the School Office.

Program Outlines

3620 Civil Engineering – Full-time Program - CVENA13620

Civil Engineering offers opportunities to become involved in projects that enhance the overall quality of life. Civil engineers design, construct, manage, operate and maintain the infrastructure that supports modern society including buildings, bridges, roads and highways, tunnels, airfields, dams, ports and harbours, railways, new mines, water supply and sewerage schemes, irrigation systems and flood mitigation works. The profession is very broad and affords opportunities for involvement in many specialist activities.

Bachelor of Engineering BE ***New Program**

The following new curriculum is implemented for the first time in 2002 for all students entering years 1, 2 and 3 of the program. Year 4 of the program will be offered for the first time in 2003.

		HPW		UOC
		S1	S2	
Year 1				
CHEM1011	Fundamentals of Chemistry A **or**			
CHEM1031	Higher Chemistry C	6	0	6
CVEN1021	Civil Engineering Practice 1A	2	0	4
CVEN1022	Civil Engineering Practice 1B	0	4	6
CVEN1023	Statics	3	0	4
CVEN1024	Dynamics	0	3	4
CVEN1025	Computing	3	0	4
CVEN1026	Engineering Materials 1	0	3	4
MATH1131	Mathematics 1A or			
MATH1141	Higher Mathematics 1A	6	0	6
MATH1231	Mathematics 1B or			
MATH1241	Higher Mathematics 1B	0	6	6
PHYS1721	Physics 1CE	0	4	4
Total	**HPW Session 1**	**20**		
	HPW Session 2	**20**		
	Units of Credit	**48**		
Year 2				
CVEN2022	Civil Engineering Practice 2	0	2	3
CVEN2023	Mechanics of Solids	3	0	3
CVEN2025	Engineering Computations 1	3	0	3
CVEN2026	Engineering Materials 2	3	0	3
CVEN2125	Systems Engineering	0	2	3
CVEN2126	Engineering Construction 1	3	0	3
CVEN2222	Geotechnical Engineering 1	3	0	3
CVEN2322	Structural Engineering 1	0	6	6
CVEN2525	Introduction to Water Eng.	0	3	3
GMAT0442	Surveying for Civil Engineers	3	0	3
GMAT0491	Survey Camp	(0)	0	3
MATH2019	Engineering Mathematics 2CE	0	5	6
General Education		2	2	6
Total	**HPW Session**	**20**		
	HPW Session 2	**20**		
	Units of Credit	**48**		
Year 3				
CVEN3023	Civil Engineering Practice 3A	2	0	3
CVEN3024	Civil Engineering Practice 3B	0	2	3

CVEN3025	Engineering Computations 2	3	0	3
CVEN3125	Engineering Construction 2	0	3	3
CVEN3126	Engineering Management 1	0	3	3
CVEN3222	Geotechnical Engineering 2	3	0	3
CVEN3223	Geotechnical Engineering 3	0	3	3
CVEN3322	Structural Engineering 2	6	0	6
CVEN3324	Structural Engineering 3	0	3	3
CVEN3438	Transport Planning & Environment	3	0	3
CVEN3448	Transport Engineering	0	3	3
CVEN3526	Water Resources Engineering	3	0	3
CVEN3527	Water Engineering	0	3	3
General Education		2	2	6
Total	**HPW Session 1**	**22**		
	HPW Session 2	**22**		
	Units of Credit	**48**		

Year 4 – Session 1

(Not offered in 2002)

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	0	3
CVEN4225	Geotechnical Engineering 4	3	0	3
CVEN4323	Structural Engineering 4	3	0	3
CVEN4526	Water & Wastewater Treatment	3	0	3

Plus two of the following three electives

CVEN4000	Honours Thesis - Part A	4	0	6
CVEN4027	Civil Engineering Practice 4A	4	0	6
CVEN4028	Civil Engineering Practice 4B	4	0	6
CVEN4029	Civil Engineering Practice 4C	4	0	6
Total	**HPW Session 1**	**20**		
	Units of Credit	**24**		

Year 4 – Session 2

(Not offered in 2002)

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	0	3	4
Construction and Management Major				
CVEN4139	Adv. Constr. & Project Mgmt	0	3	4
CVEN4149	Professional Level Project Mgmt. Tools & Skills	0	3	4
CVEN4159	Adv Constr. Tech & Engg	0	3	4
Geotechnical Engineering Major				
CVEN4279	Rock and Slope Engineering	0	3	4
CVEN4289	Site Investigation and Dam Engg	0	3	4
CVEN4299	Adv Topics in Geotechnical Engg	0	3	4
Structural Engineering Major				
CVEN4339	Design of Bridges	0	3	4
CVEN4349	Special Topics in Concrete, Steel & Composite Structures	0	3	4
CVEN4359	Struct Anal & Finite Elements	0	3	4
Transport Engineering Major				
CVEN4439	Transport Operations & Systems Design	0	3	4
CVEN4449	Traffic Mgmt & Control	0	3	4
CVEN4459	Transport & Environment	0	3	4
Water Engineering Major				
CVEN4539	Adv Water Quality & Treatment	0	3	4
CVEN4549	Advanced Catchment & Coastal Processes	0	3	4
CVEN4559	Adv Water Engineering	0	3	4
Total	**HPW Session 1**	**18**		
	Units of Credit	**24**		

Bachelor of Engineering BE Old Program

The following courses are offered to students entering Year 4 of the program in 2002. From 2003, Year 4 of the new program will be offered.

Year 4 – Session 1

Students achieving a weighted average mark exceeding 62 in all courses in Years 1 to 3 are eligible to undertake an Honours thesis in Year 4 (CVEN4000 in S1 and CVEN4001 in S2).

CVEN4000	Honours Thesis - Part A **or**			
CVEN4021	Civil Engineering Practice 4	4	0	6
CVEN4126	Engineering Management 2	3	0	4
CVEN4224	Geotechnical Engineering 2	3	0	4
CVEN4322	Structural Engineering 3	6	0	6
CVEN4525	Water Engineering 3	3	0	4
Total	**HPW Session 1**	**19**		
	Units of Credit	**24**		

Year 4 – Session 2

All students **not undertaking the honours thesis** are required to select at least one major plus either a second major or 12 units of credit of electives taken from different discipline areas. Students **undertaking the honours thesis** are required to undertake one major plus at least 8 units of credit of electives taken from one or more discipline areas. To complete a major, all three 4 unit of credit elective courses (listed for each discipline below) must be undertaken.

CVEN4001	Honours Thesis - Part B	0	3	4
Construction and Management Major				
CVEN4139	Advanced Construction & Project Management	0	3	4
CVEN4149	Professional Level Project Management Tools & Skills	0	3	4
CVEN4159	Advanced Construction Technology & Engineering	0	3	4
Geotechnical Engineering Major				
CVEN4279	Rock and Slope Engineering	0	3	4
CVEN4289	Site Investigation and Dam Engg	0	3	4
CVEN4299	Adv Topics in Geotechnical Engg	0	3	4
Structural Engineering Major				
CVEN4339	Design of Bridges	0	3	4
CVEN4349	Special Topics in Concrete, Steel & Composite Structures	0	3	4
CVEN4359	Structural Analysis & Finite Elements	0	3	4
Transport Engineering Major				
CVEN4439	Transport Operations & Systems Design	0	3	4
CVEN4449	Traffic Management & Control	0	3	4
CVEN4459	Transport & Environment	0	3	4
Water Engineering Major				
CVEN4539	Advanced Water Quality & Treatment	0	3	4
CVEN4549	Advanced Catchment & Coastal Processes	0	3	4
CVEN4559	Advanced Water Engineering	0	3	4
Total	**HPW Session 2**	**18**		
	Units of Credit	**24**		

3625 Environmental Engineering – Full-time Program - CVENB13625

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 developing 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.

Bachelor of Engineering BE *New Program

The following new curriculum is implemented for the first time in 2002 for all students entering years 1, 2 and 3 of the program. Year 4 of the program will be offered for the first time in 2003.

		HPW		UOC
		S1	S2	
Year 1				
CHEM1011	Fundamentals of Chemistry A **or**			
CHEM1031	Higher Chemistry C	6	0	6
CVEN1023	Statics	3	0	4
CVEN1024	Dynamics	0	3	4
CVEN1025	Computing	3	0	4
CVEN1026	Engineering Materials 1	0	3	4
CVEN1531	Intro to Water & Atmospheric Chemistry	0	4	4
CVEN1721	Environmental Eng Practice 1A	2	0	4
CVEN1722	Environmental Eng Practice 1B	0	4	6
MATH1131	Mathematics 1A or			
MATH1141	Higher Mathematics 1A	6	0	6
MATH1231	Mathematics 1B or			

MATH1241	Higher Mathematics 1B	0	6	6
Total	**HPW Session 1**	**20**		
	HPW Session 2	**20**		
	Units of Credit	**48**		

Year 2

BIOS1101	Evolutionary & Functional Biology	0	5	6
CEIC0010	Mass Transfer & Materials Balance	3	0	3
CVEN2023	Mechanics of Solids	3	0	3
CVEN2025	Engineering Computations 1	3	0	3
CVEN2125	Systems Engineering	0	2	3
CVEN2222	Geotechnical Engineering 1	3	0	3
CVEN2525	Introduction to Water Engineering	0	3	3
CVEN2722	Environmental Eng Practice 2	0	2	3
GEOG1711	Planet Earth: Environment in Crisis	3	0	3
GMAT0753	Introduction to Spatial Info Systems	2	0	3
INDC4120	Chem of the Industrial Environment	3	0	3
MATH2019	Engineering. Mathematics 2CE	0	5	6
General Education		2	2	6
Total	**HPW Session**	**22**		
	HPW Session 2	**19**		
	Units of Credit	**48**		

Year 3

BIOS3301	Population and Community Ecology for Env Engineers	0	3	3
CEIC0050	Atmospheric Process Chemistry	3	0	3
CVEN3025	Engineering Computations 2	3	0	3
CVEN3126	Engineering Management 1	0	3	3
CVEN3222	Geotechnical Engineering 2	3	0	3
CVEN3223	Geotechnical Engineering 3	0	3	3
CVEN3438	Transport Planning & Envmt	3	0	3
CVEN3526	Water Resources Engineering	3	0	3
CVEN3527	Water Engineering	0	3	3
CVEN3531	Princ & Appl of Aquatic Chem	0	3	3
CVEN3723	Environmental Engg Practice 3A	2	0	3
CVEN3724	Environmental Engg Practice 3B	0	2	3
CVEN3725	Waste Management	3	0	3
CVEN3726	Env Policy, Law & Economics	0	3	3
General Education		2	2	6
Total	**HPW Session 1**	**22**		
	HPW Session 2	**22**		
	Units of Credit	**48**		

Year 4 – Session 1

(Not offered in 2002)

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	0	3
CVEN4225	Geotechnical Engineering 4	3	0	3
CVEN4526	Water & Wastewater Treatment	3	0	3
CVEN4533	Transport & Fate of Pollutants	3	0	3

Plus two of the following three electives

CVEN4000	Honours Thesis - Part A	4	0	6
CVEN4727	Environmental Engg Practice 4A	4	0	6
CVEN4728	Environmental Engg Practice 4B	4	0	6
CVEN4729	Environmental Engg Practice 4C	4	0	6
Total	**HPW Session 1**	**20**		
	Units of Credit	**24**		

Year 4 – Session 2

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	0	3	4

Geotechnical Engineering Major

CVEN4269	Environmental Geotechnics	0	3	4
CVEN4289	Site Investigation and Dam Engg	0	3	4

Plus one of the following two electives

CVEN4279	Rock and Slope Engineering	0	3	4
CVEN4299	Adv Topics in Geotechnical Engg	0	3	4

Transport Engineering Major

CVEN4439	Transport Operations & Systems Design	0	3	4
CVEN4449	Traffic Mgmt & Control	0	3	4
CVEN4459	Transport & Environment	0	3	4

Water Engineering Major

CVEN4539	Adv Water Quality & Treatment	0	3	4
CVEN4549	Adv Catchment & Coastal Proc	0	3	4
CVEN4569	Adv Environmental Systems	0	3	4

Chemical Engineering Major

CEIC3070	Process Control	0	4	4
CEIC3010	Reaction Engineering	0	3	4
CHEN2062	Process Chemistry	0	3	4

Geography Major

Any two of the following three subjects

GEOG3731	Geomorphology	0	4	6
GEOG3761	Environmental Change	0	4	6
GEOG3921	Coastal Resource Mgmt	0	4	6
Total	**HPW Session 1**	**18**		
	Units of Credit	**24**		

Bachelor of Engineering BE Old Program

The following courses are offered to students entering Year 4 of the program in 2002. From 2003, Year 4 of the new program will be offered.

Year 4 – Session 1

Students achieving a weighted average mark exceeding 62 in all courses in Years 1 to 3 are eligible to undertake an Honours thesis in Year 4 (CVEN4000 in S1 and CVEN4001 in S2).

CVEN4000	Honours Thesis Part A **or**			
CVEN4721	Environmental Eng Practice 4	4	0	6
CVEN4224	Geotechnical Engineering 2	3	0	4
CVEN4525	Water Engineering 3	3	0	4
CVEN4533	Transport & Fate of Pollutants	3	0	3
CVEN4722	Envtl Policy, Law & Economics	3	0	3
CVEN4723	Waste Management	3	0	4
Total	**HPW Session 1**	**19**		
	Units of Credit	**24**		

Year 4 – Session 2

All students **not undertaking the honours thesis** are required to select at least one major plus either a second major or 12 units of credit of electives taken from different discipline areas. Students **undertaking the honours thesis** are required to undertake one major plus at least 8 units of credit of electives taken from one or more discipline areas . To complete a major, all three 4 unit of credit elective courses (listed for each discipline below) must be undertaken.

CVEN4001	Honours Thesis Part B	0	3	4

Geotechnical Engineering Major

CVEN4269	Environmental Geotechnics	0	3	4
CVEN4289	Site Investigation and Dam Engg	0	3	4

Plus one of the following two electives

CVEN4279	Rock and Slope Engineering	0	3	4
CVEN4299	Adv Topics in Geotechnical Engg	0	3	4

Transport Engineering Major

CVEN4439	Transport Operations & Systems Design	0	3	4
CVEN4449	Traffic Management & Control	0	3	4
CVEN4459	Transport & Environment	0	3	4

Water Engineering Major

CVEN4539	Advanced Water Quality & Treatment	0	3	4
CVEN4549	Advanced Catchment & Coastal Processes	0	3	4
CVEN4569	Advanced Environment Systems	0	3	4

Chemical Engineering Major

CEIC3070	Process Control	0	4	4
CEIC3010	Reaction Engineering	0	3	4
CHEN2062	Process Chemistry	0	3	4

Geography Major

Any two of the following three courses:

GEOG3025	Geomorphology	0	4	6
GEOG3761	Environmental Change	0	4	6
GEOG3921	Coastal Resource Management	0	4	6
Total	**HPW Session 2**	**18**		
	Units of Credit	**24**		

*Subject to approval

Combined Programs

Combined degree programs offered in the School of Civil and Environmental Engineering are listed below.

3621 Civil Engineering/Bachelor of Arts – Full-time Program - CVENA13621 and Arts Plan

Bachelor of Engineering Bachelor of Arts BE BA

3626 Environmental Engineering/Bachelor of Arts– Full-time Program - CVENB13626 and Arts Plan

Bachelor of Engineering Bachelor of Arts BE BA

With these combined degree programs, students can add their choice of an Arts program to the standard, professionally accredited Civil Engineering (3621) or Environmental Engineering (3626) programs 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 (3621) or Environmental Engineering (3626).

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 (3621) or Environmental Engineering (3626) 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 the permission of the Head of School. 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 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.

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 :

Chinese Studies
Education
English
Environmental Studies*
French Studies
German Studies
Modern Greek
History
Indonesian Studies
Japanese Studies
Korean Studies
Linguistics
Music
Philosophy
Policy Studies
Political Science
Russian Studies
Science & Technology Studies
Sociology
Spanish & Latin American Studies
Theatre, Film and Dance

* 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 in one of the other areas listed above.

3. Except for courses completed as part of the Environmental Studies or 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 or Program 3626 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 5 x 48 = 240.

3730 Civil Engineering/Bachelor of Science – Full-time Program - CVENA13730 and Science Plan

Bachelor of Engineering Bachelor of Science BE BSc

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 administer 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 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 or the permission of the Head of the School of Civil and Environmental Engineering.

Course credits can accrue simultaneously for both component degrees where there is an overlap of courses from the Civil Engineering program and Science program.

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 106 units of credit in the Science program (3970) and a minimum of 240 units of credit in total.

3. The 106 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 the 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 course 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 (CVEN3021 and CVEN3022 in old program);

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 CHEM1031, PHYS1279

Group B

PHYS1279 (PHYS1121), 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 in regard to choice of courses.

14. A typical structure of a combined Engineering/Science program is set out below. Subject to timetable restrictions, the full range of Science programs is available to Civil Engineering students.

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 of CVEN4027, CVEN4028 or CVEN4029 and Science courses to total at least 12 units of credit in S2 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.

15. The total units of credit in the program is 5 x 48 = 240

3730 Civil Engineering/Bachelor of Science (Computer Science) - CVENA13730 and COMPA13730

Bachelor of Engineering Bachelor of Science in Computer Science BE BSc

Notwithstanding the above rules, the following 5-year program has been approved leading to the two degrees of Bachelor of Engineering in Civil Engineering and Bachelor of Science in Computer Science.

		HPW S1	HPW S2	UOC
Year 1				
CHEM1011	Fundamentals of Chemistry A **or**			
CHEM1031	Higher Chemistry C	6	0	6
COMP1011	Computing 1A	0	6	6
CVEN1021	Civil Engineering Practice 1A	2	0	4
CVEN1023	Statics	3	0	4
CVEN1024	Dynamics	0	3	4
CVEN1025	Computing	3	0	4
CVEN1026	Engineering Materials 1	0	3	4
MATH1131	Mathematics 1A **or**			
MATH1141	Higher Mathematics 1A	6	0	6
MATH1231	Mathematics 1B **or**			
MATH1241	Higher Mathematics 1B	0	6	6
PHYS1721	Physics 1CE	0	4	4
Total	**HPW Session 1**	**20**		
	HPW Session 2	**22**		
	Units of Credit	**48**		
Year 2				
COMP1021	Computing 1B	6	0	6
COMP2011	Data Organisation	0	6	6
CVEN2022	Civil Engineering Practice 2	0	2	3
CVEN2023	Mechanics of Solids	3	0	3
CVEN2025	Engineering Computations 1	3	0	3
CVEN2222	Geotechnical Engineering 1	3	0	3
CVEN2322	Structural Engineering 1	0	6	6
CVEN2026	Engineering Materials 2	3	0	3
CVEN2525	Introduction to Water Engineering	0	3	3
MATH1081	Discrete Mathematics	6	0	6
MATH2019	Engineering Mathematics 2CE	0	5	6
Total	**HPW Session 1**	**24**		
	HPW Session 2	**22**		
	Units of Credit	**48**		
Year 3				
COMP2021	Digital System Structures	0	5	6
COMP2041	Software Construction: Techniques and Tools	0	5	6
CVEN2125	Systems Engineering	0	2	3
CVEN2126	Engineering Construction 1	3	0	3
CVEN3025	Engineering Computations 2	3	0	3
CVEN3126	Engineering Management 1	0	3	3
CVEN3322	Structural Engineering 2	6	0	6
GMAT0442	Surveying for Civil Engineers	3	0	3
GMAT0491	Survey Camp	(0)	0	3
One Level 3 Computing Elective		5	0	6
One Level 3 Computing Elective		0	5	6
Total	**HPW Session 1**	**20**		
	HPW Session 2	**20**		
	Units of Credit	**48**		
Year 4				
CVEN3023	Civil Engineering Practice 3A	2	0	3
CVEN3024	Civil Engineering Practice 3B	0	2	3
CVEN3125	Engineering Construction 2	0	3	3
CVEN3222	Geotechnical Engineering 2	3	0	3
CVEN3223	Geotechnical Engineering 3	0	3	3
CVEN3324	Structural Engineering 3	0	3	3
CVEN3438	Transport Planning & Environment	3	0	3
CVEN3448	Transport Engineering	0	3	3
CVEN3526	Water Resources Engineering	3	0	3
CVEN3527	Water Engineering	0	3	3
Two Level 3 Computing Electives		10	0	12
One Level 3 Computing Elective		0	5	6
Total	**HPW Session 1**	**21**		
	HPW Session 2	**22**		
	Units of Credit	**48**		

Year 5 – Session 1

Students achieving a weighted average mark exceeding 62 in all civil engineering courses in Years 1 to 4 are eligible to undertake an Honours thesis in Year 5 (CVEN4000 in S1 and CVEN4001 in S2). Honours students should select a thesis topic that involves **both** Civil Engineering and Computing components.

CVEN4126	Engineering Management 2	3	0	3
CVEN4225	Geotechnical Engineering 4	3	0	3
CVEN4323	Structural Engineering 4	3	0	3

CVEN4526	Water & Wastewater Treatment	3	0	3

Plus two of the following three electives

CVEN4000	Honours Thesis - Part A	4	0	6
CVEN4027	Civil Engineering Practice 4A	4	0	6
CVEN4028	Civil Engineering Practice 4B	4	0	6
CVEN4029	Civil Engineering Practice 4C	4	0	6
Total	**HPW Session 1**	**20**		
	Units of Credit	**24**		

Year 5 – Session 2

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	0	3	4
Construction and Management Major				
CVEN4139	Advanced Construction & Project Management	0	3	4
CVEN4149	Professional Level Project Management. Tools & Skills	0	3	4
CVEN4159	Advanced Construction Technology & Engineering	0	3	4
Computing Major				
One Level 4 Computing Elective		0	5	6
One Level 4 Computing Elective		0	5	6
Geotechnical Engineering Major				
CVEN4279	Rock and Slope Engineering	0	3	4
CVEN4289	Site Investigation and Dam Engg	0	3	4
CVEN4299	Adv Topics in Geotechnical Engg	0	3	4
Structural Engineering Major				
CVEN4339	Design of Bridges	0	3	4
CVEN4349	Special Topics in Concrete, Steel & Composite Structures	0	3	4
CVEN4359	Structural Analysis & Finite Elements	0	3	4
Transport Engineering Major				
CVEN4439	Transport Operations & Systems Design	0	3	4
CVEN4449	Traffic Management & Control	0	3	4
CVEN4459	Transport & Environment	0	3	4
Water Engineering Major				
CVEN4539	Advanced Water Quality & Treatment	0	3	4
CVEN4549	Advanced Catchment & Coastal Processes	0	3	4
CVEN4559	Advanced Water Engineering	0	3	4
Total	**HPW Session 2**	**18 or 19**		
	Units of Credit	**24**		

3735 Environmental Engineering/Bachelor of Science – Full-time Program - CVENB13735 and Science Plan

Bachelor of Engineering Bachelor of Science BE BSc

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 administer 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 or the permission of the Head of the School of Civil and Environmental Engineering.

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.

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 (3970) 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 (CVEN3720 and CVEN3721 in old program);

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), GEOG1711 (GEOG1721), 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 below. Subject to timetable restrictions, the full range of Science programs is available to Environmental Engineering students.

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, CEIC0050, CVEN3222, CVEN3223, CVEN3526, CVEN 3527, 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 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.

15. The total units of credit in the program is 5 x 48 = 240.

3735 Environmental Engineering/Bachelor of Science (Computer Science) - CVENB13735 and COMPA13735

Bachelor of Engineering Bachelor of Science in Computer Science
BE BSc

Notwithstanding the above rules, the following 5-year program has been approved leading to the two degrees of Bachelor of Engineering in Civil Engineering and Bachelor of Science in Computer Science.

		HPW S1	HPW S2	UOC
Year 1				
CHEM1011	Fundamentals of Chemistry A **or**			
CHEM1031	Higher Chemistry C	6	0	6
COMP1011	Computing 1A	0	6	6
CVEN1023	Statics	3	0	4
CVEN1024	Dynamics	0	3	4
CVEN1025	Computing	3	0	4
CVEN1026	Engineering Materials 1	0	3	4
CVEN1531	Introduction to Water & Atmospheric Chemistry	0	4	4
CVEN1721	Environmental Eng Practice 1A	2	0	4
MATH1131	Mathematics 1A **or**			
MATH1141	Higher Mathematics 1A	6	0	6
MATH1231	Mathematics 1B **or**			
MATH1241	Higher Mathematics 1B	0	6	6
Total	**HPW Session 1**	**20**		
	HPW Session 2		**22**	
	Units of Credit			**48**
Year 2				
BIOS1101	Evolutionary & Functional Biology	0	6	6
CEIC0010	Mass Transfer & Materials Balance	3	0	3
COMP1021	Computing 1B	6	0	6
COMP2011	Data Organisation	0	6	6
CVEN2023	Mechanics of Solids	3	0	3
CVEN2025	Engineering Computations 1	3	0	3
CVEN2222	Geotechnical Engineering 1	3	0	3
CVEN2525	Introduction to Water Engineering	0	3	3
CVEN2722	Environmental Eng Practice 2	0	2	3
MATH1081	Discrete Mathematics	6	0	6
MATH2019	Engineering Mathematics 2CE	0	5	6
Total	**HPW Session 1**	**24**		
	HPW Session 2		**22**	
	Units of Credit			**48**
Year 3				
BIOS3301	Population and Community Ecology for Envtl Engineers	0	3	3
COMP2021	Digital System Structures	5	0	6
COMP2041	Software Construction: Techniques and Tools	0	5	6
CVEN2125	Systems Engineering	0	2	3
CVEN3025	Engineering Computations 2	3	0	3
CVEN3126	Engineering Management 1	0	3	3
CVEN3531	Princ & Appl of Aquatic Chemistry	0	3	3
GEOG1711	Planet Earth: Environment in Crisis	3	0	3
GMAT0753	Introduction to Spatial Information Systems	2	0	3
INDC4120	Chemistry of the Industrial Environment	3	0	3
One Level 3 Computing Elective		5	0	6
One Level 3 Computing Elective		0	5	6
Total	**HPW Session 1**	**21**		
	HPW Session 2		**21**	
	Units of Credit			**48**
Year 4				
CEIC0050	Atmospheric & Process Chemistry	3	0	3
CVEN3222	Geotechnical Engineering 2	3	0	3
CVEN3223	Geotechnical Engineering 3	0	3	3
CVEN3438	Transport Planning & Environment	3	0	3
CVEN3526	Water Resources Engineering2	3	0	3
CVEN3527	Water Engineering	0	3	3
CVEN3723	Environmental Eng Practice 3A	2	0	3
CVEN3724	Environmental Eng Practice 3B	0	2	3
CVEN3725	Waste Management	3	0	3
CVEN3726	Env Policy, Law & Economics	0	3	3
One Level 3 Computing Elective		5	0	6
Two Level 3 Computing Electives		0	10	12
Total	**HPW Session 1**	**22**		
	HPW Session 2		**21**	
	Units of Credit			**48**

Year 5 – Session 1

Students achieving a weighted average mark exceeding 62 in all environmental engineering courses in Years 1 to 4 are eligible to undertake an Honours thesis in Year 5 (CVEN4000 in S1 and CVEN4001 in S2). Honours students should select a thesis topic that involves **both** Environmental Engineering and Computing components.

CVEN4126	Engineering Management 2	3	0	3
CVEN4225	Geotechnical Engineering 4	3	0	3
CVEN4526	Water & Wastewater Treatment	3	0	3
CVEN4533	Transport & Fate of Pollutants	3	0	3
Plus two of the following three electives				
CVEN4000	Honours Thesis - Part A	4	0	6
CVEN4727	Environmental Eng Practice 4A	4	0	6
CVEN4728	Environmental Eng Practice 4B	4	0	6
CVEN4729	Environmental Eng Practice 4C	4	0	6
Total	**HPW Session 1**	**20**		
	Units of Credit			**24**

Year 5 – Session 2

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	0	3	4
Computing Major				
One Level 4 Computing Elective		0	5	6
One Level 4 Computing Elective		0	5	6
Geotechnical Engineering Major				
CVEN4269	Environmental Geotechnics	0	3	4
CVEN4289	Site Investigation and Dam Engg	0	3	4
Plus one of the following two electives				
CVEN4279	Rock and Slope Engineering	0	3	4
CVEN4299	Adv Topics in Geotechnical Engg	0	3	4
Transport Engineering Major				
CVEN4439	Transport Operations & Systems Design	0	3	4
CVEN4449	Traffic Management & Control	0	3	4
CVEN4459	Transport & Environment	0	3	4
Water Engineering Major				
CVEN4539	Advanced Water Quality & Treatment	0	3	4
CVEN4549	Advanced Catchment & Coastal Processes	0	3	4
CVEN4569	Advanced Environmental Systems	0	3	4
Chemical Engineering Major				
CEIC3070	Process Control	0	4	4
CEIC3010	Reaction Engineering	0	3	4
CHEN2062	Process Chemistry	0	3	4
Geography Major				
Any two of the following three courses:				
GEOG3731	Geomorphology	0	4	6
GEOG3761	Environmental Change	0	4	6
GEOG3921	Coastal Resource Management	0	4	6
Total	**HPW Session 2**	**17, 18, 19 or 20**		
	Units of Credit			**24**

3631 Civil Engineering/Environmental Engineering – Full-time Program - CVENAD3631 and CVENBD3631

Bachelor of Engineering Bachelor of Engineering BE BE

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 administer the program.

Rules

1. Students must satisfy the normal program and course prerequisites for Environmental Engineering and Civil Engineering.

2. Program Outline

Year 1

Standard Year 1 of Program 3620

Year 2		**UOC**
CHEM1021	Fundamentals of Chemistry B	6
CVEN2023	Mechanics of Solids	3
CVEN2025	Engineering Computations 1	3
CVEN2026	Engineering Materials 2	3
CVEN2126	Engineering Construction 1	3
CVEN2322	Structural Engineering 1	6
CVEN2525	Introduction to Water Engineering	3
GMAT0442	Surveying for Civil Engineers	3
GMAT0491	Surveying Camp	3
GEOG1711	Planet Earth: Environment in Crisis	3
MATH2019	Engineering Mathematics 2CE	6
General Education		6

Total Credit Points 48

Year 3

BIOS1101	Evolutionary and Functional Biology	6
CEIC0010	Mass Transfer & Materials Balance	3
CVEN2222	Geotechnical Engineering 1	3
CVEN2022	Civil Engineering Practice 2 **or**	
CVEN2722	Environmental Engineering Practice 2	3
CVEN2125	Systems Engineering	3
CVEN3126	Engineering Management 1	3
CVEN3322	Structural Engineering 2	6
CVEN3324	Structural Engineering 3	3
CVEN3438	Transport Planning & Environment	3
CVEN3448	Transport Engineering	3
CVEN3526	Water Resources Engineering	3
CVEN3527	Water Engineering	3
GMAT0753	Introduction to Spatial Information Systems	3
INDC4120	Chemistry of the Industrial Environment	3

Total credit points 48

Year 4

BIOS3301	Population & Community Ecology for Environmental Engineers	3
CEIC0050	Atmospheric & Process Chemistry	3
CVEN3023	Civil Engineering Practice 3A **or**	
CVEN3723	Environmental Engineering Practice 3A	3
CVEN3024	Civil Engineering Practice 3B **or**	
CVEN3724	Environmental Engineering Practice 3B	3
CVEN3025	Engineering Computations 2	3
CVEN3222	Geotechnical Engineering 2	3
CVEN3223	Geotechnical Engineering 3	3
CVEN3531	Principles & App of Aquatic Chemistry	3
CVEN3725	Waste Management	3
CVEN3726	Environmental Policy, Law & Economics	3
CVEN4323	Structural Engineering 4	3
6 Units of Credit Geography Elective		6
General Education		6

Total credit points 48

Year 5 – Session 1

Students achieving a School weighted average mark exceeding 62 (calculated from all subjects 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).

CVEN4126	Engineering Management 2	3
CVEN4225	Geotechnical Engineering 4	3
CVEN4526	Water & Wastewater Treatment	3
CVEN4533	Transport & Fate of Pollutants	3

Plus two of the following electives

CVEN4000	Honours Thesis - Part A	6
CVEN4027	Civil Engineering Practice 4A	6
CVEN4028	Civil Engineering Practice 4B	6
CVEN4029	Civil Engineering Practice 4C	6
CVEN4727	Environmental Engg Practice 4A	6
CVEN4728	Environmental Engg Practice 4B	6
CVEN4729	Environmental Engg Practice 4C	6
Total	**HPW Session 1**	**20**
Total Units of Credit		**24**

Year 5 – Session 2

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
Construction and Management Major		
CVEN4139	Adv Construction and Project Management	4
CVEN4149	Professional Level Project Management Tools & Skills	4
CVEN4159	Adv Construction Technology & Engineering	4
Geotechnical Major		
Any 3 of the following 4 courses:		
CVEN4269	Environmental Geomechanics	4
CVEN4279	Rock and Slope Engineering	4
CVEN4289	Site Investigation and Dam Engg	4
CVEN4299	Adv Topics in Geotechnical Engg	4
Structures Major		
CVEN4339	Design of Bridges	4
CVEN4349	Special Topics in Concrete, Steel & Composite Structures	4
CVEN4359	Structural Analysis & Finite Elements	4
Transport Major		
CVEN4439	Transport Operations & Systems Design	4
CVEN4449	Traffic Management & Control	4
CVEN4459	Transport & Environment	4
Water Major		
Any 3 of the following 4 courses:		
CVEN4539	Advanced Water Quality & Treatment	4
CVEN4549	Advanced Catchment & Coastal Processes	4
CVEN4559	Advanced Water Engineering	4
CVEN4569	Advanced Environmental Systems	4
Total Units of Credit		**24**

Note each major strand is divided into at least three units 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.

3. 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.

4. There will be a testamur for each degree in the combined program.

5. 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 or with the permission of the Head of School of Civil and Environmental Engineering.

6. The total units of credit in the program is 5 x 48 = 240.

3146 Civil Engineering/Mining Engineering – Full-time Program - CVENAD3146 and MINEFD3146

Bachelor of Engineering Bachelor of Engineering BE BE

Students enrol in the Bachelor of Engineering in Civil Engineering Program 3620, which is administered by the School of Civil and Environmental Engineering. The first three years of the combined degree program are therefore identical to program 3620. After completing 6 sessions of this program, students may apply to enter the Bachelor of Engineering in Mining Engineering 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.

4775 Civil Engineering/Law – Full-time Program CVENA14775 and Laws Plan

Bachelor of Engineering Bachelor of Laws BE LLB

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 and candidates are admitted through the Faculty of Law.

Rules

1. 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).

2. Students must satisfy the normal prerequisites for entry to the Faculty of Engineering and the Faculty of Law and to individual courses in these faculties. Students must study engineering courses in a sequence approved by the Faculty of Engineering. There are no general Faculty prerequisites to courses offered by the Faculty of Law but students must study law courses in a sequence approved by the Faculty of Law.

3. The total units of credit required in law courses is 144 (92 from compulsory courses and 52 from elective courses).

4. *The courses listed below are required to complete the program.

Year 1		**UOC**
CVEN1021	Civil Engineering Practice IA	4
CVEN1023	Statics	4
CVEN1024	Dynamics	4
CVEN1025	Computing	4
CVEN1026	Engineering Materials 1	4
MATH1131	Mathematics 1A **or**	
MATH1141	Higher Mathematics 1A	6
MATH1231	Mathematics 1B **or**	
MATH1241	Higher Mathematics 1B	6
PHYS1279	Physics 1CE	4
LAWS1051	Legal System	3
LAWS1061	Torts	6
LAWS7410	Legal Research and Writing	3
Total credit points		**48**

Year 2		**UOC**
CHEM1011	Fundamentals of Chemistry A **or**	
CHEM1031	Higher Chemistry C	6
CVEN2023	Mechanics of Solids	3
CVEN2025	Engineering Computations 1	3
CVEN2125	Systems Engineering	3
CVEN2126	Engineering Construction 1	3
CVEN2222	Geotechnical Engineering 1	3
CVEN2322	Structural Engineering 1	6
CVEN2525	Introduction to Water Engineering	3
MATH2019	Engineering Mathematics 2 CE	6
LAWS1071	Contracts 1	3
LAWS1072	Contracts 2	6
LAWS2140	Public Law	3
Total credit points		**48**

Year 3		**UOC**
CVEN2026	Engineering Materials 2	3
CVEN3023	Civil Engineering Practice 3A	3
CVEN3024	Civil Engineering Practice 3B	3
CVEN3126	Engineering Management 1	3
CVEN3222	Geotechnical Engineering 2	3
CVEN3223	Geotechnical Engineering 3	3
CVEN3322	Structural Engineering 2	6
CVEN3324	Structural Engineering 3	3
CVEN3448	Transport Engineering	3
CVEN3526	Water Resources Engineering	3
CVEN3527	Water Engineering	3
LAWS1001	Criminal Law 1	6
LAWS1011	Criminal Law 2	6
Total credit points		**48**

Year 4 - Session 1		**UOC**
CVEN3025	Engineering Computations 2	3
CVEN3438	Transport Planning & Environment	3
CVEN4126	Engineering Management 2	3
CVEN4225	Geotechnical Engineering 4	3
CVEN4323	Structural Engineering 4	3
CVEN4525	Water & Wastewater Treatment	3
CVEN4000	Honours Thesis Part A **or one of the following**	
CVEN4027	Civil Engineering Practice 4A	
CVEN4028	Civil Engineering Practice 4B	
CVEN4029	Civil Engineering Practice 4C	6
Total credit points		**24**

Year 4 - Session 2

All students not undertaking an honours thesis are required to select LAWS2160 and LAWS6210 and one engineering major. Students undertaking the honours thesis are required to undertake LAWS2160 and LAWS6210 and at least 8 units of credit of engineering electives from one sub-discipline.

		UOC
LAWS2160	Administrative Law	6
LAWS6210	Law, Lawyers and Society	6
CVEN4001	Honours Thesis Part-B	4
Construction and Management Major		
CVEN4139	Adv Construction and Project Management	4
CVEN4149	Professional Level Project Management Tools & Skills	4
CVEN4159	Adv Construction Tech and Engineering	4
Geotechnical Major		
CVEN4279	Rock and Slope Engineering	4
CVEN4289	Site Investigation and Dam Engg	4
CVEN4299	Adv Topics in Geotechnical Engg	4
Structures Major		
CVEN4339	Design of Bridges	4
CVEN4349	Special Topics in Concrete, Steel & Composite Structures	4
CVEN4359	Structural Analysis & Finite Elements	4
Transport Major		
CVEN4439	Transport Operations and Systems Design	4
CVEN4449	Traffic Management & Control	4
CVEN4459	Transport & Environment	4
Water Major		
CVEN4539	Advanced Water Quality and Treatment	4
CVEN4549	Advanced Catchment and Coastal Processes	4
CVEN4559	Advanced Water Engineering	4

Year 5

48 units of Credits from Law [see Faculty of Law section in this Handbook]

Year 6

48 units of Credits from Law [see Faculty of Law section in this Handbook]

5. 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, 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.

6. The total units of credit in the program is 6 x 48 = 288.

7. 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.

4777 Environmental Engineering/Law – Full-time Program - CVENB14777 and Law Plan

Bachelor of Engineering Bachelor of Laws BE LLB

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 and candidates are admitted through the Faculty of Law.

Rules

1. 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).

2. Students must satisfy the normal prerequisites for entry to the Faculty of Engineering and to the Faculty of Law and to individual courses in those faculties. Students must study engineering courses in a sequence approved by the Faculty of Engineering. There are no general Faculty prerequisites to courses offered by he Faculty of Law but students must study law courses in a sequence approved by the Faculty of Law.

3. The total units of credit required in law courses is 144 (92 from compulsory courses and 52 from elective courses).

4. *The courses listed below are required to complete the program.

Year 1		**UOC**
CHEM1011	Fundamentals of Chemistry A **or**	
CHEM1031	Higher Chemistry C	6
CVEN1023	Statics	4
CVEN1024	Dynamics	4
CVEN1025	Computing	4
CVEN1026	Engineering Materials 1	4
CVEN1531	Introduction to Water & Atmospheric Chemistry	4
CVEN1721	Environmental Engineering Practice 1A	4
MATH1131	Mathematics 1A **or**	
MATH1141	Higher Mathematics 1A	6
LAWS1051	Legal Systems	3
LAWS1061	Torts	6
LAWS7410	Legal Research and Writing	3
Total credit points		**48**

Year 2		**UOC**
BIOS1101	Evolutionary and Functional Biology	6
CEIC0010	Mass Transfer and Materials Balance	3
CVEN2023	Mechanics of Solids	3
CVEN2025	Engineering Computations 1	3
CVEN2125	Systems Engineering	3
CVEN2222	Geotechnical Engineering 1	3
CVEN2525	Introduction to Water Engineering	3
GMAT0753	Intro to Spatial Information Systems	3
INDC4120	Chemistry of the Industrial Environment	3
MATH1231	Mathematics 1B **or**	
MATH1241	Higher Mathematics 1B	6
LAWS1071	Contracts 1	3
LAWS1072	Contracts 2	6
LAWS2140	Public Law	3
Total credit points		**48**

Year 3		**UOC**
BIOS3301	Population and Community Ecology for Environmental Engineers	3
CEIC0050	Atmospheric and Process Chemistry	3
CVEN3126	Engineering Management 1	3
CVEN3222	Geotechnical Engineering 2	3
CVEN3223	Geotechnical Engineering 3	3
CVEN3438	Transport Planning & Environment	3
CVEN3526	Water Resources Engineering	3
CVEN3527	Water Engineering	3
CVEN3531	Princ & Appl of Aquatic Chemistry	3
CVEN3726	Env. Policy, Law & Economics	3
MATH2019	Engineering Mathematics 2 CE	6
LAWS1001	Criminal Law 1	6
LAWS6210	Law, Lawyers and Society	6
Total credit points		**48**

Year 4 – Session 1		**UOC**
CVEN3025	Engineering Computations 2	3
CVEN3725	Waste Management	3
CVEN4126	Engineering Management 2	3
CVEN4225	Geotechnical Engineering 4	3
CVEN4526	Water & Wastewater Treatment	3
CVEN4533	Transport & Fate of Pollutants	3
CVEN4000	Honours Thesis Part A **or one of the following**	
CVEN4727	Environmental Engineering Practice 4A	6
CVEN4728	Environmental Engineering Practice 4B	6
CVEN4729	Environmental Engineering Practice 4C	6
Total credit points		**24**

Year 4 – Session 2

All students not undertaking an honours thesis are required to select LAWS1011 and LAWS2160 and one engineering major. Students undertaking the honours thesis are required to undertake LAWS1011 and LAWS2160 and at least 8 units of credit of engineering electives from one sub-discipline.

		UOC
LAWS1011	Criminal Law 2	6
LAWS2160	Administrative Law	6
CVEN4001	Honours Thesis Part B	4
Geotechnical Major		
CVEN4269	Environmental Geotechnics	4
CVEN4289	Site Investigation and Dam Engg	4
Plus one of the following two electives		
CVEN4279	Rock and Slope Engineering	4
CVEN4299	Adv Topics in Geotechnical Engg	4
Transport Major		
CVEN4439	Transport Operations and Systems Design	4
CVEN4449	Traffic Management & Control	4
CVEN4459	Transport & Environment	4
Water Major		
CVEN4539	Advanced Water Quality & Treatment	4
CVEN4549	Advanced Catchment & Coastal Processes	4
CVEN4559	Advanced Water Engineering	4
Chemical Engineering Major		
CEIC3070	Process Control	4
CEIC3100	Reaction Engineering	4
CEIC4100	Chemical Engineering Electives for Environmental Engineers	4

Year 5

48 units of credits from Law [see Faculty of Law section in this Handbook]

Year 6

48 units of credits from Law [see Faculty of Law section in this Handbook]

5. 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, 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.

6. The total units of credit in the program is 6 x 48 = 288.

7. 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.

3620 Civil Engineering/Master of Commerce CVENE13620

Bachelor of Engineering Master of Commerce BE MCom

3625 Environmental Engineering/Master of Commerce CVENF13625

Bachelor of Engineering Master of Commerce

BE MCom

The Bachelor of Engineering/Master of Commerce concurrent programs allow students to complete BE and MCom degrees. These programs provide professional qualifications in engineering and business/commerce. They are suited to high ability students who have technological flair and a desire to work with, and manage teams of professionals, projects and business.

Program of Study

Students undertake the first three years of their BE program. In Year 4 they undertake 3 core Master of Commerce (MCom) courses, one in S1 (instead of one Engineering Practice course) and two in S2 (instead of 12 units of credit of engineering electives). These three commerce courses together with a further exemption based on the high level of mathematics and statistics in their BE degrees, lead to advanced standing of 4 MCom courses.

To complete the remaining 8 MCom courses, students must apply to register as Master of Commerce students and can choose either full-time or part-time study. Students undertaking this program do not undertake an Honours Thesis in Year 4 of the engineering degree.

Eligibility and Application

A minimum of a 65% average in the first 3 years of the BE program is required. Students should apply at the end of Year 3 to undertake the MCom courses in Year 4. Normal HECS/fees apply for the 4 years of the undergraduate degree including the MCom courses in Year 4. However, course fees apply to the 8 remaining MCom courses.

3620 Civil Engineering/Master of Engineering Science – Full-time Program -CVENG13620

Bachelor of Engineering Master of Engineering Science
BE MEngSc

Students may undertake a 4.5 year full-time combined program leading to the awards of Bachelor of Engineering in Civil Engineering and Master of Engineering Science in any of the existing sub-disciplines of Civil Engineering, including Engineering Construction and Management; Project Management; Technology Management; Geotechnical Engineering; Structural Engineering; Transport Engineering; Coastal Engineering and Management; Groundwater Studies; Hydrology and Water Resources; Waste Management; Water Quality Management; and Water and Wastewater Treatment.

Program of Study

Students undertake the first three years (6 semesters) of the BE program in Civil Engineering. Subject to satisfying a minimum performance over these three years (see Program Rules under Conditions for 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).

3625 Environmental Engineering/Master of Engineering Science – Full-time Program - CVENH13625

Bachelor of Engineering Master of Engineering Science BE MEngSc

Students may undertake a 4.5 year full-time combined program leading to the awards of Bachelor of Engineering in Environmental Engineering and Master of Engineering Science in any of the existing sub-disciplines of Environmental Engineering, Project Management; Technology Management; Geotechnical Engineering; Transport Engineering; Coastal Engineering and Management; Groundwater Studies; Hydrology and Water Resources; Waste Management; Water Quality Management; and Water and Wastewater Treatment.

Program of Study

Students undertake the first three years (6 semesters) of the BE program in Environmental Engineering. Subject to satisfying a minimum performance over these three years (see Program Rules under Conditions for 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 Computer Science and Engineering

Head of School: Professor A Sharma

Associate Head of School: Associate Professor WH Wilson

Student Office Manager: Miss CJ Nock

Undergraduate Co-ordinator: Ms R Bautarua

Undergraduate Program Directors: Associate Professor H Elghindy (Computer Engineering)

Dr WS Matheson (Computer Engineering)

Associate Professor K Robinson (Software Engineering)

Associate Professor A Hoffmann (Computer Science)

Dr TD Lambert (Computer Science Honours)

The School, which was formerly the Department of Computer Science in the School of Electrical Engineering and Computer Science, was established on 1 January 1991. The School of Computer Science and Engineering and the restructured School of Electrical Engineering and Telecommunications have joint responsibility for the curriculum of the Computer Engineering program.

The Staff of the School are 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.

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, which commenced in 1997, is jointly managed with the School of Information Systems. The BE MBiomedE 3728 is managed in conjunction with the Graduate School of Biomedical Engineering. The BE MCom 3731 is managed in conjunction with the Faculty of Commerce and Economics. The Bachelor of Engineering Bioinformatics 3647, which commenced in 2001, 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 also offered as a major in the combined BE/BSc programs, combined BSc/BA and combined BSc/LLB and is offered as a minor in the programs, BSc (Science and Mathematics) 3970, BA 3400 and BSocSc 3420.

Summary of Undergraduate Programs

Normal full-time

Bachelor of Engineering	**Duration**
3645 BE in Computer Engineering	4 years
3647 BE in Bioinformatics	4 years
3648 BE in Software Engineering	4 years
3722 BE BA in Computer Engineering	5 years
3726 BE BSc in Computer Engineering	5 years
3728 BE MBiomedE in Computer Engineering	5 years
3731 BE MCom in Computer Engineering	5 years
3651 BE BSc in Software Engineering	5 years
3652 BE BA in Software Engineering	5 years

Bachelor of Science	**Duration**
3978 BSc in Computer Science	3 years (Pass)
3978 BSc in Computer Science	4 years (Hons)

Combined BE/BSc in Computer Science

Program and Degree	**Duration**
3725 BE BSc in Electrical Engineering	5 years
3730 BE BSc in Civil Engineering	5 years
3711 BE BSc in Aerospace Engineering	5 years
3711 BE BSc in Manufacturing Management	5 years
3711 BE BSc in Mechanical Engineering	5 years
3711 BE BSc in Mechatronic Engineering	5 years
3711 BE BSc in Naval Architecture	5 years
3746 BE BSc in Surveying and Spatial Information Systems	5 years
3641 BE BSc in Telecommunications	5 years

Combined BSc with Other Degrees	**Duration**
3930 BSc BA Science/Arts	4 years (Pass)
3935 BScBSoc Sc Science/Social Science	4 years (Pass)
3529 BComBSc Commerce/Science	4 years (Pass)
4770 BSc LLB Science/Law	5 years

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, BSC/Bsoc 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.

Program Outlines

3645 Computer Engineering - Full-time Program – Plan COMPB13645

Bachelor of Engineering BE

Whilst jointly administered by the Schools of Computer Science and Engineering and Electrical Engineering and Telecommunications, for convenience, day to day administration of the program is conducted through the Computer Science and Engineering Student Office, to which enquiries should be directed.

		HPW S1	HPW S2	UOC
Year 1				
COMP1011	Computing 1A or			
COMP1711*	Higher Computing 1A	6	-	6
COMP1021	Computing 1B or			
COMP1721*	Higher Computing 1B	-	6	6
ELEC1011	Electrical Engineering 1	-	6	6
MATH1141	Higher Mathematics 1A or			
MATH1131	Mathematics 1A	6	-	6
MATH1241*	Higher Mathematics 1B or			
MATH1231*	Mathematics 1B	-	6	6
MATH1081	Discrete Mathematics	6	-	6
PHYS1131	Higher Physics 1A	6	-	6
PHYS1231	Higher Physics 1B	-	6	6
Total	**HPW Session 1**	**24**		
	HPW Session 2	**24**		
	Units of Credit	**48**		
Year 2				
ACCT9003	Accounting Fundamentals	2	-	3
COMP2011	Data Organisation or			
COMP2711*	Higher Data Organisation	5	-	6
COMP2021	Digital Systems Structures	5	-	6
COMP3111	Software Engineering	-	5	6
COMP3221	Microprocessors & Embedded Systems	-	5	6
ELEC2031	Circuits and Systems A	3	-	3
ELEC2032	Circuits and Systems B	-	3	3
MATH2610*	Higher Real Analysis or			
MATH2510	Real Analysis	2.5	-	3
MATH2620*	Higher Complex Analysis or			
MATH2520	Complex Analysis	-	2.5	3
MATH2859	Probability, Statistics & Information	3	-	3
	General Education	-	4	6
Total	**HPW Session 1**	**20.5**		
	HPW Session 2	**19.5**		
	Units of Credit	**48**		
Year 3				
COMP3710	Software Project Management	-	2.5	3
COMP3211	Computer Architecture	-	5	6
COMP3231	Operating Systems	5	-	6
ELEC3006	Electronics A	5	-	6
MATH2509	Linear Algebra or			
COMP3120	Introduction to Algorithms	-	3	3
TELE3013	Telecommunications Systems 1	-	5	6
	2 Electives	5	5	12
	General Education	4	-	6
Total	**HPW Session 1**	**19**		
	HPW Session 2	**20.5**		
	Units of Credit	**48**		
Year 4				
COMP3720	Total Quality Management	-	2.5	3
COMP4903*	Industrial Training	-	-	
COMP4910	Thesis Part A	3	-	3
COMP4911	Thesis Part B	-	12	15
COMP4920	Professional Issues and Ethics	2.5	-	3
	4 Electives	15	5	24
Total	**HPW Session 1**	**20.5**		
	HPW Session 2	**19.5**		
	Units of Credit	**48**		

*** Notes**

1. A HSC Maths mark of 145-150 is required in 2 & 3 units Maths or a mark of 186-200 in 3 & 4 units Maths or a UAI > 97 in order to do COMP1711.

1. A mark of at least 75DN is required in COMP1011 or COMP1711 in order to do COMP1721.

2. A mark of at least 75DN is required in COMP1021 or COMP1721 in order to do COMP2711.

4. A mark of at least 70CR in MATH1231 or MATH1241 is required to do the higher level MATHS courses in Year 2.

5. All students in the BE Computer Engineering program must complete at least 60 days of approved Industrial Training before the end of Year 4 to fulfil the requirements of COMP4903 in stage 4.

Elective Courses

1. The Program Director or Undergraduate Co-ordinator 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** (more than 6 are not recommended).

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**.

iv) At most 6 units of credit may be counted from **Group D.**

		UOC
Group N	**Networks Electives**	
TELE3018	Data Networks 1	6
COMP3331	Computer Networks and Applications or	
TELE4352	Data Networks 2	6
Group S	**Science Electives**	
MATH2301	Mathematical Computing A	6
MATH2400	Finite Mathematics	3
MATH3141	Mathematical Methods EE	6
MATH3411	Information, Codes and Ciphers	6
PHYS2010	Mechanics	3
PHYS2020	Computational Physics	3
PHYS2040	Quantum Physics	3
PHYS2310	Nuclear Science Technology	3
Group CE3	**Level-3 Computer Engineering Electives**	
COMP2411	Logic and Logic Programming	6
COMP3131	Parsing and Translation	6
COMP3151	Foundations of Concurrency	6
COMP3311	Database Systems	6
COMP3411	Artificial Intelligence	6
COMP3421	Computer Graphics or	
COMP9701	Computer Graphics Using a GUI Toolkit	6
COMP3511	Human-Computer Interaction	6
ELEC3004	Signal Processing 1	6
ELEC3014	Systems & Control 1	6
ELEC3016	Electronics B	6
TELE9301	Switching System Design	6
TELE9303	Network Management	6
Group CE4	**Level-4 Computer Engineering Electives**	
COMP4001	Object-Oriented System Development	6
COMP4011	Web Applications Engineering	6
COMP4012	Cryptographic Approaches to Distributed System Security	6
COMP4411	Experimental Robotics	6
COMP4415	Logical Foundations of Artificial Intelligence	6
COMP9116	Software Development Using the B-Method and B-Toolkit	6
COMP9242	Advanced Operating Systems	12
COMP9243	Distributed Systems	6
COMP9231	Integrated Digital Systems or	
ELEC4532	Integrated Digital Systems	6
COMP9314	Next Generation Database Systems	6
COMP9315	Database System Implementation	6
COMP9316	eCommerce Systems Implementation	6
COMP9332	Network Switching & Routing	6
COMP9333	Advanced Computer Networks	6
COMP9416	Knowledge-Based Systems	6
COMP9417	Machine Learning	6
COMP9444	Neural Networks	6
COMP9517	Image Processing and Applications	6

COMP9518	Pattern Recognition and Vision	6
COMP9519	Multimedia Systems	6
COMP9790	Principles of GNSS Positioning	6
COMP9791	Modern Navigation & GNSS Positioning Techniques	6
ELEC4042	Signal Processing 2	6
ELEC4205	Electrical Energy Systems	6
ELEC4216	Electrical Drive Systems	6
ELEC4240	Power Electronics	6
ELEC4412	Systems & Control 2	6
ELEC4413	Systems & Control 3	6
ELEC4483	Biomedical Instrumentation, Measurement and Design	6
ELEC4503	Electronics C	6
ELEC4522	Microelectronics Design & Technology	6
ELEC4540	Applied Photovoltaics or	
SOLA3540	Applied Photovoltaics	6
TELE4313	Optical Communications	6
TELE4323	Digital Modulation and Coding	6
TELE4343	Source Coding and Compression	6
TELE4352	Data Networks 2	6
TELE4353	Mobile and Satellite Communication Systems	6
TELE4354	Network Management	6
TELE4363	Telecommunication Systems	6
TELE9337	Advanced Networking	6

Award of 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 NewSouth Student is not used for this purpose.

Honours Class 1: WA ≥ 75

Honours Class 2: Division 1: 70 ≤ WA < 75

Division 2: 65 ≤ WA < 70

3647 Bioinformatics - Full-time Program – Plan COMPB13647

Bachelor of Engineering BE

Whilst jointly administered by the Schools of Computer Science and Engineering and the Faculty of Science, for convenience, day to day administration of the program is conducted through the Computer Science and Engineering Student Office, to which enquiries should be directed.

		HPW S1	HPW S2	UOC
Year 1				
BINF1001	Bioinformatics 1	-	5	6
BIOS1101	Evolutionary & Functional Biology	-	5	6
BIOS1201	Molecules, Cells & Genes	5	-	6
CHEM1031	Higher Chemistry 1C or			
CHEM1011	Fundamentals of Chemistry 1A	6	-	6
COMP1011	Computing 1A or			
COMP1711*	Higher Computing 1A	6	-	6
COMP1021	Computing 1B or			
COMP1721*	Higher Computing 1B	-	6	6
MATH1141	Higher Mathematics 1A or			
MATH1131	Mathematics 1A	6	-	6
MATH1241	Higher Mathematics 1B or			
MATH1231	Mathematics 1B	-	6	6
Total	**HPW Session 1**	**23**		
	HPW Session 2	**18**		
	Units of Credit	**48**		
Year 2				
BINF2001	Bioinformatics 2	-	6	6
BIOC2201	Principles of Molecular Biology	-	6	6
BIOS2021	Genetics	-	5	6
COMP2011	Data Organisation or			
COMP2711*	Higher Data Organisation	5	-	6
COMP2041	Software Construction: Techniques and Tools	-	5	6
LIFE2101	Introductory Biochemistry & Microbiology	6	-	6
MATH1081	Discrete Mathematics	6	-	6
MATH2901	Higher Theory of Statistics	4	-	6
	Total HPW Session 1	**21**		
	HPW Session 2	**22**		
	Units of Credit	**48**		
Year 3				
BINF3001	Bioinformatics 3	-	5	6
BIOC3121	Molecular Biology of Nucleic Acids	6	-	6
COMP3121	Algorithms & Programming Techniques	5	-	6
COMP3311	Database Systems	-	5	6
COMP3710	Software Project Management	-	2.5	3
	3 Electives	10	5	18
	General Education	-	2	3
Total	**HPW Session 1**	**21**		
	HPW Session 2	**19.5**		
	Units of Credit	**48**		
Year 4				
COMP3720	Total Quality Management	-	2.5	3
COMP4903*	Industrial Training	-	-	
BINF4910	Thesis Part A	2.5	-	3
BINF4911	Thesis Part B	-	10	15
BINF4920	Professional Issues and Ethics	2.5	-	3
2 Level 3 COMP Electives		-	10	12
2 Level 3 Life Science Electives		12	-	12
Total	**HPW Session 1**	**17**		
	HPW Session 2	**22.5**		
	Units of Credit	**48**		

*** Notes**

1. A HSC Maths mark of 145-150 is required in 2 & 3 units Maths or a mark of 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. All students in the BE Bioinformatics program must complete at least 60 days of approved Industrial Training before the end of Year 4 to fulfil the requirements of COMP4903 in stage 4.

Elective Courses

1. The Program Director or nominee 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 42 units of credit and are selected from **the lists below:**

		UOC
Year 3	**Level-3 Electives**	
BIOC3281	Recombinant DNA Techniques	6
BIOC3291	Genes, Genomes and Evolution	6
BIOT3011	Biotechnology A	6
BIOT3061	Monoctolnal Antibody & Genetic Technique in Biotechnology	6
COMP2021	Digital System Structures	6
COMP3111	Software Engineering	6
COMP3151	Foundations of Concurrency	6
COMP3411	Artificial Intelligence	6
COMP3231	Operating Systems	6
COMP3331	Computer Networks & Applications	6
Year 4	**Level-4 Electives**	
BIOC3111	Molecular Biology of Proteins	6
BIOC3131	Biochemistry and Genetic Engineering of Plants	6
BIOC3151	Genetics and the Analysis of Human Variation	6
BIOT3031	Microbial Genetics	6
BIOT3071	Commercial Biotechnology	6
COMP3221	Microprocessors & Embedded Systems	6
COMP3511	Human Computer Interaction	6
COMP9314	Next Generation Database Systems	6
COMP9333	Advanced Computer Networks	6
COMP9417	Machine Learning	6
COMP9444	Neural Networks	6
MICR3011	Microbial Physiology: A Molecular Approach	6

Award of 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 ≥ 75

Honours Class 2: Division 1: 70 ≤ WA < 75
Division 2: 65 ≤ WA < 70

3978 Computer Science - Full-time Program – Plan COMPA13978

Bachelor of Science BSc

Entry to this program is restricted to students who have been offered a place directly via UAC (UAC code 429019). Later year transfers are treated as internal program transfers.

Computer Science involves the study of the design, construction and uses of computer systems. It is concerned with the representation of data and data structures in computer systems and the design of algorithms for automatic manipulation of this information by programming languages and machine systems. It is very much concerned with the design and development of hardware and software tools by which computer applications may be developed, but not so much with the applications themselves. It is, however, noted that non-computing elements (such as human interface or psychological aspects) can often dictate the level of success of computing systems. At the University of NSW, particular emphasis is given to comprehension of the basic principles behind computing tools, operating systems, compilers and translators, and computer hardware.

Students in other programs may take some level 1 and level 2 Computer Science courses. Level 3 studies in Computer Science are only available in other specified combined programs. Appropriate disciplines are Physics and Computing, Mathematics and Computer Science.

		HPW S1	HPW S2	UOC
Year 1				
COMP1011 / COMP1711*	Computing 1A or Higher Computing 1A	6	-	6
COMP1021 / COMP1721*	Computing 1B or Higher Computing 1B	-	6	6
MATH1141 / MATH1131	Higher Mathematics 1A or Mathematics 1A	6	-	6
MATH1241* / MATH1231*	Higher Mathematics 1B or Mathematics 1B	-	6	6
MATH1081	Discrete Mathematics	6	-	6
	Electives	6	12	18
Total	**HPW Session 1**	**24**		
	HPW Session 2	**24**		
	Units of Credit	**48**		

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

		UOC
COMP2011 / COMP2711*	Data Organisation or Higher Data Organisation	6
COMP2021	Digital Systems Structures	6
COMP2041	Software Construction	
Electives		24
General Education		6
Total Units of Credit		**48**

Three of eight courses in year 2 comprise core computing. The remainder are electives. Common electives include mathematics (many choices), more first year courses (maximum 12uoc), material that follows on from first-year electives and information systems.

	HPW S1	HPW S2	UOC
Year 3			
Computing Electives	30-42		
Other Electives	0-12		
General Education	6		
Total Units of Credit			**48**

Between five and seven computing courses (selected from around ten available 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.

With the approval of the Program Director or nominee, 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 may also select electives from COMP9xxx courses having met the required prerequisites.

Year 4 Honours (Optional) COMPAH3978

Computer Science Honours takes one-year full-time or two-years part-time of study.

Normally, students are expected to have attained an average mark of 65 (according to New South 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 the University of NSW or another university can apply for 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 web-site at: http://www.cse.unsw.edu.au/~cs4914/

Formal notification of acceptance into the honours program will be mailed on the day following the University's official notification of results.

		HPW S1	HPW S2	UOC
COMP4914*	Computer Science Honours			
COMP4918	Thesis Part A	5	-	6
COMP4919	Thesis Part B	-	12	15
COMP9015	Issues in Computing	-	2.5	3
Computing Electives		15	5	24
Total Units of Credit				**48**

Computer Science Honours 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.

*** Notes**

1. A HSC Maths mark of 145-150 is required in 2 & 3 units Maths or a mark of 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. Honours students should enrol in COMP4914 in the last session of their degree.

Level 3 Computing Electives

		UOC
COMP3111	Software Engineering	6
COMP3121	Algorithms & Programming Techniques	6
COMP3131	Parsing and Translation	6
COMP3151	Foundations of Concurrency	6
COMP3211	Computer Organisation & Design	6
COMP3231	Operating Systems	6
COMP3311	Database Systems	6
COMP3331	Computer Networks and Applications	6
COMP3411	Artificial Intelligence	6
COMP3421	Computer Graphics	6
COMP3511	Human Computer Interaction	6

3648 Software Engineering - Full-time Program – Plan SENGAI3648

Bachelor of Engineering BE

The Software Engineering Program is jointly administered by the School of Computer Science and Engineering and the School of Information Systems, Technology and Management. 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.

		HPW S1	HPW S2	UOC
Stage 1				
SENG1010	Software Engineering Workshop 1A	-	2.5	3
SENG1020	Software Engineering Workshop 1B	-	2.5	3
COMP1011	Computing 1A or			
COMP1711*	Higher Computing 1A	6	-	6
MATH1141	Higher Math 1A or	6	-	6
MATH1131	Mathematics 1A			
MATH1081	Discrete Mathematics	6	-	6
INFS1603	Business Data Management	6	-	6
COMP1021	Computing 1B or			
COMP1721*	Higher Computing1B	-	6	6
INFS1611	Requirements Engineering	-	1.5	3
MATH2400	Finite Mathematics	-	2	3
	Stage 1 - Free Electives	-	6	6
Total	**HPW Session 1**	**24**		
	HPW Session 2	**20.5**		
	Units of Credit	**48**		
Stage 2				
SENG2010	Software Engineering Workshop 2A	2.5	-	3
SENG2020	Software Engineering Workshop 2B	-	2.5	3
COMP2110	Software System Specification	2.5	-	3
COMP2011	Data Organisation or			
COMP2711*	Higher Data Organisation	-	5	6
COMP2021	Digital Systems Structures	-	5	6
COMP2411	Logic & Logic Programming	5	-	6
INFS2603	Systems Analysis and Design	5	-	6
MATH2859	Statistics for Computing	-	3	3
	General Education	4	-	6
	Stage 2 - Free Electives	-	6	6
Total	**HPW Session 1**	**19**		
	HPW Session 2	**21.5**		
	Units of Credit	**48**		

		HPW S1	HPW S2	UOC
Stage 3				
SENG3010	Software Engineering Workshop 3A	2.5	-	3
SENG3020	Software Engineering Workshop 3B	-	2.5	3
COMP3141	Software System Design & Implementation	5	-	6
INFS2607	Business Data Networks	-	5	6
	SE Electives*	10	10	24
General Education		2	2	6
Total	**HPW Session 1**	**19.5**		
	HPW Session 2	**19.5**		
	Units of Credit	**48**		
Stage 4				
SENG4903*	Industrial Training	-	-	
SENG4921	Professional Issues and Ethics	4	-	6
SENG4910	Thesis Part A	7	-	6
SENG4911	Thesis Part B	-	14	12
SE Electives*		10	10	24
Total	**HPW Session 1**	**21**		
	HPW Session 2	**24**		
	Units of Credit	**48**		

*** Notes**

1. A HSC Maths mark of 145-150 is required in 2 & 3 units Maths or a mark of 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 8 electives (48 UOC) for stages 3 and 4 may include any third and fourth stage COMP, INFS and some MATHS courses.

5. All students in the BE Software Engineering program must complete at least 60 days of approved Industrial Training before the end of Year 4 to fulfil the requirements of SENG4903 in stage 4.

Award of 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 ≥ 75

Honours Class 2: Division 1: 70 ≤ WA < 75

Division 2: 65 ≤ WA < 70

Combined Degree Programs

Computer Engineering Combined Programs

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, ie 65%) of both the Course 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.

3722 Computer Engineering/Bachelor of Arts Plan COMPB13722

Bachelor of Engineering Bachelor of Arts BE BA

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 (Computer Engineering)/BA combined program requires the completion of 240uoc, including at least 60uoc of Arts courses, and must contain a major sequence of 42uoc 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.

3726 Computer Engineering/Bachelor of Science Plan COMPB13726

Bachelor of Engineering Bachelor of Science BE BSc

With this combined degree program students can add a Science program to the standard, professionally accredited Engineering program BE (Computer Engineering) by offered the School of Computer Science & Engineering. All Science majors within program 3970 are available.

Students who achieve a creditable performance, 65CR in the first two years of their Computer Engineering program may apply to transfer to the combined Bachelor of Engineering/Bachelor of Science BE (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 pre-requisites. The Science Faculty 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.

3645 Computer Engineering/Master of Engineering Science – COMPLI3645

Bachelor of Engineering Master of Engineering Science BE MEngSc

Students may undertake a 4.5 years (10 semesters) full-time combined program leading to the awards of a Bachelor of Engineering and a Master of Engineering in Computer Engineering.

Students undertake the first three years (6 semesters) of the BE program in Computer Engineering. Subject to satisfying a minimum performance over these three years (see Program Rules under Conditions for 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).

Computer Science Combined Programs

Students in Computer Science 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 Science/Bachelor of Arts BSc/BA, Bachelor of Science/Bachelor of Commerce BSc/BCom, Bachelor of Science/Bachelor of Law BSc/LLB and the Bachelor of Science/Bachelor of Social Science BSc/BSocSc,). 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, ie 65%) of both the Course Authorities concerned.

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 Course Authorities concerned.

Software Engineering Combined Programs

3651 Software Engineering/Bachelor of Science Plan SENGA13651

Bachelor of Engineering Bachelor of Science BE BSc

The BE (Software Engineering)/BSc combined program requires the completion of 240uoc, including at least 84uoc of science courses, and must contain a major sequence of 42uoc at stages 2 and 3, with at least 18uoc at stage 3 in a single science 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 science electives. The science content of the generic combined program consists of:

- 18uoc of Mathematics in stages 1 and 2;
- 6uoc of Science electives in stage 1;
- 12uoc of Science electives in stage 2;
- 6uoc of Science electives in stage 3;
- an extra stage of 48uocof Science courses.

This yields a possible total of 90uoc of Science. Combined Programs are exempt from the General Education requirement.

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.

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 above.

Refer to the School of Computer Science and Engineering web page for examples of specific SE/Science programs.
http://www.cse.unsw.edu.au/seng

		UOC	
Stage 1		**S1**	**S2**
SENG1010	Software Engineering Workshop 1A	-	3
SENG1020	Software Engineering Workshop 1B	-	3
MATH1141	Higher Mathematics 1A or		
MATH1131	Mathematics 1A	6	-
MATH1081	Discrete Mathematics	6	-
MATH2400	Finite Mathematics	-	3
COMP1011	Computing 1A		
COMP1711*	Higher Computing 1A	6	-
COMP1021	Computing 1B or		
COMP1721*	Higher Computing 1B	-	6
INFS1611	Requirements Engineering	-	3
INFS1603	Business Data Management	6	-
	Stage 1 Science electives	-	6
	Total Units of Credit	**24**	**24**
Stage 2			
SENG2010	Software Engineering Workshop 2A	3	-
SENG2020	Software Engineering Workshop 2B	-	3
COMP2110	Software System Specification	3	-
COMP2011	Data Organisation or		
COMP2711*	Higher Data Organisation	-	6
COMP2021	Digital Systems Structures	-	6
COMP2411	Logic & Logic Programming	6	-
INFS2603	System Analysis & Design	6	-
MATH2859	Statistics for Computing	-	3
	Stage 2 Science electives	6	6
	Total Units of Credit	**24**	**24**
Stage 3			
SENG3010	Software Engineering Workshop 3A	3	-
SENG3020	Software Engineering Workshop 3B	-	3
COMP3141	Software System Design & Implementation	6	-
INFS2607	Business Data Networks	-	6
	SE Electives	12	12
	Stage 2 Science electives	3	3
	Total Units of Credit	**24**	**24**
Stage 4		**S1**	**S2**
	Stage 2 or 3 Science electives	18	12
	Stage 3 Science electives	6	12
	Total	**24**	**24**
Stage 5			
SEN4903*	Industrial Training	-	-
SENG4910	Thesis part A	6	-
SENG4911	Thesis part B	-	12
SENG4921	Professional Issues and Ethics	6	-
	SE Electives	12	12
	Total	**24**	**24**

*** Notes**

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.

3652 Software Engineering/Bachelor of Arts Plan SENGA13652

Bachelor of Engineering/Bachelor of Arts BE BA

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 below. 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 web page for examples of specific SE/Arts programs.

http://www.cse.unsw.edu.au/seng

The Faculty of Arts and Social Science should approve all Arts programs.

		UOC	
Stage 1		**S1**	**S2**
SENG1010	Software Engineering Workshop 1A	-	3
SENG1020	Software Engineering Workshop 1B	-	3
MATH1141	Higher Mathematics 1A or		
MATH1131	Mathematics 1A	6	-
MATH1081	Discrete Mathematics	6	-
MATH2400	Finite Mathematics	-	3
COMP1011	Computing 1A or		
COMP1711*	Higher Computing 1A	6	-
COMP1021	Computing 1B or		
COMP1721*	Higher Computing 1B	-	6
INFS1611	Requirements Engineering	-	3
INFS1603	Business Data Management	6	-
	Stage 1 Arts electives	-	6
	Total	**24**	**24**
Stage 2			
SENG2010	Software Engineering Workshop 2A	3	-
SENG2020	Software Engineering Workshop 2B	-	3
COMP2110	Software System Specification	3	-
COMP2011	Data Organisation or		
COMP2711*	Higher Data Organisation	-	6
COMP2021	Digital Systems Structures	-	6
COMP2411	Logic & Logic Programming	6	-
INFS2603	System Analysis & Design	6	-
MATH2859	Statistics for Computing	-	3
	Arts electives	6	6
	Total	**24**	**24**
Stage 3			
SENG3010	Software Engineering Workshop 3A	3	-
SENG3020	Software Engineering Workshop 3B	-	3
COMP3141	Software System Design & Implementation		6
INFS2607	Business Data Networks	-	6
	SE Electives	9	9
	Arts electives	6	6
	Total Units of Credit	**24**	**24**
Stage 4			
	SE Electives	-	6
	Arts electives	24	18
	Total Units of Credit	**24**	**24**
Stage 5			
SENG4903*	Industrial Training	-	-
SENG4921	Professional Issues and Ethics	6	-
SENG4910	Thesis part A	6	-
SENG4911	Thesis part B	-	12
	SE Electives	12	12
	Total Units of Credit	**24**	**24**

*** Notes**

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 42uoc.

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.

3648 Software Engineering/Master of Engineering Science – SENGLI3648

Bachelor of Engineering Master of Engineering Science BE MEngSc

Students may undertake a 4.5 years (10 semesters) full-time combined program leading to the awards of a Bachelor of Engineering and a Master of Engineering in Computer Engineering.

Students undertake the first three years (6 semesters) of the BE program in Computer Engineering. Subject to satisfying a minimum performance over these three years (see Program Rules under Conditions for 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).

3728 Computer Engineering Joint Programs

Students in Computer Engineering who maintain a high average performance may qualify for the award of an additional Masters degree after five years of full-time study in which some common elective material has been merged. (The Masters degrees referred to here are the Master of Biomedical Engineering and the Master of Commerce). Students wishing to enrol in, transfer into, or continue in a joint program shall have complied with all the requirements for prerequisite study, sequencing and academic attainment (a credit average, ie 65%) of both the Course Authorities concerned.

3728 Computer Engineeering/Master of Biomedical Engineering - Plan COMPB13728

Bachelor of Engineering Master of Biomedical Engineering BE MBiomedE

The BE (Computing)/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

For more detailed information about the program, please see the entry in the Biomedical Engineering section in this Handbook.

3731 Computer Engineering/Master of Commerce – Plan COMPC13731

Bachelor of Engineering Master of Commerce BE MCom

The BE (Computer Engineering)/MCom program requires completion of 240uoc, of which 66uoc are taken within the Faculty of Commerce and Economics. The program requires 48uoc in each year of the program, and includes 12uoc of General Education.

Entry to the joint program is possible at the end of Year 3 of the BE (Computer Engineering) program, and requires a weighted average of 65CR over these three years, a recommendation from the Head of the School of Computer Science and Engineering, and approval of the Faculty of Commerce.

Year 4		UOC	
		S1	**S2**
ACCT5901	Accounting A: a User Perspective	6	-
COMP3720	Total Quality Management	3	-
COMP4903*	Industrial Training	-	-
COMP4910	Thesis Part A	3	-
COMP4911	Thesis Part B	-	15
COMP4920	Professional Issues and Ethics*	-	3
ECON5103	Business Economics	-	6
Computer Engineering Elective		6	
Core Commerce Elective		6	-
		24	24
Year 5			
4 Commerce Electives		24	-
4 Commerce Electives		-	24
		24	24

*** Notes**

1. All students in the BE (Computer Engineering)/MCom program must complete at least 60 days of approved Industrial Training before the end of Year 4, to fulfill the requirements of COMP4903 Industrial Training in stage 4.

Elective Courses

1. The Program Director or nominee 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. **Computer Engineering Electives** for Years 3 and 4 total 18 units of credit (3 courses of 6 units of credit, or equivalent) and are selected from Groups CE3 and CE4 (as described for the 3645 program). At least one elective must be from Group CE4.

3. **Commerce Electives** for Years 4 and 5 total 54 units of credit (9 courses of 6 units of credit, or equivalent) and are selected from the list of 'core' and 'non-core' Master of Commerce courses. The Year-4 Commerce elective must be a 'core' course.

School of Electrical Engineering and Telecommunications

Head of School: Professor BG Celler

Director of Academic Studies: Dr E Ambikairajah

Administrative Officers: Mrs S Ratinac, Ms MV Spano

The School comprises several discipline areas, indicating shared research interests and teaching commitments: Telecommunications; Energy Systems; Electronics; 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 ever changing challenges of present and future needs.

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.

Summary of Undergraduate Programs

Normal full-time

Single Degree Programs	**Duration**
3640 BE in Electrical Engineering	4 years
3643 BE in Telecommunications	4 years
Combined Degree Programs	
3640 BE MCom in Electrical Engineering	5 years
3641 BE BSc in Telecommunications	5 years
3643 BE MCom in Telecommunications	5 years
3646 BE BA in Telecommunications	5 years
3720 BE BA in Electrical Engineering	5 years
3723 BE MBiomedE in Telecommunications	5 years
3725 BE BSc in Electrical Engineering	5 years
3727 BE MBiomedE in Electrical Engineering	5 years
*xxxxBE MEngSc in Electrical Engineering	4.5 years
*xxxxBE MEngSc in Telecommunications	4.5 years

Options within Electrical Engineering include: Telecommunications, Computer Systems, Control Systems, Energy Systems, Electronics, Photovoltaics, 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.

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 combined 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, while a program with the Faculty of Commerce and Economics leads to the award of Bachelor of Engineering/Masters of Commerce.

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 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.

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 web page.

Program Outlines

3640 Electrical Engineering – Full-time Program -

Bachelor of Engineering BE

Year 1	**Session 1**	**UOC**	**HPW**
ELEC1010	Introduction to Electrical Engineering	3	3
ELEC1011	Electrical Engineering 1	6	6
MATH1090	Discrete Mathematics	3	3
MATH1141	Higher Mathematics 1A	6	6
PHYS1131	Higher Physics 1A	6	6
	TOTAL	**24**	**24**
Year 1	**Session 2**		
COMP1011	Computing 1A	6	6
ELEC1041	Digital Circuits	6	4
MATH1241	Higher Mathematics 1B	6	6
PHYS1231	Higher Physics 1B	6	6
	TOTAL	**24**	**22**

Note: MATH1141 and MATH1241 may be taken at the ordinary level (MATH1131 and MATH1231).

Year 2	**Session 1**		
COMP1021	Computing 1B	6	6
ELEC2031	Circuits and Systems	3	3
ELEC2041	Microprocessors and Interfacing	6	4
MATH2111	Higher Several Variable Calculus	6	5
PHYS2939	Electromagnetism	3	3
	TOTAL	**24**	**21**

Year 2	**Session 2**		
ELEC2032	Electronics and Systems	3	3
ELEC2015	Electromagnetic Applications	3	3
ELEC2042	Real Time Instrumentation	3	3
MATH2620	Higher Complex Analysis	3	3
MATH2859	Probability, Statistics & Information	3	3
MATH2509	Linear Algebra for Engineers	3	
	General Education	6	4
	TOTAL	**24**	**22**

Note: MATH2620 and MATH2111 may be taken at the ordinary level (MATH2520 and MATH2011).

COMP1011 and COMP1021 may be taken at the higher level (COMP1711 and COMP1721).

Year 3	**Session 1**		
ELEC3004	Signal Processing & Transform Methods	6	5
ELEC3005	Electrical Energy 1	6	5
ELEC3006	Electronics A	6	5
	General Education	6	4
	TOTAL	**24**	**19**
Year 3	**Session 2**	**UOC**	**HWP**
ELEC3017	Electrical Engineering Design	6	5
ELEC3014	Systems & Control 1	6	5
	2 Electives from		
TELE3013	Telecommunication Systems 1	6	5
ELEC3015	Electrical Energy 2	6	5
ELEC3016	Electronics B	6	5
ELEC3041	Real Time Engineering	6	5
TELE3018	Data Networks 1	6	5
COMP2011	Data Organisation	6	5
ELEC3402	Introductory Physiology for Engineers	6	5
	TOTAL	**24**	**20**
Year 4	**Session 1**		
ELEC4010	Introduction to Management for Electrical Engineers	3	3
ELEC4910	Thesis - Part A	3	4
	3 Professional Electives	18	12
	TOTAL	**24**	**19**
Year 4	**Session 2**		
ELEC4011	Ethics and Electrical Engineering Practice	3	2
ELEC4911	Thesis - Part B	9	10
	2 Professional Electives	12	8
	TOTAL	**24**	**20**

Notes: 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 (ELEC4914 and ELEC4915).

Students who intend to major in particular disciplines should note that certain Year 3 elective subjects may be prerequisites for the Professional Electives they choose in Year 4.

COMP2011 may be taken at the higher level (COMP2711).

3643 Telecommunications Engineering - Full Time Program

Bachelor of Engineering BE

Year 1	**Session 1**	**UOC**	**HWP**
ELEC1011	Electrical Engineering 1	6	6
MATH1090	Discrete Mathematics	3	3
MATH1141	Higher Mathematics 1A	6	6
TELE1010	Introduction to Telecommunications3	3	
PHYS1131	Physics 1A	6	6
	TOTAL	**24**	**24**
Year 1	**Session 2**		
COMP1011	Computing 1A	6	6
ELEC1041	Digital Circuits	6	4
MATH1241	Higher Mathematics 1B	6	6
PHYS1231	Physics 1B	6	6
	TOTAL	**24**	**22**

Note: MATH1141 and MATH1241 may be taken at the ordinary level (MATH1131 and MATH1231).

Year 2	**Session 1**		
COMP1021	Computing 1B	6	6
ELEC2031	Circuits and Systems	3	3
ELEC2041	Microprocessors and Interfacing	6	4
MATH2111	Higher Several Variable Calculus	6	5
MATH2859	Probability, Statistics & Information	3	3
	TOTAL	**24**	**21**
Year 2	**Session 2**		
ELEC2032	Electronics and Systems	3	3
ELEC2042	Real Time Instrumentation	3	3
TELE3018	Data Networks 1	6	4
MATH2620	Higher Complex Analysis	3	3
MATH2509	Linear Algebra for Engineers	3	3
	General Education	6	4
	TOTAL	**24**	**20**

Note: MATH2620 and MATH2111 may be taken at the ordinary level (MATH2520 and MATH2011).

COMP1011 and COMP1021 may be taken at the higher level (COMP1711 and 1721).

Year 3	**Session 1**	**UOC**	**HPW**
ELEC3006	Electronics A	6	5
PHYS2939	Electromagnetism	3	3
TELE3013	Telecommunication Systems 1	6	5
TELE4352	Data Networks 2	6	4
	General Education	3	2
	TOTAL	**24**	**19**
Year 3	**Session 2**		
ELEC3004	Signal Processing & Transform Methods	6	5
ELEC3017	Electrical Engineering Design	6	5
TELE3015	High Frequency Electromagnetics	3	3
	General Education	3	2
	1 Elective from		
COMP2011	Data Organisation	6	5
ELEC3014	Systems & Control 1	6	5
ELEC3016	Electronics B	6	5
ELEC3041	Real Time Engineering	6	5
	TOTAL	**24**	**20**
Year 4	**Session 1**		
ELEC4010	Introduction to Management for Electrical Engineers	3	3
TELE4363	Telecommunication Systems 2	6	4
TELE4354	Network Management	6	4
TELE4910	Thesis Part A	3	4
	1 Professional Elective	6	4
	TOTAL	**24**	**19**
Year 4	**Session 2**		
ELEC4011	Ethics and Electrical Engineering Practice	3	2
TELE4911	Thesis Part B	9	10
	2 Professional Electives	12	8
	TOTAL	**24**	**20**

Notes: 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).

Students who intend to major in particular disciplines should note that certain Year 3 elective subjects may be prerequisites for the Professional Electives they choose in Year 4.

COMP2011 may be taken at the higher level (COMP2711).

3640 and 3643 Electrical Engineering and Telecommunications – Part-time Programs

Bachelor of Engineering BE

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 subjects are offered in the evenings, and students have to be able to attend classes as the timetable demands. Formal part-time programs with courses provided at times to suit part-time students are not offered.

Professional Electives

		UOC	HPW	S1/S2
Electronics				
ELEC4503	Electronics C	6	4	1
ELEC4522	Microelectronics Design and Technology	6	4	1
ELEC4532	Integrated Digital Systems	6	4	2
Control				
ELEC4412	Systems and Control 2	6	4	1
ELEC4413	Systems and Control 3	6	4	2
Energy Systems				
ELEC4205	Electrical Energy Systems*	6	4	1
ELEC4216	Electrical Drive Systems*	6	4	2
ELEC4240	Power Electronics*	6	4	1
SOLA3540	Applied Photovoltaics*	6	4	1
Signal Processing				
ELEC4042	Signal Processing 2	6	4	1
ELEC4483	Biomedical Instrumentation, Measurement and Design	6	4	2
Telecommunications				
TELE4313	Optical Communications	6	4	1
TELE4323	Digital Modulation and Coding	6	4	1
TELE4363	Telecommunications Systems 2**	6	4	1
TELE4333	Wireless Data Communication Systems	6	4	2
TELE4343	Source Coding and Compression	6	4	2
TELE4352	Data Networks 2**	6	4	1
TELE4353	Mobile and Satellite Communication Systems	6	4	2
TELE4354	Network Management**	6	4	1
Computer Systems				
COMP3111	Software Engineering	6	4	1/2
COMP3211	Computer Organisation and Design	6	4	1/2
COMP3231	Operating Systems	6	4	2
COMP3311	Database Systems	6	4	2
COMP3411	Artificial Intelligence	6	4	2
MATH3411	Information, Codes and Ciphers	6	4	2
Business Administration				
ELEC4444	New Business Creation	6	4	2

Notes: *Not available for BE in Telecommunications students.

**Core for BE in Telecommunications students.

Professional Elective courses in the Computer Systems area require either COMP2011 or COMP2021 as a prerequisite.

Because of timetable 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.

Combined Degree Programs

Students may apply to the Faculty of Engineering for direct entry into one of the Faculty's Combined Degree Programs. The available programs are BE BA (Engineering and Arts), BE BSc (Engineering and Science, usually Computer Science, Mathematics or Physics), *BE MEngSc (Bachelor of Engineering and Master of Engineering Science) and BE MBiomedE (Engineering and Biomedical Engineering). Combined degree programs (except BE MEngSc) 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.

*The BE MEngSc offers an accelerated completion of a postgraduate coursework program in engineering to high achieving students over 4.5 years full-time.

A BE MCom offers accelerated entry into the Masters of Commerce program at the completion of the BE. There is no direct entry into the program. To transfer to the BE MCom program at the end of Year 3 of the BE, a candidate requires a weighted average of at least 65%, a recommendation from the Head of School of Electrical Engineering and Telecommunications, and the approval of the Faculties of Engineering and Commerce. Commerce courses are taken in place of engineering electives in Year 4. Students already in a BE Program who maintain a credit average performance may qualify for transfer to one of the Combined Degree Programs. Students wishing to enrol in a combined program may do so only on the recommendation of the Head of School, with the approval of the Faculty of Engineering and either the Faculty of Arts, or the Faculty of Science, or the Postgraduate School of Biomedical Engineering as appropriate. Students who wish to enrol in, transfer into, or continue in a combined course shall have complied with all the requirements for prerequisite study, sequencing and academic attainment (a credit average performance, ie 65% average) of both the Program Authorities concerned.

Students who commence a program but subsequently do not wish to proceed with both areas of study, or who fail to maintain a credit average performance, can revert to a single degree program with appropriate credit given for courses completed.

The Master of Commerce program is fee-paying. AUSTUDY support is available for the five years of a combined degree program, but not for the Master of Commerce Program.

Students may transfer into a combined program after partially completing the requirements for either degree provided suitable courses have been studied. However, later choice of courses and the time taken to complete the program may be affected by earlier course selection. Thus, students considering combined degree programs should contact the School of Electrical Engineering and Telecommunications as early as possible in their academic career. Application for transfer to a combined program must be made in writing to the School Office for the approval of the Head of School.

All combined degree programs are administered by the School of Electrical Engineering and Telecommunications. The School offers the following combined degree programs:

Electrical Engineering	Telecommunications
BE BA 3720	3646
BE BSc 3725	3641
BE MBiomedE 3727	3723
BE MCom 3640	3643
***BE MEngSc** xxxx	xxxx

Rules for all combined Degree programs

For Science and Arts, in addition to the BE course, students must complete 60 Units of Credit offered by the relevant Faculty, comprising a major sequence within Science or Arts.

General Education is not required for a combined degree program, with the exception of the BE MBiomedE and BE MCom programs.

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 MBomedE are awarded at a single graduation ceremony.

3725 and 3720 Electrical Engineering/Bachelor of Science or Bachelor of Arts

Bachelor of Engineering Bachelor of Science or Bachelor of Arts
BE BSc (3725) or BE BA (3720)

Year 1

As for Program 3640

Year 2	Session 1	UOC	HPW
COMP1021	Computing 1B	6	6
ELEC2031	Circuits and Systems	3	3
ELEC2041	Microprocessors and Interfacing	6	4
MATH2111	Higher Several Variable Calculus	6	5
PHYS2939	Electromagnetism	3	3
	TOTAL	**24**	**21**
Year 2	**Session 2**		
	Science/Arts Elective/Core	6	5
	Science/Arts Elective	6	5
ELEC2032	Electronics and Systems	3	3
ELEC2015	Electromagnetic Applications	3	3
MATH2620	Complex Analysis	3	3
MATH2859	Probability, Statistics & Information	3	3
	TOTAL	**24**	**22**

Notes: The Elective/Core subject will be PHYS2999 for Science with a Physics major, COMP2011 or COMP2711 for Computer Science, and is 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).

COMP1011 and COMP1021 may be taken at the higher level (COMP1711 and COMP1721).

Year 3	Session 1	UOC	HPW
ELEC3004	Signal Processing & Transform Methods	6	5
ELEC3005	Electrical Energy 1	6	5
ELEC3006	Electronics A	6	5
	Year 2 Science/Arts Elective	6	5
	TOTAL	**24**	**20**
Year 3	**Session 2**		
ELEC3014	Systems & Control 1	6	5
ELEC2042	Real Time Instrumentation	3	3
ELEC3017	Electrical Engineering Design	6	5
MATH2509	Linear Algebra for Engineers	3	3
	1 ELEC Elective (Year 3)	6	5
	TOTAL	**24**	**21**
Year 4	**Session 1**	**UOC**	**HPW**
	4 Year 3 Arts/Science Electives	24	20
Year 4	**Session 2**		
	1 Year 3 Arts/Science Elective	6	5
	1 ELEC Elective (Year 3)	6	5
	2 Electives [Arts, Science, ELEC (Year 3)]	12	10
	TOTAL	**24**	**20**

Notes: ELEC (Year 3) electives are chosen from the Year 3 Elective list for 3640.

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 3640.

3641 and 3646 Telecommunications/Bachelor of Science or Bachelor of Arts

Bachelor of Engineering Bachelor of Science or Bachelor of Arts
BE BSc (3641) or BE BA (3646)

Year 1

As for Program 3643

Year 2	Session 1	UOC	HPW
COMP1021	Computing 1B	6	6
ELEC2031	Circuits and Systems	3	3
ELEC2041	Microprocessors and Interfacing	6	4
MATH2111	Higher Several Variable Calculus	6	5
MATH2859	Probability, Statistics & Information	3	3
	TOTAL	**24**	**21**
Year 2	**Session 2**		
	Arts/Science Core/Elective	6	5
	Arts/Science Elective	6	5
ELEC2032	Electronics and Systems	3	3
TELE3018	Data Networks 1	6	4
MATH2620	Higher Complex Analysis	3	3
	TOTAL	**24**	**20**

Notes: The Elective/Core subject will be PHYS2999 for Science with a Physics major, COMP2011 or COMP2711 for Computer Science, and is 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).

COMP1011 and COMP1021 may be taken at the higher level (COMP1711 and COMP1721).

Year 3	Session 1	UOC	HPW
ELEC2042	Real Time Instrumentation	3	3
ELEC3006	Electronics A	6	5
PHYS2939	Electromagnetism	3	3
TELE3013	Telecommunication Systems 1	6	5
TELE4352	Data Networks 2	6	4
	TOTAL	**24**	**20**
Year 3	**Session 2**		
ELEC3004	Signal Processing & Transform Methods	6	5
ELEC3017	Electrical Engineering Design	6	5
MATH2509	Linear Algebra for Engineers	3	3
TELE3015	Electromagnetic Applications	3	3
	Arts/Science Elective	6	5
	TOTAL	**24**	**21**
Year 4	**Session 1**	**UOC**	**HPW**
	Four Arts/Science Electives	24	20
Year 4	**Session 2**		
ELEC3041	Real Time Engineering	6	5
	Three Arts/Science Electives	18	15
	TOTAL	**24**	**20**

Notes: 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.

3640 Electrical Engineering/Master of Engineering Science – ELECD13640

Bachelor of Engineering Master of Engineering Science

3643 Telecommunications Engineering/Master of Engineering Science – TELED13643

Bachelor of Engineering Master of Engineering Science BE MEng Sc

Students may undertake a 4.5 years (10 semesters) full-time combined program leading to the awards of a Bachelor of Engineering and a Master of Engineering 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 Program Rules under Conditions for 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).

3640 Electrical Engineering/Master of Commerce

Bachelor of Engineering Master of Commerce

3643 Telecommunications Engineering/Master of Commerce

Bachelor of Engineering Master of Commerce

BE MCom

The Programs for the BE MCom are identical to Programs 3640 and 3643 respectively, except for the following changes.

Years 1 and 2

As for the BE in Electrical Engineering/BE in Telecommunications

Year 3

A Professional Elective must be taken in place of one Year 3 elective.

Year 4	Session 1	UOC	HPW
ACCT5901	Accounting A, A User Perspective*	6	3
	Commerce Core Elective*	6	3
Year 4	**Session 2**		
ECON5103	Business Economics*	6	3
Year 5	**Session 1**		
	4 Non-Core Commerce Electives	24	12
Year 5	**Session 2**		
	4 Non-Core Commerce Electives	24	12

Notes: *The three courses above (Year 4) are inserted in place of the ELEC/TELE Professional Electives in the standard Year 4 program for the BE in Electrical Engineering/BE in Telecommunications.

If an application for transfer to the combined degree program is refused, then a Year 3 elective should be taken in Year 4 to compensate for the elective displaced in Year 3.

3727 and 3723 Electrical Engineering and Telecommunications Master of Biomedical Engineering

Bachelor of Engineering Master of Biomedical Engineering
BE MBiomedE

Program 3727 is a concurrent BE in Electrical Engineering and Master of Biomedical Engineering. 3723 is a concurrent BE in Telecommunications and Master of Biomedical Engineering. Further details for both programs can be found in the Graduate School of Biomedical Engineering section in this handbook.

School of Mechanical and Manufacturing Engineering (incorporating Aerospace Engineering, Mechatronic Engineering and Naval Architecture)

Head of School: Professor KP Byrne
Executive Assistant to Head of School: Dr JM Challen
Administrative Officer: Ms G Pearson

The School offers a Bachelor of Engineering program **3710** with plans in Aerospace Engineering, Manufacturing Engineering and Management, Mechanical Engineering, Mechatronic Engineering and Naval Architecture. Also offered are combined Bachelor degree programs with Science, **3711** or Arts, **3712** and concurrent Master degree programs with Biomedical Engineering, **3710/3749**, Commerce, **3710/8404** or Engineering Science **3710/8710**.

No formal part-time plans 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.

Program Outlines

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, Mechatronic 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. Students enrolled in the various plans usually attend the common courses together. Elective courses provide for a limited degree of specialisation in the fourth year of the Mechanical Engineering and Mechatronic 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 deliver a short paper 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 area of computer science, materials science, mathematics, physics, statistics or another relevant field, in addition to studying their chosen engineering plan.

Concurrent Bachelor/Masters programs are also available. After five years of study, Mechanical and Mechatronic Engineering students may obtain Bachelor of Engineering/Master of Biomedical Engineering (BE MBiomedE) degrees. After five years of study, Manufacturing Engineering and Management, Mechanical Engineering and Mechatronic Engineering students may obtain Bachelor of Engineering/Master of Commerce (BE MCom) degrees. *After four and a half years of study, Manufacturing Engineering and Management, Mechanical Engineering and Mechatronic Engineering students may obtain Bachelor of Engineering/Master of Engineering Science (BE MEngSc) degrees.

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 sixty 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's General Rules for Progression contained in this Handbook. As well, 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 and Management plan, the accounting courses GENC1001, GENC1002 or GENC1003 should not be chosen as they partially duplicate core course ACCT9003.
- For students anticipating taking the BE MCom, GENC1001, GENC1002 or GENC1003 should not be chosen as they partially duplicate core course ACCT5901.

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.
- MECH4003 is graded *satisfactory/unsatisfactory* and MECH4004 carries the mark for the thesis project.
- If the project is abandoned during MECH4004, or if MECH4004 is failed, then the *satisfactory* for MECH4003 is deleted. If the student decides to complete the degree a completely new topic must be chosen and the student must enrol again in both MECH4003 and MECH4004.

Single Degree Program

3710 Bachelor of Engineering

BE

Aerospace Engineering Plan

Manufacturing Engineering and Management Plan

Mechanical Engineering Plan

Mechatronic Engineering Plan

Naval Architecture Plan

Year 1 of all plans		**HPW**		**UOC**
		S1	**S2**	
CHEM1817	Chemistry 1ME		3	3
MANF1130	Introduction to Manufacturing		7	6
MATH1131	Mathematics 1A	6		6
MATH1231	Mathematics 1B		6	6
MATS9520	Engineering Materials		3	3
MECH1120	Design and the Engineering Profession	3		3
MECH1300	Engineering Mechanics 1	4		6
MECH1400	Mechanics of Solids 1		4	6
MECH1500	Computing 1M	3		3
PHYS1169	Physics ICME	6		6
Year 2 of all plans		**S1**	**S2**	
ELEC0807	Electrical Engineering 1E		4	6
MATH2029	Engineering Mathematics 2A	6		6
MATH2039	Engineering Mathematics 2B		3	3

MATH2839	Statistics SM		3	3
MECH2101	Machine Design A	3		3
MECH2102	Machine Design B		3	3
MECH2300	Engineering Mechanics 2	3		3
MECH2411	Mechanics of Solids 2A	3		3
MECH2412	Mechanics of Solids 2B		3	3
MECH2601	Fluid Mechanics and Thermodynamics A	4		6
MECH2602	Fluid Mechanics and Thermodynamics B		4	6
	General Education Elective	2		3

Aerospace Engineering Plan
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 airlines 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 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.

Year 3		**HPW**		**UOC**
		S1	**S2**	
AERO3101	Aerospace Design 1A	3		3
AERO3102	Aerospace Design 1B		3	3
AERO3400	Analysis of Aerospace Structures 1		3	3
AERO3610	Aerodynamics and Propulsion		6	6
AERO3620	Flight Dynamics and Systems	3		3
MECH3000	Professional Responsibilities		3	3
MECH3203	Engineering Experimentation A	2		3
MECH3211	Linear Systems Analysis	3		3
MECH3330	Vibration Analysis		3	3
MECH3400	Mechanics of Solids 3	3		3
MECH3520	Programming and Numerical Methods	3		3
MTRN3212	Principles of Control		3	3
	General Education Elective	2		3
	General Education Elective	2		3
	General Education Elective		2	3
Year 4				
AERO4101	Aerospace Design 2A	3		3
AERO4102	Aerospace Design 2B		3	3
AERO4401	Analysis of Aerospace Structures 2A	3		3
AERO4402	Analysis of Aerospace Structures 2B		3	3
AERO4610	Advanced Aerodynamics and Propulsion	6		6
AERO4620	Aerospace Vehicle Dynamics and Systems		6	6
MANF4430	Management for Engineers	6		6
MECH4001	Communications for Professional Engineers		3	3
MECH4003	Thesis A			6
MECH4004	Thesis B			9

Manufacturing Engineering and Management Plan
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 problems include the analysis of a product to ensure satisfactory functioning with regard 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 bottlenecks; 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.

Year 3		**HPW**		**UOC**
		S1	**S2**	
ACCT9003	Introduction to Accounting Principles	2		3
MANF3210	Product Manufacture	6		6
MANF3300	Design of Manufacturing Facilities 1		4	6
MANF3420	Industrial Experimentation		2	3
MANF3500	Computers in Manufacturing 1		3	3
MANF3601	Manufacturing Operations Analysis A	3		3
MANF3602	Manufacturing Operations Analysis B		3	3
MECH3000	Professional Responsibilities		3	3
MECH3211	Linear Systems Analysis	3		3
MTRN3212	Principles of Control		3	3
MTRN3530	Computing Applications in Mechanical Systems	3		3
	General Education Elective	2		3
	General Education Elective	2		3
	General Education Elective		2	3
Year 4				
MANF4011	Analysis of Manufacturing Systems A	2		3
MANF4012	Analysis of Manufacturing Systems B		2	3
MANF4300	Design of Manufacturing Facilities 2		4	6
MANF4430	Management for Engineers	6		6
MANF4440	Strategic Manufacturing Management	3		3
MANF4500	Computers in Manufacturing 2	3		3
MANF4601	Computer Aided Production Management A	3		3
MANF4602	Computer Aided Production Management B		3	3
MECH4001	Communications for Professional Engineers		3	3
MECH4003	Thesis A			6
MECH4004	Thesis B			9

Mechanical Engineering Plan
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 course include building services, computer-aided design, power generation, energy and environmental systems, gas and liquid handling, bio-mechanics, materials handling, control systems, mechatronics and robotics, and transport. An emphasis is placed on the application of engineering science, development and management in these fields.

Year 3		**HPW**		**UOC**
		S1	**S2**	
MECH3000	Professional Responsibilities		3	3
MECH3101	Machine Systems Design A	3		3
MECH3102	Machine Systems Design B		3	3
MECH3203	Engineering Experimentation A	2		3
MECH3204	Engineering Experimentation B		2	3
MECH3211	Linear Systems Analysis	3		3
MECH3300	Engineering Mechanics 3		3	3
MECH3330	Vibration Analysis		3	3
MECH3400	Mechanics of Solids 3	3		3
MECH3520	Programming and Numerical Methods	3		3

MECH3601	Thermofluid System Design	3		3
MECH3602	Advanced Thermodynamics		3	3
MTRN3212	Principles of Control		3	3
	General Education Elective	2		3
	General Education Elective	2		3
	General Education Elective		2	3

Year 4

MANF4430	Management for Engineers	6		6
MECH4001	Communications for Professional Engineers		3	3
MECH4003	Thesis A			6
MECH4004	Thesis B			9
	Technical Electives			12
	Technical Electives			12

Mechanical Engineering Technical Electives

Twenty four (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. Pre- 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
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.

		HPW		UOC
Year 3		**S1**	**S2**	
ELEC2042	Real Time Instrumentation		3	3
MECH3000	Professional Responsibilities		3	3
MECH3101	Machine Systems Design A	3		3
MECH3203	Engineering Experimentation A	2		3
MECH3204	Engineering Experimentation B		2	3
MECH3211	Linear Systems Analysis	3		3
MECH3300	Engineering Mechanics 3		3	3
MECH3330	Vibration Analysis		3	3
MECH3400	Mechanics of Solids 3	3		3
MTRN3201	Digital Logic for Mechatronics	3		3
MTRN3202	Microprocessor Control		3	3
MTRN3212	Principles of Control		3	3
MTRN3530	Computing Applications in Mechanical Systems	3		3
General Education Elective		2		3
General Education Elective		2		3
General Education Elective			2	3

Year 4

MANF4430	Management for Engineers	6		6
MECH3601	Thermofluid System Design	3		3
MECH4001	Communications for Professional Engineers		3	3
MECH4003	Thesis A			6
MECH4004	Thesis B			9
MTRN4221	Industrial Robotics	3		3
Technical Electives				6
Technical Electives				12

Mechatronic Engineering Technical Electives

Eighteen (18) Units of Credit of Technical Elective courses are required. It is recommended that they be primarily chosen from the Preferred Electives 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 as listed in the Postgraduate Handbook or from Years 3 and 4 courses from other undergraduate plans run by the School. Pre- 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 September which Technical Electives will be offered in the following year.

Preferred Electives List		**HPW**		**UOC**
		S1	**S2**	
COMP3111	Software Engineering	5 or	5	6
COMP3331	Computer Networks and Applications	5		6
ELEC3041	Real Time Engineering		4	6
MANF4500	Computers in Manufacturing 2	3		3
MECH3520	Programming and Numerical Methods	3		3
MTRN9211	Modelling and Control of Mechatronic Systems		3	6
MTRN9222	Intelligent Machines	3		6
MTRN9223	Machine Condition Monitoring	3		6
MTRN9300	Mechanics of Manipulators		3	6

Naval Architecture Plan
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, frigates, 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 Head of the School is satisfied that the courses studied at the other institution are equivalent, and he gives his recommendation.

Year 3		**HPW**		**UOC**
MECH3000	Professional Responsibilities		3	3
MECH3211	Linear Systems Analysis	3		3
MECH3330	Vibration Analysis		3	3
MECH3400	Mechanics of Solids 3	3		3
MECH3520	Programming and Numerical Methods	3		3
MTRN3212	Principles of Control		3	3
NAVL3100	Principles of Ship Design		3	3
NAVL3110	Ship Practice	3		3
NAVL3400	Ship Structures 1		3	3
NAVL3603	Ship Hydrodynamics A	6		6
NAVL3604	Ship Hydrodynamics B		3	3
NAVL3700	Ship Propulsion		3	3
	General Education Elective	2		3
	General Education Elective	2		3
	General Education Elective		2	3

Year 4

MANF4430	Management for Engineers	6		6
MECH4001	Communications for Professional Engineers		3	3
MECH4003	Thesis A			6
MECH4004	Thesis B			9
NAVL4101	Design of High-speed Craft	3		3
NAVL4102	Design of Yachts		3	3
NAVL4111	Ship Design Project A	3		3
NAVL4112	Ship Design Project B		3	3
NAVL4401	Ship Structures 2A	3		3
NAVL4402	Ship Structures 2B		3	3
NAVL4710	Ship Standards	3		3
NAVL4720	Marine Engineering		3	3

Combined Degree Programs

3711 Bachelor of Engineering/Bachelor of Science

BE BSc

Aerospace Engineering (BSc) Plan

Manufacturing Engineering and Management (BSc) Plan

Mechanical Engineering (BSc) Plan

Mechatronic Engineering (BSc) Plan

Naval Architecture (BSc) Plan

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 Engineering the student selects a plan, given below, from Aerospace Engineering, Manufacturing Engineering and Management, Mechanical Engineering, Mechatronic Engineering or Naval Architecture.

For the Bachelor of Science the student selects a second plan based on an approved major sequence of courses. Majors can be in areas of computer science, materials science, mathematics, physics or statistics. 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. These substitutions may require some courses to be rescheduled.

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 the single degree Engineering program and be given appropriate credit for courses satisfactorily completed.

Year 1

CHEM1817	Chemistry 1ME		3	3
MANF1130	Introduction to Manufacturing		7	6
MATH1131	Mathematics 1A	6		6
MATH1231	Mathematics 1B		6	6
MATS9520	Engineering Materials		3	3
MECH1120	Design and the Engineering Profession	3		3
MECH1500	Computing 1M	3		3
PHYS1169	Physics 1CME	6		6
	Science course			6
	Science course			6

Year 2

MATH2029	Engineering Mathematics 2A	6		6
MATH2039	Engineering Mathematics 2B		3	3
MATH2839	Statistics SM		3	3
MECH1300	Engineering Mechanics 1	4		6
MECH1400	Mechanics of Solids 1		4	6
MECH2601	Fluid Mechanics and Thermodynamics A	4		6
MECH2602	Fluid Mechanics and Thermodynamics B		4	6
	Science course			6
	Science course			6

Year 3

ELEC0807	Electrical Engineering 1E		4	6
MECH2101	Machine Design A	3		3
MECH2102	Machine Design B		3	3
MECH2300	Engineering Mechanics 2		3	3
MECH2411	Mechanics of Solids 2A	3		3
MECH2412	Mechanics of Solids 2B		3	3
MECH3000	Professional Responsibilities		3	3
	Science course			6
	Science course			6
	Science course			6
	Science course			6

Year 4

S1 Year 3 engineering plan, less General Education	18
S2 Year 3 engineering plan, less General Education & MECH3000	18
Science course	6
Science course	6

Year 5

S1 Year 4 engineering plan	24
S2 Year 4 engineering plan	24

3712 Bachelor of Engineering/Bachelor of Arts

BE BA

Aerospace Engineering (BA) Plan

Manufacturing Engineering and Management (BA) Plan

Mechanical Engineering (BA) Plan

Mechatronic Engineering (BA) Plan

Naval Architecture (BA) Plan

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. The basic BE BA engineering plans are the same as the BE BSc plans described immediately above. Thus every session of the combined degree program contains only the standard 24 Units of Credit of courses and hence 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.

Eligibility

Anyone who meets the entry requirements for both Engineering and Arts is eligible for the combined program.

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.

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 BEBA students to include these courses.

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. The sample plans can help here too.

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.

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.

3711 Bachelor of Engineering/Master of Engineering Science

BE MEngSc

A Bachelor of Engineering degree in Manufacturing Engineering and Management, 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. The first three years are unchanged.

Students undertake the first three years (6 semesters) of the BE program in Manufacturing Management, Mechanical Engineering, or in Mechatronic Engineering. Subject to satisfying a minimum performance over these three years (see Program Rules under Conditions for the Award of Degree), 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).

At the time of printing this Handbook the BE MEngSc involving Aerospace Engineering or Naval Architecture had not yet been officially approved. Final details of the schedule of courses should be available at a later date.

Manufacturing Engineering and Management (BE MEngSc) Plan MANFL13710

Year 4

Compared to the standard plan, in Session 1 of Year 4, MANF9471 Manufacturing Strategy is substituted for MANF4440 Strategic Manufacturing Management and MANF4500 Computers in Manufacturing 2. In Session 2 of Year 4, MANF9340 Factory Automation is substituted for MANF4300 Design of Manufacturing Facilities 2.

		HPW		UOC
		S1	S2	
MANF4011	Analysis of Manufacturing Systems A	2		3
MANF4012	Analysis of Manufacturing Systems B		2	3
MANF4430	Management for Engineers	6		6
MANF4601	Computer Aided Production Management A	3		3
MANF4602	Computer Aided Production Management B		3	3
MECH4001	Communications for Professional Engineers		3	3
MECH4003	Thesis A			6
MECH4004	Thesis B			9
MANF9340	Factory Automation		3	6
MANF9471	Manufacturing Strategy	3		6

Summer Session between Year 4 and Year 5

At this stage students change to M EngSc program **8710** and undertake a 12 units of credit project, MANF9010.

Years 5

The following 24 units of credit of courses are recommended:

MANF8472	Production Planning and Control	0		6
MANF8560	Computer Integrated Manufacture	0		6
MANF9410	Total Quality Management	3		6
MANF9544	Concurrent Product and Process Design	3		6

Alternatives on approval only:

MANF8420	Managing Manufacturing Operations	0		6
MANF9543	CAD/CAM	3		6
MANF9601	Economic Decisions in Industrial Management	3		6

Mechanical Engineering (BE MEngSc) Plan MECHL13710
Year 4

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.

Summer Session between Year 4 and Year 5

At this stage students change to M EngSc program **8710** and undertake a 12 units of credit project, MECH9010.

Years 5

24 units of credit of courses are selected from the School's postgraduate courses. It is suggested that consideration be given to the courses making up the Specialisation strands outlined in the Postgraduate Handbook.

***Mechatronic Engineering (BE MEngSc) Plan MTRNL13711**
Year 4

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.

Summer Session between Year 4 and Year 5

At this stage students change to M EngSc program **8710** and undertake a 12 units of credit project, MECH9010.

Years 5

24 units of credit of courses are selected from the School's postgraduate courses. It is suggested that consideration be given to the courses making up the Specialisation strands outlined in the Postgraduate Handbook.

Concurrent Degree Programs

3710/3749 Mechanical and Mechatronic Engineering/ Master of Biomedical Engineering

Bachelor of Engineering Master of Biomedical Engineering
BE MBiomedE

A Bachelor of Engineering degree in Mechanical Engineering or in Mechatronic Engineering and a Master of Biomedical Engineering degree (BE MBiomedE) can both be completed in five years of concurrent study. The first four years are defined in a special Mechanical Engineering plan, or in a special Mechatronic Engineering plan, within the Bachelor of Engineering **3710** program. The fifth year is defined by plans within the Master of Biomedical Engineering program **3749**. Program 3710 comes under the HECS system but 3749 does not. Both the engineering and biomedical components are described in the Graduate School of Biomedical Engineering section in this Handbook.

3710/8404 Manufacturing Engineering and Management, Mechanical Engineering and Mechatronic Engineering/Master of Commerce

Bachelor of Engineering Master of Commerce BE MCom

A Bachelor of Engineering degree in Manufacturing Engineering and Management, or in Mechanical Engineering, or in Mechatronic Engineering, and a Master of Commerce degree (BE MCom) can both be completed in five years of concurrent study. The first four years are defined in a special Manufacturing Engineering and Management plan, or in a special Mechanical Engineering plan, or in a special Mechatronic Engineering plan, within the Bachelor of Engineering **3710** program. Details are given below. The fifth year is defined by plans within the Master of Commerce program **8404** which is described in the Faculty of Commerce and Economics section in this Handbook. Program 3710 comes under the HECS system but 8404 does not.

There will be a testamur for each degree. The degree of Bachelor of Engineering will be awarded on the satisfactory completion of the four years of the engineering program. For assessment of Honours, the results from the Commerce courses in Year 4 will be used to replace the deleted engineering courses.

Admission Requirements

Admission to the Master of Commerce program will require a credit grade average by the end of Year 3.

Manufacturing Engineering and Management (BE MCom) Plan

Years 1, 2 and 3

Years 1 and 2 of this plan correspond exactly to the standard single degree Manufacturing Engineering and Management plan. For students entering Year 3, and who anticipate being permitted to take the BE MCom, it is suggested that they bring forward MANF4440 Strategic Manufacturing Management and take it instead of ACCT9003 Introduction to Accounting Principles. If the BE MCom is permitted in Year 4, then ACCT5901 Accounting: a user perspective, will be regarded as replacing ACCT9003. If the BE MCom is not permitted in Year 4, then ACCT9003 is to be taken instead of the already completed MANF4440.

Note that a total of twelve (12) Units of Credit of general education are required for the Manufacturing Engineering and Management BE MCom and that accounting courses GENC1001, GENC1002 and GENC1003 are not acceptable as they duplicate ACCT5901.

		HPW		UOC
Year 4		S1	S2	
ACCT5901	Accounting: a user perspective		3	6
ECON5103	Business Economics	3		6
IROB5700	Management, Work and Organisation	3		6

MANF4300	Design of Manufacturing Facilities 2		4	6
MANF4500	Computers in Manufacturing 2	3		3
MANF4601	Computer Aided Production Management A	3		3
MECH4001	Communications for Professional Engineers		3	3
MECH4003	Thesis A			6
MECH4004	Thesis B			9

Mechanical Engineering (BE MCom) Plan
Years 1,2 and 3

Years 1 and 2 of this plan correspond exactly to the standard single degree Mechanical Engineering plan. For students entering Year 3, and who anticipate being permitted to take the BE MCom, it is suggested that they bring forward a six (6) Units of Credit Technical Elective course to replace six (6) Units of Credit of general education. If the BE MCom is permitted in Year 4, then ACCT5901 Accounting: a user perspective, will be regarded as replacing the general education courses. If the BE MCom is not permitted in Year 4, then the six (6) Units of Credit of general education must be taken.

Note that a total of six (6) Units of Credit of general education are required for the Mechanical Engineering BE MCom and that accounting courses GENC1001, GENC1002 and GENC1003 are not acceptable as they duplicate ACCT5901.

Note that a total of eighteen (18) Units of Credit of Technical Elective courses are required for the Mechanical Engineering BE MCom.

Year 4

ACCT5901	Accounting: a user perspective		3	6
ECON5103	Business Economics	3		6
IROB5700	Management, Work and Organisation	3		6
MECH4001	Communications for Professional Engineers		3	3
MECH4003	Thesis A			6
MECH4004	Thesis B			9
Technical Elective(s)				6
Technical Elective(s)				6

Mechatronic Engineering (BE MCom) Plan
Years 1,2 and 3

Years 1 and 2 of this plan correspond exactly to the standard single degree Mechatronic Engineering plan. For students entering Year 3, and who anticipate being permitted to take the BE MCom, it is suggested that they bring forward a six (6) Units of Credit Technical Elective course to replace six (6) Units of Credit of general education. If the BE MCom is permitted in Year 4, then ACCT5901 Accounting: a user perspective, will be regarded as replacing the general education courses. If the BE MCom is not permitted in Year 4, then the six (6) Units of Credit of general education must be taken.

Note that a total of six (6) Units of Credit of general education are required for the Mechatronic Engineering BE MCom and that accounting courses GENC1001, GENC1002 and GENC1003 are not acceptable as they duplicate ACCT5901.

Note that a total of twelve (12) Units of Credit of Technical Elective courses are required for the Mechatronic Engineering BE MCom.

Year 4

ACCT5901	Accounting: a user perspective		3	6
ECON5103	Business Economics	3		6
IROB5700	Management, Work and Organisation	3		6
MECH3601	Thermofluid System Design	3		3
MECH4001	Communications for Professional Engineers		3	3
MECH4003	Thesis A			6
MECH4004	Thesis B			9
MTRN4221	Industrial Robotics	3		3
Technical Elective(s)				6

Year 5

For Year 5, students change to MCom program **8404** and study 48 units of credit of courses, described in detail in the Faculty of Commerce and Economics section in this Handbook, and briefly outlined as follows:

One Core Elective Commerce course (chosen from six).

Four Disciplinary Stream Elective Commerce courses forming an integrated sequence of studies.

Three Elective Commerce courses.

School of Mining Engineering

Head of School: Professor JM Galvin

Executive Assistant to Head of School: Dr Chris Daly

Administrative Assistants: Mrs Carol Bell, Ms Kim Russell

Mining Engineering offers one of the most diverse ranges of career paths, very 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 technology, people, equipment, financial resources, community and government.

Mining Engineering is concerned with the safe, economic and environmentally responsible recovery, processing and marketing of mineral resources from the earth. Mining Engineering degree programs include elements from a number of other disciplines such as 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 sections affiliated to the industry.

Career opportunities exist in areas such as mine production, mine management, engineering design and technology, computer software development, geotechnical engineering, environmental engineering, corporate management, merchant banking, consulting (mine design financial evaluation, feasibility studies, geotechnical design environmental assessment) civil tunnelling, quarrying risk management, project management, education and training, Government (inspectors, policy formulation, administration).

This spectrum of career paths provides male and female graduates with the flexibility to work in and move between a diverse range of environments and locations: national and international, country and city, surface or underground, office or field.

Upon graduating, many mining engineers spend between 1 and 3 years gaining work experience at minesites and may then elect to gain their statutory Mine Managers qualifications.

Initially in charge of a small section of a mine, they take increasingly responsible positions, managing mines with between 300–400 employees and annual turnovers of more that $100 million. They can then progress to the management of larger or more diverse mines and mining complexes, reaching the top levels of mining industry management.

In recognition of the rapid career progression available to mining engineers in the commercial and management sectors, a combined Bachelor of Mining Engineering/Master of Commerce program is offered at UNSW. Some students completing this program are recruited directly into the commercial sector; others progress up through the management levels of major mining companies.

In addition a combined Bachelor of Mining Engineering/Master of Environmental Management will be offered for the first time in 2002. This Masters Track Program extends the undergraduate combined programs offered by the School of Mining Engineering into an increasing area of demand, that of a mining engineering and environmental management background. This demand has been growing in recent years in response to the increasing environmental responsibility being placed on mining projects in Australia and overseas. A knowledge of mining systems and processes is required to manage effectively the environmental issues associated with underground mining in particular and mining in general.

As in other areas of Engineering and Science there has been a rapid change in technology applied to the Mining Industry. This has meant that today mining operations are much safer and more automated with a much less "manual" component associated with the day-to-day operation of a mine. There is a demand for graduates with computer skills to be involved in the design of complex mine planning systems, the development of remote controlled mining systems and the economic evaluation of mining operations. Throughout the course, academic staff through research and close industry involvement promote the application of new technologies to all areas of mining. The availability of the combined BE/BSc in Computer Science presents an opportunity for students with a strong computing interests to become more involved in the development and application of computing technology to the design and management of mining systems.

Mining engineering is an international profession with Australia's major mining companies operating in South East Asia, Africa, South and North America and Europe, and our graduates have the 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.

Program Outlines

The School offers a 4 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, in Arts and a fast track Master of Commerce degree is also available to students who have maintained at least a credit average in their first three years of the Mining Engineering Program.

After graduation, mining engineers who choose to develop careers in production management, will be required to gain further practical experience before obtaining a Mine Manager's Certificate of Competency, in either Coal or Metalliferous Mining. These statutory certificates of competency are issued by the State Department of Industrial Relations, which in the case of New South Wales coal mining comes under the Coal Mines Regulation Act No. 67, 1982, and for metalliferous mining under the Mines Inspection Act No. 75, 1901, as amended.

Arrangements have been made with the Universities of Newcastle and Tasmania for students who have completed a specified program at these institutions to be admitted with advanced standing to Year 3 of the Mining Engineering degree program at the University of New South Wales.

Students or graduates of other engineering disciplines may also be given suitable advanced standing for conversion to Mining Engineering.

3140 Mining Engineering

Bachelor of Engineering BE

Year 1 of the course is similar to that of several other Engineering programs and Year 2 includes those courses which are of common relevance to the Engineering disciplines. Year 3 is largely devoted to basic mining courses and Year 4 provides advanced instruction in courses essential to all mining engineers. In addition, the fourth year offers a range of elective courses, allowing students to supplement their studies with a minor specialisation. An important fourth year requirement is for students to undertake personal research or a study project in mining or minerals engineering on which they are required to submit a thesis for examination. A number of general education courses are also prescribed for the last three years.

Some courses in Years 3 and 4 of the program will be conducted at the School's residential Minesite Teaching Unit located at Wyee Coal Mine. This provides a unique opportunity for students to gain immediate practical insight into the application of theoretical concepts. For the award of Honours at the conclusion of the full-time course, students will need to have distinguished themselves in the formal work, in other assignments as directed by the Head of School, and in the final year project.

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 before graduation. The School assists students as much as possible in securing suitable vacation employment.

		HPW		UOC
Year 1		**S1**	**S2**	
MINE1010	Introduction to Mining Engineering	4	0	6
MINE1300	Applied Mechanics	4	0	6
MATH1131	Maths 1A	6	0	6
PHYS1169	Physics	6	0	6
MINE1020	Mining Industry Practice	0	4	6
CHEM1817	Chemistry 1 ME	0	3	3
GEOL5200	Geology for Mining Engineers	0	4	6
MATH1231	Maths 1B	0	6	6
MATS9410	Materials for Mining Engineers	0	3	3
	Total	**20**	**20**	**24**
Year 2				
MINE2310	Structural Mechanics	4	0	6
MINE2500	Fluids and Thermodynamics	4	0	6
MINE2700	Mining Data Analysis	2	0	3
MATH2029	Engineering Maths 1	6	0	6
ELEC0809	Electric Power Engineering	3	0	3
MINE2010	Mining Project Development	0	4	6
MINE2320	Mining Stress Analysis	0	3	3
GMAT0443	Mine Surveying	0	3	3
MATH2039	Engineering Maths 2	0	3	3
3 x General Education Electives		0	6	9
	Total	**20**	**20**	**24**
Year 3				
GEOL5300	Mine Geology	2	0	3
MINE3300	Mining Geomechanics	4	0	6
MINE3610	Excavation Engineering	5	0	6
MINE3620	Mine Infrastructure and Services	3	0	3
MINE3710	Mine Economics & Business Systems	4	0	6
MINE3720	Mining Management 1	0	4	6
MINE3400	Mining Systems	0	5	6
MINE3500	Mine Workplace Environment	0	5	6
MINE3800	Mineral Processing	0	3	3
General Education		0	2	3
	Total	**18**	**19**	**24**
Year 4				
MINE4210	Mine Planning	5	0	6
MINE4300	Geotechnical Engineering **OR**	4	0	6
MINE8140	Mining Geomechanics	B	0	6
MINE4700	Mining Management 2	5	0	6
MINE4410	Industry Applications	4	0	6
MINE4220	Coal Mine Design & Evaluation Project **OR**	0	7	9
MINE4230	Metal Mine Design & Evaluation Project	0	7	9
MINE4500	Environmental & Social Impacts of Mining	0	2	3
MINE4420	Thesis A	0	6	9
Elective		0	3	3
	Total	**18**	**18**	**24**

Internal Electives(Select one)

MINE4800	Mine Simulation & Modelling
MINE4805	Mineral Process Technology
MINE4810	Computational Methods in Geomechanics

*(*B indicates block teaching)*

OR *students may select from the following Electives*

1. Students may enrol in 1 6UC course from the following graduate courses offered by the Institute of Environmental Studies (IES), subject to availability and approval of the IES and the Head of School.

IEST5001	Frameworks for Environmental Management
IEST5002	Tools for Environmental Management
SCTS5317	Fundamental Knowledge in Environmental Management: Social Science
ECON5125	Fundamental Knowledge in Environmental Management: Economics
LAWS3439	Fundamental Knowledge in Environmental Management: Law
BIOS9001	Fundamental Knowledge in Environmental Management: Ecology

In lieu of 1 Mining elective (3 units of credit) and MINE4500 (3uoc)

2. With the approval of the Head of School, students may undertake MINE8770 Mining Law in lieu of MINE4700 Mining Management 2

3. With the approval of the Head of School, students may undertake MINE8780 Environmental Management in Mining in lieu of MINE4500 and 1 3UC Elective.

Note: Where courses are selected from the Mining Engineering Postgraduate Coursework Program, it is expected that students will have at least a credit average in their previous studies.

3140 Mining Engineering/Master of Commerce Program

Bachelor of Engineering Master of Commerce BE MCom

Students who have maintained at least a Credit average over the first 3 years of the Mining Engineering Program may elect to join this program at the end of year 3. After completing the fourth year as shown below, a student is eligible to graduate at the end of year 4 with a BE in Mining Engineering.

To complete the requirements of the MCom, an additional 8 6UOC courses are selected from the MCom program with the provision for gaining a single major or a double major. This specialisation will determine the Commerce Core Elective in year 4.

		HPW		UOC
YEAR 4		**S1**	**S2**	
ACCT5901	Accounting: A User Perspective	3	0	6
ECON5103	Business Economics	3	0	6
Commerce Core Elective		0	3	6
MINE4210	Mine Planning	5	0	6
MINE4300	Geotechnical Engineering	4	0	6

MINE4220	Coal Mine Design & Evaluation Project **OR**	0	7	9
MINE4230	Metal Mine Design & Evaluation Project	0	7	9
MINE4430	Thesis B	0	6	6
	Mining Elective	0	3	3
	Total	**15**	**19**	**48**

3140 Mining Engineering/Master of Environmental Management Master-Track Program

Bachelor of Engineering Master of Environmental Management
BE MEM

Students who have maintained at least a Credit average over the first 3 years of the Mining Engineering Program may elect to enter this Masters Track Program in Environmental Management at the end of year 3. After successfully completing the fourth year as shown below, a student is eligible to graduate with a BE in Mining Engineering.

To complete the requirements of the MEM (Master of Environmental Management), an additional 9 6UC courses are required to be undertaken from the MEM program in accordance with the regulations of that program.

		HPW		UOC
Year 4		**S1**	**S2**	
MINE4210	Mine Planning	5	0	6
MINE4300	Geotechnical Engineering	4	0	6
IEST5001	Frameworks for Environmental Management	3	0	6
LAWS3439	Fundamental Knowledge in Environmental Management: Law **OR**	3	0	6
SCTS5317	Fundamental Knowledge in Environmental Management: Social Science	3	0	6
MINE4220	Coal Mine Design and Evaluation Project **OR**	0	7	9
MINE4230	Metal Mine Design and Evaluation Project	0	7	9
MINE4430	Thesis B	0	6	6
	Mining Elective	0	3	3
IEST5002	Tools for Environmental Management	0	3	6
	Total	**15**	**19**	**48**

(The order of MEM courses may change from year to year – the availability of courses in a particular session must be confirmed with the MEM co-ordinator before enrolment. Additional electives may be undertaken with the approval of the Head of School.)

3142 Mining Engineering/Bachelor of Science

Bachelor of Engineering Bachelor of Science BE BSc

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 combination is 5 years. The selection of specialisations in the Science component are quite flexible. However, it is important 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 more information.

3144 Mining Engineering/Bachelor of Arts

Bachelor of Engineering Bachelor of Arts BE BA

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.

3146 Civil Engineering and Mining Engineering

Bachelor of Engineering Bachelor of Engineering
BE BE

Students enrol in the Bachelor of Engineering in Civil Engineering Program 3620 which is administered by the School of Civil Engineering. The first three and a half years of the combined degree program are therefore identical to course 3620. After completing 7 Sessions of this 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 3 additional Sessions.

Students considering this option should discuss the above arrangements with the relevant Program Authorities.

3140 Mining Engineering/Master of Engineering Science – MINEP13140

Bachelor of Engineering Master of Engineering Science BE MEngSc

Students may undertake a 4.5 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 (6 semesters) of the BE program in Mining Engineering. Subject to satisfying a minimum performance over these three years (see Program Rules under Conditions for the Award of Degree), 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).

Year 1 to Year 3

Same as Program 3140

		HPW		UOC
Year 4		**S1**	**S2**	
Mining Management Specialisation				
MINE4210	Mine Planning	5	0	6
MINE4300	Geotechnical Engineering	4	0	6
MINE8210	Management Systems	B*	0	6
MINE4410	Industry Applications	4	0	6
MINE4220	Coal Mine Design **-OR-**	0	7	9
MINE4230	Metal Mine Design	0	7	9
MINE4420	Thesis A	0	6	9
MINE8220	Mine Feasibility, Planning and Project Evaluation	0	B*	6

Mining Geomechanics Specialisation		**HPW**		
	Course	**S1**	**S2**	**UOC**
MINE4210	Mine Planning	5	0	6
MINE8140	Mining Geomechanics	B*	0	6
MINE4700	Mining Management 2	5	0	6
MINE4410	Industry Applications	4	0	6
MINE4220	Coal Mine Design **-OR-**	0	7	9
MINE4230	Metal Mine Design	0	7	9
MINE4420	Thesis A	0	6	9
MINE8760	Mine Geology and Geophysics for Mining Operations	0	B*	6

(* indicates course is presented in block format – contact School for further details)

Year 5 (summer Session)

MINE8000	Graduate Project	6	0	12

Year 5 Session 1

During Session 1 students undertake 4 6UC Mining MEngSc courses according to their specialisation.

School of Petroleum Engineering

Director: Professor WV Pinczewski

Petroleum Engineering is a specialised engineering discipline which prepares graduates for a career in the oil and natural 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 recovery of hydrocarbons and geothermal 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), B.E. Pet.Eng (Hons) requires four years of full-time study. This degree is fully accredited and recognised internationally. The School also offers a combined, fast track, undergraduate programs leading to the award of the degree of Bachelor of Engineering (Petroleum Engineering)/Master of Commerce, B.E. Pet.Eng/M.Comm, which requires an additional year of full-time study after satisfactory completion of the Petroleum Engineering program.

Entry is normally into Year 1 of the program. Students who satisfy the requirements of other full-time Engineering degree programs at the University of New South Wales or any other Australia 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 directed by the Director of Undergraduate Studies of the School.

Program Outlines

3045 Petroleum Engineering - Full Time Program (Hons)

Bachelor of Engineering BE

This program extends over four years and students study full-time during the day for twenty-eight 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.

The Combined degree BE Pet.Eng/M.Comm is also available (see below):

Stage 1		**HPW**		**UOC**	
		S1	**S2**	**S1**	**S2**
PTRL1010	Introduction to the Petroleum Industry	3		3	
PTRL1011	Reservoir Rock Properties and Fluid Flow	3		3	
		HPW		**UOC**	
		S1	**S2**	**S1**	**S2**
PTRL1012	Reservoir Fluid Properties	3		3	
PTRL1013*	Computing for Petroleum Engineers	3		3	
PTRL1014*	Petroleum Exploration and Development in Australia	3		3	
GEOL5321**	Elements of Petroleum Geology	6		6	
MECH0130	Engineering Drawing & Solid Modeling		3		3
CHEM1011	Fundamentals of Chemistry 1A		6		6
PHYS1169	Physics 1		6		6
MATH1131 MATH1141	Math 1A or Higher Math 1A		6		6
MATH1231 MATH1241	Math 1B or Higher Math 1B	6		6	
Total	**HPW Session 1**	**24**			
	HPW Session 2	**24**			
	Units Session 1	**24**			
	Units Session 2	**24**			

*subject to approval
**Identifier to be changed and new title

Stage 2					
PTRL2009	Field Development Geology		3		3
PTRL2010	Communic. Skills & Business Prac. for Engineers (M)	4		6	
PTRL2012	Formation Evaluation 1		3		3
PTRL2013	Rock and Fluid Properties Laboratory	3		3	
CVEN1023	Statics	3		3	
CVEN0636	Properties of Materials		3		3
MATH2020	Mathematics 2A	2		3	
MATH2030	Mathematics 2B		2		3
MATH2899	Applied Statistics CE		3		3
CEIC2110	Material and Energy Balances	3		3	
CEIC2120	Flow of Fluids	3		3	
CEIC2130	Heat Transfer		3		3
CHEN2140	Mass Transfer		3		3
General Education		2	2	3	3
Total	**HPW Session 1**	**20**			
	HPW Session 2	**22**			
	Units Session 1	**24**			
	Units Session 2	**24**			

Stage 3					
PTRL3008	Reservoir Engineering A	3		3	
PTRL3009	Reservoir Engineering B		3		3
PTRL3010*	Reservoir Petrophysics and Geophysics		3		3

*subject to approval

PTRL3012	Well Testing		3		3
PTRL3013	Reservoir Characterisation		3		3
PTRL3015	Petroleum Production Engineering	3		3	
PTRL3016	Well Drilling Equipment & Operations	3		3	
PTRL3017	Drilling Fluids and Cementing		3		3
PTRL3018	Drilling and Production Laboratory		3		3
PTRL3019	Petroleum Project Evaluation (M)	3		3	
PTRL3020	Risk Analysis and Management (M)		3		3
PTRL3021	Design Project	3		6	
PTRL3022	Petroleum Thermodynamics	3		3	
	General Education	2	2	3	3
Total	**HPW Session 1**	**20**			
	HPW Session 2	**23**			
	Units Session 1	**24**			
	Units Session 2	**24**			

Stage 4					
PTRL4010	Integrated Reservoir Description Project (M)	6		12	
PTRL4011	Integrated Reservoir Analysis Project (M)		4		6
PTRL4012	Integrated Drilling & Economics Project (M)		10		10
PTRL4013	Well Completion & Stimulation	3		3	
PTRL4014	Well Design	3		3	
PTRL4015	Numerical Reservoir Simulation	3		3	
PTRL4016	Natural Gas Engineering	3		3	
Electives:					
LAWS2031	Occupational Health and Safety or		4		8
GEOL5412	Special Topics in Petroleum Geoscience		6		8
Total	**HPW Session 1**	**18**			
	HPW Session 2	**18**			
	Units Session 1	**24**			
	Units Session 2	**24**			

Notes:

- Total number of Units of Credit (UOC): 192
- Units of Credit Management oriented (M): = 24%

Combined Degree

3045 Petroleum Engineering/Master Commerce

Bachelor of Engineering Master of Commerce BE MCom

Stage 4 modified		**HPW**		**UOC**	
		S1	**S2**	**S1**	**S2**
PTRL 4012	Intergrated Drilling & Economics Project		10		10
PTRL 4013	Well Completion & Stimulation	3		3	
PTRL 4014	Drilling System Design & Optimisation	3		3	
PTRL 4015	Numerical Reservoir Simulation	3		3	
PTRL 4016	Natural Gas Engineering	3		3	
LAWS 3410	Environmental Law		4		8
ECON 5103	Business Economics (M)		3		6
ACCT 5901	Accounting: A User Perspective (M)	3		6	
Commerce Core Elective (M)		3		6	
Total	**HPW Session 1**	**18**			
	HPW Session 2	**17**			
	Units Session 1	**24**			
	Units Session 2	**24**			

Stage 4 modified

PTRL4012	Integ Drilling & Economics Project		10		10
PTRL4013	Well Completion and Stimulation	3		3	
PTRL4014	Well Design	3		3	
PTRL4015	Numerical Reservoir Stimulation	3		3	
PTRL4016	Natural Gas Engineering	3		3	
Electives					
LAWS2031	Occupational Health and Safety		4		8
GEOL5412	Special Topics in Petroleum Geoscience		6		8
Faculty of Commerce					
ECON5103	Business Economics (M)		3		6
ACCT5901	Accounting: A User Perspective (M)	3		6	
Commerce Core Elective		3		6	
Total	**HPW Session 1**	**18**			
	HPW Session 2	**17**			
	Units Session 1	**24**			
	Units Session 2	**24**			
Stage 5					
	Four Non-Core Commerce Electives	12		24	
	Four Non-Core Commerce Electives		12		24
Total	**HPW Session 1**	**12**			
	HPW Session 2	**12**			
	Units Session 1	**24**			
	Units Session 2	**24**			

Notes: 3 hours/week/elective

School of Surveying and Spatial Information Systems

Head of School: Associate Professor A H W Kearsley

Administrative Officer: Mr L Daras

The School of Surveying and Spatial Information Systems has recently changed its name from the School of Geomatic Engineering. The names of degrees will similarly change, for example the Bachelor of Engineering in Geomatic Engineering, will become the Bachelor of Engineering in Surveying and Spatial Information Systems from 2002.

The School's programs involve an integrated approach to the acquisition, analysis, storage, distribution, management and application of spatially-referenced data. A graduate from the School may choose to work in Surveying or Spatial Information Systems or in other areas.

Surveying:

- 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)
- Hydrography (mapping the seabed and waterways for navigation and off-shore resource management)
- Engineering Surveying (precise surveying for engineering projects)
- Cadastral Surveying (knowledge of the laws and practices for survey of property boundaries)
- Land Management and Development (project management for land development, environmental assessment for resource management and change of land use)

Spatial Information Systems:

- Land Information Management (the use of computer-based information systems of spatially related data for planning and administration purposes)
- Geographic Information Systems (GIS) (computer-based information systems for environmental assessment and monitoring)
- Photogrammetry and Remote Sensing (the use of airborne and spaceborne remotely sensed images for mapping and resource surveys).

The School boasts a proud record of achievement; its graduates are leaders in industry, government and academic circles. It has forged strong links with leading research and teaching institutions in North America, Europe and Asia, and members of the School's staff hold positions of leadership in both international and national scientific and professional bodies.

The four undergraduate programs in the School are: the Bachelor of Engineering in Surveying and Spatial Information Systems (Program 3741) and the combined degrees of Bachelor of Engineering in Surveying and Spatial Information Systems/Bachelor of Science in Computer Science (Program 3746), the combined Bachelor of Engineering (Surveying and Spatial Information Systems)/Bachelor of Arts (Program 3747), and the Bachelor of Engineering (Surveying and Spatial Information Systems)/ Master of Commerce (Program 3748).

Students taking the BE in Surveying and Spatial Information Systems (3741) can specialise in the third and fourth years.

3741 Bachelor of Engineering in Surveying and Spatial Information Systems Program

The BE in Surveying and Spatial Information Systems degree program is a well rounded program aimed at preparing the graduate for a broad range of career opportunities in the various branches of Surveying and Spatial Information Systems and in associated fields. Graduates will use their fundamental knowledge, and the skills they acquired during their undergraduate studies to practice as surveyors, consultants, managers, teachers or researchers. Indeed a single graduate may take on several of these roles during his or her career. To this end, the BE (Surveying and Spatial Information Systems) degree program covers general scientific principles with special emphasis on surveying and computing, as well as other specialised Surveying and Spatial Information Systems applications. Theoretical studies are complemented by practical exercises in the field and in the laboratory.

The BE in Surveying and Spatial Information Systems is a four year, full time degree program, although the program may be taken in a sandwich form in which a student may, after completing the first year of the program on a full-time basis, alternate his or her studies with one or more periods of employment by taking leave of absence of up to two consecutive sessions.

Recognition

The degree of BE in Surveying and Spatial Information Systems is recognised by the Board of Surveyors 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, Australia 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 Surveyors of NSW, P.O. Box 143, Bathurst NSW 2795.

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.

3746 Bachelor of Engineering Surveying and Spatial Information Systems/Computer Science Program

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 in Computer Science and Bachelor of Engineering in Surveying and Spatial Information Systems. The program authority for the combined degree is the School of Surveying and Spatial Information Systems. The program is open to all students who satisfy both the Surveying and Spatial Information Systems and Computer Science entry conditions.

The program is specifically designed for students wishing to enter a career in Surveying and Spatial Information Systems specialising in surveying, satellite positioning, spatial data handling for land and geographic information systems, remote sensing, digital mapping and terrain analysis. The content of the program comprises courses from the BSc in Computer Science and BE degree courses with some variations to accommodate the requirements of both degrees. The selection of courses from both programs is flexible and it should be possible to complete the requirements for the award of the BE degree after four years study and the BSc degree after five years.

3747 Bachelor of Engineering (Surveying and Spatial Information Systems)/Bachelor of Arts Program

General

With this combined 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. 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 to engage in specialised studies in Surveying and Spatial Information Systems.

Because the Surveying and Spatial Information Systems and Arts programs can have a common content, such as mathematics and physics, only one more year of study is required to gain the additional qualification of Bachelor of Arts.

Eligibility

The program is open to all students who satisfy both the Engineering and Arts entry conditions. Students may enter directly in Year 1 or may apply to transfer from the Surveying and Spatial Information Systems program later, although with late transfer it might not be possible to complete the program in minimum time.

Organisation

The BE (Surveying and Spatial Information Systems)/Bachelor of Arts program is administered by the School of Surveying and Spatial Information Systems.

3741 Bachelor of Engineering (Surveying & Spatial Information Systems)/Master of Engineering Science Program

Students may undertake a 4.5 years (10 semesters) full-time combined program leading to the awards of a Bachelor of Engineering (Surveying & Spatial Information Systems) and a Master of Engineering Science.

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 combined program structure will thus encourage completion of a first postgraduate coursework program, and lay the groundwork for lifelong learning.

3748 Bachelor of Engineering (Surveying and Spatial Information Systems)/Master of Commerce Program

This program will provide professional qualifications in engineering and business/commerce. It is suited to high ability students who have interests in technology and wish to work with, and manage teams of professionals, projects and business. The strength of the program is that you can graduate with a technical degree and complete the Master of Commerce (MCom) degree on a full-time or part-time basis, combining management training with on-the-job experience.

In this combined degree, students complete years 1 to 3 of the Bachelor of Engineering in Surveying and Spatial Information Systems (Program 3741). In Year 4, students are not required to complete GMAT4700 Project Management 1 of the BE program, but must complete the following three MCom courses:

ACCT 5901 Accounting: A User Perspective
ECON 5103 Business Core Elective
and 1 Commerce Core Elective

Students continuing the MCom program must complete six non-core Commerce electives in Year 5 and two non-core Commerce electives in Year 6. Students should consult the Faculty of Commerce and Economics section in this handbook for details of the electives.

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.

Computing Requirements

Information regarding recommended computing equipment and software for the courses offered by the School is available from the School Office.

Program Outlines

3741 Surveying and Spatial Information Systems

Bachelor of Engineering BE

		HPW		UOC
Year 1		**S1**	**S2**	
GMAT1100	Principles of Surveying	5	0	6
GMAT1300	Computing Applications in Geomatics	4	0	6
MATH1131	Mathematics 1A **OR**	6	0	6
MATH 1141	Higher Mathematics 1A			
PHYS1189	Physics 1	6	0	6
GMAT1150	Survey Methods & Computations	0	5	6
GMAT1200	Visualisation of Spatial Data	0	4	6
GMAT1400	Land Studies in Geomatics	0	5	6
MATH 1231	Mathematics 1B **OR**	0	6	6
MATH1241	Higher Mathematics 1B			
Total	**HPW Session 1**	**21**		
	HPW Session 2	**21**		
	Units of Credit	**48**		

Year 2

GMAT2100	Electronic Surveying Instrumentation: Principles and Practice	5	0	6
GMAT2350	Computing for Spatial Information Sciences	3	0	3
GMAT2700	Geometry of Coord. Ref. Systems	5	0	6
MATH2829	Statistics SU	3	0	3
PHYS2969	Physics of Measurements	3	0	3
General Education courses		2	2	6
MATH 2019	Engineering Mathematics 2CE	0	5	6
GMAT2110	Electronic & GPS Positioning Technologies	0	5	6
GMAT2200	Geographic Inf. Systems & CAD	0	5	6
GMAT2300	Analysis of Observations	0	3	3
Total	**HPW Session 1**	**21**		
	HPW Session 2	**20**		
	Units of Credit	**48**		

The program structure for Years 3 and 4 of the program depends on the electives chosen by students.

Year 3

GMAT3200	Geospatial Information Technologies and Applications	5	0	6
GMAT3400	Cadastral Surveying 1	3	0	3
General Education course/s		2	2	6
	Session 1 Electives	12		
GMAT3500	Photogrammetry & Remote Sensing	0	5	6
GMAT3410	Land Economics & Valuation	0	2	3
GMAT3150	Field Projects	0	5	6
	Session 2 Electives	6		
	Total Units of Credit	**48**		

Electives: Session 1

CVEN0646	Water and Wastewater Engineering	3	0	3
GMAT3100	Surveying Applications	5	0	6
PLAN1093	Planning Perspectives	2	0	3
COMP1011	Computing 1A	6	0	6
MATH1081	Discrete Mathematics	6	0	6
COMP1021	Computing 1B	6	0	6
COMP2011	Data Organisation	5	0	6

Electives: Session 2

CVEN0656	Soil and Pavement Engineering	0	3	3
GMAT3450	Cadastral Surveying 2	0	3	3
COMP1011	Computing 1A	0	6	6
MATH1081	Discrete Mathematics	0	6	6
COMP1021	Computing 1B	0	6	6
COMP2011	Data Organisation	0	5	6

		HPW		UOC
Year 4		**S1**	**S2**	
GMAT4000	Thesis Part A	2	0	3
GMAT4001	Thesis Part B	0	8	9
GMAT4700	Project Management 1	3	0	3
GMAT4750	Project Management 2	0	3	3
GMAT4850	Geomatic Eng for Sustainability	3	0	3
	Session 1 Electives	12		
	Session 2 Electives	15		

Electives

Any remaining Year 3 electives and				
GMAT4020	Project in Geomatic Eng	5 or 5	6	
GMAT4400	Land Manag & Devel Proj.1	2	0	3
GMAT4450	Land Manag & Devel Proj.2	0	2	3
GMAT4900	Principles of GNSS Positioning	5	0	6
GMAT4910	Modern Navigation & Pos	0	5	6
GMAT4410	Land Subdivision & Development	3	0	3
GMAT9211	Introduction to Geodesy	0	3	6
GMAT9121	Network & Deformation Analysis	3	0	6
PLAN1022	The Development Process	3		
PLAN2012	Economic Dev Planning	3		
PLAN3032	Integrated Planning 3-New Dev	6		
GEOG3911	Environmental Impact Assessm	3		

The following electives 5 HPW, 6UOC courses may be chosen once COMP1011, COMP1021 and MATH1081 have been completed:

COMP2021 COMP2021 COMP2041 COMP3111 COMP2411 COMP3121 COMP3211 COMP3131 COMP3231 COMP3221 COMP3241 COMP3311 COMP3421 COMP3331COMP3511 COMP3411and 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

Combined Programs

3746 Surveying and Spatial Information Systems/ Bachelor of Science (Computer Science)

Bachelor of Engineering Bachelor of Science in Computer Science BE BSc

The structure of this program is flexible to accommodate timetabling but a recommended program which will satisfy prerequisites is:

Year 1

Session 1: COMP1011, GMAT1100, MATH1131 or MATH1141, PHYS1189.

Session 2: COMP1021, GMAT1150, MATH1231 or MATH1241, and Year 1 GMAT elective (either GMAT1400 Land Studies in Geomatics, or GMAT1200 Visualisation of Spatial Data)

Year 2

Session 1: GMAT2100, GMAT2700, MATH1081, MATH2829, PHYS2969

Session 2: GMAT2110, GMAT2200, GMAT2300, COMP2011, and Year 2 free elective

Year 3

Session 1: COMP2 (a level 2 computing elective), GMAT3200, GMAT3400, Year 3 Electives: CVEN0646, GMAT3100, PLAN1093, General Education course/s

Session 2: GMAT3410, GMAT3450, GMAT3500, COMP 2 (a level 2 computing elective), Year 3 Electives: CVEN 0656, GMAT3150, General Education course/s

Year 4

Session 1: GMAT4700, COMP3 (a level 3 computing elective), GMAT4850, Year 4 GMAT Electives from: GMAT4400, GMAT4410, GMAT4900, GMAT9121

Session 2: GMAT4750, COMP3 (a level 3 computing elective) and Year 4 GMAT Electives from: GMAT4020, GMAT4450, GMAT4910, GMAT9211

Year 5

Session 1: GMAT4000 (Thesis Part A), COMP3 (2 level 3 Comp Sci & Eng. Electives totalling 12 units of credit)

Year 5 Electives (totalling 9 units of credit)

Session 2: GMAT4001 (Thesis Part B), COMP3 (a level 3 Comp Sci & 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.

The School of Surveying and Spatial Information Systems is the program authority.

Students may choose to do 3 units of General Education in Year 2, and another 3 units in Year 3. It is possible to revert to the single BE (Surveying and Spatial Information Systems) degree; progress and conversion will be determined on an individual student basis by the program authority.

3747 Surveying and Spatial Information Systems/ Bachelor of Arts

Bachelor of Engineering Bachelor of Arts BE BA

Organisation

The BE (Surveying and Spatial Information Systems)/Bachelor of Arts 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 while 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.

Rules

1. In addition 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 (ie in programs 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 units of credit in one of the areas of:

Chinese Studies; Education; English; Environmental Studies*; French; German Studies; Greek (Modern); History; Indonesian Studies; Japanese Studies; Korean Studies; Linguistics; Music; Philosophy; Policy Studies; Political Science; Russian Studies; Science and Technology Studies; Sociology; Spanish and Latin American Studies; Theatre, Film and Dance.

* 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 program. Students must also complete a minor sequence of 24 units of credit in one of the other areas listed in Rule 2, 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. The course GEOG 3032 Remote Sensing Applications is excluded for all students in the BE (Surveying and Spatial Information Systems) program.

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 studies 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 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 the honours year. It should be noted that entry into a particular BA Honours program requires completion of courses additional to those specified under Rules 1 - 4.

1) There will be a separate testamur for each part of the combined degree program.

3741 Surveying and Spatial Information Systems/Master of Engineering Science – GMATL13741

Bachelor of Engineering Master of Engineering Science BE MEngSc

Students may undertake a 4.5 years (10 semesters) full-time combined program leading to the awards of a Bachelor of Engineering and a Master of Engineering in Surveying and Spatial Information Systems.

Students undertake the first three years (6 semesters) of the BE program in Surveying and Spatial Information Systems. Subject to satisfying a minimum performance over these three years (see Program Rules under Conditions for 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).

3748 Surveying and Spatial Information Systems/Master of Commerce Fast Track Program

Bachelor of Engineering Master of Commerce BE MCom

This program will provide professional qualifications in engineering and business/commerce. It is suited to high ability students who have interests

in technology and wish to work with, and manage teams of professionals, projects and business. The strength of the program is that you can graduate with a technical degree and then complete the Master of Commerce (MCom) degree on a full-time or part-time basis, combining management training with on-the-job experience.

Program Structure BE in Surveying and Spatial Information Systems Master of Commerce

Students must complete years 1 to 3 of the Bachelor of Engineering in Surveying and Spatial Information Systems (Program 3741).

Years 4 to 6 are as follows:

Year 4

Session 1		**UOC**
	One Master of Commerce course	6
GMAT4850	Surveying and Spatial Information Systems for Sustainability	3
Electives		15
	Total	**24**

Electives

GMAT4000	Thesis Part A	3
GMAT4020	Project in Surveying and Spatial Information Systems	6
GMAT4400	Land Management and Development Project 1	3
GMAT4410	Land Subdivision and Development	3
GMAT4900	Principles of GNSS Positioning	6
GEOG 3911	Environmental Impact Assessment	3
CS & Eng.	Elective	6

Session 2		**UOC**
GMAT4750	Project Management 2	3
Two Master of Commerce courses		12
Electives		9
	Total	**24**

Electives

GMAT4001	Thesis Part B	9
GMAT4450	Land Management and Development Project 2	3
GMAT4910	Modern Navigation and Positioning Technologies	6
CS&Eng	Elective	6
PLAN 1022	The Development Process	3
PLAN 2012	Economic Development Planning	3
PLAN 3032	Integrated Planning 3 – New Development	6

Other electives with the approval of the Head of School

Year 5

Students must complete six non-core Commerce electives.

Year 6

Students must complete two non-core Commerce electives.

Students should consult the Faculty of Commerce and Economics section in this handbook for details of the electives.

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.

Eligibility and Application

A minimum of 65% average in the first 3 years of the BE program is required. Students should apply at the end of Year 3 to undertake the MCom programs in Year 4. Normal HECS/fees applies for the 4 years of the undergraduate degree including the MCom programs in Year 4. However, course fees apply to the 8 remaining MCom courses.

Graduate School of Biomedical Engineering

Head of School: Associate Professor BK Milthorpe

The Graduate School of Biomedical Engineering is an interdisciplinary unit which promotes and coordinates biomedical engineering studies and research being conducted by various Schools and Departments within the University and its teaching hospitals. Biomedical Engineering is the application of engineering techniques and analysis to problem solving in medicine and the biological sciences. The engineering disciplines embraced within the scope of Biomedical Engineering include: Electrical Engineering, Mechanical Engineering, Computer Engineering and Chemical Engineering. Biomedical Engineering provides a direct input to enhancing the quality and scope of health care through the application of engineering analysis to biological systems and introducing engineering principles to medical and surgical interventions.

The Graduate School of Biomedical Engineering, in conjunction with the School of Mechanical and Manufacturing Engineering, the School of Electrical Engineering and Telecommunications, the School of Computer Science and Engineering and the School of Chemical Engineering and Industrial Chemistry offers concurrent courses in Mechanical Engineering/Biomedical Engineering, Electrical Engineering/Biomedical Engineering, Computer Engineering/Biomedical Engineering, Chemical Engineering/Biomedical Engineering, and in Telecommunication Engineering/Biomedical Engineering. The concurrent courses allow the completion of a Bachelor of Engineering and a Master of Biomedical Engineering within a 5 year period.

Concurrent Degree Program Outlines

The concurrent degree programs are specifically designed for undergraduate students wishing to pursue a career in Biomedical Engineering. These programs allow students to enter an integrated course which provides both the prerequisite engineering education and the specialist Biomedical Engineering training.

Students are expected to perform at a credit level average or better in their first three years to be permitted to progress to the Masters component of a concurrent degree program. Students who at the end of Year 3, do not satisfy the requirements for progression to the Masters component may complete the Bachelor of Engineering. At the completion of the Bachelor of Engineering, students may enrol in the Graduate Diploma in Biomedical Engineering with advanced standing for biomedical subjects previously completed.

Students may elect at any time to revert to the BE program. If, once entering a concurrent degree program, students wish to revert to the normal BE programs they will need to satisfy the requirements for the BE as set out in the relevant sections in this handbook. Since the concurrent degree programs introduce subjects additional to those in the BE, the student reverting to the normal BE program may require up to an additional year to achieve a BE after completing years 3 or 4 of the concurrent degree program.

Professional Recognition

The Institution of Engineers, Australia, recognises the Bachelor of Engineering components of the BE/MBiomedE courses as meeting the examination requirements for admission to graduate and corporate membership. In addition, examination requirements are met for membership of the Institution's College of Biomedical Engineering and either the College of Electrical or Mechanical Engineering. The degrees are accorded substantial or complete recognition by overseas engineering institutions.

Bachelor of Engineering Master of Biomedical Engineering

BE MBiomed E

Please contact the relevant School for further information on the following concurrent degrees:

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

3683 Bachelor of Engineering (Mechanical and Mechatronic Engineering)/Master of Biomedical Engineering

3723 Bachelor of Engineering (Telecommunications Engineering)/Master of Biomedical Engineering

Formal graduate programs in Biomedical Engineering are offered. These are:

The Master of Biomedical Engineering, the Master of Engineering Science in Biomedical Engineering, and the Graduate Diploma in Biomedical Engineering.

Centre for Photovoltaic Engineering

Head of Centre: Professor S.R. Wenham

Director of Academic Studies: Associate Professor C.B. Honsberg

Co-ordinator of Research: Dr. J. E Cotter

Administrative Office Manager: Ms. L. Cahill

The Centre for Photovoltaic Engineering was formerly part of the School of Electrical Engineering. It comprises 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. The need for the latter has arisen due to rapid growth and evolution in the photovoltaics industry in recent years, with considerable demand by industry for University of New South Wales' (UNSW) developed technologies and appropriately trained engineers across the entire photovoltaic and renewable energy sectors.

The Centre for Photovoltaic Engineering offers undergraduate and graduate training encompassing all aspects of the photovoltaic sector. The new undergraduate engineering degree in Photovoltaics and Solar Energy commenced in the year 2000 and includes training in technology development, manufacturing, quality control, reliability and lifecycle analysis, cell interconnection and encapsulation, the full range of solar cell applications, system design, maintenance and fault diagnosis, marketing, policy development and the use of all renewable energy technologies. Innovative teaching techniques have been developed to enhance the learning environment including the availability of material via the internet to facilitate distance learning. UNSW academics in this 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 15 years, and has been responsible for developing the most successfully commercialised photovoltaic technology internationally throughout the same period.

Photovoltaic Engineering has close links with several other engineering and science disciplines. A unique feature of this undergraduate degree program is the opportunity provided to students to specialise in a second area of engineering or science during the second and subsequent years of the program. These second areas of specialisation can in general be further expanded through an extra year of study to facilitate the achievement of a combined degree.

Introduction

The undergraduate engineering degree in Photovoltaics (PV) and Solar Energy is a four-year full-time program. It is the first of its kind internationally and has been established in response to rapid growth in the industry in recent years in both manufacturing capacity and job creation. Australia has led the world for many years in this field through research achievements, technology commercialisation and manufacturing. In particular, UNSW has held the world record for silicon cell efficiencies for well over a decade while also being responsible for developing the most successfully commercialised new PV technology world-wide over the last 15 years. During this period, Australian manufacturers have grown to the size whereby Australia is now the largest manufacturer per capita. Australia's market share is predicted to continue increasing in an industry that is growing world-wide at more than 30% per year.

Course materials cover all aspects of PV engineering and also provide a broad education in solar energy, renewable energy technologies and sustainable energy. Most course material can be categorised into one of five major areas: device theory; photovoltaic technology and manufacturing; photovoltaic applications and system design; policy, analysis and modelling; and renewable energy technologies and sustainable energy. Throughout the course, considerable emphasis is placed on gaining hands-on experience of working with PV devices, modules and systems.

Second Area of Specialisation

A unique feature of the degree is that in 2nd year, students are able to enrol in one 18 units of credit strand chosen from the areas of computing, electronics, telecommunications, chemistry, mathematics, environmental/ civil engineering, electric energy and mechanical engineering. The chosen strand will provide the necessary core material to facilitate subsequent selection of more advanced electives from the corresponding area in the 3rd and 4th years of the PV and Solar Energy degree. 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 with skills suiting most areas of the project, electronics engineers, control engineers, mechanical engineers for the aerodynamics and mechanical design, chemical engineers in relation to battery technology, power engineers for motor technology, biomedical engineers for monitoring driver performance and fatigue, computer engineers, and communications engineers for telemetry, etc.

Combined Degree Options

In general, the second area of specialisation chosen in 2nd-year can be expanded into a combined degree through an extra 5th year of study such as in PV and Solar Energy combined with, say, Electrical Engineering. Viable 5-year combined degree options include BE-BE, BE-BSc, BE-BA and possibly also the BE in conjunction with a Master's program. It may also be possible for students with an alternative engineering degree to also gain a degree in PV and Solar Energy through additional study. Further details are provided in the section "Combined Degree Programs".

*There is also the possibility of undertaking 4.5 years (10 semesters) full-time combined program leading to the awards of Bachelor of Engineering in Photovoltaics and Solar Energy and Master of Engineering Science.

Computing Requirements

Information regarding recommended computing requirements for the courses offered by the Centre is available from the Centre for Photovoltaic Engineering office in room 128 of the Electrical Engineering building.

Program Outlines

3642 Photovoltaics and Solar Energy – Full-time Program - SOLAA13642

Bachelor of Engineering BE

Year 1		**HPW**		**UOC**
		S1	**S2**	
SOLA1050	Introduction to Solar Energy, Photovoltaics & Computing 1	4	0	6
SOLA1051	Introduction to Solar Energy, Photovoltaics & Computing 2	0	3	3
SOLA1060	Chemical Processes for Photovoltaic Systems	0	3	3
ELEC1011	Electrical Engineering 1	6	0	6
ELEC1041	Digital Circuits	0	4	6
*MATH1141	Higher Mathematics 1A	6	0	6
*MATH1241	Higher Mathematics 1B	0	6	6
PHYS1131	Higher Physics 1A	6	0	6
PHYS1231	Higher Physics 1B	0	6	6
	Total	**22**	**22**	**48**

*MATH1141 and *MATH1241 may be taken at the ordinary level.

Years 2 & 3 Strand Options

Students have the opportunity to select one of eight possible strands to complement their education in Photovoltaics and Solar Energy Engineering. Each strand comprises 18 Units of Credit with the opportunity to subsequently select additional *Electives* in the corresponding area in the final two years. The eight strands available are listed below with the subject(s) comprising the last 6 Units of Credit to be taken in year 3. Students may also formulate their own strands subject to School Office approval.

Year 2		**HPW**		**UOC**
		S1	**S2**	
	Selected Strand	5	5	12
SOLA2051	Project in Photovoltaics and Solar Energy 1	5	0	6
SOLA2052	Project in Photovoltaics and Solar Energy 2	0	5	6
SOLA2020	Photovoltaic Technology and Manufacturing	4	0	6
SOLA2060	Introduction to Electronic Devices	0	2.5	3
ELEC2042	Real Time Instrumentation	0	3	3
MATH2859	Statistics EE	0	3	3
MATH2509	Linear Algebra	0	3	3
General Education Electives		4	0	6
	Total	**18**	**21.5**	**48**
Year 3				
	Professional Electives	4	8	18
	Selected Strand (continued)	5	0	6
SOLA3050	Sustainable Energy	2.5	0	3

SOLA3540	Applied Photovoltaics	4	0	6
SOLA3507	Solar Cells and Systems	0	4	6
SOLA3054	Renewable Energy Product Reliability	2.5	0	3
General Education		0	4	6
	Total	**18**	**16**	**48**

Year 4

	Professional Electives	4	4	12
ELEC4010	Introduction to Management for Electrical Engineers	4	0	6
ELEC4011	Ethics and Electrical Engineering Practice	0	2	3
SOLA4010	Building Intergrated Photovoltaics	0	2.5	3
SOLA4012	Grid Connected Photovoltaic Systems	4	0	6
SOLA4910	Thesis Part A	5	0	6
SOLA4911	Thesis Part B	0	10	12
	Total	**17**	**18.5**	**48**

Years 2 & 3 Strand Options

Strand 1	***Computing and Control***			
COMP1011	Computing 1A	0	6	6
COMP1021	Computing 1B	6	0	6
ELEC2041	Microprocessors and Interfacing	4	0	6
Strand 2	***Electronics***			
ELEC2031	Circuits and Systems	3	3	6
ELEC3006	Electronics A	6	0	6
ELEC3016	Electronics B	0	5	6
or				
ELEC3017	Electrical Engineering Design	0	5	6
Strand 3	**Electric Energy**			
MATH2011	Several Variable Calculus	4	0	6
PHYS2939	Electromagnetism	3	0	3
ELEC2015	Electromagnetic Applications	0	3	3
ELEC3005	Electrical Energy 1	5	0	6
Strand 4	***Communications***	**HPW**		**UOC**
		S1	**S2**	
ELEC2031	Circuits and Systems	3	3	6
MATH2620	Complex Analysis	0	2.5	3
MATH3150	Transform Methods	0	3	3
TELE3013	Telecommunications Systems 1	5	0	6
Strand 5	***Mathematics***			
MATH2011	Several Variable Calculus	4	0	6
MATH2620	Complex Analysis	0	2.5	3
MATH1090	Discrete Mathematics	3	0	3
MATH3141	Mathematical Methods EE	0	4	6
Strand 6	***Mechanical Engineering***			
MECH2601	Fluid Mechanics and Thermodynamics A	4	0	6
MECH2602	Fluid Mechanics and Thermodynamics B	0	4	6
MECH3601	Thermofluid System Design	3	0	3
MECH3602	Advanced Thermodynamics	0	3	3
Strand 7	***Civil Engineering***			
CVEN1312	Statics	3	0	3
CVEN1314	Mechanics of Solids	0	3	3
CVEN2314	Engineering Materials	2	3	5
CVEN2312	Introduction to Structures	2	0	3
CVEN3116	Engineering Management 1	2	2	4
Strand 8	***Chemical Engineering***			
Single Session First Year Chemistry (See School of Chemistry for details)		6 or 6		6
CEIC0010	Mass Transfer & Material Balances	3	0	3
CEIC2120	Fluid Flow	3	0	3
CHEN2130	Heat Transfer	0	3	3
CEIC3110	Thermodynamics	3	0	3
Strand 9	***Physics***			
MATH2120	Mathematical Methods for Differential Equations	3	0	3
PHYS2040	Quantum Physics	3	0	3
PHYS2060	Thermal Physics	0	3	3
PHYS3020	Statistical Physics	3	0	3
PHYS3010	Quantum Physics (Advanced)	3	0	3
or				
PHYS3210	Quantum Physics	3	0	3
PHYS3080	Solid State Physics	3	0	3
PHYS3310	Physics of Solid State Devices	0	3	3
Strand 10	***Architecture I - CAD/Structures***			
BENV1242*	Computer-Aided Design	3 or 3		3
BENV1341	Design Modelling & Visualisation	3	0	3
BLDG1051	Structures 1	0	3	4
BLDG3053	Structures 2	3	0	4
BENV1072+	Design for Energy Efficiency	0	3	6

*BENV1242 requires an exemption from BENV1141 - Computer & Information
+BENV1072 requires an exemption from ARCH1371 - Architectural Technology 5

Architecture II - Structures/Construction

BLDG1051	Structures 1	0	3	4
BLDG1002*	Construction 2	0	3	4
BLDG3053	Structures 2	3	0	4
BLDG2003	Construction 3	4	0	4
BENV1072+	Design for Energy Efficiency	0	3	6

*BLDG1002 requires an exemption from BLDG1201 - Construction 1 (Domestic)
as well as an exemption from BLDG1111 - Building Science 1 (Materials)
+BENV1072 requires an exemption from ARCH1371 - Architectural Technology 5

Architecture III - Architectural Technologies

BENV1172	Architectural Technologies 2	0	5	8
BENV1271	Architectural Technologies 3	3	0	6
BENV1072+	Design for Energy Efficiency	0	3	6

+BENV1072 requires an exemption from ARCH1371 - Architectural Technology 5

Professional Electives for Years 3 & 4

Because of timetable clashes not all combinations of subjects are possible.

		HPW S1		**UOC S2**
SOLA5055	Renewable Energy Engineering	2.5	0	3
SOLA5011	Solar Cells: Operating Principles and Technology	0	4	6
SOLA5050	Renewable Energy Policy and International Programs	2	0	3
SOLA5051	Life Cycle Assessment	2	0	3
SOLA5052	Biomass	4	0	6
SOLA5053	Wind Energy Converters	0	4	6
SOLA5508	High Efficiency Silicon Solar Cells	0	2.5	3
SOLA5058	Special Topic in Photovoltaics	4	or 4	6
SOLA5059	Industrial Elective	6		
SOLA5060	Industrial Elective	3		
SOLA5061	Industrial Elective	3		
M523 (Murdoch)	Renewable Energy Systems Design	5	or 5	6
MECH9720	Solar Energy	0	4	6
MECH9740	Thermal Power Plants	4	0	6
ELEC4444	New Business Creation	0	4	6

Electives can also be chosen from the subjects 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.

The program selected by each student must be approved by the Head of Centre. 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 or Renewable Energy Engineering.

3642 Photovoltaic and Solar Energy – Part-time Program - SOLAA13642

Bachelor of Engineering BE

Note: No formal part-time course is being offered. However, after completing Year 1 full-time, it is possible for students to progress on a

semi-part-time basis with a reduced program. It should also be noted that very few undergraduate subjects are offered in the evenings.

Combined Degree Programs

In year 2, students need to enrol in the appropriate strand and contact the Photovoltaic Engineering Centre office prior to year 3 enrolment. Students in Photovoltaics and Solar Energy who maintain a creditable 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 two degrees referred to here are the Bachelor of Engineering/Bachelor of Science BE BSc or the Bachelor of Engineering/ Bachelor of Arts BE BA plus combined engineering degree BE BE). Students wishing to enrol in a combined course may do so only on the recommendation of the Head of the Centre for Photovoltaic Engineering and with the approval of the Faculty of Engineering and either the Faculty of Arts or the Faculty of Science, as appropriate. Students wishing to enrol in, transfer into, or continue in a combined course shall have complied with all the requirements for prerequisite study, sequencing and academic attainment (a creditable performance, i.e., 65% average) of both the Course Authorities concerned.

Students who commence a course but subsequently do not wish to proceed with both areas of study, or who fail to maintain a creditable performance, need to revert to a single degree program with appropriate credit for subjects completed. AUSTUDY support is available for the five years of the combined degree programs.

Students may transfer into a combined course after partially completing the requirements for either degree provided suitable subjects have been studied. However, the choice of subjects and the time taken to complete the program can be seriously affected by this. Thus, students considering combined degree options should contact the Centre for Photovoltaic Engineering office before completing their Year 2 enrolment. An application for transfer to a combined course must be made in writing to the Head of the Centre by the start of the third week of December in the year that they complete Year 1 of the BE degree course.

BE BE in Photovoltaics and Solar Energy plus second Engineering Degree of choice

The cross disciplinary nature of photovoltaic engineering has led to the establishment of strand options in the second year of the program to provide students with a second chosen area of specialisation. These encompass many of the engineering disciplines that can be subsequently further developed through an extra 5th year of study to give a second engineering degree in the chosen second area of specialisation.

During year 2, students need to enrol in the appropriate strand and contact the Centre Office prior to year 3 enrolment.

3656 Photovoltaics and Solar Energy/Bachelor of Arts - SOLAA13656

Bachelor of Engineering Bachelor of Arts BE BA

With this combined degree course, students can add their choice of arts program to the standard engineering course offered by the Centre for Photovoltaic Engineering. The full range of arts programs is available. Because the engineering and arts programs have common 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 representatives of the School of the Faculty of Arts and Social Sciences as soon as possible – preferably well before enrolment in Year 2. Enquiries should be directed to the Director of Academic Studies and the Executive Assistant to the Dean of the Faculty of Arts and Social Sciences.

Students should work out for themselves the Arts program they would like to add to their chosen engineering course. The Arts and Social Sciences Faculty section in this handbook describes the options.

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 pre-requisites.

The Arts component must be approved by the Faculty of Arts and Social Sciences.

The final program and schedule must be approved by the Centre for Photovoltaic Engineering.

3655 Photovoltaics and Solar Energy/Bachelor of Science – SOLA13655

Bachelor of Engineering Bachelor of Science BE BSc

As noted above, students wishing to transfer to the combined degree should contact the Centre for Photovoltaic Engineering office before completing their Year 2 enrolment.

During Year 2, students need to enrol in the appropriate strand for necessary core material for the BSc. Students who plan to specialize in Computer Science, Mathematics or Physics in a BE/BSc degree course should consult the Centre before enrolling in Year 2.

8512 Photovoltaics and Solar Energy/Master of Engineering Science

Bachelor of Engineering Master of Engineering Science BE MEngSc

Students may undertake a 4.5 years (10 semesters) full-time combined program leading to the awards of a Bachelor of Engineering and a Master of Engineering in Photovoltaics and Solar Energy.

Students undertake the first three years (6 semesters) of the BE program in Photovoltaics and Solar Energy. Subject to satisfying a minimum performance over these three years (see Program Rules under Conditions for the Award of Degree), 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).

A Message from the Dean

In 2002 the students entering undergraduate law programs at UNSW will comprise school-leavers, students transferring from another university course, graduates from other disciplines, and people who are returning to study from other activities. For the academic and administrative staff of the School, it is a pleasure to welcome a new and diverse intake of students. We hope that your time at the School proves to be an intellectually stimulating experience in which your talents find rich and fulfilling expression.

Distinctive elements

No two law schools are alike. Each has its distinctive ethos and aspirations. Let me outline some that shape UNSW and affect your experience here.

The School emphasises active learning. Lectures to large groups of students are unknown and the bulk of teaching is done in groups of less than 40. Students prepare material before classes and participate actively in classroom discussions. This method develops superior skills of analysis and facility with legal material and concepts. You will also find it a more stimulating educational experience.

The School believes that students matter and that their intellectual development is the central focus of its activities. In small-sized class groups students and teachers get to know each other as individuals. Special tutors assist Indigenous students and those whose first language is not English. Student representatives are actively involved in School governance and the UNSW Law Society organises a wide range of student activities. Law Library staff are always willing to assist students with legal research.

The mixed goals of legal education

Legal education at UNSW is essentially a hybrid of two elements. The Law School is part of the great university tradition of scholarship and intellectual inquiry for its own sake. In that character, legal education emphasises reflection, critical discussion and systematic analysis of legal phenomena. On the other hand, the Law School is also a professional school which prepares its graduates for a diverse range of careers in and beyond the practice of law. In this latter character, it seeks to nurture a facility with legal principles that is technically adroit, creative and imbued with high ethical standards. The theoretical and professional dimensions of legal education are interdependent, albeit in healthy competition and creative balance.

An important dimension of the School's character lies in the pervasive recognition of the aspirations for social justice that underpin law's domain. In his welcome to the first students of this law school, the Foundation Dean, the Hon Hal Wootten AC QC, wrote in the 1971 handbook to readers such as yourselves:

> We believe that a law school should have and communicate to its students a keen concern for those on whom the law may bear harshly, either because they cannot afford its services, or because it does not sufficiently recognise their needs, or because they are in some way alienated from the rest of society. The poor, the Aborigines, the handicapped, the deviants, all need their champions in the law as elsewhere.

This commitment to law being in the service of the community's striving for justice, and being in dialogue with politics, morals, philosophy and the institutions of economic action, is a central faith in the Law School. It shapes teaching programs, research activity and the wider engagements of its members. We hope that you will contribute to those engagements and to the great discourse, across the generations and with the central questions of the age, in which law is intimately engaged.

May you receive a legal education that develops your deepest talents. We hope that you take much from the Law School. May it also be a richer place for your presence.

Paul Redmond
Dean
Faculty of Law

Faculty of Law

Contents

Faculty Information and Assistance

- Some People Who Can Help You 208
- Advanced Standing 208
- Course Descriptions 208
- Faculty of Law Enrolment Procedures 208
- Full-time Status 208
- Part-time Status 208
- General Education requirements for Law Students 208
- Guidelines for Maximum Workload 208
- Rules for Progression 208
- Cross Institutional Studies and Exchange Programs 209
- Financial Assistance to Students 209
- Professional Associates 209

The Law Society 209

Student Members of Faculty 209

Centres and Units

- Australasian Legal Information Institute (AustLII) 209
- Australian Human Rights Centre 209
- Australian Taxation Studies Program (ATAX) 209
- Baker & McKenzie Cyberspace Law and Policy Centre 209
- Communications Law Centre 209
- Continuing Legal Education Centre 210
- Diplomacy Training Program 210
- European Law Centre 210
- Financial Services Consumer Policy Centre 210
- Gilbert & Tobin Centre of Public Law 210
- Indigenous Law Centre 210
- Kingsford Legal Centre 211
- National Children's and Youth Law Centre 211
- Social Justice Project 211

Program and Course Information

Programs Available

Program Outlines

Bachelor of Laws Degree Program (Full-time) for Graduates or Graduands
4790 Bachelor of Laws 211

Bachelor of Laws Degree Program (Part-time)
4791 Bachelor of Laws 212

Combined Jurisprudence/Law Program
4780 Bachelor of Jurisprudence Bachelor of Laws 212

Faculty of Arts & Social Sciences/Faculty of Law
4760 Bachelor of Arts Bachelor of Laws 213
4766 Bachelor of International Studies Bachelor of Laws 213
4761 Bachelor of Social Science Bachelor of Laws 214
4785 Bachelor of Social Work Bachelor of Laws 214

Faculty of the Built Environment/Faculty of Law
4705 Bachelor of Architecture Bachelor of Laws 215
4707 Bachelor of Town Planning Bachelor of Laws 216

Faculty of Commerce & Economics/Faculty of Law
Combined Programs leading to the award of the Degrees of:
Bachelor of Commerce/ Bachelor of Laws and Bachelor of Economics/ Bachelor of Laws 217
4733 Bachelor of Commerce in Accounting Bachelor of Laws 218
4733 Bachelor of Commerce in Actuarial Studies Bachelor of Laws 218
4733 Bachelor of Commerce in Business Strategy & Economic Management Bachelor of Laws 218
4733 Bachelor of Commerce in Economic History Bachelor of Laws 219
4733 Bachelor of Commerce in Econometrics Bachelor of Laws 219
4733 Bachelor of Commerce in Finance Bachelor of Laws 220
4733 Bachelor of Commerce in Financial Economics Bachelor of Laws 220
4733 Bachelor of Commerce in Human Resource Management Bachelor of Laws 221
4733 Bachelor of Commerce in Industrial Relations Bachelor of Laws 221
4733 Bachelor of Commerce in Information Systems Bachelor of Laws 221
4733 Bachelor of Commerce in International Business Bachelor of Laws 222
4733 Bachelor of Commerce in Management Bachelor of Laws 222
4733 Bachelor of Commerce in Marketing Bachelor of Laws 223
4744 Bachelor of Economics Bachelor of Laws 223

Faculty of Engineering/Faculty of Law
4775 Bachelor of Engineering in Civil Engineering Bachelor of Laws 224
4775 Bachelor of Engineering in Environmental Engineering Bachelor of Laws 224

Faculty of Science/Faculty of Law
4770 Bachelor of Science Majoring in Computer Science Bachelor of Laws 225
4770 Bachelor of Science Bachelor of Laws 226

College of Fine Arts/Faculty of Law
4703 Bachelor of Art Theory Bachelor of Laws 226

Rules for the Award of Degrees 227

Faculty Information and Assistance

Some People Who Can Help You

If you require advice about enrolment, degree requirements, progression within programs, information about course content and requirements, contact the Student Administration Office, Level 10, Law Building.

Faculty of Law homepage (timetables and general information) www.law.unsw.edu.au

Advanced Standing

The policy of the Faculty of Law is to grant credit for courses which have been successfully completed in another Faculty of Law where those courses, in the opinion of the Faculty, 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 Faculty.

Course Descriptions

Course descriptions offered in 2002 can be found in alphabetical order by the course code at the back of this handbook. For a full list of courses offered by the University contact New South Student or www.student.unsw.edu.au.

Faculty of Law Enrolment Procedures

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. In order to assist the staff to get to know individual students, all new law students are required to present a passport sized photograph when enrolling.

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 8pm on Tuesdays and 2pm and 6pm on Fridays.

General Education requirements for Law Students

Law students enrolled in the Bachelor of Jurisprudence/Bachelor of Laws program must complete General Education requirements. All other law students are exempt from the General Education requirement.

Bachelor of Jurisprudence/Bachelor of Laws students are given a wide choice in their General Education studies and may choose from any courses except:

- courses offered by the Faculty of Law;
- courses offered by any faculty in which they are currently enrolled, or in which they have previously completed tertiary studies;
- courses where the discipline or paradigm base is considered too close to their present or past areas of study. Courses offered by the Australian Taxation Studies Program (ATAX) and the School of Business Law and Taxation are excluded for this reason.

Detailed information about General Education courses is available at www.library.unsw.edu.au/gened

Guidelines for Maximum Workload

The sequence of study for each program is set out under Program Outlines 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 take extra courses must submit an 'Overload Request' form at the Level 10 Enquiry Counter. Permission can only be given on the basis of a written application in advance of the relevant session.

Rules for Progression

The Law School 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 co-requisites for courses as listed in the schedules of courses for each program.

Where the academic record of students is not of a satisfactory standard the Associate Dean (Undergraduate) may recommend a restricted program. This applies to all undergraduate programs offered by the Faculty.

Cross Institutional Studies and Exchange Programs

Students enrolled at UNSW may be permitted to undertake some studies at overseas or interstate institutions ('Cross-Institutional Studies') provided that they are equivalent in content and depth to comparable courses at UNSW.

Courses which have been successfully completed at another law school (either in Australia or overseas) may be credited to the student's degree. Students must note that the Faculty generally requires that at least 50% of law studies be completed at UNSW.

The Faculty participates in several overseas exchange programs, and encourages students to take advantage of these. Information regarding these programs can be obtained from the administrative staff or the Associate Dean (Undergraduate).

Students should discuss their plans for cross-institutional studies with the Associate Dean (Undergraduate) in order to determine both their eligibility to undertake such studies and the 'creditability' of the courses under consideration.

Financial Assistance to Students

Full-time students within the Faculty of Law in need of temporary financial assistance at any time during their studies should be aware of the existence of certain grants and loans sponsored by some Sydney law firms. Students who feel they may need assistance of this type are invited to discuss their requirements on a strictly confidential basis with the Dean.

Professional Associates

In addition to full-time teaching staff in the Faculty of Law, each year there are a small number of distinguished members of the legal profession in New South Wales who work in close association with full-time teachers. They participate in all aspects of the presentation of programs covered by their professional specialisation.

The Law Society

The Law Society is the students' body which you automatically join on enrolling as a law student. The administration of the Society consists of the Executive, the Council and various committees.

Members of the Executive, the Council and the committees are your representatives within the School of Law. As such they are there to help with problems that may arise such as assessment. They are also there to ensure that an effective student voice is presented to the School.

The Law Society organises social events, student publications, competitions and various other activities. The social events include first year camp, Law Ball, harbour cruise, sports events, intervarsity trivia quiz and regular drinks nights and barbecues. The Law Society publishes a magazine with contributions from students, called Poetic Justice; a weekly newsletter with the faculty known as Innominate; the Law Annual; the Alternative Law Handbook and careers guides. The internal mooting, witness examination, client counselling and petty sessions competitions are also run by the Law Society. A speakers' forum with guest speakers from the judiciary, legal practitioners and public figures is held weekly in the level 9 common room. Law Society has officers representing the concerns of International Students and graduate law students and is involved in the Australasian Law Students' Association.

The Law Society office is Room 1112, Tel: 9385 2271,
Email: lawsoc@unsw.edu.au

Student Members of Faculty

Each year in October up to seven students are elected to membership of Faculty for the following year. All students enrolled in the Faculty are eligible to stand for election and to vote.

Student Members attend Faculty meetings and sit on various Faculty and School Committees.

Centres and Units

Australasian Legal Information Institute (AustLII)

The Australasian Legal Information Institute provides free internet access to Australian legal materials. AustLII is one of the largest sources of legal materials on the net, with over six gigabytes of raw text materials and over a million searchable documents. AustLII publishes public legal information: that is, primary legal materials (legislation, treaties and decisions of courts and tribunals); and secondary legal materials created by public bodies for purposes of public access (law reform and royal commission reports etc). AustLII's policy agenda is to convince parliaments, governments, courts, law reform bodies and other public institutions to make legal materials they control available free via the internet.

The AustLII collection contains full-text databases of most Australian decisions and legislation. Current databases include Commonwealth, ACT, Northern Territory, Victorian, Western Australian, NSW and SA legislation and regulations, most federal courts (High Court, Federal Court, Family Court, AAT etc) and most state courts and tribunals. AustLII also includes a number of more specialised (subject specific) databases as well as the most comprehensive index to Australian law on the Net.

AustLII is used by over 80,000 people each working day. Our usage statistics indicate that AustLII's users span the whole community, including educational institutions (about 30%), the legal profession and business (25%), community organisations (15%), government (10%), and 20% from overseas.

AustLII is operated jointly by the Faculties of Law at the University of Technology, Sydney (UTS) and the University of New South Wales (UNSW). It is funded by grants of around $.5 million per year from the Australian Research Council, the Law Foundation of New South Wales, the Council for Aboriginal Reconciliation, the Department of Foreign Affairs and Trade and other bodies.

For more information about AustLII, send mail to feedback@austlii.edu.au

Australian Human Rights Centre

The Centre was established in August 1986. The objectives of the Centre are: to undertake, encourage and facilitate research (including postgraduate research) in the field of human rights; to coordinate and develop courses in the field of human rights including the establishment of cross-faculty teaching linkages; to conduct specialised human rights courses of a continuing education nature for various professional groups; to promote and stimulate informed thinking about human rights and their implications for law and society through excellence in analysis and research; to organise occasional conferences for both specialist and non-specialist groups and assist in similar activity by others; to assist, in association with other relevant bodies, in the dissemination of information about human rights to the broader community; and to collaborate with a variety of bodies and individuals working in the human rights area at the national, regional and international levels.

The Centre publishes the Australian Journal of Human Rights and the Human Rights Defender. The Centre has promoted the establishment of an Australian Human Rights Information Centre which is setting up a comprehensive database and document collection on human rights.

For further information contact the Director, John Pace, (tel: 9385 3637).

Australian Taxation Studies Program (ATAX)

This major distance education program was established in 1990 by the Faculty of Law and the Faculty of Commerce and Economics. For more information see the relevant section of this handbook.

Baker & McKenzie Cyberspace Law and Policy Centre

The Baker & McKenzie Cyberspace Law and Policy Centre provides a focus for research, public interest advocacy and education on issues of law and policy concerning digital transactions in cyberspace.

The Centre's distinctive focus is to take a public interest perspective on these often-technical issues. The emphasis is not on technology as such but rather on the regulation of the social space created by computing networks - 'cyberspace'.

For more information, see the Centre's web pages at http://www.austlii.edu.au/CyberLPC/

Communications Law Centre

The Communications Law Centre is a public interest research, teaching and public education centre, specialising in media and communications law and policy. It also operates a specialist Internet law practice, Oz NetLaw. It seeks to integrate these different activities to develop new ways of looking at communications issues and new solutions to the public policy questions they raise. The Centre's role is to ensure that the public interest in media and communications is articulated and advanced.

Particular areas of law in which the Centre specialises include: broadcasting, telecommunications, defamation and free speech, privacy, and legal issues associated with online activity by consumers, small businesses, and community non-profit groups.

The Centre regularly makes submissions to government and other inquiries on communications matters. Located on campus at UNSW, the Centre cooperates with the School of Law in research and teaching, as well as organising seminars and conferences, collecting and disseminating specialist legal information, and publishing research papers and a quarterly magazine, *Communications Update*. It publishes a comprehensive guide to Australian Telecommunications Regulation and maintains a specialist library, which is open to students and the public. Volunteer assistance from students and others is welcomed in appropriate projects.

The Centre was established in Sydney in 1988 and in Melbourne in 1990. It is affiliated with the University of New South Wales and the

Victorian University of Technology. Oz NetLaw, the Internet law practice of the CLC, was established in 2001 with funding from the Federal Attorney-General's Department and law firms Clayton Utz and Gilbert & Tobin.

For more information contact the Centre on 9385 7385 or admin@comslaw.org.au

Continuing Legal Education Centre

The Continuing Legal Education Centre (CLE) provides high quality professional education for lawyers and other professionals. CLE provides an important link between the Faculty of Law, the legal profession in Australia and the wider national and international community.

The objectives of the CLE program are:

- to provide programs which meet the legally-related educational needs of professional groups, especially but not limited to, lawyers;
- to develop the image of the Faculty as being in the forefront of legal development in key areas and active in legal criticism by running high quality educational programs in these areas; and
- to derive income from the conduct of programs for the Faculty's purposes.

The range of programs offered includes:

- day time or evening seminars designed to update the knowledge of legal practitioners and other professionals;
- conferences which provide a forum for discussion of and training in new or developing areas of law and legal practice;
- legal skills and accreditation programs for lawyers and non-lawyers in areas of practice and procedure such as immigration law and legal research;
- short programs that can be accredited to one of three postgraduate legal degrees
- short programs in substantive law for particular professional groups, including professionals from foreign jurisdictions.

For further information on particular CLE activities please contact the Manager, Anne Measday: (Tel: 9385 3227; Fax: 9385 1155). The Centre's website is http://www.cle.unsw.edu.au

Diplomacy Training Program

The Diplomacy Training Program (DTP) is a non-government organization, having an affiliation with the University, through the Faculty of Law. It is physically located within the Faculty and enjoys the close involvement of academic staff in a voluntary capacity, both as trainers and Board Members. The DTP was founded in 1989 by Professor José Ramos Horta, 1996 Nobel Peace Laureate and representative of East Timor at the UN for more than twelve years. The Program provides training in human rights and "people's diplomacy" to non-governmental organisations and other sectors of civil society throughout the Asia Pacific and indigenous Australia.

In its eleven years of existence, the DTP has developed specialised teaching materials and participatory skill-building methods based upon NGO needs and priorities. It provides an introduction to international human rights standards and procedures, including relevant UN conventions and institutions, and practical skills for human rights education, conflict resolution and good governance. Sessions include lobbying and negotiation, working with the media, NGO strategies and institutional standards.

Since January 1990, the DTP has conducted ten regional training sessions of three-four weeks in Bangkok, Manila, Sydney and Darwin, as well as sixteen in-country sessions of one to two weeks duration in Australia, Fiji, India, Nepal, New Zealand, Sri Lanka, Taiwan and Thailand. Special trainings were designed and conducted with Indigenous Women of Australia before their participation in the Fourth UN World Conference on Women in 1994. To date, the DTP has trained over 600 human rights defenders from 30 countries.

Its board members are Professor Paul Redmond (Chair) (UNSW), Ms Susan Armstrong (UNSW), Ms Olga Havnen (Fred Hollows Foundation), Professor Garth Nettheim (UNSW), Dr Sarah Pritchard, Ms Louise Sylvan (Australian Consumers Association). Professor José Ramos-Horta continues to be a patron of the DTP.

The DTP is independently funded from outside sources. Funders of programs have included: Community Aid Abroad, AusAID, the Canadian International Centre for Human Rights and Democratic Development, the Australian National Council of Churches, the Commonwealth Foundation (London), the Royal Ministry of Foreign Affairs-Norway and the Myer Foundation.

The DTP has close working relations with other NGOs, including the Australian Council for Overseas Aid (Canberra), the Asian Forum for Human Rights and Development (Bangkok), the International Service for Human Rights (Geneva) and the Unrepresented National and People's Organisation (The Hague).

European Law Centre

The European Law Centre was established in 1996. The Centre's objectives are to advance research into, and the graduate study of, European Law and European legal and political institutions particularly with a view to fostering interdisciplinary studies in:

- European Community Law;
- European Comparative Law;
- European and Comparative Human Rights;
- European Integration;
- the framework of economic, trade and political co-operation between Europe and the Australasian region;
- workable models for regional economic and political co-operation which may be of use in Australia's own region.

For further information contact the Director, Dr Stephen Hall (tel: 9385 2189), or Professor George Winterton (tel 9385 2245).

Financial Services Consumer Policy Centre

The Financial Services Consumer Policy Centre is a non-profit research and advocacy organisation. The FSCPC was set up with a grant from the National Consumer Trust Fund. Our objective is to become a permanent organisation conducting research and policy advocacy on behalf of low income consumers and other disadvantaged sections of the community. In conjunction with the UNSW Faculty of Law, the FSCPC is also making preparations for a number of courses to be run in the coming years.

The Centre's policy focus is on access issues and the affordability of financial services. Some of the issues which we cover include: unfair and anti-competitive fees and charges the relationship between the social security system and financial services; superannuation choice; best practice in the provision of insurance products; migrants and banking; and consumer protection in electronics commerce.

Gilbert & Tobin Centre of Public Law

The Gilbert & Tobin Centre of Public Law provides a focal point for research into and discussion of important questions of public law for the academic, professional and wider community. The Centre promotes independent ideas and ground breaking research. The work of the Centre is concentrated on specific long and short-term projects. The Centre's Director is George Williams, who is the Anthony Mason Professor of Law. The Centre is supported by the considerable weight of research and teaching expertise in the area of public law contributed by other members of academic staff of the Faculty.

The Centre has a high profile and an influential role in public debate in the broad domain of public law, a site of change of considerable legal, political and social significance. The Centre's activities and projects cover topics such as Bills of Rights, Electoral Law, Public Law Litigation, an Australian Republic, a Treaty between Indigenous and non-Indigenous Australians and the impact of International Law on Australian domestic law.

Inquires from people wishing to be involved in these or other projects within the field of public law are welcome, as are inquiries from prospective graduate students.

George Williams can be contacted on 9385 2259 or george.williams@unsw.edu.au.

Indigenous Law Centre

Formally established within the Faculty of Law in 1986, the Indigenous Law Centre aims to develop and coordinate research, teaching and dissemination of information in the multi-disciplinary area of the relationship between indigenous peoples and the law.

Some of the objectives of the Centre are:

- to provide a focus for, and to foster research concerning indigenous peoples and the law;
- to publish the results of research undertaken by individuals working with the Centre or independently of the Centre;
- to disseminate information concerning indigenous peoples and the law to interested individuals and bodies throughout Australia and abroad;
- to organise and participate in conferences and seminars from time to time;

- to encourage the development of education programs and teaching materials in the field of indigenous peoples and the law for use in the University of New South Wales and elsewhere.

The Centre publishes the Indigenous Law Bulletin nine times per year and the Australian Indigenous Law Reporter four times per year. For further information contact the Co-ordinator (tel: 61 2 9385 2252).

Kingsford Legal Centre

Kingsford Legal Centre is the Faculty of Law's law clinic. The Centre provides a clinical teaching program for law students where students are able to analyse the operation of the legal system and lawyer client relationships while working on cases for real clients.

The Centre is one of over 35 community legal centres in New South Wales and students work with Centre lawyers in acting for members of the local community who cannot afford private legal assistance.

The Centre provides legal advice in a wide variety of matters and takes on cases in areas such as domestic violence, discrimination, housing, wills and estates, employment, family, criminal law and victims compensation. The Centre assists over 3, 000 people a year.

The Centre began operation in 1981. It has five lawyers, one of whom (the Director) is a Senior Lecturer in the Faculty of Law. The Centre is jointly funded by the Faculty of Law and the Community Legal Services Legal Funding Program through the State and Federal Governments and with assistance from Randwick City Council. In addition, the law firm Freehills maintains the permanent secondment of a solicitor's position to the Centre.

The courses LAWS2303 Clinical Legal Experience (Intensive), LAWS2304 Clinical Legal Experience, and LAWS2305 Clinical Program-Employment Law, are electives for later year students. Students can take a course in either session. All courses are available over summer. Students take instructions from clients, prepare necessary documents, undertake legal research and are responsible for preparation of any Court hearings. In this way, students can consolidate their study of the law by practical application. Small group classes, daily tutorials and constant consultation with the clinical supervisors who are practising lawyers provide an opportunity for students to analyse both their role as lawyers and the role of law in society. Over 60 volunteer solicitors and barristers participate in public advice sessions in the evenings and provide a legal mentoring scheme for students at the Centre.

All students enrolled in the course LAWS6210 Law Lawyers and Society undertake sessions at the Centre assisting volunteer lawyers in advising clients and completing a file management session.

The Centre is an internationally recognised Centre of excellence in clinical teaching and produces annual Guides To Australian Clinical Legal Education and a clinical newsletter.

In its community legal centre function the Centre has been prominent in several areas, particularly anti-discrimination, legal aid and domestic violence. Students are also involved in reform campaigns, policy work and education services to the local community.

For further information contact: 11 Rainbow Street Kingsford NSW 2032 Australia, tel (02) 9398 6366; Fax (02) 9399 6683; TTY (02) 9314 6430, email legal@unsw.edu.au.

National Children's and Youth Law Centre

The National Children's and Youth Law Centre is a community legal centre, which aims to promote the rights and interests of children and young people throughout Australia. The Centre is a joint project of the University of New South Wales, the University of Sydney, and the Public Interest Advocacy Centre. The Centre occupies premises provided by the University of New South Wales at 32 Botany Street, Randwick.

The Centre provides free legal advice to children and young people, and conducts case work and litigation where the issues are significant to Australian children and young people. The Centre has a website which provides legal information to young people on a broad number of issues in an accessible, colourful and approachable format. The site's address is: http://www.lawstuff.org.au. *Rights Now*, a leading bulletin on young people and law, contains news and comments on a variety of children's rights issues, and includes a section on indigenous youth. For further information contact: tel (02) 9398 7488, fax (02) 9398 7416 email: ncylc@unsw.edu.au or by mail via UNSW, Sydney NSW 2052.

Social Justice Project

The Social Justice Project grew out of a desire to strengthen the work of a number of the Faculty's centres concerned with issues of social policy, socio-legal studies or which operate in the broad social justice area. These include the Australian Human Rights Centre, Indigenous Law Centre, National Children's and Youth Law Centre, Cyberspace Law and Policy Centre and the Diplomacy Training Program, which is affiliated with the Faculty of Law. The Director of the Project, Professor Julian Disney, AO assists the Centres to pursue opportunities for funding and other initiatives to develop their mission and provide them with access to international networks of utility to them. He also provides advice to the Dean in relation to other developments that it might consider to strengthen its research, teaching and community service role in the social justice area.

Program and Course Information

Programs Available

The following programs are available.

Law Programs

1. Bachelor of Laws (three-years full-time), this program is available only to graduates or graduands.

2. Bachelor of Laws (six-years part-time), this program is only available to graduates and people over 21 years of age who have achieved professional maturity equivalent to degree status.

Jurisprudence Program

3. Bachelor of Jurisprudence (three-years full-time), this program is only available as part of the combined Juris/Law program and to students who decide after admission not to proceed with an LLB degree. It is not possible to be admitted directly into a BJuris program.

Combined Programs

4. Bachelor of Architecture and Bachelor of Laws, (seven-years full-time)

5. Bachelor of Art Theory and Bachelor of Laws, (five-years full-time)

6. Bachelor of Arts and Bachelor of Laws, (five-years full-time)

7. Bachelor of Arts (Asian Studies) and Bachelor of Laws (five-years full-time)*

8. Bachelor of Commerce and Bachelor of Laws, (five-years full-time

9. Bachelor of Economics and Bachelor of Laws, (five-years full-time)

10. Bachelor of Engineering and Bachelor of Laws, (six-years full-time)

11. Bachelor of International Studies and Bachelor of Laws #

12. Bachelor of Jurisprudence and Bachelor of Laws, (five-years full-time)

13. Bachelor of Science and Bachelor of Laws, (five-years full-time)

14. Bachelor of Social Science and Bachelor of Laws, (five-years full-time)

15. Bachelor of Social Work and Bachelor of Laws, (six-years full-time)

16. Bachelor of Town Planning and Bachelor of Laws, (seven-years full-time)

* The last admission to this program was in 2001

For introduction in 2002 subject to Council approval

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 from a single degree to a combined law degree after the completion of one year of study. 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 Adviser in the Faculty 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 Outlines

Bachelor of Laws Degree Program (Full-time) for Graduates or Graduands

4790 Bachelor of Laws

LLB 3 Years Full-Time

This program enables students who have already completed another degree to obtain the Bachelor of Laws degree. The main features of the program are as follows:

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 this 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.

4. 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		**UOC**
LAWS1001	Criminal Law 1	6
LAWS1011	Criminal Law 2	6
LAWS1051	Legal System	3
LAWS1061	Torts	6
LAWS1071	Contracts 1	3
LAWS1072	Contracts 2	6
LAWS2140	Public Law	3
LAWS2160	Administrative Law	6
LAWS6210	Law, Lawyers and Society	6
LAWS7410	Legal Research and Writing	3
	Total	**48**
Year 2		
LAWS1081	Property, Equity and Trusts 1	6
LAWS1082	Property and Equity 2	6
LAWS2150	Federal Constitutional Law	6
LAWS2311	Litigation 1	6
LAWS2321	Litigation 2	6
LAWS4010	Business Associations 1	6
LAWS7420	Advanced Legal Research	2
LAWS8820	Law & Social Theory, **or**	6
LAWS8320	Legal Theory	
	Law elective	4
	Total	**48**
Year 3		
	Law electives	**48**
Total Units of Credit Required		
1. Law compulsory courses		92
2. Law elective courses		52
	Total	**144**

Bachelor of Laws Degree Program (Part-time)

4791 Bachelor of Laws

LLB 6 Years Part-Time

1. 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.

2. Entry Requirement: The program is only available to graduates and people over 21 years of age who have achieved professional maturity equivalent to degree status. The program is not available to people who proceed directly from the Higher School Certificate.

3. Attendance Requirement: The program involves attendance at the Kensington campus on two afternoons a week. Classes are normally held from 2 pm to 8 pm on Tuesdays, and from 2pm to 6pm on Fridays.

4. Electives: The courses of the LLB degree program are set out in Rule 5 appearing later under Rules for Award of Degrees. However, it will not be possible to provide the full range of electives at times convenient to part-time students.

5. 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.

Year 1		**UOC**
LAWS1051	Legal System	3
LAWS1061	Torts	6
LAWS1071	Contracts 1	3
LAWS1072	Contracts 2	6
LAWS2140	Public Law	3
LAWS7410	Legal Research and Writing	3
	Total	**24**
Year 2		
LAWS1001	Criminal Law 1	6
LAWS1011	Criminal Law 2	6
LAWS2160	Administrative Law	6
LAWS6210	Law, Lawyers and Society	6
	Total	**24**
Year 3		
LAWS1081	Property, Equity and Trusts 1	6
LAWS1082	Property and Equity 2	6
LAWS2311	Litigation 1	6
LAWS2321	Litigation 2	6
	Total	**24**
Year 4		
LAWS2150	Federal Constitutional Law	6
LAWS4010	Business Associations 1	6
LAWS7420	Advanced Legal Research	2
LAWS8820	Law & Social Theory, **or**	6
LAWS8320	Legal Theory	
	Law electives	4
	Total	**24**
Year 5		
	Law electives	**24**
Year 6		
	Law electives	**24**
Total Units of Credit Required		
1. Law compulsory courses		92
2. Law elective courses		52
	Total	**144**

Combined Jurisprudence/Law Program

4780 Bachelor of Jurisprudence Bachelor of Laws

BJuris LLB 5 Years Full-Time

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 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 Rules for the Award of Degrees.

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.

1. 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).

2. Assumed Knowledge: Students must satisfy any assumed knowledge requirements (but not general Faculty assumed knowledge requirements) for courses studied in other faculties.

3. 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.

4. BJuris: Candidates may be awarded the degree of Bachelor of Jurisprudence subject to satisfying the requirements as listed in Rule 10 of the Rules Award of Degrees, including satisfaction of General Education requirements for the single pass degree (12units of credit).

5. General Education: Candidates for the BJuris/BLaws must complete 6 units of credit of general education. BJuris/LLB is the only combined law degree which has a general education requirement.

6. 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.

Year 1		**UOC**
	Non-Law Major Sequence Year 1	12
	Additional non-law courses	12
LAWS1051	Legal System	3
LAWS1061	Torts	6
LAWS1071	Contracts 1	3
LAWS1072	Contracts 2	6
LAWS2140	Public Law	3
LAWS7410	Legal Research and Writing	3
	Total	**48**
Year 2		
	Non-Law Major Sequence Year 2	12
LAWS1001	Criminal Law 1	6
LAWS1011	Criminal Law 2	6
LAWS1081	Property, Equity and Trusts 1	6
LAWS1082	Property and Equity 2	6
LAWS2160	Administrative Law	6
LAWS6210	Law, Lawyers and Society	6
	Total	**48**
Year 3		
	Non-Law Major Sequence Year 3	24
LAWS2150	Federal Constitutional Law	6
LAWS4010	Business Associations 1	6
LAWS8820	Law and Social Theory**, or**	6
LAWS8320	Legal Theory	
	General Education courses	6
	Total	**48**
Year 4		
LAWS2311	Litigation 1	6
LAWS2321	Litigation 2	6
LAWS7420	Advanced Legal Research	2
	Law electives	16
	Law or non-law electives	18
	Total	**48**
Year 5		
	Law electives	**48**

Total Units of Credit Required

1. Law compulsory courses	92
2. Law elective courses	64
3. Non-law major sequence	48
4. Additional non-law courses	12
5. Law or non-law electives	18
6. General Education courses	6
Total	**240**

Faculty of Arts & Social Sciences/Faculty of Law

4760 Bachelor of Arts Bachelor of Laws

BA LLB 5 Years Full-Time

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.

1. Duration/Award: The program is a five year full-time combined program leading to the award of the two degrees of Bachelor of Arts and Bachelor of Laws (BA LLB).

2. 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.

3. 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 completing the BA degree program at Honours level (4 years) and then seeking admission to the three year LLB degree program for graduates.

4. Graduation: Students not wishing to proceed to the combined degree BA LLB, may apply to transfer to the BA program with credit for all courses completed.

5. Law Courses: The whole of the final two years of the program, as well as part of the first three years, consists of law courses.

6. Non-Law Courses: The first three years of the program include studies in at least three Schools or programs offering arts courses, to the value of 84 arts units of credit or more, including a major sequence in a School or program within the Faculty of Arts and Social Sciences. At least 12 Upper Level units of credit must be completed in other Schools or programs. For details of approved major sequences, see Lists A and B of the Bachelor of Arts rules in the Faculty of Arts and Social Sciences section of the Handbook.

7. Approved Sequence of Study: 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. An approved sequence is given below; other sequences may be approved under special circumstances.

Year 1		**UOC**
	Arts School A – Level 1 courses	12
	Arts School B – Level 1 courses	12
	Arts School C – Level 1 courses	12
LAWS1051	Legal Systems	3
LAWS1061	Torts	6
LAWS7410	Legal Research & Writing	3
	Total	**48**
Year 2		
	Arts School A - Upper Level courses	12
	Arts School B - Upper Level courses	12
LAWS1001	Criminal Law 1	6
LAWS1011	Criminal Law 2	6
LAWS1071	Contracts 1	3
LAWS1072	Contracts 2	6
LAWS2140	Public Law	3
	Total	**48**
Year 3		
	Arts - Upper Level courses	24
	(Including courses required to complete a major)	
LAWS1081	Property, Equity & Trusts 1	6
LAWS1082	Property & Equity 2	6
LAWS2160	Administrative Law	6
LAWS6210	Law, Lawyers & Society	6
	Total	**48**
Year 4		
LAWS2150	Federal Constitutional Law	6
LAWS2311	Litigation 1	6
LAWS2321	Litigation 2	6
LAWS4010	Business Associations 1	6
LAWS7420	Advanced Legal Research	2
LAWS8820	Law & Social Theory, **or**	6
LAWS8320	Legal Theory	
	Law electives	16
	Total	**48**
Year 5		
	Law electives	**48**

Total Units of Credit Required

1. Law compulsory courses	92
2. Law elective courses	64
3. Approved Arts & Social Science courses	84
Total	**240**

4766 Bachelor of International Studies Bachelor of Laws

To be offered in 2002 subject to Council approval. Please contact the Faculty of Law for further details.

4761 Bachelor of Social Science Bachelor of Laws

BSocSc LLB 5 Years Full-Time

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.

1. 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).

2. 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.

3. Honours: A student wishing to take the BSocSc degree program at Honours level should consult with the Co-ordinator of the BSocSc degree program before commencing the 4th year of the combined program.

4. 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.

5. BSocSc Core Courses: The first three years of the program includes the Bachelor of Social Science core program totalling 48 units of credit.

6. Arts & Social Science Major: During the first three years of the program students must also complete 36 – 42 units of credit towards an approved major sequence in the Faculty of Arts and Social Sciences.

6.1 Schools: The major sequence must be taken in one of the following Schools: Economic History, Economics, Geography, Geology, History, Human Resource Management, Industrial Relations & Organisational Behaviour, International Business, Philosophy, Political & International Relations, Psychology, Science and Technology Studies, Sociology, Spanish and Latin American Studies (History), Theatre, Film & Dance.

6.2 Units of Credit: Most Schools within the Faculty of Arts & Social Sciences have a major sequence comprising 42 units of credit, however some require only 36 units of credit. Students who select a major sequence comprising 36 units of credit must make up the 6 units of credit shortfall by completing an additional elective approved by the Faculty of Arts & Social Science.

7. 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		**UOC**
SLSP1000	Social Science & Policy, **or**	6
SLSP1002	Introduction to Policy Analysis **and**	
SLSP1001	Introduction to Research & Information Management	6
	Arts & Social Sciences major – Level 1*	12
LAWS1051	Legal System	3
LAWS1061	Torts	6
LAWS1071	Contracts 1	3
LAWS1072	Contracts 2	6
LAWS2140	Public Law	3
LAWS7410	Legal Research & Writing	3
	Total	**48**
Year 2		
SLSP2000	Economics & Society	6
SLSP2001	Applied Social Research 1	6
SLSP2002	Policy Analysis Case Studies	6
	Arts & Social Sciences major – Upper Level*	12
LAWS1001	Criminal Law 1	6
LAWS1011	Criminal Law 2	6
LAWS6210	Law, Lawyers & Society	6
	Total	**48**
Year 3		
SLSP3000	Social Theory & Policy	6
SLSP3001	Applied Social Research 2	6
SLSP3002	Social Science & Policy Project	6
	Arts & Social Sciences major – Upper Level*	18
LAWS1081	Property, Equity and Trusts 1	6
LAWS1082	Property and Equity 2	6
	Total	**48**
Year 4		
LAWS2150	Federal Constitutional Law	6
LAWS2311	Litigation 1	6
LAWS2321	Litigation 2	6
LAWS4010	Business Associations 1	6
LAWS7420	Advanced Legal Research	2
LAWS8820	Law & Social Theory, **or**	6
LAWS8320	Legal Theory	
	Law elective	8
	Law Research Project	2
	Total	**48**
Year 5		
	Law electives	**48**

Total Units of Credit Required

1. Law compulsory courses	92
2. Law elective courses	58
3. BSocSc Core Program	48
4. Arts & Social Sciences major *	42
Total	**240**

* Most Schools within the Faculty of Arts & Social Sciences have a major sequence comprising 42 units of credit, however some require only 36 units of credit. Students who select a major sequence comprising 36 units of credit must make up the 6 units of credit shortfall by completing an additional elective approved by the Faculty of Arts & Social Sciences.

4785 Bachelor of Social Work Bachelor of Laws

BSW LLB 6 Years Full-Time

This six year full-time program qualifies students for the professional practice of both social work and law. In the first five years, core social work and legal courses are combined, while in the final year students are able to choose from a wide range of specialised law electives.

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.

1. 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).

2. 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.

3. 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. Alternatively students may apply for advanced standing in the Faculty of Law Jurisprudence program.

4. Law or Non-Law Electives: Students may complete 6 units of credit in either law or non-law electives.

5. 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. An approved sequence is given below; other sequences may be approved under special circumstances.

6. Pre-2000 Program: The structure of the combined Social Work/Law program is for students enrolling in 2000 or thereafter. There will be different program requirements for students who entered the program prior to 2000. Please contact the Social Work or Faculty of Law administration office for further information.

7. 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.

Year 1		**UOC**
SOCW1001	Introduction to Social Work	6
SOCW1002	Communication & Social Work Practice	6
	Psychology elective	6
	Sociology elective	6
LAWS1051	Legal System	3
LAWS1061	Torts	6

LAWS1071	Contracts 1	3
LAWS1072	Contracts 2	6
LAWS2140	Public Law	3
LAWS7410	Legal Research & Writing	3
	Total	**48**

Year 2

SOCW1003	Human Behaviour 1	6
SOCW2002	Society & Social Work 1	6
SOCW2003	Social Work Practice – Casework	6
SOCW2006	Social Work Practice – Community Work	6
LAWS1001	Criminal Law 1	6
LAWS1011	Criminal Law 2	6
LAWS2160	Administrative Law	6
LAWS6210	Law, Lawyers & Society	6
	Total	**48**

Year 3

SOCW2001	Human Behaviour 2	6
SOCW2004	Society & Social Work 2	6
SOCW2005	Research for Social Work	6
SOCW3002	Social Work Practice – Group work	6
LAWS1081	Property, Equity & Trusts 1	6
LAWS1082	Property & Equity 2	6
LAWS2150	Federal Constitutional Law	6
LAWS8320	Legal Theory, **or**	6
LAWS8820	Law & Social Theory	
	Total	**48**

Year 4

SOCW3001	Social Work Practice – 3rd Year Practicum	12
SOCW3008	Social Work Practice – Selected Studies 1	6
SOCW3004	Social Policy 1	6
LAWS2311	Litigation 1	6
LAWS2321	Litigation 2	6
LAWS4010	Business Associations 1	6
LAWS7420	Advanced Legal Research	2
	Law elective	4
	Total	**48**

Year 5

SOCW3003	Human Behaviour 3	6
SOCW4002	Social Work Practice – Administration	6
SOCW4003	Social Work Practice – Selected Studies 2	6
SOCW4006	Social Policy 2	6
SOCW4001	Social Work Practice – 4th Year Practicum Law or Social Work elective	18 6
	Total	**48**

Year 6

	Law electives	**48**

Total Unit of Credit Requirement

1. Law compulsory courses	92
2. Law elective courses	52
3. Social Work Core courses	126
4. Psychology elective	6
5. Sociology elective	6
6. Law or non-law elective	6
Total	**288**

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.

Faculty of the Built Environment/Faculty of Law

4705 Bachelor of Architecture Bachelor of Laws

BArch LLB 7 Years Full-Time

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. 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.

1. 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.

2. Eligibility: 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.

3. 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

4. Progression: Students must complete Year 1 (48 units of credit) of the Architecture program before attempting any subjects from the Law program.

5. Honours: The degree of Bachelor of Architecture is awarded at either pass or honours level after successful completion of a minimum of 192 units of credit from the Architecture Program and 72 units of credit 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.

6. Approved Sequence of Study: 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 Faculty of Law. An approved sequence is given below; other sequences may be approved under special circumstances.

Year 1	**Session 1**	**UOC**
BENV1101	Design Fundamentals: Studio 1	8
BENV1121	Architectural History and Theory 1	4
BENV1141	Computers and Information Technology	3
BENV1171	Architectural Technologies 1	9
	Session 2	
ARCH1102	Architectural Design Workshop 1	8
BENV1122	Architectural History and Theory 2	4
ARCH1142	Architectural Communications 1	4
BENV1172	Architectural Technologies 2	8
	Total	**48**
Year 2	**Session 1**	
ARCH1201	Architectural Design Workshop 2	8
ARCH1221	Architectural History and Theory 3	4
ARCH1271	Architectural Technologies 3	6
LAWS1051	Legal System	3
LAWS7410	Legal Research & Writing	3
	Session 2	
ARCH1202	Architectural Design Workshop 3	8
ARCH1222	Architectural History and Theory 4	3
BENV1242	Computer-Aided Design	3
ARCH1272	Architectural Technologies 4	4
LAWS1061	Torts	6
	Total	**48**
Year 3	**Session 1**	
ARCH1301	Architectural Design Studio 1	8
ARCH1321	Architectural History and Theory 5	3
BENV1341	Design Modelling and Visualisation	3
ARCH1371	Architectural Technologies 5	4
LAWS1071	Contracts 1	3
LAWS2140	Public Law	3
	Session 2	
ARCH1302	Architectural Design Studio 2	9
ARCH1382	Practicum	3
LAWS1072	Contracts 2	6
LAWS2160	Administrative Law	6
	Total	**48**

Year 4	**Session 1**	
ARCH1401	Architectural Design Studio 3	9
ARCH1471	Building Services 1	3
LAWS1001	Criminal Law 1	6
LAWS6210	Law, Lawyers & Society	6
	Session 2	
ARCH1402	Architectural Design Studio 4	9
BENV1381	Professional Practice 1	3
ARCH1472	Building Services 2	3
ARCH1241	Architectural Communications 2	3
LAWS1011	Criminal Law 2	6
	Total	**48**
ARCH1583	Work Experience*	**24**
Year 5	**Session 1**	
ARCH1501	Investigation Workshop	9
ARCH1581	Politics, Community & Practice	3
LAWS1081	Property and Equity & Trusts 1	6
LAWS8820	Law and Social Theory, or	6
LAWS8320	Legal Theory	
	Session 2	
ARCH1502	Graduation Studio	9
ARCH1582	Professional Practice 2	3
LAWS1082	Property & Equity 2	6
LAWS2150	Federal Constitutional Law	6
	Total	**48**
Year 6	**Session 1**	
LAWS2311	Litigation 1	6
LAWS4011	Business Associations	6
	Law electives	12
	Session 2	
LAWS2321	Litigation 2	6
LAWS7420	Advanced Legal Research	2
	Law electives	16
	Total	**48**
Year 7	**Session 1**	
	Law electives	**24**

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.

Total Units of Credit Required

1. Law compulsory courses	92
2. Law elective courses	52
3. Architecture core courses	168
4. Architectural work experience (24 weeks)	24
Total	**336**

4707 Bachelor of Town Planning Bachelor of Laws

BTP LLB **7 Years Full-Time**

This program provides an opportunity to obtain two professional degrees. It allows students to add the professionally recognised Law program to the professionally accredited Town Planning program offered by the Faculty of the Built Environment.

1. Duration/Award: The program is a seven year full-time combined program leading to the award of the two degrees of Bachelor of Town Planning and Bachelor of Laws (BTP LLB). Because the Town 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 BTP 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 BTP 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, BTP LLB students may elect to undertake the one year (two sessions) of compulsory Work Experience required for the award of the single BTP degree after the completion of their BTP 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 BTP LLB Program.

2. Eligibility: The combined program is open to students who satisfy both the Town Planning and Law entry conditions. Students may enter directly in Year 1 or may apply to transfer from the Town 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.

3. Organisation: The BTP 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 Town Planning components of their program. The final program and timetable must be approved by the Head of the Planning and Urban Development Program.

4. Progression: Students must complete Year 1 (48 units of credit) of the Town Planning program before attempting any courses from the Law program.

5. Honours: The degree of Bachelor of Town Planning is awarded at either pass or honours level after successful completion of a minimum of 144 units of credit from the Town Planning Program and 48 units of credit from the Law Program. These core 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 Town Planning.

6. Approved Sequence of Study: Students must study Town Planning courses in the sequence approved by the Faculty of the Built Environment and Law courses in a sequence approved by the Faculty of Law.

Year 1	**Session 1**	**UOC**
BENV1101	Design Fundamentals	8
BENV1141	Computers and Information Technology	3
GEOG1701	Environmental Systems and Process	6
PLAN1011	Urban Society and Sociology	3
PLAN1041	The Language of Planning	4
	Total	**24**
	Session 2	
PLAN1062	Effective Communication	3
PLAN1012	Principles of Political Economy	3
PLAN1022	The Development Process	3
PLAN1042	Planning Processes	6
PLAN1052	Quantitative Methods	6
GMAT0753	Introduction to Spatial Information Systems	3
	Total	**24**
Year 2	**Session 1**	
PLAN2011	Economy of Cities	3
PLAN2021	History of Urban Development	3
PLAN2032	Integrated Planning 1 - Urban Design	6
PLAN2041	Critical Research Seminars	6
LAWS1051	Legal System	3
LAWS7410	Legal Research and Writing	3
	Total	**24**
	Session 2	
PLAN2012	Economic Development Planning	3
PLAN2042	History of Urban Planning	3
PLAN2051	Economics of Resource Management	3
PLAN3021	Heritage and Conservation Planning	3
LAWS1061	Torts	6
LAWS2160	Administrative Law	6
	Total	**24**
Year 3	**Session 1**	
PLAN3031	Integrated Planning 2 - Existing Areas	6
PLAN3041	Planning Law and Administration	6
PLAN3051	Development Control	6
LAWS1071	Contracts 1	3
LAWS2140	Public Law	3
	Total	**24**
	Session 2	
PLAN0081	Work Experience	24
	Total	**24**

Year 4	**Session 1**	
PLAN0082	Work Experience	24
	Total	**24**
	Session 2	
PLAN3015	Social Planning	6
PLAN3032	Integrated Planning 3 - New Development	6
PLAN3052	Qualitative Methods	6
LAWS1072	Contracts 2	6
	Total	**24**
Year 5	**Session 1**	
PLAN4021	Metropolitan Policy	3
PLAN4031	Research Design	3
GEOG3671	Transport, Land Use and Environment	6
LAWS1001	Criminal Law 1	6
LAWS1081	Property and Equity and Trusts 1	6
	Total	**24**
	Session 2	
PLAN4032	Thesis	15
PLAN4043	Planning in Practice	3
LAWS1011	Criminal Law 2	6
	Total	**24**
Year 6	**Session 1**	
LAWS6210	Law, Lawyers and Society	6
LAWS8820	Law and Social Theory **or**	6
LAWS8320	Legal Theory	
LAWS2311	Litigation 1	6
LAWS4010	Business Associations 1	6
	Total	**24**
	Session 2	
LAWS1082	Property and Equity 2	6
LAWS2150	Federal Constitutional Law	6
	Law Electives	12
	Total	**24**
Year 7	**Session 1**	
	Law Electives	24
	Total	**24**
Session 2		
LAWS2321	Litigation 2	6
LAWS7420	Advanced Legal Research	2
	Law Electives	16
	Total	**24**
Total Units of Credit Required		
1. Law compulsory courses		92
2. Law elective courses		52
3. Town Planning core courses		144
4. Town Planning work experience		48
	Total	**336**

Faculty of Commerce & Economics/Faculty of Law Combined Programs leading to the award of the Degrees of:

Bachelor of Commerce/ Bachelor of Laws *and* Bachelor of Economics/ Bachelor of Laws

The University offers combined programs leading to the award of the degrees of BCom/LLB and BEc/LLB. The Bachelor of Commerce degree program and the Bachelor of Economics degree program may be taken at either Pass or Honours level, the combined program taking five or six years respectively. Students wishing to take the degree at Honours level must consult the Head of the School in which they wish to study for Honours before enrolling in the second year of the program.

The Bachelor of Laws degree may be combined with a Bachelor of Commerce specialising in Accounting, Actuarial Studies, Business Strategy and Economic Management, Economic History, Finance, Financial Economics, Human Resource Management, Information Systems, International Business, Marketing, Management Marketing, Industrial Relations, Information Systems, or with a Bachelor of Economics.

In the modern world of business and administration there is a need in many fields for the combined professional skills of **accounting and law.** The most obvious of these is the broad field of taxation practice, already drawing on both accounting and legal specialists for such matters as estate planning and taxation aspects of business organisations. With the growing complexity of commerce, including international business activities and large scale corporate organisation, there is a new and urgent need for graduates who are well versed in a wide range of legal courses as well as in accounting and commerce generally. These graduates may enter large companies as full-time advisers or undertake specialised professional practice. In the public sector also the increasing scale and complexity of government undertakings opens up a significant range of opportunities leading to senior administrative positions. Apart from specific career considerations, there is no doubt that accounting and law are complementary studies which provide a demanding but worthwhile course for the able student.

In the financial markets, there is considerable demand for graduates with training in **finance and law**. The complexity of securities, takeover and company legislation has necessitated the employment of such graduates in merchant banks, trading banks, brokerage houses and regulatory bodies.

The combination of **economics and law** is ideally suited for those wishing to work in one of the major accounting or law firms on competition policy and indirect taxation.

There is a small but increasing demand for specialists in **information systems and law**. Apart from the usual contractual implication arising from the acquisition of strategic business resources, there are challenges in areas such as copyright, intellectual property, privacy and the impact of technology on inter-business relationships such as Electronic Data Interchange.

The growing complexity of **industrial relations** in Australia highlights the need for people wishing to become industrial advocates to have a solid grounding in economics, psychology, sociology and industrial relations, as well as in law. The combined program of Bachelor of Commerce (Industrial Relations) and Bachelor of Laws is therefore recommended for people who hope to practice law in the industrial jurisdiction.

The combination of **international business** and law is relevant to career opportunities in a wide range of companies and organisations with international activities and ambitions. These include international legal, business and financial consultants, exporters, multinational manufacturing and service enterprises, and international organisations such as the UN and OECD.

Recent developments in Federal and State legislation, in the field of trade practices and consumerism in particular, have created an urgent need for managers and administrators skilled in both **law and marketing**. The combined Marketing/Law program seeks to meet this need by combining a detailed study of marketing systems in general, and marketing management in particular with the study of law. Graduates will find opportunities in both private and public sectors of the economy.

These programs provide an opportunity to obtain two degrees of professional importance to business, administration and commercial law practice.

1. Duration/Awards: The programs are of five years' full-time study leading to the award of the two degrees of Bachelor of Commerce and Bachelor of Laws (BCom LLB) or Bachelor of Economics and Bachelor of Laws (BEc LLB).

2. Assumed Knowledge: Students must satisfy the assumed knowledge requirements for entry to the Commerce and Economics Faculty and to individual courses in that Faculty.

3. Double Majors: It may be possible for students to complete two majors from within the Faculty of Commerce & Economics subject to the approval of both Faculties. Enquiries should be directed in the first instance to a student adviser in the Faculty of Commerce & Economics.

4. Transferring Majors: Students must nominate a major (plan code) at enrolment. Subsequent transfers to another major may be possible subject to the approval of both Faculties.

5. Honours: The requirements relating to Honours in the BCom and BEc degree programs are noted at the end of Year 3 of the program for each specialisation. Students ordinarily will interpolate an honours year between Years 3 and 4 of the combined program.

6. BCom/BEc: Candidates for the combined Commerce/Law or Economics/Law degree program may be awarded the degree of BCom or BEc after the completion of specified requirements. Full details are given in the 'Rules Relating to the Award of Degrees'.

7. Law Courses: The whole of the final two years of the program, as well as part of the first three years, consists of law courses.

8. 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 offered by the Faculty of Commerce and Economics. (Prerequisites apply) No course can be counted both as an option and as a prescribed course.

9. 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.

4733 Bachelor of Commerce in Accounting Bachelor of Laws

BCom LLB **5 Years Full-Time**

Year 1		**UOC**
ACCT1501	Accounting and Financial Management 1A	6
ACCT1511	Accounting and Financial Management 1B	6
ECON1101	Microeconomics 1	6
ECON1102	Macroeconomics 1	6
ECON1202	Quantitative Methods A	6
ECON1203	Quantitative Methods B	6
LAWS1051	Legal System	3
LAWS1061	Torts	6
LAWS7410	Legal Research & Writing	3
	Total	**48**

Note: Students who wish to take the BCom degree program at Honours level must take the appropriate Honours level equivalent courses, if offered, and consult the Head of the School of Accounting at the end of Year 1.

Year 2		
ACCT2522	Accounting & Financial Management 2A, **or**	6
ACCT2532	Accounting & Financial Management 2A (Honours)	
ACCT2542	Accounting & Financial Management 2B, **or**	6
ACCT2552	Accounting & Financial Management 2B (Honours)	
	Commerce & Economics Option 1*	6
	Commerce & Economics Option 2*	6
LAWS1001	Criminal Law 1	6
LAWS1011	Criminal Law 2	6
LAWS1071	Contracts 1	3
LAWS1072	Contracts 2	6
LAWS2140	Public Law	3
	Total	**48**

Year 3		
	Commerce & Economics Option 3*	6
	Commerce & Economics Option 4*	6
	Commerce & Economics Option 5*	
	Commerce & Economics Option 6*	6
LAWS1081	Property, Equity & Trusts 1	6
LAWS1082	Property & Equity 2	6
LAWS2160	Administrative Law	6
LAWS6210	Law, Lawyers & Society	6
	Total	**48**

** At least four options must be selected from courses offered by the School of Accounting.*

Year 4		
LAWS2150	Federal Constitutional Law	6
LAWS2311	Litigation 1	6
LAWS2321	Litigation 2	6
LAWS4010	Business Associations 1	6
LAWS7420	Advanced Legal Research	2
LAWS8820	Law & Social Theory, **or**	6
LAWS8320	Legal Theory	
	Law electives	16
	Total	**48**

Year 5		
	Law electives	**48**

Total Units of Credit Required

1. Law compulsory courses	92
2. Law elective courses	64
3. Approved commerce courses	84
Total	**240**

4733 Bachelor of Commerce in Actuarial Studies Bachelor of Laws

BCom LLB **5 Years Full-Time**

Year 1		**UOC**
ACCT1501	Accounting & Financial Management 1A	6
ACCT1511	Accounting & Financial Management 1B	6
ECON1101	Microeconomics 1	6
ECON1102	Macroeconomics 1	6
MATH1151	Mathematics for Actuarial Studies & Commerce	6
MATH1251	Mathematics for Actuarial Studies & Commerce	6
LAWS1051	Legal System	3
LAWS1061	Torts	6
LAWS7410	Legal Research & Writing	3
	Total	**48**

Year 2		
ACTL1001*	Actuarial Studies and Commerce	6
ACTL2001	Financial Mathematics	6
ACTL2002	Probability and Statistics for Actuaries	6
ACTL2003	Stochastic Models for Actuarial Applications	6
LAWS1001	Criminal Law 1	6
LAWS1011	Criminal Law 2	6
LAWS1071	Contracts 1	3
LAWS1072	Contracts 2	6
LAWS2140	Public Law	3
	Total	**48**

**can be completed in Session 2, Year 1 and either ACCT1511 or ECON1102 deferred to Year 2*

Year 3		
ACTL3001	Actuarial Studies	6
ACTL3002	Life Insurance and Superannuation Models	6
ACTL3003	Insurance Risk Models	6
ACTL3004	Financial Economics for Insurance & Superannuation	6
LAWS1081	Property, Equity & Trusts 1	6
LAWS1082	Property & Equity 2	6
LAWS2160	Administrative Law	6
LAWS6210	Law, Lawyers & Society	6
	Total	**48**

Year 4		
LAWS2150	Federal Constitutional Law	6
LAWS2311	Litigation 1	6
LAWS2321	Litigation 2	6
LAWS4010	Business Associations 1	6
LAWS7420	Advanced Legal Research	2
LAWS8820	Law & Social Theory, **or**	6
LAWS8320	Legal Theory	
	Law electives	16
	Total	**48**

Year 5		
	Law electives	**48**

Total Units of Credit Required

1. Law compulsory courses	92
2. Law elective courses	64
3. Approved commerce courses	84
Total	**240**

Note: the combined Law/Commerce program with Actuarial Studies allows students to complete an actuarial major but does NOT allow them to complete all the courses equivalent to the Part I and Part II subjects of the professional body the Institute of Actuaries of Australia.

The program allows students to complete 7 of the 9 Part I professional actuarial courses.

4733 Bachelor of Commerce in Business Strategy & Economic Management Bachelor of Laws

BCom LLB **5 Years Full-Time**

Year 1		**UOC**
ACCT1501	Accounting & Financial Management 1A	6
ACCT1511	Accounting & Financial Management 1B	6
ECON1101	Microeconomics 1	6
ECON1102	Macroeconomics 1	6
ECON1202	Quantitative Methods A	6

ECON1203	Quantitative Methods B	6
LAWS1051	Legal System	3
LAWS1061	Torts	6
LAWS7410	Legal Research & Writing	3
	Total	**48**

Year 2

ECON2101	Microeconomics 2	6
ECON2105	Economics of Corporation	6
ECON2112	Game Theory and Business Strategy	6
ECON3121	Managerial Economics	6
LAWS1001	Criminal Law 1	6
LAWS1011	Criminal Law 2	6
LAWS1071	Contracts 1	3
LAWS1072	Contracts 2	6
LAWS2140	Public Law	3
	Total	**48**

Year 3

Four options from the following list: 24

ECON2102	Macroeconomics 2
ECON2103	Business and Government
ECON2104	Applied Microeconomics
ECON2107	The Economics of Information and Technology
ECON2113	Economics of E-Commerce
ECON2116	Economics or Japanese Business & Government
ECON2206	Introductory Econometrics
ECON2207	Econometric Methods
ECON2208	Operations Research
ECON2209	Business Forecasting
ECON3101	Markets and Public Choice
ECON3105	Economic Analysis of Productivity
ECON3106	Public Finance
ACCT2522	Management Accounting: Process improvement and Innovation
ACCT2532	Management Accounting: Process improvement and Innovation (Honours)
IBUS2101	International Business and Multinational Enterprises
IBUS3101	International Business Strategy
INFS3603	Business Intelligence Systems
INFS3685	Electronic Commerce Management
IROB3724	Strategic Human Resource Management
MARK3071	International and Global Marketing
MARK3082	Strategic Marketing Management

LAWS1081	Property, Equity & Trusts 1	6
LAWS1082	Property & Equity 2	6
LAWS2160	Administrative Law	6
LAWS6210	Law, Lawyers & Society	6
	Total	**48**

Note: At least four options must be selected from courses offered by the School of Banking & Finance.

Year 4

LAWS2150	Federal Constitutional Law	6
LAWS2311	Litigation 1	6
LAWS2321	Litigation 2	6
LAWS4010	Business Associations 1	6
LAWS7420	Advanced Legal Research	2
LAWS8820	Law & Social Theory, **or**	6
LAWS8320	Legal Theory	
	Law electives	16
	Total	**48**

Year 5

Law electives	**48**

Total Units of Credit Required

1. Law compulsory courses	92
2. Law elective courses	64
3. Approved commerce courses	84
Total	**240**

4733 Bachelor of Commerce in Economic History Bachelor of Laws

BCom LLB 5 Years Full-Time

Year 1 **UOC**

ACCT1501	Accounting & Financial Management 1A	6
ACCT1511	Accounting & Financial Management 1B	6
ECON1101	Microeconomics 1	6
ECON1102	Macroeconomics 1	6
ECON1202	Quantitative Methods A	6
ECON1203	Quantitative Methods B	6
LAWS1051	Legal System	3
LAWS1061	Torts	6
LAWS7410	Legal Research & Writing	3
	Total	**48**

Year 2

ECON2101	Microeconomics 2	6
ECON2102	Macroeconomics 2	6
ECON2206	Introductory Econometrics	6

I option from the following list: 6

ECOH1301	Australia in the International Economy in the 20th century
ECOH1302	Australia and the Asia Pacific Economies
ECOH2311	German Economy and Society
ECOH2318	Making the Market
ECOH2322	Business and the New Europe
ECOH3303	Transformation of the Japanese Economy

LAWS1001	Criminal Law 1	6
LAWS1011	Criminal Law 2	6
LAWS1071	Contracts 1	3
LAWS1072	Contracts 2	6
LAWS2140	Public Law	3
	Total	**48**

Year 3

4 options from the following list: 24

ECOH1301	Australia in the International Economy in the 20th century
ECOH3102	Australia and the Asia Pacific Economies
ECOH2311	German Economy and Society
ECOH2318	Making the Market
ECOH2322	Business and the New Europe
ECOH3303	Transformation of the Japanese Economy

LAWS1081	Property, Equity & Trusts 1	6
LAWS1082	Property & Equity 2	6
LAWS2160	Administrative Law	6
LAWS6210	Law, Lawyers & Society	6
	Total	**48**

Year 4

LAWS2150	Federal Constitutional Law	6
LAWS2311	Litigation 1	6
LAWS2321	Litigation 2	6
LAWS4010	Business Associations 1	6
LAWS7420	Advanced Legal Research	2
LAWS8820	Law & Social Theory, **or**	6
LAWS8320	Legal Theory	
	Law electives	16
	Total	**48**

Year 5

Law electives	**48**

Total Units of Credit Required

1. Law compulsory courses	92
2. Law elective courses	64
3. Approved commerce courses	84
Total	**240**

4733 Bachelor of Commerce in Econometrics Bachelor of Laws

BCom LLB 5 Years Full-Time

Year 1 **UOC**

ACCT1501	Accounting & Financial Management 1A	6
ACCT1511	Accounting & Financial Management 1B	6
ECON1101	Microeconomics 1	6
ECON1102	Macroeconomics 1	6
ECON1202	Quantitative Methods A	6
ECON1203	Quantitative Methods B	6
LAWS1051	Legal System	3
LAWS1061	Torts	6
LAWS7410	Legal Research & Writing	3
	Total	**48**

Year 2

ECON2101	Microeconomics 2	6
ECON2102	Macroeconomics 2	6
ECON2204	Dynamic Models	6
ECON2206	Introductory Econometrics	6
LAWS1001	Criminal Law 1	6
LAWS1011	Criminal Law 2	6
LAWS1071	Contracts 1	3
LAWS1072	Contracts 2	6
LAWS2140	Public Law	3
	Total	**48**

Year 3

ECON2207	Econometric Methods	6
ECON2215	Statistics for Econometrics	6
ECON3203	Econometric Theory	6
ECON3204	Econometric Model Building	6
LAWS1081	Property, Equity & Trusts 1	6
LAWS1082	Property & Equity 2	6
LAWS2160	Administrative Law	6
LAWS6210	Law, Lawyers & Society	6
	Total	**48**

Year 4

LAWS2150	Federal Constitutional Law	6
LAWS2311	Litigation 1	6
LAWS2321	Litigation 2	6
LAWS4010	Business Associations 1	6
LAWS7420	Advanced Legal Research	2
LAWS8820	Law & Social Theory, **or**	6
LAWS8320	Legal Theory	
	Law electives	16
	Total	**48**

Year 5

	Law electives	**48**

Total Units of Credit Required

1. Law compulsory courses	92
2. Law elective courses	64
3. Approved commerce courses	84
Total	**240**

4733 Bachelor of Commerce in Finance Bachelor of Laws

BCom LLB 5 Years Full-Time

Year 1 **UOC**

ACCT1501	Accounting & Financial Management 1A	6
ACCT1511	Accounting & Financial Management 1B	6
ECON1101	Microeconomics 1	6
ECON1102	Macroeconomics 1	6
ECON1202	Quantitative Methods A	6
ECON1203	Quantitative Methods B	6
LAWS1051	Legal System	3
LAWS1061	Torts	6
LAWS7410	Legal Research & Writing	3
	Total	**48**

Year 2

FINS1612	Capital Markets & Institutions	6
FINS2613	Business Finance 2A	6
FINS2624	Investments	6
	Commerce & Economics Option 1*	6
LAWS1001	Criminal Law 1	6
LAWS1011	Criminal Law 2	6
LAWS1071	Contracts 1	3
LAWS1072	Contracts 2	6
LAWS2140	Public Law	3
	Total	**48**

Note: Students who wish to take the BCom degree at Honours level must take FINS3774 Financial Decision Making Under Uncertainty, FINS3775 Research Methods in Finance 1 and must consult the Head of School of Banking & Finance at the end of Year 2.

Year 3

FINS3616	International Business Finance	6
	Commerce & Economics Option 2*	6
	Commerce & Economics Option 3*	6
	Commerce & Economics Option 4*	6
LAWS1081	Property, Equity & Trusts 1	6
LAWS1082	Property & Equity 2	6
LAWS2160	Administrative Law	6
LAWS6210	Law, Lawyers & Society	6
	Total	**48**

Note: At least four options must be selected from courses offered by the School of Banking & Finance.

Year 4

LAWS2150	Federal Constitutional Law	6
LAWS2311	Litigation 1	6
LAWS2321	Litigation 2	6
LAWS4010	Business Associations 1	6
LAWS7420	Advanced Legal Research	2
LAWS8820	Law & Social Theory, **or**	6
LAWS8320	Legal Theory	
	Law electives	16
	Total	**48**

Year 5

	Law electives	**48**

Total Units of Credit Required

1. Law compulsory courses	92
2. Law elective courses	64
3. Approved commerce courses	84
Total	**240**

4733 Bachelor of Commerce in Financial Economics Bachelor of Laws

BCom LLB 5 Years Full-Time

Year 1 **UOC**

ACCT1501	Accounting & Financial Management 1A	6
ACCT1511	Accounting & Financial Management 1B	6
ECON1101	Microeconomics 1	6
ECON1102	Macroeconomics 1	6
ECON1202	Quantitative Methods A	6
ECON1203	Quantitative Methods B	6
LAWS1051	Legal System	3
LAWS1061	Torts	6
LAWS7410	Legal Research & Writing	3
	Total	**48**

Year 2

ECON2101	Microeconomics 2	6
ECON2206	Introductory Econometrics	6
ECON2209	Business Forecasting	6
ECON3107	Economics of Finance	6
LAWS1001	Criminal Law 1	6
LAWS1011	Criminal Law 2	6
LAWS1071	Contracts 1	3
LAWS1072	Contracts 2	6
LAWS2140	Public Law	3
	Total	**48**

Year 3

ECON3260	Econometrics of Finance	6
FINS1612	Capital Markets and Institutions	6
	Commerce & Economics Option 1*	6
	Commerce & Economics Option 2*	6
LAWS1081	Property, Equity & Trusts 1	6
LAWS1082	Property & Equity 2	6
LAWS2160	Administrative Law	6
LAWS6210	Law, Lawyers & Society	6
	Total	**48**

Note: Two options must be selected from courses prescribed by the School of Economics.

Year 4

LAWS2150	Federal Constitutional Law	6
LAWS2311	Litigation 1	6
LAWS2321	Litigation 2	6
LAWS4010	Business Associations 1	6
LAWS7420	Advanced Legal Research	2
LAWS8820	Law & Social Theory, **or**	6

LAWS8320	Legal Theory	
	Law electives	16
	Total	**48**
Year 5		
	Law electives	**48**
Total Units of Credit Required		
1. Law compulsory courses		92
2. Law elective courses		64
3. Approved commerce courses		84
	Total	**240**

4733 Bachelor of Commerce in Human Resource Management Bachelor of Laws

BCom LLB 5 Years Full-Time

Year 1		**UOC**
ACCT1501	Accounting & Financial Management 1A	6
ACCT1511	Accounting & Financial Management 1B	6
ECON1101	Microeconomics 1	6
ECON1102	Macroeconomics 1	6
ECON1202	Quantitative Methods A	6
ECON1203	Quantitative Methods B	6
LAWS1051	Legal System	3
LAWS1011	Torts	6
LAWS7410	Legal Research & Writing	3
	Total	**48**
Year 2		
IROB1701	Industrial Relations	6
IROB1712	Management of Organisations	6
IROB2718	Human Resource Management	6
	Commerce & Economics Option*	6
LAWS1001	Criminal Law 1	6
LAWS1011	Criminal Law 2	6
LAWS1071	Contracts 1	3
LAWS1072	Contracts 2	6
LAWS2140	Public Law	3
	Total	**48**
Year 3		
	Commerce & Economics Option*	6
	Commerce & Economics Option*	6
	Commerce & Economics Option*	6
	Commerce & Economics Option*	6
LAWS1081	Property, Equity & Trusts 1	6
LAWS1082	Property & Equity 2	6
LAWS2160	Administrative Law	6
LAWS6210	Law, Lawyers & Society	6
	Total	**48**

** This option must be selected from courses prescribed by the School of Industrial Relations & Organisational Behaviour.*

Year 4		
LAWS2150	Federal Constitutional Law	6
LAWS2311	Litigation 1	6
LAWS2321	Litigation 2	6
LAWS4010	Business Associations 1	6
LAWS7420	Advanced Legal Research	2
LAWS8820	Law & Social Theory , **or**	6
LAWS8320	Legal Theory	
	Law electives	16
	Total	**48**
Year 5		
	Law electives	**48**
Total Units of Credit Required		
1. Law compulsory courses		92
2. Law elective courses		64
3. Approved Commerce courses		84
	Total	**240**

4733 Bachelor of Commerce in Industrial Relations Bachelor of Laws

BCom LLB 5 Years Full-Time

Year 1		**UOC**
ACCT1501	Accounting & Financial Management 1A	6
ACCT1511	Accounting & Financial Management 1B	6
ECON1101	Microeconomics 1	6
ECON1102	Macroeconomics 1	6
ECON1202	Quantitative Methods A	6
ECON1203	Quantitative Methods B	6
LAWS1051	Legal System	3
LAWS1011	Torts	6
LAWS7410	Legal Research & Writing	3
	Total	**48**

Note: Students who wish to take the BCom degree at Honours level must take IROB3707 Industrial Relations Research Methods and Thesis Workshop and consult the Head of School of Industrial Relations & Organisational Behaviour at the end of Year 1.

Year 2		
IROB1701	Industrial Relations	6
IROB1702	Australian Trade Unionism	6
IROB2703	International Employment Relations	6
IROB2704	Social Organisation of Work	6
LAWS1001	Criminal Law 1	6
LAWS1011	Criminal Law 2	6
LAWS1071	Contracts 1	3
LAWS1072	Contracts 2	6
LAWS2140	Public Law	3
	Total	**48**
Year 3		
IROB2715	Labour History	6
IROB3705	Management & Employment Relations	6
IROB3706	Policies & Processes	6
	Commerce & Economics Option*	6
LAWS1081	Property, Equity & Trusts 1	6
LAWS1082	Property & Equity 2	6
LAWS2160	Administrative Law	6
LAWS6210	Law, Lawyers & Society	6
	Total	**48**

** This option must be selected from courses offered by the School of Industrial Relations & Organisational Behaviour.*

Year 4		
LAWS2150	Federal Constitutional Law	6
LAWS2311	Litigation 1	6
LAWS2321	Litigation 2	6
LAWS4010	Business Associations 1	6
LAWS7420	Advanced Legal Research	2
LAWS8820	Law & Social Theory , **or**	6
LAWS8320	Legal Theory	
	Law electives	16
	Total	**48**
Year 5		
	Law electives	**48**
Total Units of Credit Required		
1. Law compulsory courses		92
2. Law elective courses		64
3. Approved Commerce courses		84
	Total	**240**

4733 Bachelor of Commerce in Information Systems Bachelor of Laws

BCom LLB 5 Years Full-Time

Year 1		**UOC**
ACCT1501	Accounting & Financial Management 1A	6
ECON1101	Microeconomics 1	6
ECON1202	Quantitative Methods A	6
ECON1203	Quantitative Methods B	6
INFS1602	Computer Information Systems	6
INFS1603	Business Data Management	6

LAWS1051	Legal Systems	3
LAWS1061	Torts	6
LAWS7410	Legal Research & Writing	3
	Total	**48**

Note: Students who wish to take the BCom degree at Honours level must consult the Head of School of Information Systems at the end of Year 1.

Year 2

ACCT1511	Accounting & Financial Management 1B	6
ECON1102	Macroeconomics 1	6
INFS2603	Systems Analysis & Design	6
INFS2607	Business Data Networks	6
LAWS1001	Criminal Law 1	6
LAWS1011	Criminal Law 2	6
LAWS1071	Contracts 1	3
LAWS1072	Contracts 2	6
LAWS2140	Public Law	3
	Total	**48**

Year 3

	Commerce & Economics Option 1*	6
	Commerce & Economics Option 2*	6
	Commerce & Economics Option 3*	6
	Commerce & Economics Option 4*	6
LAWS1081	Property, Equity & Trusts 1	6
LAWS1082	Property & Equity 2	6
LAWS2160	Administrative Law	6
LAWS6210	Law, Lawyers & Society	6
	Total	**48**

Note: At least four options must be selected from courses offered by the School of Information Systems

Year 4

LAWS2150	Federal Constitutional Law	6
LAWS2311	Litigation 1	6
LAWS2321	Litigation 2	6
LAWS4010	Business Associations 1	6
LAWS7420	Advanced Legal Research	2
LAWS8820	Law & Social Theory, **or**	6
LAWS8320	Legal Theory	
	Law electives	16
	Total	**48**

Year 5

	Law electives	**48**

Total Units of Credit Required

1. Law compulsory courses	92
2. Law elective courses	64
3. Approved Commercecourses	84
Total	**240**

4733 Bachelor of Commerce in International Business Bachelor of Laws

BCom LLB 5 Years Full-Time

Year 1		UOC
ACCT1501	Accounting & Financial Management 1A	6
ACCT1511	Accounting & Financial Management 1B	6
ECON1101	Microeconomics 1	6
ECON1102	Macroeconomics 1	6
ECON1202	Quantitative Methods A	6
ECON1203	Quantitative Methods B	6
LAWS1051	Legal System	3
LAWS1061	Torts	6
LAWS7410	Legal Research & Writing	3
	Total	**48**

Year 2

IBUS1101	Global Business Environment	6
IBUS1102	Managing Across Cultures	6
	Commerce & Economics Option 1*	6
	Commerce & Economics Option 2*	6
LAWS1001	Criminal Law 1	6
LAWS1011	Criminal Law 2	6
LAWS1071	Contracts 1	3
LAWS1072	Contracts 2	6
LAWS2140	Public Law	3
	Total	**48**

Year 3

IBUS2101	International Business & Multinational Enterprises	6
IBUS3101	International Business Strategy	6
IBUS3102	Asia-Pacific Business	6
	Commerce & Economics Option 3*	6
LAWS1081	Property, Equity & Trusts 1	6
LAWS1082	Property & Equity 2	6
LAWS2160	Administrative Law	6
LAWS6210	Law, Lawyers & Society	6
	Total	**48**

Note: At least four options must be selected from courses offered in the International Business disciplinary stream.

Year 4

LAWS2150	Federal Constitutional Law	6
LAWS2311	Litigation 1	6
LAWS2321	Litigation 2	6
LAWS4010	Business Associations 1	6
LAWS7420	Advanced Legal Research	2
LAWS8820	Law & Social Theory, **or**	6
LAWS8320	Legal Theory	
	Law electives	16
	Total	**48**

Year 5

	Law electives	**48**

Total Units of Credit Required

1. Law compulsory courses	92
2. Law elective courses	64
3. Approved Commerce courses	84
Total	**240**

4733 Bachelor of Commerce in Management Bachelor of Laws

BCom LLB 5 Years Full-Time

Year 1		UOC
ACCT1501	Accounting & Financial Management 1A	6
ACCT1511	Accounting & Financial Management 1B	6
ECON1101	Microeconomics 1	6
ECON1102	Macroeconomics 1	6
ECON1202	Quantitative Methods A	6
ECON1203	Quantitative Methods B	6
LAWS1051	Legal System	3
LAWS1061	Torts	6
LAWS7410	Legal Research & Writing	3
	Total	**48**

Year 2

MGMT1001	Fundamentals of Management	6
MGMT1002	Managing Organisational Behaviour	6
MGMT2001	Managing Innovation & Org. Change	6
MGMT2002	Managing Business Communication	6
LAWS1001	Criminal Law 1	6
LAWS1011	Criminal Law 2	6
LAWS1071	Contracts 1	3
LAWS1072	Contracts 2	6
LAWS2140	Public Law	3
	Total	**48**

Year 3

MGMT3001	Managing Business Strategy	6
	Commerce & Economics Option 2*	6
	Commerce & Economics Option 3*	6
	Commerce & Economics Option 4*	6
LAWS1081	Property, Equity & Trusts 1	6
LAWS1082	Property & Equity 2	6
LAWS2160	Administrative Law	6
LAWS6210	Law, Lawyers & Society	6
	Total	**48**

Note: At least four options must be selected from courses prescribed by the School of Industrial Relations and Organisational Behaviour.

Year 4

LAWS2150	Federal Constitutional Law	6
LAWS2311	Litigation 1	6
LAWS2321	Litigation 2	6
LAWS4010	Business Associations 1	6
LAWS7420	Advanced Legal Research	2
LAWS8820	Law & Social Theory, **or**	6
LAWS8320	Legal Theory	
	Law electives	16
	Total	**48**

Year 5

	Law electives	**48**

Total Units of Credit Required

1. Law compulsory courses	92
2. Law elective courses	64
3. Approved commerce courses	84
Total	**240**

4733 Bachelor of Commerce in Marketing Bachelor of Laws

BCom LLB 5 Years Full-Time

Year 1

		UOC
ACCT1501	Accounting and Financial Management 1A	6
ACCT1511	Accounting and Financial Management 1B	6
ECON1101	Microeconomics 1	6
ECON1202	Quantitative Methods A	6
ECON1203	Quantitative Methods B	6
MARK1012	Marketing Fundamentals	6
LAWS1051	Legal System	3
LAWS1061	Torts	6
LAWS7410	Legal Research and Writing	3
	Total	**48**

Note: *Students who wish to take the BCom degree program at Honours level must consult with the Head of School of Marketing at the end of Year 1.*

Year 2

MARK2051	Consumer Behaviour	6
MARK2053	Marketing Comm. & Promotions Mgt	6
MARK2054	Market Analysis	6
MARK2052	Marketing Research	6
LAWS1001	Criminal Law 1	6
LAWS1011	Criminal Law 2	6
LAWS1071	Contracts 1	3
LAWS1072	Contracts 2	6
LAWS2140	Public Law	3
	Total	**48**

Year 3

ECON1102	Macroeconomics 1	6
MARK3081	Distribution & Service Mgt	6
MARK3082	Strategic Marketing Mgt	6
	Commerce & Economics Option 1	6
LAWS1081	Property, Equity and Trusts 1	6
LAWS1082	Property and Equity 2	6
LAWS2160	Administrative Law	6
LAWS6210	Law, Lawyers & Society	6
	Total	**48**

Year 4

LAWS2150	Federal Constitutional Law	6
LAWS2311	Litigation 1	6
LAWS2321	Litigation 2	6
LAWS4010	Business Associations 1	6
LAWS7420	Advanced Legal Research	2
LAWS8820	Law & Social Theory, **or**	6
LAWS8320	Legal Theory	
	Law electives	16
	Total	**48**

Year 5

	Law electives	**48**

Total Units of Credit Required

1. Law compulsory courses	92
2. Law elective courses	64
3. Approved commerce courses	84
Total	**240**

4744 Bachelor of Economics Bachelor of Laws

BEc LLB 5 Years Full-Time

Year 1

		UOC
ACCT1501	Accounting & Financial Management 1A	6
ACCT1511	Accounting & Financial Management 1B	6
ECON1101	Microeconomics 1	6
ECON1102	Macroeconomics 1	6
ECON1202	Quantitative Methods A	6
ECON1203	Quantitative Methods B	6
LAWS1051	Legal System	3
LAWS1061	Torts	6
LAWS7410	Legal Research & Writing	3
	Total	**48**

Year 2

ECON2101	Microeconomics 2	6
ECON2102	Macroeconomics 2	6
ECON2206	Introductory Econometrics	6
ECON2207	Econometric Methods	6
LAWS1001	Criminal Law 1	6
LAWS1011	Criminal Law 2	6
LAWS1071	Contracts 1	3
LAWS1072	Contracts 2	6
LAWS2140	Public Law	3
	Total	**48**

Year 3

Four options from the following list:		**24**
ECON3101	Markets & Public Choice	
ECON3104	International Monetary Economics	
ECON3106	Public Finance	
ECON3109	Economic Growth, Technology & Structural Change	
ECON3110	Developing Economies & World Trade	
ECON3112	The Newly Industrialising Economies of East Asia	
ECON3113	Economic Development in ASEAN Countries	
ECON3116	International Economics	
ECON3119	Political Economy	
ECON3120	Economic Reasoning	
ECON3202	Mathematical Economics	
ECON3203	Econometric Theory	
ECON3204	Econometric Model Building	
LAWS2160	Administrative Law	6
LAWS6210	Law, Lawyers & Society	6
LAWS1081	Property, Equity & Trusts 1	6
LAWS1082	Property & Equity 2	6
	Total	**48**

Note: Students are encouraged to take the BEc degree at Honours level. The Honours Program is an additional year of study and consists of four courses and a thesis, as described in the Economics Honours disciplinary stream.

Year 4

LAWS2150	Federal Constitutional Law	6
LAWS2311	Litigation 1	6
LAWS2321	Litigation 2	6
LAWS4010	Business Associations 1	6
LAWS7420	Advanced Legal Research	2
LAWS8820	Law & Social Theory**, or**	6
LAWS8320	Legal Theory	
	Law electives	16
	Total	**48**

Year 5

	Law electives	**48**

Total Unit of Credit Requirement

1. Law compulsory courses	92
2. Law elective courses	64
3. Approved Commerce courses	84
Total	**240**

Faculty of Engineering/Faculty of Law

****The Faculty of Engineering is currently undertaking a curriculum review which may result in some changes to the Engineering courses within the following two programs. Please consult the School of Civil and Environmental Engineering for full details. ****

4775 Bachelor of Engineering in Civil Engineering Bachelor of Laws

BE LLB 6 Years Full-Time

Combined Civil Engineering/Law Program

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.

1. 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.

2. Assumed Knowledge: Students must satisfy the normal assumed knowledge requirements for entry to the Faculty of Engineering and to individual courses in that Faculty. Students must study Civil Engineering courses in a sequence approved by the Faculty of Engineering.

3. Honours: The degree 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.

4. 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.

5. 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 is given below; other sequences may be approved under special circumstances.

Year 1		**UOC**
CVEN1021	Engineering Practice 1A	4
CVEN1025	Computing	4
CVEN1023	Statics	4
CVEN1024	Dynamics	4
CVEN1026	Engineering Materials 1	4
MATH1131	Mathematics 1A **or**	6
MATH1141	Higher Mathematics 1A	
MATH1231	Mathematics 1B **or**	6
MATH1241	Higher Mathematics 1B	
PHYS1279	Physics 1 CE	4
LAWS1051	Legal System	3
LAWS1061	Torts	6
LAWS7410	Legal Research & Writing	3
	Total	**48**

Year 2		
CHEM1011	Fundamentals of Chemistry A**, or**	6
CHEM1031	Higher Chemistry C	
CVEN2025	Engineering Computations 1	3
CVEN2125	Systems Engineering	3
CVEN2126	Engineering Construction	3
CVEN2023	Mechanics of Solids	3
CVEN2322	Structural Engineering 1	6
CVEN2026	Engineering Materials 2	3
CVEN2525	Water Engineering 1	3
MATH2019	Engineering Mathematics 2 CE	6
LAWS1071	Contracts 1	3
LAWS1072	Contracts 2	6
LAWS2140	Public Law	3
	Total	**48**

Year 3		
CVEN2021	Engineering Practice 2A	3
CVEN2022	Civil Engineering Practice 2B	3
CVEN3025	Engineering Computations 2	3
CVEN3126	Engineering Management 1	3
CVEN3224	Geotechnical Engineering 1	6
CVEN3322	Structural Engineering 2	6
CVEN3438	Transport Planning & Environment	3
CVEN3448	Transport Engineering	3
CVEN3525	Water Engineering 2	6
LAWS1001	Criminal Law 1	6
LAWS1011	Criminal Law 2	6
	Total	**48**

Year 4		
CVEN4008	Industrial Training	1
CVEN4000	Honours Thesis Part A **or**	6
CVEN4021	Civil Engineering Practice 4	
CVEN4126	Engineering Management 2	4
CVEN4224	Geotechnical Engineering 2	3
CVEN4322	Structural Engineering 3	6
CVEN4525	Water Engineering 3	4
	Civil Engineering electives*	12
LAWS2160	Administrative Law	6
LAWS6210	Law, Lawyers & Society	6
	Total	**48**

Note: 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.

Year 5		
LAWS1081	Property, Equity & Trusts 1	6
LAWS1082	Property & Equity 2	6
LAWS2150	Federal Constitutional Law	6
LAWS2311	Litigation 1	6
LAWS2321	Litigation 2	6
LAWS4010	Business Associations 1	6
LAWS7420	Advanced Legal Research	2
LAWS8320	Legal Theory, **or**	6
LAWS8820	Law & Social Theory	
	Law electives	4
	Total	**48**

Year 6		
	Law electives	**48**

Total Units of Credit Required	
1. Law compulsory courses	92
2. Law elective courses	52
3. Approved Engineering courses	144
Total	**288**

4775 Bachelor of Engineering in Environmental Engineering Bachelor of Laws

BE LLB 6 Years Full-Time

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. 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 rules applying to the Bachelor of Engineering (Civil)/ Bachelor of Laws are also applicable to the Bachelor of Engineering (Environmental Engineering)/Bachelor of Laws program.

The courses listed below are required to complete the program, these are set out in a typical yearly program.

Year 1		**UOC**
CHEM1011	Fundamentals of Chemistry A, **or**	6
CHEM1031	Higher Chemistry C	
CVEN1021	Engineering Practice 1A	4
CVEN1023	Statics	4
CVEN1024	Dynamics	4
CVEN1025	Computing	4
CVEN1026	Engineering Materials 1	4

CVEN1531	Introduction to Water & Atmospheric Chemistry	4
MATH1131	Mathematics 1A, **or**	6
MATH1141	Higher Mathematics 1A	
LAWS1051	Legal Systems	3
LAWS1061	Torts	6
LAWS7410	Legal Research and Writing	3
	Total	**48**

Year 2

BIOS1101	Evolutionary & Functional Biology	6
CEIC0010	Mass Transfer & Material Balance	3
CVEN2025	Engineering Computations 1	3
CVEN2125	Systems Engineering	3
CVEN2023	Mechanics of Solids	3
CVEN2525	Water Engineering 1	3
INDC4120	Chemistry of the Industrial Environment	3
MATH1231	Mathematics 1B **or**	6
MATH1241	Higher Mathematics 1B	
LAWS1071	Contracts 1	3
LAWS1072	Contracts 2	6
LAWS2140	Public Law	3
LAWS6210	Law, Lawyers & Society	6
	Total	**48**

Year 3

BIOS3301	Population & Community Ecology for Env. Engineers	3
CEIC0050	Atmospheric & Process Chemistry	3
CVEN2021	Engineering Practice 2A	3
CVEN2722	Env. Engineering Practice 2B	3
CVEN3025	Engineering Computations 2	3
CVEN3126	Engineering Management 1	3
CVEN3224	Geotechnical Engineering 1	6
CVEN3438	Transport Planning & Environment	3
CVEN3525	Water Engineering 2	6
CVEN3531	Water Chemistry	3
MATH2019	Engineering Mathematics 2 CE	6
LAWS1001	Criminal Law 1	6
	Total	**48**

Year 4

CVEN4008	Industrial Training	1
CVEN4000	Honours Thesis Part A **or**	6
CVEN4721	Environ. Engineering Practice	
CVEN4224	Geotechnical Engineering 2	3
CVEN4525	Water Engineering 3	4
CVEN4533	Transport & Fate of Pollutants	3
CVEN4722	Environmental Policy, Law & Economics	3
CVEN4723	Waste Management	4
	Civil Engineering courses*	12
LAWS1011	Criminal Law 2	6
LAWS2160	Administrative Law	6
	Total	**48**

Year 5

LAWS1081	Property, Equity and Trusts 1	6
LAWS1082	Property and Equity 2	6
LAWS2150	Federal Constitutional Law	6
LAWS2311	Litigation 1	6
LAWS2321	Litigation 2	6
LAWS4010	Business Associations 1	6
LAWS7420	Advanced Legal Research	2
LAWS8320	Legal Theory, **or**	6
LAWS8820	Law & Social Theory	
	Law electives	4
	Total	**48**

Year 6

	Law electives	**48**

Total Units of Credit Required

1. Law compulsory courses	92
2. Law elective courses	52
3. Approved Engineering courses	144
Total	**288**

Note: 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.

Faculty of Science/Faculty of Law

4770 Bachelor of Science Majoring in Computer Science Bachelor of Laws

BSc LLB 5 Years Full-Time

Students contemplating enrolling in this program should consult fully with the Computer Science Adviser prior to enrolment.

1. 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).

2. Assumed Knowledge: Students must satisfy the normal assumed knowledge requirements for entry to the Faculty of Science and to individual courses in that Faculty.

3. Honours: 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.

4. 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.

5. Computer Science Courses: The first three years of the program include at least 84 units of credit in the Science program. The 84 units of credit must include a minimum of 36 and a maximum of 48 Level 1 units of credit. Students must satisfy the requirements of the Computer Science major as outlined in the Science section of the Handbook.

6. Law or Science Electives: Students may 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 Computer Science Adviser (6 units of credit) plus a Law Research Project (2 units of credit).

7. 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. An approved sequence is given below; other sequences may be approved under special circumstances.

Year 1		**UOC**
COMP1011	Computing 1A , or	
COMP1711	Higher Computing 1A	6
COMP1021	Computing 1B, or	
COMP1721	Higher Computing 1B	6
COMP1021	Mathematics 1A	6
COMP1231	Mathematics 1B	6
MATH1081	Discrete Mathematics	6
	One Science elective	6
LAWS1051	Legal System	3
LAWS1061	Torts	6
LAWS7410	Legal Research & Writing	3
	Total	**48**

Year 2

COMP2011	Data Organisation	6
COMP2021	Digital Systems Structures	6
COMP2041	Software Construction:Techniques & Tools	6
	One Science elective	6
LAWS1001	Criminal Law 1	6
LAWS1011	Criminal Law 2	6
LAWS1071	Contracts 1	3
LAWS1072	Contracts 2	6
LAWS2140	Public Law	3
	Total	**48**

Year 3

Science courses including advanced computing electives		24
LAWS1081	Property, Equity & Trusts 1	6
LAWS1082	Property & Equity 2	6
LAWS2160	Administrative Law	6
LAWS6210	Law, Lawyers & Society	6
	Total	**48**

Year 4

LAWS2150	Federal Constitutional Law	6
LAWS2311	Litigation 1	6
LAWS2321	Litigation 2	6

LAWS4010	Business Associations 1	6
LAWS7420	Advanced Legal Research	2
LAWS8820	Law & Social Theory**, or**	6
LAWS8320	Legal Theory	
	Law electives	8
	Law or Science electives*	8
	Total	**48**
Year 5		
	Law electives	**48**
Total Units of Credit Required		
1. Law compulsory courses		92
2. Law elective courses		56
3. Approved Computer Science major		42
4. Additional Science courses		42
5. Law or Science elective*		8
	Total	**240**

**Students can satisfy this requirement by completing either a law elective (8 units of credit) or an elective approved by the Computer Science Adviser (6 units of credit) plus a Law Research Project (2 units of credit).*

4770 Bachelor of Science Bachelor of Laws

BSc LLB 5 Years Full-Time

This program gives students maximum freedom to follow their interests in the courses offered by the Faculty of Science. Students contemplating enrolling in this program should consult fully with the Science Student Office prior to enrolment.

Students in the Science/law program may, with permission from the relevant schools, undertake a major in Computer Science or Information Systems (see separate entry).

1. 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).

2. Assumed Knowledge: Students must satisfy the normal assumed knowledge requirements for entry to the Faculty of Science and to individual courses in that Faculty.

3. Honours: 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.

4. 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.

5. Science Courses: The first three years of the program include at least 84 units of credit in the Science program. The 84 units of credit must include a minimum of 36 and a maximum of 48 Level 1 units of credit. Students must satisfy the requirements of a specific major as outlined in Table A in the Science section of the Handbook.

6. Law or Non-Law Electives: Students may complete 8 units of credit in either law or non-law 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).

7. 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.

Year 1		**UOC**
	Science courses – Level 1	36
LAWS1051	Legal System	3
LAWS1061	Torts	6
LAWS7410	Legal Research & Writing	3
	Total	**48**
Year 2		
	Science courses	24
LAWS1001	Criminal Law 1	6
LAWS1011	Criminal Law 2	6
LAWS1071	Contracts 1	3
LAWS1072	Contracts 2	6
LAWS2140	Public Law	3
	Total	**48**
Year 3		
	Science courses	24
LAWS1081	Property, Equity & Trusts 1	6
LAWS1082	Property & Equity 2	6
LAWS2160	Administrative Law	6
LAWS6210	Law, Lawyers & Society	6
	Total	**48**
Year 4		
LAWS2150	Federal Constitutional Law	6
LAWS2311	Litigation 1	6
LAWS2321	Litigation 2	6
LAWS4010	Business Associations 1	6
LAWS7420	Advanced Legal Research	2
LAWS8820	Law & Social Theory**, or**	6
LAWS8320	Legal Theory	
	Law electives	8
	Law or Science electives	8
	Total	**48**
Year 5		
	Law electives	**48**
Total Units of Credit Required		
1. Law compulsory courses		92
2. Law elective courses		56
3. Approved Science major		42
4. Additional Science courses		42
5. Law or Science elective*		8
	Total	**240**

**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).*

College of Fine Arts/Faculty of Law

4703 Bachelor of Art Theory Bachelor of Laws

BArtTh LLB 5 Years Full-Time

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 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.

1. Duration/Award: The program is a five year full-time combined program leading to the award of the two degrees of Bachelor of Art Theory and Bachelor of Laws.

2. 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.

3. Honours: 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.

4. Art Theory Courses: Students must complete (1) a major in Arts & Design Theory totalling 48 units of credit, and (2) a co-major of 36 units of credit or a minor program of 30 units of credit plus an additional 6 units of credit of approved COFA courses. A sample program is detailed below. For complete details of art theory courses students must consult the Faculty of the College of Fine Arts section of this handbook.

5. Law or Non-Law Electives: Students may complete 8 units of credit in either law or non-law electives. Students can satisfy this requirement by completing either a law elective (8 units of credit) or an elective approved by the College of Fine Arts (6 units of credit) plus a Law Research Project (2 units of credit).

6. Approved Sequence of Study: Students must study Art theory courses in a sequence approved by the Faculty of the College of Fine Arts 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		**UOC**
SAHT1101	Art History & Theory 1A: Mapping the Modern	4
SAHT1102	Art History & Theory 1B: Mapping the Post modern	4
SAHT1211	Theories of the Image	6
SAHT1212	Theories of Art History & Culture	6
SAHT1222	The Production of Art	6
SAHT1214	Methods of Writing & Research on Art	6
	Core BArtTh course	4
LAWS1051	Legal System	3
LAWS1061	Torts	6
LAWS7410	Legal Research & Writing	3
	Total	**48**

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		
SAHT2211	Grand Narratives of Western Art	6
SAHT1213	Approaches to Australian Art	6
SAHT2212	Art and Cultural Difference	6
SAHT2221	Genres of Art Writing	6
LAWS1001	Criminal Law 1	6
LAWS1011	Criminal Law 2	6
LAWS1071	Contracts 1	3
LAWS1072	Contracts 2	6
LAWS2140	Public Law	3
	Total	**48**

Students may substitute SAHT2213 Memory and Self for 1 core BArtTh course.

Year 3		
SAHT3212	Art & the Culture of Everyday Life	6
SAHT3211	Theories of Meaning/Meaning of Theory	6
SAHT3221	Contexts, Professions & Practices	6
SAHT3222	Industry Placement	6
LAWS1081	Property, Equity & Trusts 1	6
LAWS1082	Property & Equity 2	6
LAWS2160	Administrative Law	6
LAWS6210	Law, Lawyers & Society	6
	Total	**48**

Students may substitute SAHT3213 Museum Studies for a core BArtTh course.

Year 4		
LAWS2150	Federal Constitutional Law	6
LAWS2311	Litigation 1	6
LAWS2321	Litigation 2	6
LAWS4010	Business Associations 1	6
LAWS7420	Advanced Legal Research	2
LAWS8320	Legal Theory, **or**	6
LAWS8820	Law & Social Theory	
	Law Electives	8
	Law or COFA electives	8
	Total	**48**

Year 5		
	Law electives	**48**

Total Units of Credit Required	
1. Law compulsory courses	92
2. Law elective courses	56
3. Art & Design Theory major	48
4. COFA approved co-major*	36
5. Law or COFA elective#	8
Total	**240**

**Or co-major of 30 units of credit + additional 6 units of credit COFA course*

#Students can satisfy this requirement by completing either a law elective (8 units of credit) or an elective approved by the College of Fine Arts (6 units of credit) plus a Law Research Project (2 units of credit)

Rules for the Award of Degrees

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 Art Theory and Bachelor of Laws

(f) Bachelor of Commerce and Bachelor of Laws

(g) Bachelor of Economics and Bachelor of Laws

(h) Bachelor of Engineering and Bachelor of Laws

(i) Bachelor of International Studies and Bachelor of Laws#

(j) Bachelor of Jurisprudence and Bachelor of Laws

(k) Bachelor of Science and Bachelor of Laws

(l) Bachelor of Social Science and Bachelor of Laws

(m) Bachelor of Social Work and Bachelor of Laws

(n) Bachelor of Town Planning and Bachelor of Laws

**The last intake for this program was in 2002*

Program to be introduced in 2002 subject to Council approval

(2) The programs set out in paragraphs (b) to (n) 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.

(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 prescribed 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) 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.

Compulsory Courses	**UOC**	**Session**
LAWS7410 Legal Research and Writing	3	S1
LAWS1051 Legal System	3	S1
LAWS1061 Torts	6	S2
LAWS1001 Criminal Law 1	6	S1

LAWS1011	Criminal Law 2	6		S2
LAWS2140	Public Law	3	S1	
LAWS1071	Contracts 1	3	S1	
LAWS1072	Contracts 2	6		S2
LAWS2160	Administrative Law	6	S1	S2
LAWS6210	Law, Lawyers and Society	6	S1	S2
LAWS1081	Property, Equity and Trusts 1	6	S1	
LAWS1082	Property and Equity 2	6		S2
LAWS2311	Litigation 1	6	S1	
LAWS2321	Litigation 2	6		S2
LAWS4010	Business Associations 1	6	S1	S2
LAWS2150	Federal Constitutional Law	6	S1	S2
LAWS7420	Advanced Legal Research	2		S2
LAWS8320	Legal Theory, or	6	S1	S2
LAWS8820	Law and Social Theory	6	S1	S2
	Total	**92 uoc**		

5. (2) Compulsory Course Changes

In 1993 the Faculty made changes to Contracts and introduced a new compulsory course – Public Law. These changes do not affect students who entered the School of Law prior to 1994.

In 1995 the Faculty added LAWS4010 Business Associations 1 to the compulsory core courses in order to meet the uniform national admission requirements. This change does not affect students who entered the School of Law prior to 1996.

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.

		UOC
LAWS2282	Advanced Administrative Law	8
LAWS2025	Advanced Contract Law	8
LAWS1002	Advanced Criminal Law	8
LAWS1062	Advanced Issues in Torts A	8
LAWS1063	Advanced Issues in Torts B	8
LAWS2333	Advanced Legal and Social Theory	8
LAWS2034	Advanced Property and Equity	8
LAWS2052	Advanced Revenue Law	8
LAWS2121	Asian Legal Systems and Business Law	8
LAWS2212	Australian Indigenous Law Reporter	8
LAWS2272	Australian Immigration Law and Practice	8
LAWS2183	Australian Journal of Human Rights	8
LAWS1091	Business Associations 1	8
LAWS1092	Business Associations 2	8
LAWS2392	Children and the Law	8
LAWS2123	Chinese Legal System	8
LAWS2304	Clinical Legal Experience	8
LAWS2303	Clinical Legal Experience (Intensive)	16
LAWS2305	Clinical Program Employment Law	16
LAWS2026	Commercial and Consumer Sales	8
LAWS2024	Commercial Finance	8
LAWS1033	Communications Law	8
LAWS2085	Comparative Law	8
LAWS1032	Computer Applications to Law	8
LAWS2082	Conflict of Laws	8
LAWS2293	Constitutionalism	8
LAWS2037	Consumer Protection Law	8
LAWS2035	Conveyancing and Land Transactions	8
LAWS1003	Crime and Society	8
LAWS1006	The Criminal Appeals Project	8
LAWS2323	The Criminal Trial	4
LAWS2411	Disability, Rights and the Law	8
LAWS2412	Discrimination and the Law	8
LAWS2314	Dispute Resolution	8
LAWS2335	Economic Analysis of Law	8
LAWS2051	Elements of Income Tax Law	8
LAWS2032	Employment Protection Law	8
LAWS2361	Environmental Law	8
LAWS2313	Evidence and Advocacy	8
LAWS2394	Families, Property & Death	4
LAWS2391	Family Law	8
LAWS2341	Feminist Legal Theory	8
LAWS2401	Health and Medical law	8
LAWS2292	The High Court of Australia	8
LAWS2413	Housing Law	8
LAWS2154	Human Rights in Ancient Rome	8
LAWS2182	Human Rights Law	8
LAWS2211	Indigenous People and the Law	8
LAWS2021	Industrial and Intellectual Property	8
LAWS2027	Industrial Law	8
LAWS2036	Insurance Law	8
LAWS1031	Information Technology Law	8
LAWS9988	International Business Transactions	8
LAWS2181	International Humanitarian Law	8
LAWS2084	International Trade Law	8
LAWS4611	Internet Legal Practice	8
LAWS2086	Jessup International Law Moot Court	8
LAWS2241	Jewish Law	8
LAWS2232	Law after Communism	8
LAWS2033	The Law of Banking	8
LAWS2028	The Law of Employment	8
LAWS2441	Law Journal	8
LAWS2132	Law and Politics in Post-Mao China	8
LAWS2274	The Law, Procedures & Practice of Parliament	8
LAWS2332	Law and Social Theory	8
LAWS2251	Legal History	8
LAWS2131	Legal Institutions in Post-Mao China	8
LAWS2334	Legal "Isms"	8
LAWS2331	Legal Theory	8
LAWS2273	Local Government Law	8
LAWS2038	Mining Law	8
LAWS2031	Occupational Health and Safety Law	8
LAWS2141	Pacific Islands Legal Systems	8
LAWS1005	Penology	8
LAWS2081	Public International Law	8
LAWS2275	Regulation of Economic Activity	8
LAWS2301	Remedies	8
LAWS2421	Research Project	2
LAWS2423	Research Thesis	8
LAWS2422	Research Thesis	16
LAWS2079	Restitution	8
LAWS2151	Roman Law: A Guide to Legal Thinking	8
LAWS2152	Roman Law in Medieval and Modern Europe	8
LAWS2153	Roman and Modern Civil Law	8
LAWS2307	Social Justice Intern Program	8
LAWS2414	Social Security Law	8
LAWS2393	Succession	8
LAWS2022	Trade Practices	8
LAWS2312	Trial Process	8
LAWS2023	Trusts	8

and any other course 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:

(1) all of the courses prescribed in Rule 5 under the heading 'Compulsory Courses', totalling 92 units of credit,

(2) selected courses from the courses prescribed in Rule 5 under the heading 'Elective Courses' so as to comply with Rule 7,

(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) Core: 92 uoc Electives: 52 uoc Total: 144 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) Core: 92 uoc Electives: 52 – 58 uoc **Total: 144 – 150 uoc**

Bachelor of Social Work/Bachelor of Laws

(c) Core: 92 uoc Electives: 58 uoc **Total: 150 uoc**

Bachelor of Social Science/Bachelor of Laws

(d) Core: 92 uoc Electives: 64 uoc **Total: 156 uoc**

Bachelor of Arts/Bachelor of Laws
Bachelor of Commerce/Bachelor of Laws
Bachelor of Economics/Bachelor of Laws

(e) Core: 92 uoc Electives: 56 – 64 uoc **Total: 148 –156 uoc**

Bachelor of Art Theory/Bachelor of Laws
Bachelor of Science/Bachelor of Laws

(f) Core: 92 uoc Electives: 64 – 82 uoc **Total: 156 – 174 uoc**

Bachelor of Jurisprudence/Bachelor of Laws

(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 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. Unless he or she obtains special permission from the relevant Head of School, 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	**UOC**
LAWS1051 Legal System	3
LAWS1061 Torts	6
LAWS1071 Contracts 1	6
LAWS1072 Contracts 2	3
LAWS2140 Public Law	3
LAWS7410 Legal Research and Writing	3
Year 2	
LAWS1001 Criminal Law 1	6
LAWS1011 Criminal Law 2	6
LAWS2160 Administrative Law	6
LAWS6210 Law, Lawyers & Society	6
Year 3	
LAWS8320 Legal Theory, or LAWS8820 Law and Social Theory	6

(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.

Rules Relating To The Bachelor of Commerce/Bachelor of Laws Program and the Bachelor of Economics/Bachelor of Law Program

13. Rules relating to the award of the degree of Bachelor of Commerce and Bachelor of Economics: 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.

14. BCom and BEc: Candidates for the combined Commerce/Law or Economics/Law degree program may be awarded the degree of BCom or BEc 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 BEc. 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'.

15. 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 BEc 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.

16. Commerce and Economics Options: 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 offered by the Faculty of Commerce and Economics. Prerequisites apply. No course can be counted both as an option and as a prescribed course.

A Message from the Director of ATAX

Welcome to The University of New South Wales and in particular to the Australian Taxation Studies Program (ATAX). You have been admitted to study in one of Australia's leading universities. I trust that you will find the experience a challenging one that will open new opportunities for you in your career development.

At ATAX you will study with a team of talented academic staff with wide experience and expertise. Whilst lecturers naturally develop individual teaching styles appropriate to their areas, the single unifying principle which underlies our teaching is that the staff are dedicated to ensuring the intellectual development of our students. I am sure you will find staff responsive to your concerns and they will always be helpful in trying to lead you, wherever possible, to a broader understanding of the course material.

The academic staff are complemented by a Panel of Experts which has been developed with regard to the needs of the Program – this Panel is comprised of a unique blend of expert practitioners and government representatives who have the very highest levels of experience.

In addition, our administrative support staff are there to provide assistance to students in fulfilling all student requirements and, of course, in a program with the level of national and international coverage which ATAX provides, this is a crucial part of the overall process.

The mode of delivery is efficient and flexible and is conducted through ATAX's National Classroom. The National Classroom's learning facilities are located at 23 sites across Australia and provide infrastructural support to aid you in your studies. The form of study which we offer has many practical advantages but it also creates an important responsibility – the responsibility for the student to organise time effectively, to work steadily through the program material and to contribute to the many and varied forms of dialogue which the programs offer. If you approach your studies with enthusiasm and a commitment to succeed, the process will be intellectually stimulating and rewarding.

Since you may not have the constant access to a peer group that you encounter on campus, it is important that you know the communication facilities we use and our administrative procedures. Keep up with the *Weekly Bulletin*; make sure that you know the cut-off dates for withdrawal without penalty. Get an early feel as to how Audio Conferences work.

Above all, the program can only be as good as the participants in it – this includes both ATAX staff and students. I believe that we have dedicated hard working staff at both the academic and the administrative levels and I have every confidence that they will provide you with the intellectual stimulation and support you need. Students need to focus on their work and provide a commitment to doing their best. The combination will provide outstanding results and a rewarding experience for you.

Good luck in your studies and, if you need help, ask for it early.

Associate Professor Chris Evans
Director of ATAX

Australian Taxation Studies Program (ATAX)

Contents

Information and Assistance 231
- Some people who can help you 231
- Academic Support 231
- Enrolment Procedures 231
- Sources of Information 231

Delivery through the National Classroom 232
- National Classroom Facilities 232
- Access to Australian Tax Office Premises by Non-ATO Students 232
- Study Materials 232
- Audio Conferences 232
- Tutorials 233
- Intensive Regional Classes 233
- Web Course Tools (WebCT) 233
- Library Services 233

Program and Course Information 233
- Course Descriptions 233
- Course Unit Values 233
- Course Availability in Respect of All Programs 233
- Program Completion 234

Bachelor of Taxation Degree 234
- Program Objectives 234
- Student Work Load 234
- Admission Requirements 234
- Occupational Destination of Graduates 234
- Professional Accreditation 234
- Assessment Policy 235
- Bachelor of Taxation Degree with Merit 235
- Exemptions Policy 235
- General Education Courses 236

Program Structure for the Bachelor of Taxation Degree
- List of Courses 236
- Prerequisites in Courses 236
- Selection of Courses 237
- Particular Requirements for Students Seeking Accounting Professional Entry 237
- General Education 237

Non-Award (Single Course), Cross-Institutional and Cross-Group Enrolments
- Introduction and Overview 238
- Cross-Institutional Enrolment Procedures 238

Cross-Group Enrolment Procedures 238
Associate Diploma in Taxation 238
Introduction 238
Program Structure for the Associate Diploma in Taxation 238
Selection of Courses for the Associate Diploma in Taxation 238
Prerequisites and Corequisites in Courses for the Associate Diploma in Taxation 239
Advanced Standing 239
Re-Entry to the Bachelor of Taxation Degree by Associate Diplomates 239
The Higher Education Contribution Scheme (HECS) 239
Non-Award and Cross-Institutional Enrolments: Special Provisions 240

Information and Assistance

This section of the handbook provides information on programs of study offered by the Australian Taxation Studies Program (ATAX), at the undergraduate level.

ATAX delivers tax education across Australia. It is designed to educate tax professionals for 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 Australian Taxation Office, StateGovernment Treasury Departments and Revenue Offices. The Program was developed through intensive consultation with a large range of experts and interests both in the accounting and legal professions and within UNSW.

Some people who can help you

General Correspondence and teleTel: enquiries relating to STUDENT and PROGRAM ADMINISTRATION should be directed through:

ATAX Student Services Office
Tel: (02) 9385 9333

Email: atax@unsw.edu.au

Postal Address:
ATAX
The University of New South Wales
UNSW SYDNEY NSW 2052 AUSTRALIA

If contact is required with Academic or other General Staff, please refer to the Contact List in the Student Information Booklet or on the ATAX website (www.atax.unsw.edu.au). If the staff member is unavailable ring the ATAX Student Services Office on (02) 9385 9333 and your call will be transferred, or a message taken.

FACSIMILE NUMBER for all ATAX Staff:

Fax (02) 9385 9380

Academic Support

A range of different academic support services is provided by ATAX through the Academic Support Co-ordinator. These include support packages on general study skills and basic grammar and writing skills.

ATAX recognises students come to the program with a broad range of backgrounds. Adjusting to the demands of part-time study in the distance education mode in a University environment is a considerable challenge. In order to remain responsive to the diverse needs of students, ATAX provides both formal and informal academic support options.

Two formal Audio Conferences are conducted each Session. These are intended for new students, although continuing students are also welcome to participate. The Audio Conference sessions 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 ***ATAX Study Skills Booklet***, which is included in the package of Study Materials with the ***Student Information Booklet***.

The Academic Support Co-ordinator 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 and other units. The ATAX Academic Support Co-ordinator is the primary contact person for students seeking access to such services.

Contact the Student Services Office in the first instance to ascertain the name and contact details of this person.

Enrolment Procedures

Enrolment procedures for Distance Education programs differ from conventional mode programs. Students should refer to information distributed by the ATAX Student Services Office (enrolment/re-enrolment forms and instructions, Weekly Bulletin) prior to the commencement of each Session.

Sources of Information

It is important that students familiarise themselves with various documents and sources of information available.

These include:

- the Weekly Bulletin and Emergency Bulletins
- the ATAX Website (www.atax.unsw.edu.au)
- the Student Information Booklet
- HECS and Fees explanatory documents
- the ATAX Student's Guide to Library Resources
- the noticeboards at National Classroom sites

The *Weekly Bulletin* is prepared on Mondays throughout Session and distributed to all ATAX students and ATAX Co-ordinators. *Weekly Bulletins* are consecutively numbered (Yr/#) so students should be aware if one is missed.

At appropriate times, policy information is repeated for the benefit of students (for instance reminders of deadlines for changes in enrolment, or the policy regarding late assignments).

Also they are a vital source of up-to-date information about administrative matters (for instance advising examination arrangements, or materials delivery dates). Lecturing staff use the *Weekly Bulletin* to advise on events occurring within each course.

Where particularly urgent events take place, an *Emergency Bulletin* is issued (which could be at any time). This message is then repeated in the next regular *Weekly Bulletin*. It may be that only particular classes or groups of students are affected.

You can access the ATAX Website at www.atax.unsw.edu.au. In addition to general information about ATAX, the website also includes details of conferences and special events, links to individual lecturers' web pages, relevant research links and ATAX Library On-Line. The *Weekly Bulletin* is posted each week on the website and the *Student Information Booklet* will also be transferred to the website for 2002. We are constantly updating and expanding the website so it is well worth 'bookmarking' it if you have Internet access.

The development of the *Student Information Booklet* is to facilitate ready access to the basics of ATAX administration and contains other study resource materials. This booklet provides an essential reference point for the ATAX student, with contact lists, administration information, calendar of events, a Study Skills Manual and Library guide. The intention of this resource is to create a concise, one-stop source of information for the majority of your needs as an ATAX student. Information will be updated either by way of the Weekly Bulletin or via the ATAX website.

The Orientation visits by ATAX staff take place twice-yearly immediately prior to the commencement of each Session. All new students should attend Orientation to learn about ATAX's unique delivery mode. These visits serve both academic and administrative purposes, as well as giving a human face to this decentralised program. This exercise is valuable for obtaining feedback from students about problems and successes with all aspects of the program.

It is expected that all students will attend their local Orientation to collect their Study Materials in person. If you are unable to attend the Orientation, you must arrange for someone else to collect your Study Materials. A letter of authorisation, signed by the student, must be presented before collection and the person collecting the materials must sign for the package of materials.

Uncollected materials will be returned to ATAX. It is then the student's responsibility to obtain materials at their own cost. Failure to collect materials from Orientation (and/or late collection of materials) is unacceptable as a basis for requesting remission of penalties imposed for late submission of assignments.

Delivery through the National Classroom

With our unique National Classroom structure, students can study from anywhere in Australia or overseas without attending campus lectures and Tutorials. All ATAX students are supported with comprehensive, high quality written Study Materials. Utilising the National Classroom's learning facilities in 23 sites, our distance education framework incorporates Web Course Tools (WebCT), local library and study facilities, regular Audio Conferences with your lecturer and other students, and face-to-face Intensive Regional Classes.

Students enrolling in the ATAX Program may find the learning environment differs significantly from traditional campus-based study. The following sections are designed to introduce new students to some aspects of this learning environment which may not be familiar.

National Classroom Facilities

The learning facilities provided as part of the National Classroom are an integral part of how ATAX delivers its programs. There are currently 23 National Classroom sites in locations around Australia. Each site is equipped to facilitate Audio Conferences with ATAX staff and to provide support in the form of computers with Internet access, photocopiers, facsimile machines and private study facilities.
Current National Classroom sites are located on the premises of various Australian Taxation Offices and are available to all students.

Each of the locations has an **ATAX Co-ordinator**, whose role is to ensure the effective operation of the Learning Facility. Broadly the role envisages development and maintenance of effective communication channels between students and ATAX. Normal academic and administrative enquiries should be made to the ATAX Student Services Office in the first instance.

National Classroom sites are for study purposes only. They are *not* mailing addresses. They are usually open from 8.00am to 6.00pm, Monday to Friday.
Maintaining communication with the ATAX Co-ordinator at your National Classroom site is essential. Addresses for the current sites and the contact details of their ATAX Co-ordinators are listed in the ***Student Information Booklet***.

Access to Australian Tax Office Premises by Non-ATO Students

ATAX is committed to ensuring Non-ATO students have the same opportunity for academic success as those ATO students who in many cases will be working at the same location as the Learning Facility. working at the the same location as the National Classroom site. As the National Classroom sites are established within Australian Tax Offices for the time being, normal security arrangements have to be observed by all students for access to the particular office(s) where the National Classroom's facilities are located

The principle of access to a National Classroom site for Non-ATO students is crucial to the success of the overall Program. Accordingly, the following access arrangements have been negotiated with the Australian Taxation Office. *It should be noted these are the normal procedures where a person, not being a staff member of the ATO, requires regular access to ATO premises:*

1. Conditional building passes should be issued to Non-ATO students in the ATAX Program. This will allow the students access to the National Classroom site without having to be escorted by an ATO staff member. The building pass will be a photo identification card, with the only personal information being the student's name.

2. On leaving the ATO building, the students will be required to hand in the building passes to the guard at the security desk. When students wish to re-enter the National Classroom site, they will have to collect the pass from the guard.

3. Prior to a building pass being issued to a Non-ATO student, it will be necessary for the student to sign a confidentiality agreement with the ATO and for a security check to be made on the person. Non-ATO students should complete a Consent to Obtain Personal Information (police check) form to give the security staff authority to complete the check, available from ATAX Co-ordinators.

4. Should any student be refused a building pass due to a criminal history, the student would need to gain access on each occasion by following normal procedures.

Students are advised to contact ATAX Co-ordinators upon accepting their offer of a place on an ATAX program to make arrangements regarding security passes.

Note that, on ceasing to be an ATAX student, Non-ATO students who have been issued with a 'conditional photographic' building pass, are to notify the ATAX Co-ordinator so that the pass can be cancelled.

Study Materials

At the beginning of each Session students will receive a batch of Study Materials for the course(s) in which they are enrolled. Distribution will normally take place during the Orientation period at the student's National Classroom site. All students are *expected* to collect their materials at this time. Some courses will have additional material prepared and dispatched during the Session. Each batch of materials will be individually labelled for each student, and on receiving materials, students should check to ensure that all items ordered are included. Students are required to sign for receipt of the materials. If for some reason they are unable to personally attend the Orientation session to collect the materials, they must designate (in writing to ATAX) another person to collect the material on their behalf.

The **Study Materials** are made up of introductory materials, including a course profile, designed to provide the student with an overview of the course content and how to approach it. In addition, the Study Materials contains a series of modules, or units, together with readings, activities and exercises to allow the student to check understanding and progress. Solutions to most of the activities are provided at the end of each module.

At a minimum the student should be able to pass the course using only the Study Materials. However it is strongly recommended that students participate in the various other educational opportunities made available.

Whilst ATAX accepts the **cost** to courier the materials to standard locations (principally National Classroom sites), certain charges may apply if special arrangements incur greater costs and/or communication problems arise, which is the responsibility of the student. Every effort is made to distribute materials in a timely and cost-effective manner. Queries concerning missing or incomplete Study Materials should be referred to the ATAX Production Centre on (02) 9385 9310.

A ***Student Data Sheet*** is used to confirm enrolment particulars for Session 2 of each year.

Return of Study Materials on Discontinuation of a Course

Withdrawing or discontinuing students are *expected to return* Study Materials (unless specially purchased) on cessation of enrolment. If a student varies his/her enrolment to discontinue a course, the student must return the Study Muide to ATAX **within fourteen (14) days** of the date of discontinuation / withdrawal. It is the sole responsibility of the student to ensure that the material is received at the ATAX office within the allocated time and the student should *not* leave any materials with ATAX Co-ordinators. If a student neglects to return or wishes to retain a Study Materials, an invoice for $150 will be raised. ***Where Study Materials are not returned, and/or monies remain outstanding, results will be Withheld (Code WF)***. Please note that once an invoice has been issued, the return of Study Materials will not be accepted. Only payment of the invoice will remove the financial block imposed by the Student Information System.

Audio Conferences

Academic staff of ATAX hold Audio Conferences with students at the at the National Classroom sites. *These are not compulsory, but it is strongly recommended that students attend such conferences.*

What is an Audio Conference?

An Audio Conference is a 'conference' teleTel: call linking students and lecturers. The duration is usually 1.5 hours, and most students find them a useful aspect of their study. These are not lectures. They are an opportunity for discussion of the topics covered in the courses undertaken by students.

An Audio Conference is the linking of a number of teleTel:s, enabling each person to hear and speak to the others. The Tel:s at ATAX National Classroom sites where groups of students can gather at a specific time, and/or the home/work Tel:s of individual students can all be linked by ATAX audio conferencing equipment to the lecturer at ATAX in Sydney. Each ATAX National Classroom site has loudspeaker Tel:s. At each site only one line is utilised per conference and the audio conferencing equipment can accommodate a number of locations, each servicing a group of students.

Functions of Audio Conferences

Skills of analysis, dicussion and debate are a critical aspect of study. On-campus students enjoy many opportunities, formal and informal, for such dialogue.

Students will already have the course content through the printed Study Materials. As such the primary function of an Audio Conference is to provide an opportunity for dialogue between the lecturer and students and between students themselves, and not to present content which tradiutional lectures attempt to do.

ATAX Students can use Audio Conferences to reinforce their grasp and understanding of basic concepts, share problems and obtain advice.

Audio Conferences offer the following benefits for students:

- guide students
- deal with learning difficulties
- develop required verbal communication skills
- make lecturers more approachable for students
- provide motivation and support
- confirm that learning is taking place
- clarify any difficulties with the learning materials
- identify and deal with issues in program administration
- offer a personalised learning experience, reducing students' sense of isolation
- present an opportunity for students to assess progress
- deliver immediate feedback to questions and problems, and can instantly clarify complex issues and concepts
- promote motivation by stimulating interest
- develop skills in expressing ideas and justifying them
- enable the lecturer to reinforce key concepts in a course
- link students to available support mechanisms, including the opportunity to meet other students at Learning Facilities and develop study groups.

What Preparation is Required?

This will be advised in the Study Materials for the course and/or through the ***Weekly Bulletin*** closer to the time of each Audio Conference. It is important that students prepare thoroughly, as the benefits of the Audio Conferences are considerably reduced if participants have not read up on the subject to be covered beforehand.

Tutorials

A Tutorial is a supplementary form of education delivery where matters already covered elsewhere in a course are discussed, clarified or elaborated. A Tutorial is conducted in a small group to enable effective student participation. A Tutorial is conducted in accordance with guidelines issued by the lecturer in charge of the course. Responsibility for the course rests with the lecturer in charge, not the tutor.

Tutors are arranged for early **Bachelor of Taxation** courses (and also those offered in parallel for the **Graduate Diploma in Taxation Studies**) in regional centres where there are a sufficient number of students.

Tutorials are offered in a limited number of courses, subject to resources and demand. Details are advised through the ***Weekly Bulletin*** each Session.

Normally 3 Tutorials would be held each Session for approximately 1.5 hours each. Tutorials may be face-to-face where there are sufficient students and tutors available, or are run by Audio Conference where numbers are less than ten. Information on Tutorial dates, times, locations and format is published in the ***Weekly Bulletin.***

Tutors prepare and deliver a Tutorial on the topic provided under the direction of course lecturer responsible.

All students in the course should participate in the Tutorial if possible. To facilitate proceedings, it is desirable for students to familiarise themselves with the topic(s) to be covered prior to the Tutorial.

Intensive Regional Classes

In some early Bachelor of Taxation courses students will be invited to participate in **Intensive Regional Classes** (IRCs), which are usually held at major centres (*eg:* Sydney, Melbourne). Subject to the discretion of the Director, it is ATAX policy to provide an Intensive Regional Class in any regional centre in which there are at least 12 students enrolled in a course. Typically these would run over one day, using a problem based format. Attendance at these classes is *strongly recommended but not compulsory*, and the proceedings would normally be recorded, with the resulting video available at National Classroom sites. Students unable to attend the Intensive Regional Class may subsequently be invited to participate in an Audio Conference link up.

Administrative matters in relation to Intensive Regional Classes will be communicated to students via the **Weekly Bulletin**.

Web Course Tools (WebCT)

A web-based support strategy known as Web Course Tools (Web CT) is also being developed to complement existing study resources. The student website can be found at www.atax.unsw.edu.au/webct.

Library Services

Information may be found under Library Facilities at UNSW and in the *ATAX Library Guide*. This guide is included in the *Student Information Booklet*. Also refer to ATAX Library On-Line at www.atax.unsw.edu.au/library or contact the ATAX Library directly:

Colin Fong or Roy McCrindle
Librarian
Tel: (02) 9385 9327 / 9312

Program and Course Information

Program Titles and Codes

Code No.	*Program Title*	*Qualification Abbreviation*
4620	Bachelor of Taxation	BTax
7280	Associate Diploma in Taxation	AssocDipTax
6065	Undergraduate Non-Award Course (Single Course Study)	U/G NonAward
6028	Undergraduate Cross Institutional Course	U/G Cross-Ins

Course Codes

A course number (identifier) in the UNSW system is formed from two principal elements:

- a four letter prefix indicating the Course Disciplinary Area designated by the code (eg. ATAX)
- a four digit code. The first two numbers indicate the program to which the course belongs and the second two numbers indicate the course.

The following is a key to understanding the various course numbering codes used in the following sections on program information:

ATAX00**	Bachelor of Taxation course
ATAX06**	Postgraduate course offered at the Undergraduate level
GEN****	General Education course

Course Descriptions

Descriptions of courses offered in 2002 can be found in alphabetical order by the course code at the back of this handbook. For a full list of courses offered by the University contact NewSouth Student or visit www.student.unsw.edu.au.

Course Unit Values

From 1999, UNSW introduced a University-wide course valuation system for all courses offered to undergraduate students. The system means that a course will have the same unit of credit value irrespective of which Group's (Faculty) 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 unit of credit value of a course by the total units of credit for that year of the program. Student load is used to determine both HECS and Tuition Fees for overseas students. Students who take more than the standard load for that year of a program will pay more HECS.

Except for some General Education courses offered by other UNSW groups, all courses offered through ATAX programs are 6 units of credit.

Course Availability in Respect of All Programs

Prior to the commencement of each Session, course availability is included as part of the enrolment/re-enrolment information pack. All scheduling is subject to teacher availability, student demand, and the progress of writing. Schedules and course content are regularly reviewed and updated in line with changes in the law and student feedback.

Program Completion

There is no University-wide rule requiring students to complete a program of courses within a specified period of time. It is however, the accepted practice for the Assessment Committee of the Board of Studies to notify students if they are not progressing satisfactorily.

The ever changing nature of taxation law and policy means many courses become outdated with the passage of time. Therefore it is in a student's best interests to complete programs as soon as possible.

The "Academic Standing" system monitors student progress by regular review of marks and academic records. The Assessment Committee may request that an Academic Advisor consults with students who are not progressing satisfactorily – to identify academic issues that are affecting progress and trigger communication with support units (academic or otherwise). The "Academic Standing" system operates by students with unsatisfactory progress moving down (or up) a series of probationary levels under the supervision of the Academic Advisor. For further details please refer to the Student Information Booklet.

Bachelor of Taxation Degree

The Bachelor of Taxation Degree commenced in 1991 and was the first university undergraduate tax degree offered in Australia.

The Bachelor of Taxation 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 (formerly the Australian Society of Certified Practising Accountants).

The Bachelor of Taxation has undergone significant changes since Session 1 1999. Students admitted to the program prior to 1999 are subject to pre-1999 BTax rules. Students who need access to these rules should either refer to their own pre-1999 handbook or contact ATAX for a photocopy of the relevant pages.

Program Objectives

The overriding objective of the Program is to supply the necessary skills, technical knowledge and critical abilities for the broad-based education of a competent taxation professional. Graduates are given the skills to analyse a working tax problem, a good grasp of the framework of the Australian tax system and its more important components and an understanding of relevant legal and accounting concepts.

Specifically 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 enquiry.

Student Work Load

Part-time students will normally complete two (2) courses each Session over six years. Each Session is 14 weeks in duration. Contact will vary from course to course. As a rough guide, students can expect to spend at least 12 hours per week studying each course.

It is possible to take a lighter work load – note the minimal requirements for maintaining 'current enrolment' as defined in the section under Administration later in this Handbook.

In special circumstances with approval from the Associate Director (Teaching) a heavier load could be taken. That would depend to some extent on the student's prior academic record. The delineation of 'part-time' is less than 0.75 of a full-time load. The definition of full-time is a load of 0.75 or more (0.375 per Session).

Admission Requirements

Admissions are dealt with by a Committee of the Board of Studies in Taxation, made up of representatives of the various academic units involved in the Program.

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.

The normal minimum qualification for admission to the program is New South Wales matriculation (HSC) or equivalent Year 12 qualifications or completion and award of Associate Diploma in Accounting from a TAFE. In certain circumstances consideration will be given to mature age students with extensive technical experience.

The following people should find it useful to do a University Preparation Program at a recognised tertiary institution:

- mature aged students without recent study experience
- students who need to improve their study skills
- students who don't feel confident about study at a tertiary level
- students from a non-English speaking background and without recent university experience.

For more information on the University Preparation Program call the ATAX Librarian on (02) 9385 9327.

The Student Services Office can also assist in outlining and explaining entrance requirements.

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 Australian Taxation Office, State Government Treasury Departments and Revenue Offices.

The Tax Agents Registration Board recognises the Bachelor of Taxation Degree satisfies the requirements of ***Income Tax Regulation 156*** and hence allows graduates to practice as a Tax Agent.

Professional Accreditation

The Bachelor of Taxation program has been granted accreditation by CPA Australia and The Institute of Chartered Accountants in Australia (ICAA). This means the Bachelor of Taxation satisfies the educational requirements for associate level of membership, *provided* the student has studied elective courses in the accounting stream of the Bachelor of Taxation. These course choices and study sequences are explained later in this ***Handbook*** under **Particular Requirements for Students seeking Accounting Professional Entry.**

Within these professional bodies, associate membership is necessary for entry into the professional education programs (CPA Program or the CA Program respectively) which are prerequisite to full membership.

It is strongly recommended students interested in pursuing professional membership contact their nearest Divisional Office of CPA Australia or

ICAA at the earliest opportunity to ascertain full requirements for the various levels of membership, including student membership opportunities.

Please also refer to the ***Non-Award*** section of this Handbook for details on how Single Course Study may be recognised to meet the requirements of Continuing Professional Development (CPD), Continuing Professional Education (CPE) and Continuing Legal Education (CLE) for Certified Practicing Accountants, Chartered Accountants and lawyers respectively.

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. at least 40% of the marks available for the final examination in the course.

Note that ruling **(1)** above is not absolute in the sense that the Assessment Committee is empowered to approve concessional pass grades (Pass Conceded) below this standard of 50%.

Where the course has a formal examination prescribed, this is regarded as an essential component of the course and hence must be attempted in order to complete assessment requirements for the course.

Also note that ruling **(2)** regarding the minimum attainment of 40% in the examination, does not apply to **Non-Award** students who may be studying in the undergraduate or equivalent course streams normally undertaken by Bachelor of Taxation (ATAX00**) students.

Please refer to the section on **Assessment** later in the Handbook.

Bachelor of Taxation Degree with Merit

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:

1. a 70% average is attained over the student's best **prescribed merit award number of courses** presented for the Degree; *and*

2. the student does not have more than two (2) 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 (3) failures throughout the program.

The table below lists the prescribed merit award number of courses for the purposes of condition 1.

Where the number of courses which you must complete in order to qualify for Bachelor of Taxation (after deducting those for which you have been granted exemption) is:	Your ***prescribed merit award number of courses*** is:
25	20
24	20
23	19
22	18
21	17
20	16
19	16
18	15
17	14
16	13

Exemptions Policy

Admission with Advanced Standing

Students accepted for enrolment into the Bachelor of Taxation Degree may apply for advanced standing (exemptions from study of particular Couses) by writing to the Student Services Office at ATAX. Such applications must be accompanied by documentary evidence that supports the application and allows each case to be considered on its own merits. Note that faxed documents will *not* be acceptable – certified copies of documents (as appropriate) will be required.

Students claiming exemptions should not adopt a 'shotgun' approach in claiming exemption for courses with a remotely similar title or content to something already studied. A focused and well-documented case will facilitate the process of evaluating the claim for exemption in particular instances.

Students who have queries on any aspect of exemptions/advanced standing should contact the Student Services Manager in the first instance, or the Associate Director (Teaching).

General Policy

1. Exemption may be granted for courses which have already received credit for another degree or qualification.

2. Applicants should apply for course exemptions when submitting program application forms. An exemptions claim form ***Course Exemptions/Advanced Standing*** is included in the Application Pack.

3. Exemptions are granted by the Board of Studies in Taxation. The claims for exemptions are administered by the relevant course Authorities (normally the Schools expert in the relevant area).

4. Although the Commerce and Economics Group (Faculty) does not normally take into account courses completed more than 5 to 7 years before the application, a flexible policy is applied to taxation and law courses. Where there has been extensive change in the law in a particular area since completion, exemption will not be granted.

5. Applications must be made on the appropriate form and supported by relevant documentary evidence. Documentary evidence should include:

- relevant transcripts of results
- courses syllabi or evidence of content
- in the case of overseas qualifications, evidence that the courses completed are equivalent to the standard and content of the elected program in which the applicants have successfully gained admission.

Specific Policy for the Bachelor of Taxation

1. The Board of Studies in Taxation has determined that exemption shall be available for only a limited portion of the Bachelor of Taxation degree. Thus maximum exemption is for 8 courses.

2. In order to gain exemption, students will require a pass in courses of equivalent standard to the relevant courses in UNSW and with substantially the same content as Bachelor of Taxation courses. This does not apply to General Education. Any tertiary level courses meeting the General Education criteria may give rise to exemption. TAFE courses may be a basis for claiming exemptions. (Please refer to the section on TAFE Study).

3. Graduates and some mature age students with extensive equivalent experience may be able to gain exemption from General Education courses (please refer to the section on General Education Exemptions below).

4. Exemption will rarely be given for core tax courses. Even if students have studied basic tax or have considerable experience it is considered that a detailed revisiting of basic concepts is important and that more experienced students can complete this examination at a higher level.

Advanced Standing based on TAFE Study

To apply for exemptions based on TAFE study you will need to have completed a TAFE course at the Associate Diploma or Advanced Diploma levels and in certain circumstances, to have achieved a prescribed grade in those studies. The courses for which exemption may be granted are:

ATAX0004	Framework of Commercial Law (if B grade average overall in Diploma)
ATAX0005	Accounting 1
ATAX0010	Accounting 2 (if B grade average overall in Diploma)
ATAX0021	Indirect and Business Taxes (if B grade average overall in Diploma and all available tax courses taken as electives)
ATAX0057	Business Finance (if B grade average overall in Diploma and 8672ZF Financial Management Applications and Investment Analysis [or equivalent] taken as elective). Note that those students wishing to obtain professional accreditation may still need to study this course in order to satisfy the requirements of the professional bodies.
ATAX0059	Management Accounting (if B grade average overall in Diploma and 8672ZD Management Accounting Applications (9434U at NSW TAFE) and 8672ZE Business Planning and Control (9434YB at NSW TAFE) taken as electives). Note that those students wishing to obtain professional accreditation may still need to study this course in order to satisfy the requirements of the professional bodies.

ATAX0060 Auditing and Assurance Services (if B grade average overall in Diploma and 8672ZA External Audit Procedures (9434YC Applied Audit Framework at NSW TAFE) and 8672ZB Issues in Accounting (9434YD Internal Auditing at NSW TAFE) taken as electives). Note that those students wishing to obtain professional accreditation may still need to study this course in order to satisfy the requirements of the professional bodies.

Courses assessed on the basis of competency only will not usually count towards exemption. The above courses are based on the NSW Advanced Diploma and should be taken as a guide only and the maximum number of exemptions remains at eight. The courses on which claims for exemption are based should have been completed within the 7 years before you embarked on the Bachelor of Taxation program.

General Education Courses

1. Where Bachelor of Taxation students seek exemption from General Education courses in whole or in part on the basis of specific courses previously studied at a University.

Courses claimed shall be examined on a case by case basis by the ATAX General Education Committee to establish that they meet UNSW General Education criteria. Where such criteria are met, an appropriate exemption shall be allowed. In non-controversial cases this process is delegated to the BTax Convenor.

2. Where Bachelor of Taxation students seek exemption from General Education courses in whole or in part on the basis of substantial completion of courses previously studied at an appropriate level at other tertiary institutions.

Courses claimed shall be examined on a case by case basis by the ATAX General Education Committee to establish that they meet UNSW General Education criteria. Where such criteria are met, an appropriate exemption may be allowed. In non-controversial cases this process may be delegated to the BTax Convenor. As ATAX students come from diverse backgrounds, frequently have overseas tertiary qualifications and generally are of mature age, it is anticipated that a number of cases will need to be referred to the ATAX General Education Committee. In determining the appropriate tertiary level of the course, resources such as the *Commonwealth Guide to Overseas Qualifications* shall be employed.

3. Specific UNSW General Education criteria which must be met.

These include:

- prior study on which exemptions are based must be in an area substantially outside that covered by the normal range of Bachelor of Taxation courses
- student learning should have been achieved within teaching units whose approach to the discipline would be expected to be substantially different from that of a law or business teaching unit

4. It is noted particularly that UNSW General Education rules do NOT allow claims for exemption based on life experience alone.

The University requires objective tertiary level study of the area claimed. All students are assured of fair and equitable treatment using this approach. The community at large benefits from the sure knowledge that every undergraduate successfully building their career on a UNSW Bachelor of Taxation degree really does have exposure to broad education at tertiary level.

5. Double counting.

Course(s) and/or study undertaken in programs other than the Bachelor of Taxation may not be accepted for General Education exemption(s) where the course(s) or study was a primary qualification for entry into the Bachelor of Taxation. Similarly, an exemption will not be allowed where such exemption would effectively enable the candidate to gain credit more than once in respect of the study or course(s).

6. Procedure.

Application is made to the General Education Committee of the Board of Studies in Taxation, utilising the exemptions claim form ***Course Exemptions/Advanced Standing*** which is included in the ATAX Information Pack. This Committee will determine the outcome as though it were a body equivalent to a Program Authority. Where necessary, this Committee shall determine in respect of which UNSW course the exemption will be granted.

Program Structure for the Bachelor of Taxation Degree

List of Courses

Note this is a full list of courses available for the Bachelor of Taxation. The only possible exception being different General Education courses substituted for those on offer through ATAX. Please also consider the list of courses on offer may be revised throughout the year in accordance with teaching resources and student demand.

ATAX0001	Basic Tax Law and Process
ATAX0002	Computer Information Systems
ATAX0003	Microeconomics and the Australian Tax System
ATAX0004	Framework of Commercial Law
ATAX0005	Accounting 1
ATAX0006	Tax Administration
ATAX0008	Principles of Capital Gains Taxation
ATAX0009	The Law of Companies, Trusts and Partnerships
ATAX0010	Accounting 2
ATAX0011	Macroeconomics, Government and the Economy
ATAX0013	The Taxation of Companies, Trusts and Partnerships
ATAX0014	Tax Policy Framework
ATAX0015	Intermediate Financial Accounting
ATAX0016	Critical Perspectives and Ethics
ATAX0017	Tax Accounting Systems
ATAX0018	Tax Litigation
ATAX0020	Principles of Australian International Taxation
ATAX0021	Indirect and Business Taxes
ATAX0022	Goods and Services Tax: Design and Structure
ATAX0023	Principles of Goods and Services Tax Law
ATAX0053	Accounting for Complex Structures and Instruments
ATAX0055	Taxation of Real Estate
ATAX0056	Tax Collections and Transfers
ATAX0057	Business Finance
ATAX0058	Quantitative Analysis
ATAX0059	Management Accounting
ATAX0060	Auditing and Assurance Services
ATAX0605	Taxation of Trusts
ATAX0607	Taxation of Corporate Finance
ATAX0610	Taxation of Superannuation
ATAX0614	Selected Problems in Stamp Duty
ATAX0615	Taxation of Specific Industries

In respect of General Education course offerings, please note the list on offer will be advised close to the commencement of Session via the Weekly Bulletin. These are offered by other Departments of UNSW.

Some UNSW General Education courses (eg. GENS8003 Work and Safety) carry half the credits and workload of mainstream courses.

Prerequisites in Courses

The Board of Studies in Taxation has resolved the following prerequisites be adopted for the Bachelor of Taxation program for *all students enrolling for the first time in the 1994 academic year or any year thereafter*. It will be necessary for a student to successfully complete any prerequisite prior to enrolling for one of the courses it is prerequisite for. The Director, or the Director's delegate reserve the right to waive prerequisites when there are academically sound reasons for doing so.

Any queries in this matter should be referred to the Associate Director (Teaching).

Prerequisites

ATAX0001	**Basic Tax Law and Process** *for*:
ATAX0008	Principles of Capital Gains Taxation
ATAX0009	The Law of Companies, Trusts and Partnerships
ATAX0016	Critical Perspectives and Ethics
ATAX0017	Tax Accounting Systems
ATAX0018	Tax Litigation
ATAX0020	Principles of Australian International Taxation
ATAX0021	Indirect and Business Taxes
ATAX0022	Goods and Services Tax: Design and Structure
ATAX0023	Principles of Goods and Services Tax Law
ATAX0003	**Microeconomics and the Australian Tax System** *for:*
ATAX0014	Tax Policy Framework
ATAX0057	Business Finance
ATAX0005	**Accounting 1** *for:*
ATAX0010	Accounting 2
ATAX0015	Intermediate Financial Accounting

ATAX0017 Tax Accounting Systems
ATAX0006 Tax Administration *for:*
ATAX0018 Tax Litigation
ATAX0009 The Law of Companies, Trusts and Partnerships *for:*
ATAX0013 The Taxation of Companies, Trusts and Partnerships
ATAX0020 Principles of Australian International Taxation
ATAX0010 Accounting 2 *for:*
ATAX0015 Intermediate Financial Accounting
ATAX0057 Business Finance
ATAX0059 Management Accounting
ATAX0015 Intermediate Financial Accounting *for:*
ATAX0053 Complex Structures and Instruments
ATAX0060 Auditing and Assurance Services

Selection of Courses

Overview of General Requirements for all Bachelor of Taxation students

To complete the Bachelor of Taxation, students are required to do a total of **24 -26 courses** (or 25 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.

The following sixteen courses are compulsory *whether or not* the accounting stream (for accounting professional entry) is undertaken by students:

ATAX0001 Basic Tax Law and Process
ATAX0002 Computer Information Systems
ATAX0003 Microeconomics and the Australian Tax System
ATAX0004 Framework of Commercial Law
ATAX0005 Accounting 1
ATAX0006 Tax Administration
ATAX0008 Principles of Capital Gains Taxation
ATAX0009 The Law of Companies, Trusts and Partnerships
ATAX0010 Accounting 2
ATAX0011 Macroeconomics, Government and the Economy
ATAX0013 The Taxation of Companies, Trusts and Partnerships
ATAX0014 Tax Policy Framework
ATAX0015 Intermediate Financial Accounting
ATAX0016 Critical Perspectives and Ethics
ATAX0017 Tax Accounting Systems
ATAX0018 Tax Litigation

The following are known as **special category courses** and **two** of these must be done:

ATAX0020 Principles of Australian International Taxation
ATAX0021 Indirect and Business Taxes
ATAX0022 Goods and Services Tax: Design and Structure
ATAX0023 Principles of Goods and Services Tax Law
ATAX0053 Accounting for Complex Structures and Instruments

Twelve units of credit from courses known as **General Education courses** must be successfully completed. General Education requirements may, with the prior approval of the BTax Convenor be fulfilled by completion of courses offered in other Groups within UNSW or even at other Universities. Some of these courses have lower credit value and workloads than the courses listed here and more than two courses may be required.

A list of General Education courses on offer will be advised via the Weekly Bulletin close to the commencement of Session.

Finally **four** of the following **elective courses** must be studied:

ATAX0022 Goods and Services Tax: Design and Structure
ATAX0023 Principles of Goods and Services Tax Law
ATAX0055 Taxation of Real Estate
ATAX0057 Business Finance
ATAX0058 Quantitative Analysis
ATAX0059 Management Accounting
ATAX0060 Auditing and Assurance Services
ATAX0605 Taxation of Trusts
ATAX0607 Taxation of Corporate Finance
ATAX0610 Taxation of Superannuation
ATAX0614 Selected Problems in Stamp Duty
ATAX0615 Taxation of Specific Industries

Courses designated ATAX06** are postgraduate courses offered at the undergraduate level. They are therefore 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. Students wishing to enrol in ATAX06** courses will normally require a Credit (or better) average in the courses completed to date. Enquiries concerning eligibility for ATAX06** courses should be directed to the Associate Director (Teaching) in the first instance.

Particular Requirements for Students Seeking Accounting Professional Entry

Students wanting to gain accounting admission *must* study the following:

ATAX0053 Accounting for Complex Structures and Instruments

Also **one** of the following **four** other *special category* courses must be chosen:

ATAX0020 Principles of Australian International Taxation
ATAX0021 Indirect and Business Taxes
ATAX0022 Goods and Services Tax: Design and Structure
ATAX0023 Principles of Goods and Services Tax Law

Finally, **all of the electives chosen must be accounting courses**. Therefore the following four elective courses must be chosen:

ATAX0057 Business Finance
ATAX0058 Quantitative Analysis
ATAX0059 Management Accounting
ATAX0060 Auditing and Assurance Services

Hence in practice the only decision to be made for students seeking professional accounting entry is between ATAX0020, ATAX0021, ATAX0022 and ATAX0023, and in the General Studies area.

General Education

Objectives of General Education

General Studies courses offered to ATAX students comply with the policy determined by the General Education Committee of the Academic Board of UNSW. Academic Board has resolved the following to be the objectives of the General Education program:

- provision of a learning environment in which students acquire, develop and deploy skills of rational thought and critical analysis
- enabling students to evaluate arguments and information
- empowering students to systematically challenge received traditions of knowledge, beliefs and values
- enabling students to acquire skills and competencies, including written and spoken communication skills
- ensuring 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
- fostering among students the competence and the confidence to contribute creatively and responsibly to the development of their society
- provision of structured opportunities for students from disparate disciplines to co-operatively interact within a learning situation
- provision of opportunities for students to explore discipline and paradigm bases other than those of their professional specialisation or disciplinary Plan through non-specialist courses offered in those other areas
- provision of 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
- provision of 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 Courses at UNSW

UNSW offers a wide selection of General Education courses, however only a limited number are offered in the Distance Education mode. In terms of the course format there may be some discernible differences compared to other ATAX courses. For example, General Education courses will not necessarily include Audio Conferences.

Bachelor of Taxation students have to complete 12 units of credit from General Education and this may mean students have to complete up to 4 courses from the list available – depending on the units of credit weighting.

Students interested in learning more about the General Education courses available through UNSW should visit the General Education webpage (www.library.unsw.edu.au/gened/) or contact the General Education Co-ordinator at ATAX.

Alternatives to Courses Offered through UNSW

Bachelor of Taxation students planning their General Education enrolments are reminded they do not have to study the General Education courses offered through UNSW. They may, with the approval of the General Education Committee, study courses offered at other universities to meet their General Education obligations.

Students should check with the BTax Convenor before enrolling to ensure the proposed enrolment will satisfy General Education obligations. If there is a Tuition Fee or HECS liability for the study at another university it is the student's responsibility to pay the fees or meet the HECS liability. This rule applies equally to ATO students approved to study with ATAX.

Non-Award (Single Course), Cross-Institutional and Cross-Group Enrolments

Introduction and Overview

The term *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 of UNSW.

Non-Award study with ATAX may also count towards Continuing Professional Education (CPE), Continuing Professional Development (CPD) and Continuing Legal Education (CLE) requirements for Chartered Accountants, Certified Practicing Accountants and lawyers respectively.

Four scenarios can be identified:

1. A **voluntary course enrolment** – where the student is taking the course either out of interest or to develop professional competence in an area of specialisation.

Special arrangements regarding entry may apply if the applicant is an employee of the Australian Taxation Office and the program of study is approved. Enquiries about the scheme may be directed, in the first instance, to the National Professional Development Team of the ATO.

2. A **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. It may also be the case that a student from another Group of The University of New South Wales applies to study an ATAX course. Written confirmation is required from the other Group to the effect the course will be credited towards the award. This is described as **Cross-Group enrolment.**

4. Where an ATAX student wishes to enrol in a course at another institution for credit towards their UNSW award, any such courses would have to 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. In these circumstances UNSW students would not normally pay HECS or Tuition Fees to UNSW, but to the host institution. Students would, however, be charged the Miscellaneous Annual Fund Fee. Students would also be 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 the 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. Forward your Enrolment Form to ATAX for processing (NB: you will probably have to complete enrolment procedures with your host institution also).

5. Pay fees as assessed by each institution. If you feel there is a discrepancy contact the Student Services Office at ATAX in the first instance.

6. Forward a certified copy of results (from the course studied at the host institution) to ATAX once the course assessment has been finalised.

Cross-Group Enrolment Procedures

These are processed using the *Variation of Enrolment in Courses* form.

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 Student Services Office so transitional arrangements can be effected smoothly. For instance, students must ascertain the availability of particular courses and the Sessions in which they will be offered. Also arrangements as to collection of the Study Materials and associated support need to be communicated.

Students based in the Law School, (Law Faculty) in UNSW are regarded as falling within these arrangements.

Associate Diploma in Taxation

The Associate Diploma in Taxation is not available to students commencing undergraduate study in 2002 or later. For students who commenced study in the Bachelor of Taxation prior to 2002, the following is applicable.

Introduction

The Associate Diploma in Taxation involves 2.5 years full-time study (or **5 years** part-time equivalent study). It will only be offered as a pass Diploma.

This Diploma will only be offered to students accepted for the Bachelor of Taxation and it will be subject to the same entry requirements. Since the Bachelor of Taxation Degree is targeted very largely at part-time mature age students, it is considered important to offer students a milestone along the way so that those students who cannot complete the full six year program can exit with a formal qualification. The Associate Diploma in Taxation would only be available to students ceasing studies and withdrawing from the Bachelor of Taxation.

This Diploma is based on a unique conjunction of circumstances and is NOT a general precedent for the introduction of Associate Diplomas in The University of New South Wales.

Program Structure for the Associate Diploma in Taxation

This is a coherent program in its own right. It gives a solid introduction to core areas of tax and to component disciplines such as accounting, law and economics. It has a research project component which requires candidates to present a paper on the application of their earlier academic work in the tax industry. By missing the last part of the Bachelor of Taxation Degree, Diplomates miss out on the more complex international, business tax and litigation courses. However, the areas still covered constitute a demanding, substantial and conceptually coherent area of study.

The Associate Diploma in Taxation consists of:

- **12** *compulsory* courses
- *General Studies* courses to a total of 12 units of credit
- **3** *elective* courses
- **1** *compulsory* fieldwork research project

Selection of Courses for the Associate Diploma in Taxation

Students will be required to:

Complete the following **twelve** compulsory **courses**:

ATAX0001	Basic Tax Law and Process
ATAX0002	Computer Information Systems
ATAX0003	Microeconomics and the Australian Tax System
ATAX0004	Framework of Commercial Law
ATAX0005	Accounting 1
ATAX0006	Tax Administration
ATAX0008	Principles of Capital Gains Taxation
ATAX0009	The Law of Companies, Trusts and Partnerships
ATAX0010	Accounting 2
ATAX0011	Macroeconomics, Government and the Economy
ATAX0017	Tax Accounting Systems

Complete **two** of the **General Education** courses (details to be advised close to the commencement of Session).

Some alternatives to those courses (eg. some UNSW General Education courses in other Groups) carry only half the units of credit and workload of mainstream courses. Enrolment in such alternatives could increase the course load to four for general education.

Select **three** elective **courses** from the list available to Bachelor of Taxation students:

ATAX0055 Taxation of Real Estate
ATAX0057 Business Finance
ATAX0058 Quantitative Analysis
ATAX0059 Management Accounting
ATAX0060 Auditing and Assurance Services
ATAX0605 Taxation of Trusts
ATAX0607 Taxation of Corporate Finance
ATAX0610 Taxation of Superannuation
ATAX0614 Selected Problems in Stamp Duty
ATAX0615 Taxation of Specific Industries

Complete the **single** compulsory **research project**:

ATAX0921 Fieldwork Research Project

Prerequisites and Corequisites in Courses for the Associate Diploma in Taxation

The rules for the Bachelor of Taxation degree apply to the Associate Diploma. Please refer to the appropriate section **Prerequisites and Corequisites in Courses for the Bachelor of Taxation** earlier in the Handbook. *In addition* however – satisfactory completion of all other courses for the Associate Diploma in Taxation is a prerequisite or with special permission from the Director, a corequisite, to **ATAX0921 Fieldwork Research Project**. This course shall 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.

Advanced Standing

Credit for not more than three (3) courses from other institutions or programs will be permitted for the Associate Diploma in Taxation. Where courses passed in other institutions or programs would normally entitle a student to a credit for more than three courses for the Bachelor of Taxation, the student shall be required to substitute other approved courses offered for the Bachelor of Taxation, or with approval of the Director, other ATAX courses in order to make up the courses required for completion of the Associate Diploma in Taxation.

Re-Entry to the Bachelor of Taxation Degree by Associate Diplomates

The Associate Diploma in Taxation, approved in May 1994, is designed for students ceasing studies and withdrawing from the Bachelor of Taxation Degree program. It is *not* designed as a general milestone for partial completion of the Bachelor of Taxation. There is however, provision for Associate Diploma in Taxation graduates to be readmitted to the Bachelor of Taxation.

Readmission will be available only if the student is accepted for readmission by the Admissions Committee of the Board of Studies in Taxation on the basis of normal competitive entry. Criteria will include:

- results and progress in the Associate Diploma in Taxation
- subsequent academic attainments
- other relevant activities.

Except in exceptional circumstances, readmission to the Bachelor of Taxation shall be permitted *only* if the application is made **not more than five (5) calendar years** after the end of the year in which the student completed the last course for the Associate Diploma in Taxation. Admission will be in the normal program at the beginning of the academic year and no mid-year readmission is permitted.

To complete the Bachelor of Taxation, in addition to the requirements of the Associate Diploma in Taxation, Diplomates will be required to complete:

- an additional **5** *designated compulsory* Bachelor of Taxation courses
- **2** from a group of 3 *special category* courses
- a further **4** *elective* courses over and above those already done for the Associate Diploma

These requirements are listed below.

Complete the remaining **five** compulsory **courses**:

ATAX0013 Taxation of Companies, Trusts and Partnerships
ATAX0014 Tax Policy Framework
ATAX0015 Intermediate Financial Accounting
ATAX0016 Critical Perspectives and Ethics
ATAX0018 Tax Litigation

The following are known as **special category courses** and **two** of these must be done:

ATAX0020 Principles of Australian International Taxation
ATAX0021 Indirect and Business Taxes
ATAX0022 Goods and Services Tax: Design and Structure
ATAX0023 Principles of Goods and Services Tax Law
ATAX0053 Accounting for Complex Structures and Instruments

Select **four elective courses**:

ATAX0055 Taxation of Real Estate
ATAX0057 Business Finance
ATAX0058 Quantitative Analysis
ATAX0059 Management Accounting
ATAX0060 Auditing and Assurance Services
ATAX0605 Taxation of Trusts
ATAX0607 Taxation of Corporate Finance
ATAX0610 Taxation of Superannuation
ATAX0614 Selected Problems in Stamp Duty
ATAX0615 Taxation of Specific Industries

The Higher Education Contribution Scheme (HECS)

Undergraduate Students and HECS

Non-ATO undergraduate students are liable for HECS if enrolled on the census date (31 May and 31 August each year). Students are charged an amount (proportional to the share of a full-time load) based on an annual amount for a year of an equivalent full-time program. Since eight ATAX undergraduate courses represents one full-time year, liability per Session would be a factor of 0.125 times the annual amount per course. A normal load for a part-time student is two courses per Session. One ATAX course represents six units of credit.

Annual Amount of the HECS Charge

The Commonwealth Government (Department of Education, Training and Youth Affairs known as DETYA) determines and administers the annual amount which is the basis of calculation for the HECS charges. A tiered system was introduced with effect from 1997, whereby the annual amount is differentiated between categories of *new* as against *continuing* students. For HECS purposes "new" students are those commencing on or after 1997. "Continuing" students are only those who commenced prior to 1997 and are still completing the same program. In conjunction with this tiered system, there are three (3) levels of charges depending on groupings of course areas. Classification within a particular Course Area determines the annual amount for new students.

For ATAX courses, all courses prefixed **ATAX****** are either in **Band 1 or 2.** General Education courses (courses prefix **GEN******* and some others) are in **Band 1.**

For new students the charges per Band are as follows (rates confirmed with the Department of Education, Training and Youth Affairs):

- BAND 1 **$3,521** per annum based on 1.0 EFTSU (*ie:* $440.13 per course of 0.125 EFT weight)
- BAND 2 **$5,015** per annum based on 1.0 EFTSU (*ie:* $626.88 per course of 0.125 EFT weight)

For continuing students (*ie* those enrolled in their present program prior to 1997) the standard rate for 2001 is **$2,644** per annum based on 1.0 EFTSU (*ie:* $330.50 per course of 0.125 EFT weight).

Liability is included on the ***Confirmation of Enrolment/HECS Liability Notice*** issued during each Session.

In both cases, the HECS debt is indexed unless paying in **Full Up Front** in which case a **25%** discount is given to **Local Australian Students**. **New Zealand students** must pay in **Full Up Front** but are not provided with the 25% discount. **International Students** don't pay HECs, they pay Tuition Fees of $1,950 per course.

Methods of Payment of HECS

There are *three alternative* methods of paying HECS. These are:

- **Full Up Front**: cash payment attracts a 25% discount from the bill, so only 75% of contribution is paid
- **Deferred**: the student contracts to repay the whole contribution later through the taxation system
- **Partial Up Front**: payments must be $500 or more and will attract a 25% discount.

On initial enrolment HECS-liable students have to complete a ***HECS Payment Options Declaration*** form and the option stated on that form

stands until varied. It is possible to vary the option, from **Full Up Front** to **Deferred** or vice-versa. The time limit for doing so accords with the cut-off dates for no penalties ie: 31 March or 31 August of any year. Further ***HECS Payment Options Declaration*** forms are available on request from ATAX.

Full Up Front payers are required to pay an amount based on their estimated liability by a date set by the University - which is usually at the commencement of the Session. On enrolment, an *estimate* is made based on the courses and load enrolled. Note that the term estimate is used because it is possible to vary enrolment (and hence load - which in turn affects liability) prior to the census date. Enrolment will be cancelled if payment is not received by the due date which is always before the census date.

There is a further option available to **Full Up Front** payers whereby, in the event of failing to pay by the due date, they revert to the **Deferred** status. The University strongly recommends this option because it prevents enrolment being cancelled because of non-payment or late payment. In order to take advantage of this, the student's Tax File Number must be provided on the ***HECS Payment Options Declaration*** form.

Deferred payers will need to quote their Tax File Numbers on the ***HECS Payment Options Declaration*** form. If the **Deferred option** is chosen there is a minimum income threshold for compulsory HECS debt repayments. The Commonwealth Government uses revenue from repayments to fund additional student places.

Exemptions from Payment of HECS by Undergraduate Students

Undergraduate students who are employed by the Australian Taxation Office are exempted from paying HECS pursuant to the Agreement between the Commonwealth and The University of New South Wales which established ATAX. Such students need to be approved to study by their manager. Any questions about study support and HECS exemption should in the first instance be addressed to the manager or to the relevant business line study support contact officer.
An additional control has been introduced to identify ATO students. This is the addition of a term known as the student's Plan Instance. The Plan Instance is recorded as the fifth character in a Plan code that the University uses to describe your program of study with University of New South Wales. The Plan Instance for **ATO** students is A and for **Non-ATO** students it is B. For instance, a Bachelor of Taxation student employed with the ATO would be identified as ATAXA14620 for program reference.
For this purpose it is vitally important *students leaving or joining the ATO notify ATAX immediately*. The ***Enrolment Form*** completed each year will confirm status. It is also a requirement that students who are ATO employees provide their AGS number for verification. The ***Student Data Sheet*** for Session 2 enrolment confirmation should also be used to confirm continuing employment status.

HECS Administration and Deadlines

The **HECS census date** is the date at which a student's HECS liability is assessed for each Session. It is also the cut-off date by which students are permitted to discontinue without failure for Session 1 and 2 courses of the enrolment program.

There are *two* census dates: one standard date for each Session ie: 31 March (Session 1) and 31 August (Session 2).

The **HECS Office** in the Student Information and Systems Office at UNSW who actually issues the ***Confirmation of Enrolment/HECS Liability Notices*** should be contacted directly on (02) 9385 3094 in the event of query. If there is a related enrolment problem (for instance a variation form submitted some time earlier but evidently not acted upon) contact the Student Services Office at ATAX. Please bear in mind there are some time-lags in processing variations, that may have some impact on HECS assessment temporarily. Students can also view their most up-to-date HECS liability statement on NSS On-Line (www.student.online.unsw.edu.au/student).

HECS Arrangements by Session

Invoicing and payments are processed on a Sessional basis. At the commencement of a Session (1 or 2), provisional load for the Session will be calculated when the enrolment is processed. A comprehensive notice of enrolment and amounts owing is issued in the form of ***Confirmation of Enrolment/HECS Liability Notices***. This will indicate fees due and the Full Up Front HECS charges where relevant. Payment as assessed should be made directly to the bank contracted by the University, utilising the deposit slip provided, by the due date. Where students vary enrolment throughout the no-penalty period, an additional (amended) statement is issued. After the HECS census date each Session, final notices are issued for all students (ie: April for Session 1 and September for Session 2).

Policy on Remission of HECS Debt and Refund of HECS Payments

This information is extracted from the publication ***HECS Your Questions Answered 2001*** that students should peruse in full.

HECS debts or payments can be refunded in **limited circumstances only** if the respective unit(s) of study i.e. courses being the basis of the charge, have been discontinued. If you have completed a unit of study you are not eligible to apply for a remission of the debt or payment for that unit.

Crucial to the application for remission or refund is the timing ie: before or after the relevant HECS census dates which are 31 March (Session 1) or 31 August (Session 2) of the year.

Before the Census Date

If you cannot continue your studies and withdraw from courses before the census date, you will not have to pay HECS for those courses. You must notify ATAX in writing (using the appropriate forms as outlined in the ***Handbook*** section on ***Enrolment Records***) of the courses or program from which you wish to withdraw. Advice must reach the University prior to the census date. Allow sufficient time for the forms/letter to reach student administration in ATAX. You may wish to send correspondence by certified mail so that you have a receipt. Keep a copy of any forms or letters.

After the Census Date

1. If you have chosen the *Deferred Payment* option

If, after the census date, you become seriously ill or other special circumstances occur and you are unable to continue your studies, you can apply to have your HECS debt for the Session, reduced or removed.

You do not need to wait for confirmation of your withdrawal from the course or program, to apply for remission of your HECS debt.

You should take the following steps :

- notify ATAX in writing (using the appropriate forms) of the course or program from which you wish to withdraw
- obtain a copy of the ***Instructions for Applying for Remission of HECS Debt in Special Circumstances*** from the UNSW Student Information and Systems Office
- complete the ***Application for Remission of HECS Debt*** form and send with supporting documentation to:

  The Secretary (*Attention : Private Funding Section*),
  Department of Education,
  Training and Youth Affairs (DETYA),
  LC: 729
  GPO Box 9880,
  Canberra ACT 2601.

Full explanation of the deadlines for making application is provided in the ***HECS - Your Questions Answered 2002*** booklet available from the Student Information and Systems Office or through ATAX on request. Lack of knowledge or understanding of the requirements for applying for remission is not a valid reason for applying later than these dates. The dates are set by legislation and applications received after these dates cannot be considered.

If you are dissatisfied with the reconsideration decision you can apply to the **Administrative Appeals Tribunal** for a review. Procedures are obtainable from that body.

2. If you have paid your whole Session liability *Up Front* to the University

If you paid your HECS charges on the **Full Up Front** basis, you do not have a debt with the Commonwealth and therefore the Secretary of DETYA has no power to refund your HECS payment. If you believe the reason you discontinued your studies justifies a refund, you should write to the University (*Attention*: Registrar and Deputy Principal, Student Information and Systems Office, UNSW, Sydney. 2052). The University may decide at its discretion and in accordance with its rules, to refund the whole or part of the payment made by you.

In any event keep ATAX informed directly of your circumstances and actions in seeking remission or refund of debts or payments.

Non-Award and Cross-Institutional Enrolments: Special Provisions

Voluntary Course Enrolments

Tuition Fees of $1,500 per course are levied for voluntary course enrolments for Non-ATO students. These are set by the Management Committee and are revised annually. Voluntary course enrolments do not attract HECS liability. Applicants who are employed by the Australian Taxation Office may be exempted from paying Tuition Fees pursuant to

the Agreement between the Commonwealth and The University of New South Wales which established ATAX, providing this study is approved by their manager. Any questions about study support and Tuition Fees exemption should in the first instance be addressed to the manager or to the relevant business line study support contact officer.

Cross-Institutional Enrolments

Cross-institutional students will incur a HECS liability for their enrolment, *except* where such students are permitted to enrol in a course for which a Tuition Fee is charged, they will be required to pay the Tuition Fee in lieu of a charge under HECS.

Where an ATAX student wishes to enrol in a course at another institution for credit towards their UNSW award, UNSW students would not normally pay HECS or Tuition Fees to UNSW, but to the host institution. Students would, however, be charged the Miscellaneous Annual Fund Fee. If you feel there is a discrepancy contact Student Services Office at ATAX on (02) 9385 9333 in the first instance.

A Message from the Dean

It is my pleasure to welcome you to the Faculty of Medicine at the University of New South Wales. My colleagues from the Faculty and I are delighted that you have chosen to begin your professional career with us and we congratulate you upon gaining entry to the undergraduate medical course.

You are joining a University community which has depth and breadth in academic enterprise and social opportunity. The University of New South Wales is a robust institution with traditions of educational and investigative excellence coupled with the vitality of an energetic faculty and administration. I encourage you to explore fully the opportunities available to you as you enter our scholarly community. You are joining us at a time of unprecedented change in higher education and health care delivery. Despite considerable turmoil in the financing of both tertiary education and health care delivery throughout the world, the need for excellence in clinical education, biomedical research and teaching remains a clarion call for institutions of higher learning across the globe - a call to prevail in their quest to succeed in preparing the next generation of medical professionals. At the University of New South Wales, we look forward to working with you during your time with us as, together, we confront the challenges ahead and turn them into opportunities.

This Faculty takes pride in the values through which we operate:

- We build on the strong foundation laid over the decades since the founding of this Faculty.
- We strive to discover that which is true not simply what is most likely.
- We seek what is best not simply what is possible.
- We aim for durability not expediency.
- We will be worthy of the trust which society places in us to lead in education, research, clinical care and advocacy.

Your medical education will be a series of counterpoints – outward exhilaration and reflective contemplation, energy and fatigue, didactic learning and enquiry-driven self study. All these and many more experiences await you as you explore the space between the science and art of medicine. A talented faculty and dedicated administrative staff stand ready to assist you.

The Faculty also provides a diverse array of opportunities for science students as well as postgraduate students. Postgraduate programs are offered by both coursework and research. There are many excellent opportunities in these areas throughout the Faculty.

I bid you welcome again and look forward to the many crossings of our paths as you begin your journey with us at the University of New South Wales.

S. Bruce Dowton
Dean
Faculty of Medicine

Faculty of Medicine

Contents

Faculty Information and Assistance

Some People Who Can Help You 243
Course Descriptions 243
The Faculty 243
Goals of the Faculty 243
Committees of the Faculty 243
Selection into the Medicine Program 243
Overseas Students 243
Assumed Knowledge 243
Admission of Indigenous Students 244
Admission of Disadvantaged Students (ACCESS Scheme) 244
Rural Student Entry Scheme 244
Application Procedures 244
Costs in Addition to Fees 244
Attendance at, and Residence in, Hospitals 244

Hospital Teaching Campuses 244

Faculty Units, Centres and Affiliated Institutes 248

Faculty Student Organisations 250

Program and Course Information

3801 Medicine Program 250
Objectives of the Medicine Program 251
Supplementary Assessment 251
Special Consideration 251
Show Cause 251
Advice to Students on Computing Requirements 251
Student Photographs and Identification Badges 251
Immunisation for Medical Students 251
Program Details 252

3821 Combined Science and Medicine Program 253
Program Details 253

3840 Combined Arts and Medicine Program BA BSc(Med) MB BS 254
Program Details 254

Intern Placement and Ranking of Students 254

3831 Bachelor of Science (Medicine) Honours 255

School of Physiology and Pharmacology

3850 Bachelor of Science in Health and Sports Science 256
Program Details 256

Faculty Information and Assistance

Some People Who Can Help You

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

Gordon Rees,
Administrative Officer
Faculty of Medicine

Tel: (02) 9385 2459
Email: g.rees@unsw.edu.au

General Enquiries

Office of the Dean
Faculty of Medicine

Tel: (02) 9385 2454
Fax: (02) 9385 1874
Email: info@notes.med.unsw.edu.au.
Webpage: http://www.med.unsw.edu.au.

Elective term/Clerkships

Christine Hewitt
Administrative Assistant
Faculty of Medicine

Tel: (02) 9385 2452
Email: c.hewitt@unsw.edu.au

Course Descriptions

Course descriptions offered in 2002 can be found in alphabetical order by the course code at the back of this handbook. For a full list of courses offered by the University contact New South Student or www.student.unsw.edu.au.

The Faculty

The Faculty of Medicine was established when the New South Wales 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 New South Wales 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.

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, listed below, some of which perform administrative tasks, while many assist in maintaining a constant review of the curriculum and the objectives of medical education.

Schools in the Faculty of Medicine are Community Medicine, Health Services Management and Medical Education, Women's and Children's Health, Medical Sciences, Psychiatry and Clinical Schools at the Prince Henry/Prince of Wales Hospitals, St George Hospital, St Vincent's Hospital, South Western Sydney and the School of Rural Health. Each of these Clinical Schools contains Departments of Medicine, Surgery, and Anaesthetics, Emergency Medicine and Intensive Care. The Faculty is supported in its operations by the Centres for Immunology, Health Informatics, National Drug and Alcohol Research, Public Health, Simpson Centre for Health Service Innovation, Thrombosis and Vascular Research as well as the Ray Williams Mass Spectrometry Facility, the Medical Illustration Unit, the National Perinatal Statistics Unit, the Rural Health Unit and the National Centre in HIV Epidemiology and Clinical Research. The Faculty is also affiliated with the Garvan Institute of Medical Research, the Prince of Wales Medical Research Institute at the Prince of Wales Hospital, the Children's Cancer Australia for Medical Research Institute at the Sydney Children's Hospital, the Victor Chang Cardiac Research Institute, and the Skin and Cancer Foundation.

Goals of the Faculty

The current major goals for the Faculty are to excel in the quality of the undergraduate teaching and the postgraduate research and teaching.

Committees of the Faculty

Faculty Board
Faculty Standing Committee
Higher Degree Committee
Medical Admissions and Re-enrolment Committee
Medical Education Committee
Pre-clinical Medical Education Sub-Committee
Clinical Medical Education Sub-Committee
Assessment Review Group
Research Management Committee
Research Resources Sub-Committee
Research Student Sub-Committee
BSc (Med) Hons Committee
Rural Health Education Committee
Medical Program Evaluation Committee
Hospital Boards of Medical Studies
Biomedical Library Advisory Committee
Teaching Hospital Library Advisory Committee
UNSW Oncology Advisory Committee
Faculty Academic Promotions Committees
Centre for Immunology Advisory Committee
National Centre in HIV Epidemiology and Clinical Research Management Committee
Centre for Public Health Management Committee
Children's Cancer Research Institute Advisory Committee
National Drug and Alcohol Research Centre Board of Management
National Perinatal Statistics Unit Management Committee
Curriculum Development Committee

Selection into the Medicine Program

Entry is competitive and applications are considered and assessed on academic merit. There is no special provision for 'mature age entry' to Medicine.

There is a small intake quota for applicants who have completed or partially completed tertiary studies. Such applicants are assessed on the basis of their tertiary results in conjunction with their matriculation results. Competition is such that an outstanding level of academic achievement is required. Because of the integrated nature of the program it would be exceptional for admission to be granted to other than first year.

Applicants who have completed a Year 12 qualification for the third or subsequent time will have a 5% penalty imposed on the most recent attempt. Applicants seeking entry on the basis of a Year 12 qualification obtained after having been admitted to a tertiary institution and having recorded a result will also have a 5% penalty imposed on the Year 12 UAI or equivalent.

Overseas Students

Applicants from overseas may only compete for entry to the medical program as either fee paying students or as holders of a scholarship awarded by the Australian Government. Enquiries regarding admission of overseas students should be directed either to the Director of International Programs or the Admissions Officer, Faculty of Medicine, both at the University of New South Wales, Sydney NSW 2052, Australia. Enquiries regarding Australian Government scholarships should be directed to the local Australian Diplomatic Mission.

Assumed Knowledge

For entry in 2001 and beyond there are no prerequisites. However there is assumed knowledge. 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.

Prospective students are advised that while it is not a requirement, they should include Physics in their high school program as knowledge of this discipline is useful in the first years of the medical program. Students who have not included Physics in their high school program are strongly advised to undertake the short 'bridging program' in Physics organised at the University of New South Wales preferably before commencing enrolment in the medical program, or at least before commencing the second year of the standard medical program. There is also an assumed knowledge of basic organic chemistry. A knowledge of biology is also desirable.

It should be noted that it is assumed that upon enrolment students have an adequate command of English language and communication skills. Those students who feel they may lack skills in this area should consult with their lecturers or tutors, or staff of the Office of the Dean, who can arrange special English language support classes. Students who do not have adequate English language communication skills may not be permitted to progress in the program and may be required to complete satisfactorily an additional remedial English program before being deemed as having passed the year.

Admission of Indigenous Students

The Faculty may admit suitably qualified Aboriginal and Torres Strait Islander people. A pre Medicine Program, run from mid January for one month is part of the preparation and selection processes for Indigenous students applying for medicine. Further information regarding the admission criteria may be obtained from the Aboriginal Education Program on (02) 9385 3805 or (02) 9398 2611.

Admission of Disadvantaged Students (ACCESS Scheme)

The Faculty may admit, within quota, a number of students of high academic potential whose education has been disadvantaged over a two year period by circumstances beyond their control. Further information may be obtained from the Access Scheme Co-ordinator at the University on (02) 9385 5434.

Rural Student Entry Scheme

The Faculty has set aside thirty 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. Further information may be obtained from the Rural Health Unit, School of Community Medicine at the University, tel: (02) 9385 3250

Application Procedures

Applications for entry into the Faculty by all local students and those overseas students who are completing an Australian Higher School Certificate in 2001 should be directed to the Universities Admissions Centre, Locked Bag 500, Lidcombe, NSW 2141, Tel: (02) 9330 7200. The closing date for application is generally 14 September of each year but may be extended on payment of a late fee. Overseas students who are not completing an Australian Higher School Certificate in 2001 should apply through the Admissions Office, University of New South Wales, UNSW Sydney, NSW 2052, Tel: (02) 9385 3156 by 14 December 2001.

Costs in Addition to Fees

Details of fees have been provided in the Guide to Students 2001 but in Medicine there are additional costs.

Students, when embarking on their degrees, may not be aware of the incidental costs which occur from time to time during the program. 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, of course, subject to some variation

	$ approx.
Textbooks	1500
Two coats (1 laboratory, 1 hospital)*	60
Stethoscope	80-300
Ophthalmoscope	180-250
Laboratory Manuals	150
Miscellaneous (papers, pens, kits, diagnostic equipment and aids, etc)	300

*One long white coat is required for use in Anatomy and Biochemistry courses and one short coat for use in the hospitals.

Attendance at, and Residence in, Hospitals

From Year 2, students attend hospitals and must wear short white coats while at the hospitals.

There are times in the later years of the program when students are either required or may elect to live in the hospitals for periods ranging from one night to a term. Accommodation charges at the prevailing rate must be paid directly to the hospitals for all periods of residence.

Hospital Teaching Campuses

The Greater Murray Area Health Service

Wagga Wagga Base Hospital

PO Box 159, Wagga Wagga NSW 2650
Tel: (02) 6938 6666, Fax: (02) 6921 8243

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 Emergency Department has 3 staff specialists and has a major trauma role.

The Base Hospital is a significant teaching hospital boasting registrars in medical, surgical, orthopaedics, anaesthetics, obstetrics and gynaecology, with a number of resident medical officers and medical students and is a primary allocation centre.

Located approximately midway between Sydney and Melbourne, the City of Wagga Wagga has a population of 58,000 providing an excellent country lifestyle with the social, recreational and business amenities of a major rural city.

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. Retrievals are conducted from the hospitals to outlying areas as far as Deniliquin and Corryong. In fulfilling this function, 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.

Albury Base Hospital has a considerable emphasis on teaching at both the undergraduate and postgraduate levels, accredited for training by many of the Specialist Medical Colleges and with the NSW Postgraduate Medical School.

Griffith Base Hospital

PO Box 1013, Griffith NSW 2680

Tel: (02) 6962 8333 Fax: (02) 6964 1587

Griffith Base Hospital is a 92-bed facility providing general hospital services, located in the Murrumbidgee Irrigation Area of South West NSW. The Base Hospital provides a comprehensive range of clinical services to the population of Griffith and surrounding areas. This public facility is strongly supported by a dedicated team of experienced staff, general practitioners and visiting consultants.

South East Health - South Eastern Sydney Area Health Service

Tel: (02) 9947 9898, Fax: (02) 9947 9891

South Eastern Sydney Area Health Service was formed in 1996 with the amalgamation of the Eastern and Southern Area Health Services. The Area extends from Sydney Harbour in the north through Botany Bay and Port Hacking to the Royal National Park in the south.

The Area provides a range of hospital and community health care services for some 763,000 residents. It also serves a significant daily inflow of people to the Central Business District, the University of New South Wales, local and international airports, Kings Cross and popular beaches. Many people per day transit the area.

Three principal teaching hospitals, three speciality referral hospitals and a number of associated teaching hospitals are located in the area. There is predominantly an aging population. Approximately 32% of residents are born overseas and 67% of those are from non-English speaking countries. It is anticipated that the population will remain relatively static, with a 1.2% projected growth by 2001(Figures from NSW Health Department, June 1998). Services are being constantly reviewed to ensure that they meet the needs of the community.

The Prince Henry/The Prince of Wales Hospitals

Barker Street, Randwick 2031
Tel: (02) 9382 2222, Fax: (02) 9382 2233

The Prince Henry Hospital, located at picturesque Little Bay, was first established as the Coast Hospital in 1881 to cope with an outbreak of smallpox. In 1934 the Hospital was renamed The Prince Henry Hospital.

The Prince of Wales Hospital was founded as an annexe of Sydney Hospital in 1953, although hospital services were established on the site following the closure of the Society for Destitute Children in 1915. During the First and Second World Wars, the site served as a Military Hospital and in 1923 and 1945 was used for repatriation.

The Prince Henry and The Prince of Wales Hospitals were joined under a common management in 1962 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-specialties. 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 two such children's hospitals in New South Wales and is located at the Randwick campus. It has close links through specialist and resident staff with other teaching and associated hospitals such as the Royal Hospital for Women and Royal North Shore, Liverpool and Wollongong Hospitals. It provides a complete range of paediatric services and has strong links with complimentary 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.

There is a care-by-parent unit providing accommodation for parents and siblings with a Ronald McDonald House providing additional care-by-parent accommodation.

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. The Hospital was established by the Benevolent Society of NSW in 1866 and was New South Wales' first 'lying-in' hospital. The first medical undergraduate students came to the Royal in 1888. The Hospital relocated from Paddington to Randwick in 1997 to purpose-built facilities.

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. Since its move to Randwick, the Hospital has established the Department of Endo-Gynaecology and the Natural Therapies Unit, an Australian first where natural products are actively researched. In 2000, Mothersafe, a statewide medications in pregnancy and lactation service, was established.

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 and this was the third such clinic in the world. In 1931 the first Archeim Zondeck Pregnancy Test was performed in Australia at the Royal Hospital for Women. In 1948 the Royal established Australia's first Cancer Detection Clinic and in 1984 the first Chorionic Villus sampling was performed at the Hospital.

The Hospital's Department of Medical Imaging has an international reputation for research and development of ultrasound technique and equipment in obstetrics.

The Gynaecological Oncology Centre, the first of its kind, was established in 1989 and has worldwide standing 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

Established in 1894, first as a Cottage Hospital, The St George Hospital & Community Health Service is now one of Sydney's busiest principal referral hospitals. The St George Hospital is an accredited teaching hospital of the University of New South Wales, and has been affiliated with the University since 1964.

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 second busiest Emergency Department in NSW, on a case-weighted basis, and is the busiest in metropolitan Sydney.

A major redevelopment program during the 1990s has provided a state-of-the-art hospital covering all general areas of medicine (excluding heart and liver transplants). The St George Hospital has built an enviable reputation with areas of expertise including Oncology, Orthopaedics and Women & Children's Health as well as research.

A Private Hospital is located adjacent to the campus.

With nearly 2,200 employees, the fully accredited Hospital is situated on the southern Sydney railway line and is a 15 minute drive from Sydney airport. Facilities on the hospital's campus include a childcare centre and car parking.

The St Vincent's Hospital

Victoria Street, Darlinghurst 2010
Tel: (02) 8382 1111, Fax: (02) 8382 4142

St Vincent's Hospital is a principal referral hospital and a pre-eminent teaching hospital of the University of New South Wales. It is operated in accordance with the philosophy, mission and values of the Sisters of Charity. The Hospital was founded in 1857 and moved to the present site in 1870.

Students of medicine have attended the hospital since 1891. From 1923 to 1969 the Hospital was a Clinical School for the University of Sydney. Since then it has been a Clinical School of the University of New South Wales. The Clinical School and a student hostel were built in 1964. At present the Clinical School contains teaching facilities with audio-visual equipment, common rooms, a library and a pathology museum.

St Vincent's Hospital is an acute general hospital with highly developed specialist units in adult medicine and surgery and diagnostic services. The Hospital provides referral services for New South Wales 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 and a comprehensive AIDS service and a specialist Palliative Care Institute (Sacred Heart Hospice). Sophisticated diagnostic departments, which include radiology, all branches of pathology and nuclear medicine support the clinicians of the Hospital. 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.

Research is undertaken in the Garvan Institute of Medical Research, Professorial Departments, the Department of Clinical Pharmacology and the Anxiety Disorders Unit. There are 18 Chairs at the Hospital, which include medicine, surgery, cardiology, endocrinology, immunology, psychiatry and clinical pharmacology. The visiting medical staff numbers 100; there are 80 staff specialists and 130 resident medical officers.

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 and St Vincent's Clinic and the Centre for Immunology.

Calvary Hospital Kogarah Inc

91-111 Rocky Point Road (Corner Fitzgerald Avenue)
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 multi-disciplinary palliative care services for 80 inpatients and day-only admissions. The Hospital has a 20-bed Geriatric Rehabilitation Unit, full multi-disciplinary team and therapy gymnasium. There is a Community Palliative Care Team offering holistic, family-orientated 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 offers a consultative service to nursing homes and private hospitals.

The Hospital staff is involved in teaching Palliative Care to undergraduate medical students and postgraduate nursing students. Training courses for volunteers in bereavement counseling and other aspects of palliative care are also offered.

Calvary Rehabilitation and Geriatric Service (CRAGS) specialises in helping the frail, elderly, and the disabled of the St George district. CRAGS is the Aged Care Assessment Team, and offers Dementia Support, Podiatry, Hydrotherapy, Mobility Training Clinics and Day Care services. CRAGS also administers the statewide NSW Artificial Limb Service

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 medicated 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. The Centre is active in a number of clinical research projects, including the investigation of new pharmacotherapy for opioid dependence, accelerated detoxification, and the role of psychiatric morbidity in addictive disorders. The Centre provides training for medical and nursing undergraduates, and registrar training.

The Langton Centre was fully refurbished in 1996 and is now linked administratively to Sydney Hospital. The Langton Centre inpatient beds are now located in Sydney Hospital and this access to general hospital beds has provided the basis for new research projects into intensive methods of inpatient treatment for drug dependence.

Sacred Heart Hospice

170 Darlinghurst Road, Darlinghurst 2010
Tel: (02) 8382 9444, Fax: (02) 8382 9555

The original Hospice was established in 1890. It is owned and governed by the Sisters of Charity of Australia and is a public hospital. In 1998 the Sisters of Charity integrated the Hospice with St Vincent's Hospital. In April 2000, a fast stream rehabilitation service was established and the service then became known as the Sacred Heart Palliative Care and Rehabilitation Service.

The palliative care service provides a comprehensive service which incorporates medical, nursing, pastoral, therapy, welfare, educational and bereavement. These services are available to in-patients and home-care patients and extend to the support of the patients' families. Respite care is also provided.

The Rehabilitation service offers a comprehensive multi-disciplinary approach to orthopaedics and neurological rehabilitation.

The Palliative Care conducts formal educational programs for staff, staff from other facilities and tertiary students.

St Luke's Hospital Complex

18 Roslyn Street
Potts Point NSW 2011
Tel: (02) 9356 0200, Fax: (02) 9357 2334

St Luke's Hospital Complex, a not-for-profit public benevolent institution 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 4 operating theatres, 6 bed 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. Services provided include Colo-rectal Surgery, Ear Nose & Throat Surgery, Gastroenterology, General Surgery, Gynaecology, Specialty Hand Surgery, Neurosurgery, Oral and Faciomaxillary Surgery, Plastic Surgery, Urology, General Medicine and Rehabilitation. Purpose built Day Rehabilitisation and Injury Management Centre.

St Vincent's Private Hospital

406 Victoria Street, Darlinghurst 2010
Tel: (02) 8382 7111, Fax: (02) 8382 7234

The first St Vincent's Private Hospital opened in 1909 in association with the Sisters of Charity General Hospital whose origins in Darlinghurst date back to 1838. The present St Vincent's Private Hospital was opened in 1976.

Consultants from most specialties are represented on its medical staff and the Hospital is equipped and staffed to provide tertiary referral services. The Hospital is an acute medical and surgical hospital of 230 beds with nine operating theatres including the Day Surgery Unit, an Intensive Care Unit and a Cardiac Catheter Laboratory.

The Hospital is accredited by the Australian Council on Health Care Standards.

The mission of St Vincent's Private Hospital, consistent with the values and health care philosophy of the Sisters of Charity, is to preserve a Catholic identity in health care and to provide excellent holistic services through value based team work, commitment, skill and technology.

Sutherland Hospital Caringbah

Kingsway, Caringbah 2229
Tel: (02) 9540 7111, Fax: (02) 9540 7197

The Sutherland Hospital Caringbah, founded in 1958, is an Associated Teaching Hospital of the University of New South Wales. 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.

The Hospital is staffed by 65 visiting medical staff, 14 staff specialists and 60 resident medical staff. There is also a well-equipped library.

Sydney Hospital and Sydney Eye Hospital

Macquarie Street, Sydney 2000
Tel: (02) 9382 7111, Fax: (02) 9382 7320

Sydney Hospital, the first hospital in Australia, was established at Dawes Point shortly after the arrival of the First Fleet in 1788. It was transferred to the Sydney Hospital site in Macquarie Street in 1811 when Governor Macquarie built the 'Rum' Hospital.
The first Nurses Training School in the Florence Nightingale tradition was established at the Hospital in 1868.

Sydney Hospital and Sydney Eye Hospital has a 24 hour 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.

The Sexual Health Centre, established at Sydney Hospital in 1992, is jointly administered by the University of Sydney and the University of New South Wales.

There are 118 visiting medical staff, nine staff specialists and 45 resident medical officers.

The Hospital has a medical library of full teaching hospital standard and a medical staff common room but does nor provide staff with accommodation. The campus has undergone major refurbishment with the patients services block being opened in 1996.

War Memorial Hospital Waverley

125 Birrell Street, Waverley 2024
Tel: (02) 9369 0100, Fax: (02) 9387 7018

War Memorial Hospital, Waverley is a Third Schedule Public Hospital under the governance of the Uniting Church in Australia, NSW Synod.

Opened in 1921 as a 19-bed private hospital under the management of the then Methodist Church, by 1969 the Hospital had grown to a 140-bed Third Schedule Hospital providing general medical, surgical and obstetric services. In 1984, after a review, the Hospital commenced its primary role in geriatric rehabilitation and assessment services.

The Hospital now runs a geriatric rehabilitation and assessment unit, a rehabilitation outpatients 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 a podiatry outpatient services. A hydrotherapy pool supports the inpatient rehabilitation services.

War Memorial Hospital also supports an aged care assessment team as well as a number of specialist clinics and services. Other service components of the Hospital include spouse accommodation for country patients and office accommodation for the Waverley Community Team.

The South Western Sydney Area Health Service

Tel: (02) 9828 5700, Fax: (02) 9828 5769

The South Western Sydney Area Health Service became a Principal Teaching Campus of the University of New South Wales in early 1989 and Liverpool Hospital has been upgraded and now provides comprehensive teaching and referral services.

To date the University has a presence in the fields of adolescent and mental health, medicine, surgery, obstetrics, pathology and microbiology, community paediatrics, anaesthetics and intensive care, community medicine, general practice, public health, health promotion, rehabilitation, geriatrics, drug and alcohol services, epidemiology and nursing research.

The Area is responsible for the management of health services within Sydney's south west. This is an area which combines the older urbanised local government areas of Bankstown and Liverpool, with the urban growth areas of Fairfield and Campbelltown, the residential growth areas of Camden and the mostly-rural Wollondilly and Wingecarribee.

The area is characterised by a predominantly young population and contains a number of ethnic communities. Over the next 10 years, the SWS Area is expected to grow by 115,000 people and presently has a higher than average birth rate compared with the rest of New South Wales.

The public hospitals and nursing homes managed by the South Western Sydney Area Health Service are: Bankstown-Lidcombe Hospital, Bowral, Camden, Campbelltown, Fairfield, Liverpool and Queen Victoria Memorial (Picton). There are three Third Schedule institutions, namely Carrington Centennial Nursing Home, Karitane Mothercraft Society and Braeside Hospital.

The Area Health Service remains committed to the integration of community health and hospital services in order to provide a comprehensive service to its population, which is expected to grow to more than 900,000 people by 2011.

Liverpool Health Service

Liverpool Hospital and Liverpool Community Health Service
Elizabeth Street, Liverpool 2170
Tel: (02) 9828 3000 Fax: (02) 9828 6318

There has been a hospital in Liverpool since the early nineteenth century. The present hospital has 530 beds and provides services in medicine, surgery, intensive care, anaesthetics, emergency medicine, paediatrics, obstetrics and gynaecology, dermatology, psychiatry, geriatrics, rehabilitation, drug and alcohol, sexual health medicine, cancer therapy and a range of allied health disciplines. It is a major trauma centre and is tertiary referral centre for the South Western Sydney Area. A full range of pathology services is provided on site by the Area Pathology service. Specialty medical training is provided in most specialities, and research activities are rapidly expanding. Academic units have been established in most specialties.

There is a strong community orientation and close links with the Liverpool and Hoxton Park Community Health Services and South Western Sydney Public Health Unit. A Division of General Practice has been formed by local GPs. There are good residential and recreation facilities on the Hospital grounds and a well equipped library. There are well developed education programs for both undergraduates and postgraduates.

A major redevelopment of the hospital was completed in 1997 with the opening of the Education and Clinical Buildings.

Bankstown Health Service

Bankstown-Lidcombe Hospital and Bankstown Community Health Service
Eldridge Road, Bankstown 2200
Tel: (02) 9722 8000 Fax: (02) 9722 8570

The Bankstown Health Service comprises the Bankstown-Lidcombe Hospital and Community Health Service. Bankstown-Lidcombe Hospital is a 454 bed Teaching Hospital of the University of New South Wales. The Hospital provides for a catchment area of approximately 180,000 in population.

The Hospital provides a full range of medical and diagnostic services. 1996 heralded the commissioning of a new state-of-the-art hospital. Services include: subspecialties based medicine, surgery, intensive care, obstetrics and gynaecology, paediatrics, anaesthetics, emergency medicine, mental health as well as a strong emphasis on aged care (80 beds for geriatric medicine, rehabilitation, aged psychiatry). The Hospital boasts a strong Gastroenterology Service. An Academic Chair in Medicine has been established in recognition of the high level of this Service. A full range of imaging and clinical measurement modalities is provided. Substantial teaching facilities exist in the new hospital.

The overall objective is the integration of the hospital with community services to provide an optimal, self sufficient, fully integrated health service to the Bankstown Local Government Area.

The Bankstown Health Service is committed towards high standards of training and education amidst a relaxed and friendly atmosphere. Accredited training is available in the majority of specialties for both undergraduates and postgraduates. A strong Division of General Practice is operated by local GPs and is well integrated into education programs and service provision.

The Macarthur Health Service

Campbelltown Hospital
Therry Road, Campbelltown 2560
Tel: (02) 4625 9222, Fax: (02) 4629 1338

Macarthur Health Service is comprised of Campbelltown Hospital, Camden Hospital, Queen Victoria Memorial Home, Macarthur Community Health Service and Macarthur Mental Health Service.

Macarthur Health Service is undergoing a period of redevelopment that will include a new hospital in Camden and an increase in services and available beds at Campbelltown Hospital. At present, the Health Service has 232 hospital beds providing general medical and surgical, obstetrics and gynaecology, orthopaedic, paediatric, aged care and rehabilitation, palliative care, anaesthetic and mental health services. This includes an 8 bed intensive care/coronary care unit, a very busy 30 bed paediatric unit with a 15 bed Level 2 special care nursery. Emergency Departments operate 24 hours at each hospital, with the Campbelltown service being extremely busy.

Campbelltown Hospital is a general, paediatric, maternity and psychiatric hospital situated in the City of Campbelltown in the southwestern suburbs of Sydney. This modern Hospital provides a high standard of general medical care to the surrounding population of over 200,000 with a predominance of young families. The area has one of the highest growth rates in the State and the Hospital is committed to the provision of high standard community, inpatient and emergency care as the population expands.

Camden Hospital

Menangle Road, Camden 2570
Tel: (02) 4629 1000, Fax: (02) 4629 1016

Camden Hospital is undergoing a period of redevelopment. During this time the services that are continuing include general, maternity, emergency and palliative care services. This facility provides services to the local communities of Camden and Wollondilly.

The Fairfield Health Service

Fairfield Hospital and Fairfield Community Health Service
Cnr Polding Street and Prairievale Road
Wetherill Park 2164
Tel: (02) 9616 8111, Fax: (02) 9616 8240

Fairfield Hospital is a 200 bed facility and provides services in general medicine, general surgery, orthopaedics, urology, plastic surgery, maternity and paediatrics. A twenty-bed detoxification unit, Corella Lodge was opened in March 1999.

The Fairfield Hospital opened in November 1988 and provides health services for the Fairfield local government area community. In addition, the Hospital has a Level II Special Care Nursery, a 24 hour Accident & Emergency Service, a 10 bed ICU and CCU and has in place a Domiciliary Midwifery Program for well mothers and babies.

The South Western Sydney Area's General Practice Unit is located at Fairfield Hospital. The Unit commenced in 1991 and is run jointly with the University of New South Wales. There is a Professor of General Practice. It provides general practice style service for patients and staff of the Hospital. It also acts as a centre of education for existing and future general practitioners in the area and liaises between the Hospital and general practice.

Fairfield Health Service has commenced a Community Paediatric Service with the appointment of a Staff Specialist Community Paediatrician. Appointments of Community Nursing Staff are being made to assist the Paediatricians to provide a comprehensive service in the Area.

Comprehensive Health Services are provided from three Centres located in Mitchell Street Carramar, Levuka Street Cabramatta and in Prairiewood on the Hospital campus. Youth primary health care services for residents of Fairfield and Liverpool are provided by FLYHT. A comprehensive Drug Intervention Service is also operated in Cabramatta.

The relocation of the Karitane Mothercraft Society to Mitchell Street, Fairfield (Old Fairfield Hospital site) occurred in April 1994. The 72 bed Braeside Hospital provides services in Rehabilitation, Psychogeriatrics and Palliative Care on the grounds of Fairfield Hospital.

Corrections Health Service

Long Bay Correctional Centre

Anzac Parade, Little Bay, 2036
Tel: (02) 9289 2977, Fax: (02) 9311 3005

Corrections Health Service (CHS) is a Statutory Health Corporation constituted under the New South Wales Health Services Act 1997. CHS provides and coordinates a comprehensive range of heath services for

people in custody within the NSW Correctional System. The mission of CHS is: "To improve the health of people within the New South Wales correctional system by providing quality health care to the standard available in the community". 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, Imaging and Laboratory Services.

The Illawarra Area Health Service

Tel: (02) 4275 5111, Fax: (02) 4276 1447

The Illawarra Area Health Service covers an area immediately to the south of the Sydney Metropolitan Area, and comprises the Local Government Areas of Wollongong, Shellharbour, Kiama and Shoalhaven. The estimated total population of the Illawarra is 327,000, which comprises 5.4% of the total New South Wales population.

The Illawarra Area Health Service is a network of integrated community and hospital services which provide both public and personal health care.

The Area Health Service has an agreement with the University of New South Wales for the Health Service to be an Associated Teaching Campus of the University.

Illawarra and Shoalhaven Medical Teaching Program

Wollongong and Port Kembla Hospitals

The Wollongong and Port Kembla Hospitals are significant components in the establishment and development of a major teaching Area Health Service for the Illawarra. Currently, the Wollongong and Port Kembla Hospitals are Associated Teaching Campuses of the University of New South Wales.

A newly built Clinical Services Block at the Wollongong Campus will be fully commissioned in 1998 and will provide state-of-the-art critical care including a 20 bed ICU and 8 Operating Theatres. The Wollongong and Port Kembla Hospitals provide complimentary services with all acute services located at the Wollongong Hospital. The Port Kembla Hospital comprises 52 beds for Rehabilitation and Psychiatry Services. The Wollongong Hospital with 240 beds provides a full range of tertiary services including medical imaging; maternal and paediatric services; surgical services including neurosurgery and medical services including a full range of medical subspecialties.

The Illawarra Area Health Service also provides a comprehensive psychiatry service for both inpatients and the community. General practitioners throughout the Division of General Practice also have an active role in the integration of community and hospital services and provide excellent training opportunities in general practice.

Shellharbour Hospital

The Shellharbour Hospital has 150 beds (5 of which are high dependency). The Hospital provides emergency, medical, surgical, psychiatric, obstetric and psychiatric services. The GP Training Unit is also based at this Hospital.

The Illawarra Area Health Service provides comprehensive mental health care, with psychiatric care consolidated at Shellharbour Hospital which has 34 acute inpatient beds. Lakeview House, the psychiatric rehabilitation facility for the Area, also located at Shellharbour Hospital has 20 inpatient beds and provides care for 20 day patients.

The Mid North Coast Area Health Service

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, built specifically to meet the requirements of a twenty year Services Agreement with the NSW Department of Health for the admission and treatment of public patients. The Agreement sets objective standards for the provision of high quality health care including specific quality standards.

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. Port Macquarie is one of the largest health centres of the region boasting some 56 specialist medical staff. 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.

Port Macquarie Base Hospital in the short time it has been opened has received several awards and commendations for its clinical excellence, and also for its excellence in service delivery and quality patient care. In addition to achieving Associated Teaching Hospital status with the University of New South Wales, University of Sydney and the University of Newcastle, the Hospital has been accredited by the Medical Association/Colleges of Physicians, Surgeons, Obstetrics and Gynaecology, Orthopaedics and Psychiatry.

The Base Hospital is a significant teaching hospital boasting registrars in medical, surgical and orthopaedic, psychiatry obstetrics and gynaecology with a number of medical officers and medical students.

Coffs Harbour Base Hospital

Victoria Street, Coffs Harbour 2450
Tel: (02) 6659 1599, Fax: (02) 6659 1524

Coffs Harbour - a new 152 bed base hopsital is nearing completion which will provide upgraded core services and enhanced services in the areas of mental health, aged care and rehabilitation and some clinical support services and primary and community care services.

The Southern Area Health Service

Goulburn Base Hospital

Locked Bag 15, Goulburn, 2580
Tel: (02) 4827 3111, Fax: (02) 4827 3248

Goulburn Base Hospital is a major facility within the Southern Area Health Service and currently runs with 101 acute inpatient beds at an occupancy rate of about 85%. It provides many services for the population of the Southern Tablelands and South-Eastern region of New South Wales.

The hospital serves as a secondary referral centre for patients and clients from Crookwell and Braidwood. Referrals for the management of acute physical illness are also received from the St John of God Hospital, from Kenmore Hospital and from the Goulburn Training Centre (Goulburn Gaol 650 inmates). The community health service has its administrative base and a number of client services at its premises on the campus of Goulburn Base Hospital. Some community health services for the whole of South-Eastern NSW are also based in Goulburn, and there is an acute Psychiatric Unit on campus.

Clinical facilities at the Goulburn Base Hospital include general medicine, general surgery, obstetrics and gynaecology, paediatrics, coronary care/high dependency unit, and accident and emergency care. There are visiting specialists from Sydney or Canberra who do major orthopaedic procedures, implanting of prosthetic eye lenses as well as other opthalmological work including outpatient clinics, and provide a consultant venereology service through the HIV/AIDS unit in Jennings House. These non-residential specialists attend at the hospital weekly or fortnightly.

Faculty Units, Centres and Affiliated Institutes

The Ray Williams Biomedical Mass Spectrometry Facility

The Ray Williams Biomedical Mass Spectrometry Facility (RWBMSF) is a UNSW beach-head facility providing research support to investigators on this campus and affiliated teaching hospitals. The RWBMSF is a major facility for molecular characterisation for the faculties of Medicine and Life Sciences, UNSW. The facility is equipped to world class standards enabling all types of mass spectrometry to help answer questions posed by researchers and clinicians to otherwise intractable problems. The RWBMSF was evaluated as a major research facility following a recent survey commissioned by the Commonwealth Department of Industry, Science and Resources. The RWBMSF is both a research and research-support facility engaged in several areas of study. The RWBMSF has developed several approaches to monitoring damage, repair and the cellular changes associated with aging and inflammatory disease and these are applied to a diverse array of research projects.

The Centre for Health Informatics

The Centre for Health Informatics (CHI) is a collaborative venture of the Faculty of Medicine and the School of Electrical Engineering and Telecommunications. CHI focuses on four core research themes: Evidence-based Decision Support, Clinical Communications, Evaluation and Home Telecare:

- Evidence-based Decision Support examines methods and technologies for providing clinicians with up-to-date information on-line.

- Clinical Communications seeks to understand how information is disseminated, and how communication, and communication pathways, may be improved.
- The Informatics Evaluation Group (IEG) offers evaluation services for information and communication technology projects in health
- Home Telecare develops ways to monitor patients in their home, with information passed to their primary care giver.

The Centre for Public Health

The Centre for Public Health was established in 1988 to bring together multi-disciplinary resources to conduct educational programs and undertake research in public health.

The Centre is comprised of the Schools of Community Medicine, Medical Education and Health Services Management and has strong links with other academic and service units such as the National Centre in HIV Epidemiology and Clinical Research, the National Drug and Alcohol Research Centre and the various Area Health Services affiliated with UNSW. Its affiliation with the WHO Regional Training Centre for Health Development provides an emphasis on international health development.

The Centre for Public Health at UNSW and the Department of Public Health and Community Medicine at the University of Sydney are partners in the PHERP-funded Sydney Public Health Consortium. This arrangement is designed to enhance the opportunities for study and research for students and faculty in both universities. Currently students enrolled at UNSW are permitted to undertake up to 25% of their course work at the University of Sydney.

The Centre for Thrombosis and Vascular Research

The Centre for Thrombosis and Vascular Research was formed in 1992 with the purpose of bringing together scientists and physicians based in the Prince Henry/Prince of Wales Hospitals Group, whose research and clinical practice was focused on the causation and treatment of the blockage of blood vessels. The majority of heart attacks, strokes and gangrene of the legs are brought about by blockage of the arteries supplying respectively, the heart muscle, the brain and the lower limbs. Despite real advances these processes still account for a massive cost in premature death and suffering.

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, University of New South Wales. The Institute was established in 1984 and occupies a four-storey complex at the southern end of the Sydney Children's Hospital. Our staff work in close collaboration with members of the Division of Haematology/Oncology in the Hospital. With a staff of over 50, including honours and postgraduate scholars of the University, the Institute undertakes laboratory research on malignant disease in children. Research work is organised into five programs: experimental therapeutics, molecular diagnostics, molecular carcinogenesis, leukaemia biology and stem cell biology. The focus of the Institute involves investigation into the nature, origin, cause and treatment of childhood cancers (particularly leukaemia and neuroblastoma) making this facility the only one of its type in Australia.

Garvan Institute of Medical Research

The Garvan Institute of Medical Research has a staff of 200 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 pituitary disorders – which are funded through a Centre grant from the National Health and Medical Research Council. Located on 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.

Medical Illustration Unit

Located in the Edmund Blacket Building at the Prince of Wales Hospital, the Medical Illustration Unit (MIU) provides centralised photography, graphics and digital imaging services to the Faculty of Medicine and its teaching hospitals.

The Unit incorporates well-equipped facilities for clinical, scientific and general photography in the studio or location, operates a high-resolution computer slide imaging service and a large-format printing facility for scientific posters.

MIU's eight staff annually produce around 60,000 slides, prints and digitised images for lectures and publications, 1,000 items of finished artwork and 300 scientific posters, thereby supporting the teaching, research and patient care commitments of the Faculty and its hospitals.

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.

National Perinatal Statistics Unit (Australian Institute of Health and Welfare)

The National Perinatal Statistics Unit is a collaborating unit of the Australian Institute of Health and Welfare within the Faculty of Medicine of the University of New South Wales. Located on the Prince of Wales Hospital Campus, the Unit is linked with the School of Paediatrics, Sydney Children's Hospital and other groups in the Faculty. The Unit collaborates with State and Territory perinatal groups and various professional groups in developing national perinatal data systems. The Unit's objectives are to monitor and interpret national perinatal mortality and morbidity; to provide a limited perinatal epidemiology service; and to conduct epidemiological research.

National Drug and Alcohol Research Centre

The National Drug and Alcohol Research Centre (NDARC) was established as a Centre of Excellence at the University of New South Wales in May, 1986. It is funded by the Commonwealth Department of Health and Aged Care.

The overall mission of NDARC is to undertake research and related activities that contribute to a more effective and efficient Australian treatment response to alcohol and other drug-related problems.

It undertakes this work in collaboration with the Schools of Community Medicine and Psychology in the University, with collaborating centres in other States and Territories, and through international collaboration.

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 the largest aggregate of research nationally on the functions and disorders of the brain and nervous system. It has a staff of 80, including six at professor or associate professor level, and attracts almost $3m p.a. in peer-reviewed funding. Major lines of research include human sensation, balance and movement; autonomic nervous system; neuro-pathology; and clinical neurophysiology, nerve and spinal cord injury, pain.

The Simpson Centre for Health Service Innovation

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 to link with 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

The Skin and Cancer Foundation was established in 1978 and is affiliated with St. Vincent's Hospital. The Foundation has four Dermatology registrars and a research fellow as well as undergraduate students who attend the dermatology clinics. A broad range of clinics are 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 Irritancy Testing for new products.

The Foundation is active in community education relevant to skin disease. It has also established a second clinical and teaching facility at Westmead.

Victor Chang Cardiac Research Institute

The VCCRI 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, affiliated with the University of New South Wales and accredited by the National Health and Medical Research Council. 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 cardiac hypertrophy and signal transduction; the genetics of cardiovascular diseases; cardiac arrhythmias and mechanics; transplantation biology; vascular bioengineering, and the pathophysiology of cardiac ischaemia and coronary restenosis.

The 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 to rural students;
- Supporting rural students in Medicine;
- Encouragement and support 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;
- 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
- Supporting the School of Rural Health which will increase the opportunities for rural clinical learning.

Indigenous Health Section

This is supervised by the Rural Health Unit and the activities are broadly:

- Promotion of Medicine to Indigenous students;
- Administer the Indigenous students Pre-Medicine Program, a preparation to the medical course;
- Student selection;
- Student support;
- Curriculum Development;
- Development of partnerships with Indigenous communities.

Faculty Student Organisations

The University of New South Wales Medical Society (Medsoc)

The University of New South Wales Medical Society (Medsoc) is the representative body of the medical students of the University. Besides providing a medical bookshop, it has the primary functions of initiating and maintaining communication between students, medical educators and administrators both within the University and outside of it. Medsoc also hosts a number of educational events and social events for its members, in order to promote a pride in and a sense of belonging to the Faculty. Membership is free and automatic to all medical students.

Medsoc offers a panorama of social events, including the First Year Orientation Camp, a combined Harbour cruise (with medical students from Newcastle and Sydney Universities), regular BBQ's on the medical lawn, the Medsoc Classical Quest, the Medsoc Talent Quest, Trivia Quiz and the Medicine Ball.

Medsoc also hosts a number of speaker and educational nights including the Elective Seminar Night, Viva Survivor, Women in Medicine and the annual Spring Symposium. Medsoc also initiated the Student Support Program which has among its features the development of a mentoring program and a set of student skills workshops for first year students.

A biannual journal *Idioglossia* is produced by the Society to keep members informed and further information can be found on the Medsoc website at http://www.med.unsw.edu.au/medsoc/entrance.htm

The Society maintains communication with all levels of Faculty through the President, Vice-Presidents and Year Representatives, while other Medsoc members hold positions on the Student Guild (UNSW's peak student representative body). These officers together with the Secretary, Treasurer, Casoc Representative, Bookshop Manager and AMSA Representative constitute the Medsoc Executive which is elected annually in October. Active Medsoc members work in close liaison with the Medical Faculty through various boards and committees, on projects of significance to medical students.

At a national level UNSW Medsoc is affiliated to AMSA (the Australian Medical Students' Association) to ensure our concerns and views are expressed at a national level. This affiliation ensures that medical students are represented at both a University and Federal level. Medsoc takes a direct interest in medico-political issues and constantly updates its members on developments affecting medical students and doctors.

All students are encouraged to participate in the Society's activities and to attend the Medsoc meetings which are held on the first Wednesday of every month in the Edmund Blackett Lecture Theatre at the Prince of Wales Hospital. Enquiries should be addressed to the Secretary of the Medical Society, c/- Medsoc Bookshop, Old Morgue Building, Prince of Wales Hospital, Randwick NSW 2031. Free food and drinks are provided at all Medsoc meetings.

The Medsoc Bookshop is the most important service provided by the Society to students. Textbooks, white coats and diagnostic equipment may be bought cheaply, usually between 23% and 28% off the recommended retail price! A nominal joining fee is payable. The Medsoc Bookshop is student managed to ensure we always get the best prices available. The Bookshop is located at the Barker Street entrance to the Prince of Wales Hospital. Enquiries may be made by tel: (02) 9382 2121, or by fax: (02) 9398 2343.

Undergraduate Rural Health Society

The rural health club has been established within the Faculty to provide:

- undergraduate students with information about career options and encourage their choice of a career in rural Australia;
- undergraduate students with information concerning issues in the provision of health services in rural Australia; and
- practical experience of working and living in rural areas through organised weekend field trips.

The Society may be contacted through the administrator, Rural Health Unit tel: (02) 9385 3250.

Program and Course Information

3801 Medicine Program

BSc (Med) MB BS

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 see the program description for 3831.

Objectives of the Medicine Program

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 graduate understand professional and ethical principles and to be at all times mindful of the individual's obligations to patients, colleagues and the community.

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 3, 4 and 6 such additional assessment is usually undertaken in December and in Years 1 and 2 in the following January and February. 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.

Special Consideration

Students who have been prevented from taking assessments or have been disadvantaged during assessments are required to apply at the Student Centre for special consideration. Submissions of details of any sickness or disadvantage must be in accordance with the University rules on special consideration as printed in the 'UNSW Student Guide'. Special consideration requests will normally not be considered if more than seven days have elapsed since the final examination in the affected course or courses.

Show Cause

The Faculty's Assessment Committee requires all students to show cause why they should be allowed to re-enrol if, as a result of failures, their progress will result in their taking more than one year longer than the normal length of time for their program.

Advice to Students on Computing Requirements

The stage has been reached where the use of information technology in education is no longer novel, but is a standard tool used widely by lecturers and students. Prospective students need to be aware that UNSW is a place where information technology will be integral to their education, and that staff can expect students to have access to and use information technology.

UNSW expects all new students to have off campus access to a standard modern computer with CD drive and internet connectivity (e.g. via a modem). The software on the computer should include:

- a word processor able to import and export RTF files
- a spreadsheet program able to import and export ASCII delimited tables
- a drawing/painting program able to import and export images in widely used formats such as GIF, JPEG, TIFF or PNG
- software able to read PDF and Postscript files (1)
- a Java 1.1 capable Web browser that supports HTML 2.0 (1)
- software to enable file transfer using the FTP protocol (1)
- networking software to enable TCP/IP connection (e.g. via a modem using PPP) (1)
- email software able to link to a popserver
- anti-virus software (1)

(1) UNSW's Division of Information Services is able to provide software of this type with students being charged only for handling and media costs.

As computers remain expensive items, UNSW will provide limited on-campus computer facilities that meet these standards for students who are unable to obtain access to off-campus access to such resources.

Student Photographs and Identification Badges

In Year 1 of this program, each student is required to be photographed during the first session. These photographs are required for School and Faculty purposes and are also used to produce identification badges, which must be worn in the hospitals.

Immunisation for Medical Students

The Faculty's policy on the immunisation of medical students is as follows:

All students should be aware of their immunity or lack of immunity to common infectious diseases which they will encounter during clinical training and later in practice. Students without a history of past illness or immunisation will be at risk of acquiring certain infections and subsequently at risk of transmitting those infections to patients.

All Students

In the absence of a reliable history of immunity, students are advised to be immunised against the following infections: rubella, measles, mumps, hepatitis B (HBV) and tuberculosis (TB). A personal history of mumps, HBV and TB or a history of past immunisation against rubella, measles, mumps and HBV are reliable in predicting immunity. It is not necessary to have pre-immunisation antibody testing performed if you are uncertain of your immunity. Skin testing (Mantoux test) for TB should be performed before immunisation for TB.

It is also advisable that students are aware of their immune status to chickenpox (varicella). A blood test for antibodies can be performed if there is not a personal history of chickenpox.

If students require any of the above immunisations, or are uncertain of their immune status, they should see their local general practitioner or, if preferred, may attend the UNSW Health Service. The UNSW Health Service is located on the ground floor of the East Wing of the Quadrangle Building.

The Office of the Dean can provide students with information on the names and locations of medically qualified staff of the Faculty with appropriate expertise in infectious diseases who have agreed to be available to offer confidential advice on these matters, but students may prefer to consult their own medical practitioner or other medical adviser.

It is strongly recommended that documentation of past illnesses, immunisation history and results of blood test be kept for future reference. A form is available from the Office of the Dean for this purpose. It is advisable that the information on this form be verified by students' own doctors or the UNSW Health Service. Students who object to being tested or immunised should discuss their objections with their doctor.

4th, 5th and 6th Year Students

The Medical Board of NSW has recently determined that while mandatory testing for Human Immunodeficiency Virus (HIV) and HBV is not required, any medical practitioner or student has a professional responsibility to take appropriate steps to know that his/her HIV and HBV status is negative before undertaking an 'exposure-prone procedure'.

Such procedures are characterised by the potential for direct contact between the skin of the health care worker and sharp surgical instruments, needles or sharp tissues (spicules of bone or teeth) in body cavities or in poorly visualised or confined body sites (including the mouth).

Students are usually required to undertake such procedures as part of their undergraduate program. However, students who do not know their HIV/HBV status or know that they are infected must refrain from participating. Since testing is not mandatory, no reason need be given for declining nor could any reason be inferred from a declination.

Matters relating to infectious diseases are constantly under review and the Faculty policy may be amended as the policies of the NSW Health Department or Medical Board or other relevant government bodies change.

Students who are infected with any blood-borne infections (ie. HIV, HBV or Hepatitis C) should seek advice on their future professional development. A medical practitioner infected with HIV and/or HBV who is not impaired may be able to continue to practice medicine that does not involve exposure-prone procedures.

Medical practitioners who knowingly do not take appropriate measures to reduce their risk of transmitting infections may be liable to charges of professional misconduct if they are responsible for transmitting an infection. Students and medical practitioners in this position may be vulnerable to legal action.

Students should be aware that this policy is being reviewed at the time of print. Any significant changes will be communicated to students and staff in relevant schools.

Program Details

Year 1

This year is conducted in two academic sessions and consists of four courses plus four General Education courses, as shown in the table below.

		HPW	
		S1	**S2**
1. ANAT1006	Anatomy 1	5	7
2. BIOC1319	Biochemistry for Medical Students	6	6
3. MFAC1001	Introductory Clinical and Behavioural Studies	4	4
4. PHPH1004	Biology for Medical Students	4	-
5. General Education courses		4	4
	Total	**23**	**21**

Assessment

Biology is taught only in Session 1 with a final assessment at the end of that session. The other three medicine courses extend over both sessions and incorporate a final assessment at the end of Session 2. Assessments in courses which extend over the whole year also take place at the end of Session 1 in those courses but do not constitute a barrier to progression to Session 2.

Students who do particularly poorly in the mid-year assessments will be interviewed by staff from the Office of the Dean and/or an appropriate member of the academic staff, at the beginning of Session 2. Such students may discontinue without failure at that time.

Rules of Progression

Students who pass all courses in Year 1 are eligible to progress to Year 2. Students who do not pass a course are required to repeat the whole course. They are not required to repeat any course in which they have attained a pass. Where students fail 16 Units of Credit or less, they are permitted to undertake a course from Year 2 if they have met the prerequisites for that course, and that there are no timetable clashes.

Failure in General Education courses or their equivalent will not prevent a student from progressing to Year 2.

Allocation to Hospitals in Year 2

During Session 2, Year 1 students are asked to list their preferences regarding allocation to teaching hospitals. The allocation is made after the Year 1 examinations and student representatives are involved in the allocation procedure.

Year 2

This year is conducted in two academic sessions. Teaching in the courses Anatomy 2, Medical Biochemistry and Genetics, and Physiology is integrated and aims to give students a broad knowledge and understanding of human structure and function based on scientific principles, relevant to further study in medicine. In Clinical Studies 2, students make contact with patients and the physical aspects of disease, in order that they may apply their knowledge and understanding to the clinical situation. The strand dealing with human behaviour which was studied in Year 1, is continued.

		HPW	
		S1	**S2**
1. ANAT2007	Anatomy 2	7	7
2. BIOC2329	Medical Biochemistry and Genetics	4.5	4.5
3. MDSG2001	Clinical Studies 2	2	2
4. PHPH2018	Medical Physiology 2	8	8
5. PSCY2101	Human Behaviour	3	3
	Total	**24.5**	**24.5**

Assessment

Major assessments take place in the November/December assessment period but progressive assessments may take place throughout the year. Details of progressive assessments are provided by the appropriate course authority.

Rules of Progression

Students who pass all courses in Year 2 are eligible to progress to Year 3. Students who do not pass a course are required to repeat the whole course. They are not required to repeat any course in which they have attained a pass. The exception is that they are required to repeat Clinical Studies 2 while they are repeating a Year 2 course or courses, regardless of whether or not they have passed Clinical Studies 2. Where students fail 16 Units of Credit or less, they are permitted to undertake a course from Year 3 if they have met the prerequisites for that course, and that there are no timetable clashes.

Year 3

Year 3 is conducted in two academic sessions. The principal campus-based courses of the year are Medical Pharmacology, Medical Physiology, Microbiology for Medical Students and Pathology. Clinical Studies 3 continues the clinical program commenced in first year. Students also take the course Medical Ethics and Health Law, which builds on material presented in first year ICBS and second year Human Behaviour. An understanding of Immunology is also required to enable students to deal with the pathogenesis of specific diseases. To facilitate this understanding, a series of introductory lectures in Immunology provide an outline of the structure and function of the immune system, covering the cells and mediators involved in the immune response. The Immunology program is integrated with the Microbiology course on the response to infectious diseases, and with the Pathology course and is presented in an interdisciplinary fashion, providing a basis for subsequent instruction in the diagnostic and therapeutic aspects of clinical immunology in the later years of the curriculum.

		HPW	
		S1	**S2**
1. CMED3001	Medical Ethics and Health Law	1.5	
2. MDSG3001	Clinical Studies 3	4	4
3. MICR3228	Microbiology for Medical Students	4	4
4. PATH3101	Pathology	6	4
5. PHPH3014	Medical Physiology 2	4	4
6. PHPH3055	Medical Pharmacology	4.5	4.5
	Total	**22.5**	**22.0**

Assessment

In addition to the end of year assessment, mid-year progress assessments are programmed in some courses.

Rules of Progression

Students who pass all courses in Year 3 are eligible to progress to Year 4. Students who do not pass a course are required to repeat the whole course. They are not required to repeat any course in which they have attained a pass. The exception is that they are required to repeat Clinical Studies 3 while they are repeating a Year 3 course or courses, regardless of whether or not they have passed Clinical Studies 3.

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 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 Community Medicine.

Rules of Progression

Students will be required to pass each of four separate segments of the assessment, namely: a pass in the 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.

Year 5

Year 5 is comprised of four terms, each of nine weeks. In Terms 5:1 to 5:4 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:

MFAC5001	Geriatrics/General Practice/Subspecialties
OBST5001	Obstetrics and Gynaecology
PAED5101	Paediatrics
PSCY5001	Psychiatry

Sequence of Blocks

Group A:

Term 5:1 (9 weeks) Paediatrics
Term 5:2 (9 weeks) Obstetrics and Gynaecology
Term 5:3 (9 weeks) Psychiatry
Term 5:4 (9 weeks) Geriatrics/General Practice/Subspecialties

Group B:

Term 5:1 (9 weeks) Obstetrics and Gynaecology
Term 5:2 (9 weeks) Paediatrics
Term 5:3 (9 weeks) Geriatrics/General Practice/Subspecialties
Term 5:4 (9 weeks) Psychiatry

Group C:

Term 5:1 (9 weeks) Psychiatry
Term 5:2 (9 weeks) Geriatrics/General Practice/Subspecialties
Term 5:3 (9 weeks) Paediatrics
Term 5:4 (9 weeks) Obstetrics and Gynaecology

Group D:

Term 5:1 (9 weeks) Geriatrics/General Practice/Subspecialties
Term 5:2 (9 weeks) Psychiatry
Term 5:3 (9 weeks) Obstetrics and Gynaecology
Term 5:4 (9 weeks) Paediatrics

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 in all four term examinations 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 5:4. A student who fails two terms or more will be required to repeat all Year 5 courses.

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 MFAC6001 under entry for Year 6.

Year 6

The first term in Year 6 is an Elective term (MFAC6001) of 8 weeks. The remaining five terms totaling 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.

3821 Combined Science and Medicine Program

BSc MB BS

The Science/Medicine program is an alternative program of study, whereby, over a seven-year program, a student may complete the degree of Bachelor of Science, with the Bachelor degrees of Medicine and Surgery. Students in the program may undertake courses offered at Advanced level and may undertake an additional research year (Honours) in Anatomy, Physiology or Biochemistry, leading to the award of a BSc Advanced degree.

The Science/Medicine program is intended for those students with special interest and aptitude in science, who wish to obtain a firm grounding in basic sciences. A limited number of places are 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 this program should contact the Office of the Dean as soon as possible after receiving their offer of a place in the Faculty. Selection of students for the Science/Medicine program is made approximately two weeks before commencement of Session 1. The students undertake a three-year program of study approved by the Presiding Member of the Faculty's BSc MB BS Committee leading to the award of the degree of BSc, and on completion, enter Year 3 of the 3801 Medicine program. The student is offered a choice of a number of programs, leading to a major or double major in one or two of the courses Anatomy, Biochemistry and Physiology.

Students who have completed the combined Science/Medicine degree program are eligible for the award of honours in the MB BS degree program, based on weighted performance in courses (excluding the honours year) 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, together with an aggregate mark based on the Science component of the program.

Program Details

The Science program is divided up into courses, each of which is assigned units of credit. For the Science degree, a minimum of 144 units of credit in approved science courses is required. Students usually take 48 units of credit in each year.

Science Courses

Details of all science courses are listed in the Course Descriptions section later in this book.

ANAT	Anatomy
BIOC	Biochemistry and Molecular Genetics
BIOS	Biological Science
CHEM	Chemistry
MATH	Mathematics
PHPH	Physiology and Pharmacology
PHYS	Physics
PSCY	Psychiatry

Year 1

		UOC
BIOS1101	Evolutionary and Functional Biology	6
BIOS1201	Molecules, Cells and Genes	6
CHEM1011	Fundamentals of Chemistry A	6
CHEM1021	Fundamentals of Chemistry B	6
	or	
CHEM1031	Higher Chemistry C	6
CHEM1041	Higher Chemistry D	6
MATH1031	Mathematics for Life Sciences	6
MATH1041	Statistics for Life and Social Sciences	6
	or one of	
MATH1011	General Mathematics 1B	6
MATH1131	Mathematics 1A (6)	6
MATH1141	Higher Mathematics 1A	6
	and one of	
MATH1021	General Mathematics 1C	6
MATH1231	Mathematics 1B	6
MATH1241	Higher Mathematics 1B	6
BSSM1110	Perspectives in Medical Science 1	3
	General Education	3
Plus 6 Units of Credit in Physics or Computer Science		6

	Total	**48**
Year 2		
ANAT2111	Introductory Anatomy	6
ANAT2200	Basic Histology	3
ANAT2210	Systems Histology	3
BIOC2101	Principles of Biochemistry (Adv)	6
BIOC2201	Principles of Molecular Biology (Adv)	6
PHPH2101	Physiology 1A	6
PHPH2201	Physiology 1B	6
BSSM2220	Perspectives in Medical Science	3
PSCY2201	Human Behaviour (Science)	6
CHEM2000	Responsibility and Ethics in Science	3
	Total	**48**

Students can elect to replace the courses BSSM2220 and CHEM2000 with ANAT3121 Visceral Anatomy. Other proposed changes or additions to the program must be approved by the Program Co-ordinator.

Year 3

In Year 3, students are required to complete 48 units of credit. Students should undertake a major in Anatomy, Physiology or Biochemistry, or a double major in two of these disciplines. A major may be completed by taking at least 18 units of credit in one discipline area and fulfilling other program requirements specified for that major. Students who do **not** undertake a Biochemistry major **must** complete BIOC3261 (Human Biochemistry). Students in the combined Science and Medicine program are not able to enrol in courses in Pharmacology, Pathology or Immunology. The programs for majors in Anatomy, Biochemistry and Physiology are listed below.

Year 4

Students usually join Year 3 of the 3801 Medicine program. However, students may apply to take Honours in the discipline of their major before proceeding to the Medicine program. The Honours program is a one-year research project in the school of their major. Details are given in the Science section of this handbook. Enquiries should be directed to the head of the appropriate school.

3840 Combined Arts and Medicine Program BA BSc(Med) MB BS

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.

A limited number of places are 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 this 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.

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).

In Year 1, students will complete the Year 1 Medicine program plus the Level 1 courses of their Arts major sequence. In Years 2 and 3 they will complete the program for the Year 2 of the Medicine program and the remaining courses for their Arts component, before progressing to Year 3 of the Medicine program in their fourth year of enrolment.

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 Details

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 36 units of credit (usually 12 at Level 1 and 24 at upper level). Details of all Faculty of Arts courses are given in the Arts section of this handbook.

Year 1

Students are required to complete all Medicine (program 3801) Year 1 courses(with the exception of General Education). plus all Level 1 courses of their Arts major sequence.

ANAT1006	Anatomy 1
BIOC1319	Biochemistry for Medical Students
MFAC1001	Introductory Clinical & Behavioural Studies
PHPH1004	Biology for Medical Students

Level 1 Arts major sequence

Year 2

Medicine Year 2 courses are to be spread over Years 2 and 3 to allow for the completion of upper level courses of their Arts major sequence, plus additional courses to complete the BA component. The Medicine courses BIOC2329 Medical Biochemistry and Genetics and PHPH2018 Medical Physiology 1 must be taken in Year 2 of the BA BSc(Med) MB BS program.

BIOC2329	Medical Biochemistry and Genetics
PHPH2018	Medical Physiology 1

Upper level Arts Major sequence plus additional Arts courses

Year 3

The Medicine courses ANAT2007 Anatomy 2, MDSG2001 Clinical Studies 2 and PSCY2101 Human Behaviour must be taken in Year 3 plus upper level Arts courses to complete the Arts major sequence and any other Arts courses to complete the required units of credit (ie. 60).

ANAT2007	Anatomy
MDSG2001	Clinical Studies 2
PSCY2101	Human Behaviour

Upper level Arts major sequence plus additional Arts courses

Year 4

Students join Year 3 of the Medicine program.

Intern Placement and Ranking of Students

Intern Placement and Registration

Each medical graduate seeking registration as a medical practitioner in New South Wales must complete a period as an intern in a hospital or institution approved by the New South Wales 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 New South Wales 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.

Registration: The Registrar, Medical Board of New South Wales, Gladesville Hospital Campus, off Punt Road, Gladesville, Tel: 9879 6799.

Deferment of Internship

1. Deferment of internship for up to two years.

This may be granted by the Medical Board on the recommendation of the graduate's medical school. Normally this will be granted on medical grounds only, but in exceptional circumstances may be granted on other personal or compassionate grounds (eg. temporary transfer overseas with spouse, childbearing, need to care for close relative, etc.).

Normally deferment will be for one year only, and only in exceptional circumstances will it be granted on the recommendation of the medical school for two years. The medical school will take undergraduate performance into account in determining the length of deferment, and if it wishes may require the applicant to undertake some form of revision and/or assessment before the internship is allowed to commence.

2. Deferment of internship for more than two years.

If a graduate does not take up an internship within two years of graduation the Board will require evidence that the applicant has undertaken an appropriate period of revision and has been assessed as meeting the

standards of current graduating students by an accredited Australian medical school. Normally this will be undertaken in the medical school where the student's undergraduate program was completed, but in exceptional circumstances (eg. family transfer to another state) it could be undertaken at another school. The medical school will provide the Board with details of the revised program and assessment.

In the case of a long deferral, i.e. over 5 years, without significant contact with medicine, the graduate might be required to reattend on a full time basis one or more years of the program and undertake normal undergraduate assessments.

In the case of a shorter deferral or where there has been significant contact with medicine, a special program of student attachments and assessments might be appropriate.

Ranking Students for the Award of Honours

Students are ranked on the basis of their performance throughout the undergraduate 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.

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, ie. 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 Committee 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 2000 was:

Class I Honours

Program Mark: 71.8%-87.6%
Number of Awards: 21
Percent of graduands: 11.2%

Class II Div. I

Program Mark: 69.2%–71.5%
Number of Awards: 24
Percent of graduands: 12.8%

Class II Div. II

Program Mark: 67.00%–69.1%
Number of Awards: 31
Percent of graduands: 16.6%

Table 1. Course Weights Within Years (Six Year Program)

	Course Weights
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

Year	Year Weighting
1	2
2	4
3	4
4	6
5	4
6	6

3831 Bachelor of Science (Medicine) Honours

BSc(Med)Hons

This is a one year research program offered to students in the six year Medicine program who have achieved a high standard in their studies. Those who complete the research program in conjunction with the six year curriculum, will be eligible for the award of the degree BSc(Med)Hons.

In general the aims of the year, normally spent in supervised research, are to enable the student to acquire an appreciation of the value of observation and research in the development of medical science, to determine the 'current state of knowledge' in a defined field, to provide experience in the written and spoken presentation of scientific information and scholarly research, and to provide an invaluable background in basic research philosophy and techniques on which a subsequent career in specialised medical research may be built. This year enables the student to gain experience in the written and spoken presentation of scientific information.

Information concerning this program option is issued to medical students in midyear. A list of available research projects may be obtained from the Office of the Dean.

Rules for the Award of the Bachelor of Science (Medicine) Degree with Honours – BSc(Med)Hons

For candidates in the Programs 3801 and 3840

1.(a) Undergraduates who have successfully completed at least the first three years of the six year Medicine program 3801 or at least the first four years of the seven year Arts/Medicine program 3840 may enrol for the degree of BSc(Med)Hons in one of the following programs: Anatomy, Biochemistry, Microbiology, Pathology, Pharmacology, Physiology, Psychology or in any other program approved by the BSc(Med)Hons

Committee provided that the candidate's performance in the area subject 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 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 research project and any problems encountered by student and supervisors.

Assessment Guidelines

1. The BSc(Med) Hons Committee determine 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.

School of Physiology and Pharmacology

3850 Bachelor of Science in Health and Sports Science

BSc

Program Authority

Dr David Garlick
Sports Medicine/Sports Science Programs
School of Physiology & Pharmacology
Tel: (02) 9385 2557

Manager of Sports Medicine/Sports Science Programs

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Health & Sports Science Project Officer

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Program Details

This program in health and sports science offers a comprehensive education in the area of health and sports science. Four years of full-time study, or the part time equivalent part-time study leads to the award of a Bachelor of Science (in Health and Sports Science) with an Honours program available for students who perform with merit. Part-time students will undertake a reduced program subject to the session availability of courses. Only in exceptional circumstances will full-time students be allowed to enrol in a reduced program for a year, requiring the permission of the Head of School of Physiology and Pharmacology. A total of 192 units of credit must be successfully completed for the award of this degree.

Program Objectives

The program is designed upon the strengths of the Faculty of Medicine in which it is uniquely placed as a sports science degree in Australia. 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 sporting teams, sporting associations, universities, corporate health, private practice, gymnasiums and fitness centres. In addition it is expected that graduates become members of the professional body: Australian Association of Exercise and Sports Science.

Stage 1 introduces students to the core science that will serve as a solid foundation for the following years. Subjects in this include chemistry, mathematics, statistics, biology and psychology. A series of seminars will run throughout this year and will expose students to the industries that offer employment for graduates. Stage 2 of the program begins to focus on human anatomy, physiology and biochemistry biomechanics, sport psychology and nutrition while building on the scientific principle acquired in Stage 1. Stage 3 of this multi-disciplinary program moves the student towards a holistic understanding of health and exercise as it offers increasing complexity of course material: exercise and cardio-respiratory physiology, endocrinology, musculoskeletal physiology, functional anatomy, biomechanics, health psychology, and motor control & function. Stage 4 continues to develop multi-disciplinary expertise through use of specialised courses. Extensive coordinated and structured industry experience is a key component of this final year. Students choose from a selection of courses in their fourth year to aid their graduate employment strategies. Understanding of scientific method is a key component of this course. A major project in final semester will feature as an expression of this understanding through research. General education is a requirement of all undergraduate courses at this university and may be taken in stages 2, 3 and 4.

Stage 1

Session 1		**UOC**
CHEM1011	Fundamentals of Chemistry A	6
CHEM1031	or *Higher Chemistry C*	*6*
*PHPH1501	Introduction to Health & Sports Science A	6
PSYC1001	Psychology 1A	6
BIOS1201	Molecules, Cells and Genes	6
Session 2		
CHEM1021	*Fundamentals of Chemistry B* or	*6*
CHEM1041	Higher Chemistry D	6
MATH1031	Mathematics for Life Sciences	6
PSYC1011	Psychology 1B	6
*PHPH1502	Introduction to Health & Sports Science B	6
	Total	**48**

Stage 2

Session 1		
BIOC2181	Fundamentals of Biochemistry or	6
BIOC2101	Principles of Biochemistry (Advanced)	6
ANAT2111	Introductory Anatomy	6
PHPH2501	Physiology for Health & Sports Science A	6
SESC2451	Biomechanics for Sports Scientists	6
Session 2		
PHPH2502	Physiology for Health & Sports Science B	6
FOOD3220	Nutrition	6
PSYC2126	Sports Psychology	6
GENSxxxx	General Education Subjects	3

	Total	**48**

Stage 3

Session 1

ANAT3131	Functional Anatomy 1	6
SESC3451	Human Movement Measurement Methods	6
PHPH3501	Brain Mechanisms in Sensory Motor Integration	6
PHPH3502	Skeletal Muscle in Health and Exercise	6

Session 2

ANAT3141	Functional Anatomy 2	6
PSYC3536	Health Psychology	6
*PHPH3503	Physiology of Endurance Activity	6
PATH2201	Processes in Disease	6
	Total	**48**

Stage 4 core

Session 1

PHPH4501	Introductory Research Methods	3
PHPH4502	Principles of Pharmacology	3
PHPH4503	Practicum A	6
GENSxxxx	General Education Subjects	3
Elective courses totalling		9

Session 2

PHPH4504	Practicum B	6
PHPH4505	Research Project	6
PHPH4506	Drugs in Sport (Effects and Interaction)	3
GENSxxxx	General Education Subjects	3
Elective course		6
Total (including electives)		**48**

Stage 4 electives

Session 1

PHPH4511	Sports Management	3
PAED4560	Paediatric Exercise Science	6
BIOM9541	Mechanics of the Human Body	6
SESC9400	Ergonomics 1	3
FOOD3440	Advanced Nutrition	6

Session 2

CMED9516	Introduction to Public Health	4
PHPH4512	Circadian Rhythms: Sleep Physiology and Pathophysiology	3
SESC9410	Ergonomics II	3
PATH3207	Musculoskeletal Diseases	6
ELEC9405	Human Movement Control Topics	6

* courses awaiting approval

Notes on Stage 4

Core: Students must complete courses in Pharmacology and Drugs in Sport. Students must complete PHPH4502 or PHPH3151 in session 1 and PHPH4506 or PHPH4507 in session 2.

Electives: Students must choose from the available electives, so as to provide a total of 48 Units of Credit in Stage 4.

Units of Credit:

Stage 1, 48; Stage 2, 48; Stage 3, 48; Stage 4, 48.
Total Units of Credit for the Program = 192
Full-time program load equivalence (EFTSU) = 1.

A Message from the Dean

Welcome to Science at UNSW

There has never been a more exciting time to undertake Science studies. Governments around the world are recognising the fundamental importance of Science for the health of their nation's economies in the future. This means that a starting point in Science will be the basis for a wide range of career opportunities, from those that involve hands-on technical or research activities, to those that use the skills and knowledge of Science training to work within a profession or to make management and investment decisions.

The distinctions that once existed between basic discovery Science, application of knowledge, development and use of technology and commercial implementation have all but disappeared. The integration of all of these aspects has always been a feature of Science@UNSW. As you explore the possibilities outlined in this Handbook, I know that you will be impressed by the breadth of opportunities offered. A special feature is the flexibility of most Science programs which allow you to build a progression of courses that best support your career aspirations as an undergraduate, or your needs for advanced level training in specialised skills at a postgraduate level.

Material on Science programs in the Handbook outlines the basic rules for different degree and diploma programs, and the courses available for study. However, it can only indicate the full range of possibilities. The staff of the Science Student Office (for undergraduate students) and in the Schools of the Faculty are available to provide assistance on administrative matters, course selection and career directions, and to help you overcome any difficulties you may be encountering in your studies. You are encouraged to approach Faculty Staff to discuss your progress and any concerns you may have.

The staff of the Faculty of Science wish you every success in your studies at UNSW. We hope that the time you spend with us as valued members of the UNSW community will be happy, stimulating, productive and rewarding 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.

Dean
Faculty of Science

Faculty of Science

Contents

Faculty Information and Assistance
- General Information 260
- Some People Who Can Help You 260
- Course Descriptions 260
- Enrolment Procedures 260

Program and Course Information 260
- Overview of Programs 260
- Program Design 261
- Program Objectives 261
- Table 1: Subject Areas, Programs and Study Plans in Science 262
- General Rules and Requirements 262

Program Descriptions 263
- **Science Program (3970) 263**
- Table A: Majors Offered in the 3 Year BSc Degree (3970) and Combined Degrees 264
- Table B: Minors Offered in the 3 Year BSc Degree (3970) 268
- **Advanced Science Degrees (3973; 3985; 3986; 3990) - Honours/Advanced Degree (4 years) 269**
- **Study Plans Available in Advanced Science 269**
- Anatomy 269
- Biochemistry 270
- Biological Science 270
- Ecology 271
- Biotechnology 271
- **Chemistry**
  - Chemistry 272
  - Medical Chemistry 272
- Food Science and Technology 272
- Genetics 273
- **Geology**
  - 2503 Geophysics 273
- Marine and Coastal Studies 273
- Materials Chemistry 274
- Materials Science 274
- **Mathematics**
  - Applied Mathematics 275
  - Mathematics and Computer Science 275
  - Statistics 275
  - Mathematics and Finance 276
  - Physical Oceanography/Meteorology 276
  - Pure Mathematics 276
- Medical Physics 276
- **Microbiology and Immunology**
  - Microbiology 277
  - Medical Microbiology and Immunology 277
- Molecular Biology 277
- Neuroscience 278
- **Physics**
  - Physics 278
  - Physics and Astronomy 278
  - Physics with Computer Science 278
  - Engineering Physics 279
- Physiology and Pharmacology 279
  - Physiology 279
  - Pharmacology 279

Psychology 280
Environmental Science
3988 Environmental Science Degree 280
Media and Communications
3993 Bachelor of Science (Communications) 281
3994 Bachelor of Science (Media and Communications) 281
Medical Science
3991 Medical Science Degree 282

Specialist Degrees

Aviation **282**
3980/3981 Aviation Degree Programs Full Time 282
Biotechnology
3052 Biotechnology Full-time Program 283
3055 Bioprocess Engineering - Full-time Program 284
Chemical Engineering and Industrial Chemistry
3100 Industrial Chemistry Full-time Program 284
Computer Science
3978 Computer Science Program 285
Food Science and Technology **285**
3060 Food Science and Technology Full-time Program 286
3065 Honours in Food Science Full-time Program 286
3070 Food Science and Technology Part-time Program 286
Geography **287**
3010 Geography Program Full-time 287
Geology **287**
3000 Applied Geology Program Full-time 288
Information Systems and Business Information Technology **288**
3979 Information Systems Program 288
3971 Business Information Technology Program Full-time 289
Materials Science and Engineering **289**
3135 Bachelor of Engineering Single Degree Program 289
Physical Metallurgy Plan 290
Process Metallurgy Plan 290
Materials Engineering Plan 290
Ceramic Engineering Plan 291
3030 Ceramics Part-time Program 291
3130 Metallurgy Part-time Program 291
3138 Bachelor of Engineering Master of Biomedical Engineering Program 291
3128 Bachelor of Engineering Master of Commerce Program 292
Nanotechnology
3617 Nanotechnology Program Full-time 293
Optometry
3950 Optometry Degree Program Full-time 293
3951 Combined Science and Optometry Program 294
Psychology
3432 Psychology Degree Full-time 294
Safety Science **294**
3877 Safety Science Full/Part-time 295
Combined degrees with Science **295**
3930 Combined Science and Arts 295
3931 Combined Advanced Science and Arts 295
3935 Combined Science and Social Science 295
3936 Combined Advanced Science and Social Science 295
3932 Combined Environmental Science and Arts Program 296
4075 Science Education Program 296
3450 Combined Science Innovation Management 296
Science and the Faculty of Engineering
3611 Combined Science/Aeronautical Engineering Program 297
3661 Combined Science/Industrial Engineering Program 297
3681 Combined Science/Mechanical Engineering Program 297
3701 Combined Science/Naval Architecture Program 297
3725 Combined Science/Electrical Engineering Program 297
3730 Combined Science/Civil Engineering Program 297
Science and the Faculty of Medicine
3820 Combined Science and Medicine Program 297
Science and the Faculty of Commerce and Economics
3529 Combined Commerce and Science Program 297
Science and the Faculty of Law
4770 Combined Science and Law Program 297

Faculty Information and Assistance

Science at UNSW

General Information

Science programs are built from the wide range of science and technology-based courses available across the University.

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, further on. However, the information which follows in this section applies equally to both types of program.

The education and academic activities at UNSW are organised around the Faculties. The Faculty of Science is focussed towards providing teaching and research in the sciences. Others, 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***. These majors, minors, and study plans are listed in the contents pages, and are described in detail in the body of the Science section of this Handbook.

Some People Who Can Help You

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 Office, Lower Ground Floor, Electrical Building: tel: **(02) 9385 6125**, fax: **(02) 9385 6127** or email: **SSO@unsw.edu.au**. The office is staffed during teaching weeks between 9am and 5pm from Monday to Thursday and between 9am and 4pm on Fridays. During non-teaching weeks the Student Centre is staffed Monday to Friday between 9am and 4pm.

For information and advice about course content and requirements, contact the appropriate schools/teaching units.

Course Descriptions

Course descriptions offered in 2002 can be found in alphabetical order by the course code at the back of this handbook. For a full list of courses offered by the University contact New South Student or www.student.unsw.edu.au.

Enrolment Procedures

New students will receive enrolment information with their offer of a place in their chosen program. All students re-enrolling in 2002 should enrol via NewSouth Student Online during appropriate appointment periods. Information regarding enrolling online is available from NewSouthQ, Science Student Office or via the University of New South Wales student web page: www.student.unsw.edu.au

The Course timetable for the Science and the Advanced Science programs is available in late October/early November from the Science Student Office, The Undercroft, Electrical Engineering Building. All re-enrolling students should collect one of these timetables. Students who expect to complete the requirements for their degree in 2002 or are proceeding to Honours will also need to collect form: SM2002. This enrolment form is to be completed and returned to the Science Student Office by late December.

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.

Note: Quotas apply to certain courses and programs, as indicated in the relevant program or course descriptions.

Program and Course Information

Science Programs
– program codes 3970; 3978; 3979
Advanced Science Programs
– program codes 3973; 3976; 3985; 3986; 3990
Environmental Science Program
3988
Media and Communications
3993,3994
Medical Science Program
3991

Overview of Programs

The main aims of the 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 Science Programs **(3970; 3978; 3979; 3991; 3993; 3986; 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 **(3973; 3976; 3985; 3990)** 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.

Admission

For admission requirements for Science programs see the appropriate entry in the current UAC Handbook.

Applicants for admission to Science programs should note that a number of new UAC entry codes have been introduced which correspond to specific programs and programs of study. UAC entry codes for Science programs are:

429000 Science

This is applicable to study in a wide range of Science areas in program 3970 as indicated in the majors outlined in Table A.

429003 Science Communications

This is applicable to study in a wide range of Science areas in program 3993. The majors available are the same as for 3970.

429004 Science Media and Communication

This is applicable to study in a wide range of Science areas in program 3994. The majors available are the same as for 3970.

429007 Medical Science

This is applicable to study in the Bachelor of Medical Science as outlined in the program description.

429008 Environmental Science

This is applicable to study environmental science in program 3988 as outlined in the specialisations under Environmental Science.

429009 Advanced Science (Life Sciences)

This is applicable to study in areas of biological, biomedical and behavioural sciences in program 3990 as outlined in the study plan descriptions under Advanced Science.

429010 Advanced Science (Science and Technology)

This is applicable to study in areas of mathematics, chemistry and physics in programs 3973 (Medical Physics) 3985 and 3986 (Mathematics and Finance) as outlined in the study plan descriptions under Advanced Science.

The number of places available each year in the Advanced Science programs is limited, and this is reflected in a higher UAI cut-off for these programs.

429016/429017* This is applicable to study Aviation (Flying or Management) in programs 3980/3981* as outlined under Specialist Degrees in the Science section of this Handbook.

429018 This is applicable to study biotechnology in program 3052 as outlined under Specialist Degrees in the Science section of this Handbook.

429019 Computer Science This is applicable specifically to a major in Computer Science in program 3978.

429020 This is applicable to study food science and technology in programs 3060/3065/3070 as outlined under Specialist Degrees in the Science section of this Handbook.

429021 This is applicable to study geography in program 3010 as outlined under Specialist Degrees in the Science section of this Handbook.

429022 This is applicable to study applied geology in program 3000 as outlined under Specialist Degrees in the Science section of this Handbook.

429024 Information Systems This is applicable specifically to a major in Information Systems in program 3979.

429025 This is applicable to study optometry in programs 3950/3951 as outlined under Specialist Degrees in the Science section of this Handbook.

429026 This is applicable to study psychology in program 3432, leading to a Bachelor of Psychology, as outlined under Specialist Degrees in the Science section of this Handbook.

429011 This is applicable to study nanotechnology in program 3617 as outlined under Specialist Degrees in the Science section of this Handbook.

425000 This is applicable to study bioprocess engineering in program 3055 as outlined under Specialist Degrees in the Science section of this Handbook.

425001 This is applicable to study a number of Materials Science and Engineering plans in physical and process metallurgy, ceramic and materials engineering as outlined under Specialist Degrees in the Science section of this Handbook.

Program Design

Content of Programs

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 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 capacity in the course. Some electives may have to be taken from a specified list. Students have freedom to choose their General Education courses, except from their own faculty.

Prerequisites are courses that must be satisfactorily completed before a student can progress to a later course. Prerequisites are specified in the course descriptions and students without a necessary prerequisite for a course will be blocked from enrolment in that course by NSS.

The Science program (3970)

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 section under Program Descriptions. The main thing that students in the Science program need to ensure is 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.

Advanced Science program (3973, 3985, 3986, 3990)

A feature of the design of both the Advanced Science program is the requirement that all students enrol in and complete requirements for a specified study plan. 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 (eg Anatomy, Chemistry) but some are multidisciplinary (eg Mathematics and Computer Science). Some courses are only available in the Advanced Science programs. See the relevant study plan for details.

Students are required to fulfil all of the requirements of their particular study plan as specified in the handbook in the year in which they first enrolled.

Environmental Science Program (3988)

This is a 4 year degree leading to a Bachelor of Environmental Science. A student must complete the core in Environmental Science plus another specialisation in one of the approved disciplines.

Medical Science Program (3991)

These are 3 year degrees based on structured study plans leading to a Bachelor of Science. Subject to certain conditions a student may be permitted to continue into a fourth year to complete an honours degree.

Bachelor of Science (Communications) Program (3993)

Bachelor of Science (Media and Communications) Program (3994)

These are 3 year Science degrees in which students must do a major in Communications or Media Studies 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.

Combined degrees

In these degrees Science is combined with studies in another Faculty (eg 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.

Courses

Typically, each program requires study of a number of prescribed 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 (see **Program Requirements and Rules** below). 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 II/III	Stage 2 *or* 3
Level III	Stage 3 (also Stage 4 in some Advanced Science programs)
Level IV	Stage 4 (*or* Honours year) – Advanced Science only

Program Objectives

Programs in the Science and the Advanced Science degrees have been designed to:

1. develop and sustain an interest in and knowledge of Science.
2. develop a working knowledge of scientific methods of investigation.
3. 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.
4. develop an appreciation of scientific criteria and a concern for objectivity and precision.
5. develop confidence and skill in formulating problems and in treating both qualitative and quantitative data.
6. develop the ability and disposition to think logically, to communicate clearly by written and oral means, and to read critically and with understanding.
7. develop the habit of seeking and recognizing relationships between phenomena, principles, theories, conceptual frameworks and problems.
8. 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.

9. 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.
10. provide opportunity to study science in combination with other disciplines.

Table 1: Subject Areas, Programs and Study Plans in Science

Majors and Study Plans available for Science and Advanced Science Programs:

Subject Area	Available in Program(s)	UAC Entry Code(s)
Anatomy	3970, 3990	429000, 429009
Applied Mathematics	3985	429009
Aviation	3980	429016
	3981	429017
Biochemistry	3970, 3990	429000, 429009
Biological Science	3970, 3990	429000, 429009
Biotechnology	3970, 3990	429000, 429009
	3052, 3055	429018, 425000*
Chemistry	3970, 3985	429000, 429010
Computer Science	3978	429019
Ecology	3970, 3990	429000, 429009
Engineering Physics	3985	429010
Environmental Sciences		
- Biology	3988	429008
- Marine	3988	429008
- Microbiology	3988	429008
- Chemistry	3988	429008
- Earth Science	3988	429008
- Geography	3988	429008
- Oceanography	3988	429008
Environmental Earth Science	3970	429000
Environmental Systems	3970	429000
Food Science and Nutrition/	3970, 3990	429000, 429009
Technology	3060, 3065	429020
	3070	
Genetics	3970, 3990	429000, 429009
Geography	3970, 3010	429000, 429021
Geology	3970, 3000	429000, 429022
Geophysics	3985	429010
Information Systems	3979, 3971	429024
Marine Science	3970	429000
Marine and Coastal Studies	3990	429009
Materials Chemistry	3985	429010
Materials Science	3970, 3985	429000, 429010
	3025, 3030	425001
	3125, 3615	
Mathematics	3970	429000
Mathematics and Finance	3986	429010
Mathematics and	3985	429010
Computer Science		
Medical Chemistry	3985	429010
Medical Microbiology	3970,3990	429000, 429009
and Immunology		
Medical Physics	3973	429010
Medical Science	3991	429007
Microbiology	3970,3990	429000, 429009
Molecular Biology	3970, 3990	429000, 429009
Nanotechnology	3617	
Neuroscience	3990	429009
Optometry	3950, 3951	429025
Pharmacology	3970, 3990	429000, 429009
Philosophy	3970	429000
Physical Oceanography/	3970, 3985	429000, 429010
Meteorology		
Physics	3970, 3985	429000, 429010
Physics and Astronomy	3985	429010
Physics with Computer	3985	429010
Science		
Physiology	3970, 3990	429000, 429009
Psychology	3970, 3990	429000, 429009
	3432	429026
Psychology and	3978	429019
Computer Science		
Pure Mathematics	3985	429010
Safety Science	3970, 3877	429000
Science and Technology	3970	429000
Studies		
Science Communications	3993	429003
Science Media and	3994	429004
Communications		
Statistics	3970, 3985	429000, 429010

Note: Certain of the majors listed above are also appropriate for programs **3930** (Science/Arts), **3931** (Advanced Science/Arts), **3932** (Environmental Science/Arts), **3450** (Science/Innovation Management), **3529** (Science/Commerce), **3611** (Science/Aeronautical Engineering), **3661** (Science/Industrial Engineering), **3681** (Science/Mechanical Engineering), **3701** (Science/Naval Architecture), **3725** (Science/Electrical Engineering), **3730** (Science/Civil Engineering), **3820** (Science/Medicine), **3951** (Science/Optometry), **4075** (Science/Education), **4770** (Science/Law). Students in these courses should consult their program advisor for details.

Students interested in Life Sciences topics but unsure of which program to choose are advised to enrol in the Biological Sciences Holding Program for the First Year.

General Rules and Requirements

General Education Requirement

1. 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 General Education within this Handbook for a description of General Education course categories.

1.1 Mainstream courses may be substituted for General Education with the approval of the Associate Dean (Undergraduate Science). Only 6 units of credit from mainstream courses may be substituted for General Education.

1.2 Students enrolled in combined degrees are exempt from the General Education requirement.

Prerequisites, Corequisites and Excluded Courses

2. Where a choice of courses is available in a program students must take care to satisfy prerequisites and corequisites. A prerequisite is a course 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 studied concurrently with, the course for which it is prescribed. An excluded course is one which cannot be counted towards the degree qualification together with the course which excludes it.

Credit Transfer

3. In addition to University rules governing admission with credit for previous studies or attainments, the following provisions apply.

   Students admitted to the Science or Advanced Science programs may be granted credit for previous studies and attainments provided that:

3.1 Where students transfer from another tertiary institution, they shall not in general be granted credit superior to that attained at the other institution.

3.2 Students admitted to the Science program who hold a completed or partly completed degree or another award, may be given credit for previous studies and attainments, but in order to qualify for the award of the BSc will be required as a minimum to complete courses equivalent to the requirements for Stage 3 of the program.

3.3 Students admitted to the Advanced Science program who hold a completed or partly completed degree or another award (including the BSc at pass level at UNSW), may be given credit for previous studies and attainments, but in order to qualify for the award of the BSc in an Advanced Science program, will be required as a minimum to complete a sequence of courses or other requirements equivalent to the requirements for Stage 4 of the program.

Study Load

4. 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. 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 voluntary courses.

Academic Standing

5. 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), Referral, 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 adviser 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 on Academic Standing please consult section on Academic Standing in the General Information section of this handbook.

Program and Course Quotas

6. 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.

Accelerated Progression in Advanced Science Programs

7. There is provision for exceptionally talented students to take higher level courses in Stage 1. Contact the Science Student Office for details.

Graduation and majors

Science Program (3970)

8. 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 program name). The award will appear on the testamur as:

   Bachelor of Science in (name of program)

   or

   Bachelor of Science with Honours in (name of program or specialisation)

Advanced Science Programs (3973, 3985, 3986, 3990)

9. 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 program name, 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 program 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 program or specialisation)

Program Descriptions

Science Program (3970) pass program (3 years)

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 *.
5. No student may commence Level II courses until 24 Level I units have been successfully completed.
6. A student must complete a minimum of 84 units of credit from Science Schools *.
7. 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.
8. 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. Major sequences are defined in Table A
9. 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.
10. 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.

** Defined as Schools in the Science Faculty plus those in other Faculties that currently provide programs under the authority of the Faculty of Science.*

Table A: Majors Offered in the 3 Year BSc Degree (3970) and Combined Degrees

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 (of 24 units of credit per session). These additional courses (electives) may come from any available Level 1 courses 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 1 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 pre-requisites in an earlier stage or co-requisites 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 years.
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 MATH#### courses). In cases where there is a higher course, the proportion of Distinction and High Distinction grades is lower in the corresponding ordinary level course.

(b) ★MATH2060 may be omitted from this 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. Where students have the necessary qualifications they are strongly encouraged to enrol in CHEM1031 and CHEM1041 instead of CHEM1011 and CHEM1021.
5. Students are advised that Mathematics or Physics courses totalling 6 units of credit, are recommended for all programs.
6. BIOC2181 and BIOC2291 may be substituted for BIOC2101 and BIOC2201 respectively (but only with the permission of the Head of School). Minimum grades of credit in BIOC2181 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.

Major Staff Contact	Stage 1	Stage 2	Stage 3
Anatomy **Dr B Freeman**	BIOS1101, BIOS1201	ANAT2111, ANAT2200, ANAT2210, ANAT2300, ANAT2310, ANAT2600, ANAT2610 (ANAT3121 may be taken in stage 2)	Choose 18 units of credit from: ANAT3121 ANAT3131, ANAT3141, ANAT3231, ANAT3411, ANAT3421 Plus 6 units of credit from: level III Anatomy not already taken or 6 units of credit at level III from the schools of Biochemistry, Biological Science, Microbiology, Pathology or Physiology
Biochemistry **A/Prof Bagnara** **A/Prof M Edwards**	BIOS1101, BIOS1201 CHEM1011, CHEM1021 At least 6 units of credit from first year mathematics	BIOC2101, BIOC2201, Plus 6 units of credit from: BIOS2021, CHEM2021, CHEM2041, MICR2011	A Total of 24 units of credit Choose 12 or 18 units of credit from: BIOC3111, BIOC3261, BIOC3271. Choose 0-12 units of credit from: BIOC3121, BIOC3281, BIOC3131. Choose 0 or 6 units of credit from: ANAT3231, BIOT3061, CHEM3021, CHEM3041, MICR3041, PHPH3211, PHPH3221
Biological Science **A/Prof P Adam**	BIOS1201, BIOS1101, CHEM1011, MATH1041	BIOS2011, BIOS2021 (or BIOS2621), BIOS2041. Plus 6 units of credit from: BIOS2031, BIOS2051, BIOS2061	Choose 24 units of credit from Level III Biological Science Courses.
Biomechanics **Dr A McIntosh**	12 units credit from Level 1 Mathematics	ANAT2511 or ANAT2151 and SECS340 SECS2451	BIOM9541, SECS3451 Plus 18 units of credit from: ANAT3131, BIOM9561, PHPH2501, PHPH2502, PHYS2410, SECS3901, SECS9460
Biotechnology **Ms K Edmunds**	BIOT1011, BIOS1201, CHEM1011, CHEM1021 MATH1031, MATH1041	BIOC2101, BIOC2201, MICR2201 And Recommended BIOS2021, MICR2011	BIOT3011, BIOT3021, Choose 12 units of credit from: BIOT3061, BIOT3071, BIOT3081

Chemistry **Dr G Moran**	CHEM1011, CHEM1021 *OR* CHEM1031,CHEM1041 12 units of credit from first year Mathematics, 6 units of credit from first year Physics	18 units of credit from: CHEM2011, CHEM2021, CHEM2031 or CHEM2839, CHEM2041	18 units of credit from level III Chemistry of which 12 units of credit must be from: CHEM3011, CHEM3021, CHEM3031, CHEM3041 Plus a further 6 units of credit from level II/III Chemistry.
Ecology **A/Prof P Adam**	BIOS1201, BIOS1101, CHEM1011, MATH1041	BIOS2011, BIOS2041. Plus 6 units of credit from: BIOS2031, BIOS2051, BIOS2061	Choose 24 units of credit from: BIOS3061, BIOS3071, BIOS3081, BIOS3091, BIOS3011, BIOS3111, BIOS3601 (or Advanced level equivalents)
Environmental Earth Science **Dr D Cohen** **Dr S Mooney**	GEOG1601, GEOG1701, GEOL1111, GEOL1211, BIOS1101	GEOL2181, GEOL2101 or GEOG2721, GEOL2131 or GEOG2811, Plus 6 units of credit from either level II Geology or level II Geography courses	GEOG3911, GEOL3281 Plus 12 units of credit from: GEOL2231, GEOL2291, GEOL3120, GEOL3171, GEOG3731, GEOG3821, GEOG3921, MSCI6300
Environmental Systems **Dr D Cohen** **Dr S Mooney** **A/Prof P Adam**	Choose at least 6 units of credit from Mathematics, Biology, Geology and Geography	6 units of credit from Statistics. Plus at least 12 units of credit from the following: BIOS2011, GEOG2711, GEOL2181	At least 24 units of credit from the following: BIOS3071, BIOS3111 *OR* GEOG3711, GEOG3911 *OR* MSCI6300, GEOL3281
Food Science and Nutrition **Prof K Buckle**	BIOS1101, BIOS1201, CHEM1011, CHEM1021, MATH1041 FOOD1110 Also recommended: MATH1031, PHYS1111	BIOC2181, FOOD2320, FOOD3220 Also Recommended BIOC2291, CHEM2921, FOOD1230, MICR2201, PHPH2101, PHPH2201	FOOD1310, FOOD3440, Plus 12 units of credit from: FOOD1390, FOOD2330, FOOD2340, FOOD2350 Also Recommended CHEM3801
Genetics **Prof I Dawes** **Dr A Wilton**	BIOS1101, BIOS1201, CHEM1011, CHEM1021 MATH1031, MATH1041	BIOS2021 Choose 12 units of credit from: BIOC2101, BIOC2201, BIOS2041, MICR2011 (BIOS2041 may be replaced by MATH2841 or an approved COMP course).	A total of 24 units of credit BIOC3151, BIOC3291 Choose 6 or 12 units of credit from: BIOC3121, BIOC3131, MICR3021 Choose 0 or 6 units of credit from: BIOS3071, BIOT3061
Geography **Dr S Mooney**	GEOG1601, GEOG1701	GEOG2101 Plus 12 units of credit from level II Geography.	Choose 24 units of credit from level III Geography.
Geology **Dr D Cohen**	GEOL1111, GEOL1211	Choose 18 units of credit from level II Geology	Choose 24 units of credit of Level III Geology courses.
Marine Science (Marine Biology) **Prof J Benzie**	BIOS1101, BIOS1201	MSCI2001, MSCI6200, BIOS2031, MICR2201	MSCI3001, BIOS3081, BIOS3091,MICR3071
Marine Science (Physical Oceanography) **Dr M England**	MATH1131 or MATH1141, MATH1231 or MATH1241, PHYS1121, PHYS1221	MSCI2001, MATH2011, MATH2240, MATH2120, MATH2301	MSCI3001, MATH3121, MATH3241, MATH3261 *OR* MATH3270
Marine Science (Marine Geology) **A/Prof A Albani**	GEOL1111, GEOL1211	MSCI2001, MSCI6200, GEOL2101, GEOL2181	MSCI3001, MSCI6300 Plus 6 units of credit from: GEOL2231, GEOL3121. Plus a further 6 units of credit from level III Geology courses.

Materials Science	MATH1131, MATH1231 PHYS1121, PHYS1221	MATS1072, MATS1082, MATS1112, MATS 1142, MATS1162	MATS1093, MATS1163, MATS1183, MATS1213, MATS1283, MATS2213
Mathematics *(See Note 3c above)* **Dr D Trenerry**	MATH1131, MATH1231 MATH1081	MATH2011, MATH2060*, MATH2120, MATH2501, MATH2520, MATH2801	18 units of credit from level III Mathematics
Medical Microbiology and Immunology **Dr M Cooley**	CHEM1011, CHEM1021, BIOS1101, BIOS1201 Plus 6 units of credit from: MATH1031, MATH1041	MICR2201, MICR2011 Plus 6 units of credit from: BIOC2101, BIOC2201, PHPH2101, PHPH2201, BIOS2021	A total of 24 units of credit Choose at least 18 units of credit from: MICR3041, MICR3641, MICR3051, MICR3061, MICR3081 Choose 0-6 units of credit from: MICR3031, MICR3021 or MICR3621, PHPH3121, PHPH3151 or PHPH3551, BIOC3261, BIOC3271, BIOC3291, PATH3204, PATH3205
Microbiology **Dr P March**	CHEM1011, CHEM1021, BIOS1101, BIOS1201 Plus 6 units of credit from: MATH1031, MATH1041	MICR2201, MICR2011 Plus 6 units of credit from: BIOS2021or BIOS2621, BIOC2201	MICR3021or MICR3621 Plus 12 units of credit from: MICR3011, MICR3061, MICR3071, MICR3081 Plus 6 units of credit from: MICR3011, MICR3031, MICR3061, MICR3071, MICR3081, GEOG3911, BIOS3071 or BIOS3671, BIOT3011 or BIOT3611, BIOT3041, BIOT3081, BIOC3121 or BIOC3621, FOOD2480, FOOD2490, CHEM3901
Molecular Biology **A/Prof M Edwards** **Dr R Cavicchioli**	CHEM1011, CHEM1021, BIOS1101, BIOS1201 Plus 6 units of credit from: MATH1031, MATH1041	MICR2201, MICR2011 or MICR2611 BIOC2101, BIOC2201, BIOS2021 or BIOS2621	MICR3021or MICR3621, BIOC3121 or BIOC3621, BIOC3281 Plus 6 units of credit from: BIOC3131, BIOT3061, MICR3011, BIOC3111, BIOC3271 or BIOC3671, BIOC3301
Physical Oceanography/ Meteorology **Dr John Middleton**	MATH1131, MATH1231 PHYS1121, PHYS1221, MATH1081	MATH2011, MATH2060*, MATH2120, MATH2240, MATH2301, PHYS2810 Plus 3 units of credit from Mathematics or Physics	MATH3121, MATH3241, MATH3261 *OR* MATH3270 Plus 3 units of credit of Mathematics
Pharmacology **Prof M Murray**	CHEM1011, CHEM1021, BIOS1101, BIOS1201,	PHPH2101, PHPH2201 BIOC2101, BIOC2201 *OR* BIOC2181, BIOC2291	PHPH3151, PHPH3251 Plus 12 units of credit from: PHPH3121, PHPH3131, PHPH3211, PHPH3221 *OR* BIOC3261, BIOC3111, BIOC3121 *OR* CHEM3021, CHEM3901
Philosophy **Dr M Michael**	12 units of credit of level I Philosophy	Choose 18 units of credit from level II/III Philosophy	Choose 24 units of credit from level II/III Philosophy
Physics **Ms S Hagon**	MATH1131, MATH1231 PHYS1121, PHYS1221	PHYS2050, PHYS2060, PHYS2040, PHYS2030, Plus 12 units of credit from level II or Level III Physics Also recommended: MATH2011, MATH2120	Choose 18 units of credit from level III Physics.

Physiology **Dr G Simonetta**	CHEM1011, CHEM1021, BIOS1101, BIOS1201, MATH1031, MATH1041	PHPH2101, PHPH2201 BIOC2101, BIOC2201 *OR* BIOC2181, BIOC2291	Choose 18 units of credit from: PHPH3121, PHPH3131, PHPH3211, PHPH3221 Plus 6 units of credit from: Any level III Physiology course not included above PHPH3151, PHPH3251, BIOC3261, BIOC3271, BIOC3111, BIOC3121, MICR3041, MICR3051, PATH3205, PATH3206, PATH3207 or Any level III Anatomy course.
Psychology **A/Prof P Lovibond**	PSYC1001, PSYC1011	PSYC2001 Plus 18 units of credit from: PSYC2061, PSYC2071, PSYC2081, PSYC2101	PSYC3001 Plus 18 units of credit from Level III Psychology courses (from at least two elective groups)
Safety Science **Prof J Cross**	12 units of credit from Level I Mathematics	ANAT2151, MATH2839* SESC2091, SESC2100, *or any other approved statistics course	PSYC3141 or IROB2721, SESC3200, SESC3541, SESC3601, SESC4310 Plus additional level II or III SESC courses to total 42 units of credit.
Science and Technology Studies **Dr A Corones**	Up to 12 units of credit from: HPST1107, HPST1108, SCTS1106, SCTS1107	Choose 18 units of credit from level II/III Science and Technology Studies	Choose 24 units of credit from level II/III Science and Technology Studies
Statistics **Dr P J Cooke**	MATH1131, MATH1231 MATH1081	MATH2060*, MATH2501, MATH2510, MATH2801, MATH2810, MATH2831	MATH3801, MATH3811, MATH3821

Table B: Minors Offered in the 3 Year BSc Degree (3970)

Note: *A minor can be taken as a smaller subset of majors listed in Table A*

Minor	Stage 1	Stage 2	Stage 3
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.			
Australian Studies **Chinese Studies** **Cognitive Science** **Comparative Development** **Education** **English** **Environmental Studies** **European Studies** **French** **German Studies** **Greek (Modern)** **History** **Indonesian Studies** **Japanese Studies** **Jewish Studies** **Korean Studies** **Latin** **Linguistics** **Music** **Philosophy of Science** **Politics and International Relations** **Russian Studies** **Social Science and Policy** **Sociology** **Spanish and Latin American Studies** **Theatre, Film and Dance** **Women's Studies**	}	All Minors from the Faculty of Arts and Social Sciences require a total of 24 upper level units of credit from a particular School. **Note:** No more than 12 units of credit of Level I courses may be taken from any one school or department.	
Accounting	ACCT1501, ACCT1511	24 level II or III units of credit in Accounting.	
Aviation	AVIA1100, AVIA1900, AVIA1850	24 units of credit from AVIA2100, AVIA2400, AVIA2500, AVIA2700, AVIA2800, AVIA3101, AVIA3201, AVIA3400, AVIA3600, AVIA3710, AVIA3800, AVIA3810, AVIA3851	
Botany	BIOS1101, BIOS1201	BIOS2011, BIOS2051	BIOS3061, MICR3071
Business Economics	ECON1101, ECON1102	24 level II or III units of credit in Business Economics.	
Business Law and Taxation		24 level II or III units of credit in Business Law and Taxation	
Business Statistics	ECON1101, ECON1102	24 level II or III units of credit in Business Statistics.	
Chemical Engineering and Industrial Chemistry	CEIC1020	24 level II or III units of credit in chemical engineering or Industrial Chemistry	
Civil Engineering	CVEN1023, CVEN1026, CVEN1024	CVEN2023 21 units of credit from CVEN0646, CVEN0656, CVEN2026, CVEN2125, CVEN2126, CVEN2322, CVEN2525, CVEN3126, CVEN3224, CVEN3438, CVEN3448, CVEN3525, CVEN4533, CVEN4722, INDC4120, CEIC0050	
Computing	COMP1011	COMP2811, COMP2011	COMP2021, COMP2041
Economic History		24 level II or III units of credit in Economic History	
Electrical Engineering & Telecommunications	ELEC1011	ELEC2031, ELEC2032	18 Units of Credit from one of the following groups: ELEC3004, ELEC3014, ELEC3041; or ELEC3006, ELEC3016; or TELE3013, TELE3010, TELE3018
Finance		24 level II or III units of credit in Finance	
Surveying and Spatial Information Systems	One of GMAT0411, GMAT0441, GMAT0442	24 level II or III units of credit in Surveying and Spatial Information Systems	
Human Resource Management		24 level II or III units of credit in Human Resource Management.	
Industrial Relations		24 level II or III units of credit in Industrial Relations.	
Information Systems		24 level II or III units of credit in Information Systems.	
International Business		24 level II or III units of credit in International Business.	
Marketing		24 level II or III units of credit in Marketing.	
Mechanical and Manufacturing Engineering		MECH2601, MECH2602	MECH3601, MECH3602 or an alternative sequence of 24 units of credit at Level II or III with the approval of the Head of School.
Pathology		PATH2201	PATH3205, PATH3206, PATH3207
Remote Sensing		GEOG2811, GEOG2821	GEOG3811, GEOG3821
Zoology	BIOS1101, BIOS1201	BIOS2031, BIOS2061	12 units of credit from: BIOS3011, BIOS3021, BIOS3081, BIOS3111

Advanced Science Degrees (3973; 3985; 3986; 3990) - Honours/Advanced Degree (4 years)

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 and no more than 48 units 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 unit courses taken from Table 'X'.
- No student may normally commence Level II courses until 24 Level I 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.

Study Plans Available in Advanced Science

Anatomy
Applied Mathematics
Biochemistry
Biological Science
Biotechnology
Chemistry
Ecology
Engineering Physics
Food Science and Technology
Genetics
Geophysics
Marine and Coastal Studies
Materials Chemistry
Materials Science
Mathematics with Computer Science
Mathematics and Finance
Medical Chemistry
Medical Microbiology and Immunology
Medical Physics
Microbiology
Molecular Biology
Neuroscience
Pharmacology
Physical Oceanography and Meteorology
Physics
Physics and Astronomy
Physics and Computing
Physiology
Psychology
Pure Mathematics
Statistics

Table X

Level I

CHEM1000
LIFE1001
MATH1000
PHYS1000
GEOS1000

Level II

LIFE2001

Rules on Progression and Transfer in the Advanced Science Programs

Transferring Study Plans

1. 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 program. Applications must be lodged with the Science Student Office before the start of session.

Transferring between the Advanced Science Programs

2. Applications for transfer from one Advanced Science Program to another are only accepted at the end of each session. Applicants must lodge an application with the Science Student Office before the start of session.

Transfer should not be considered automatic. Applications are assessed on academic performance and approval is subject to places being available in the nominated program. Students must satisfy all prerequisites for the courses specified in the study plan of the particular Advanced Science program, and have completed the relevant sequence of courses for the proposed study plan.

Progression to Stage 4 Honours in Advanced Science

3. Progression to Stage 4 is subject to academic performance. Students seeking to enrol in a Stage 4 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 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 program;

In addition, admission to a particular Stage 4 program 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.

Transfers from Advanced Science to the Science Program

4. Students enrolled in the Advanced Science programs (program code 3973; 3976; 3985; 3986; 3990) 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 HECS census date in 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 Office.

- Students who are suspended or have deferred in 2001 will be required to enter under the new Conditions when they recommence.
- Students entering Year 3 or Year 4 of a combined degree will need to consult with the Science Student Office.

Elective Courses

Students enrolled in any Science degree may 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.

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. 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 suitably with elective courses in Biochemistry, Physiology, Microbiology, Pathology or Psychology.

Students enrolling in ANAT2111 and ANAT2200 must be allocated to a Laboratory class group at the School of Anatomy Office.

Anatomy

Stage 1

BIOS1101, BIOS1201
CHEM1011, CHEM1021 *or*
CHEM1031, CHEM1041
MATH1131 *or* MATH1141 *or* MATH1011 *or* MATH1031
MATH1231 *or* MATH1241 *or* MATH1021 *or* MATH1041
Elective courses totalling 6 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, ANAT2200, ANAT2210, ANAT2300, ANAT2310, ANAT2600, ANAT2610 (ANAT3121 may also be taken in Stage 2)
Elective courses totalling 24 units of credit
Recommended: Biological Science, Biochemistry, Physiology, Microbiology, Pathology, Psychology
LIFE2001
One General Education course totalling 3 units of credit

Stage 3

Level III Anatomy courses totalling at least 18 units of credit from:
ANAT3531, ANAT3541, ANAT3121, ANAT3631, ANAT3411, ANAT3421
General Education courses totalling 6 units of credit
Further level III courses from Biological Science, Biochemistry, Microbiology, Pathology, Physiology
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 also is 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, CHEM1021 *or*
CHEM1031, 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, MICR2011
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:
BIOC3111, BIOC3261, BIOC3271
Choose 0 - 12 units of credit from:
BIOC3121 *or* BIOS3621, BIOC3281***, BIOC3131
Choose 0 - 6 units of credit from:
ANAT3231, BIOC3301, BIOT3061, CHEM3021, CHEM3041, MICR3041, MICR3641, PHPH3211, PHPH3221
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

Stage 1

BIOS1101, BIOS1201
CHEM1011
MATH1041
Elective courses totalling 18 units of credit
LIFE1001
One General Education course totalling 3 units of credit

Stage 2

BIOS2011, BIOS2621, BIOS2041,
LIFE 2001
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)

Strand A or Strand B
Two types of Honours plan are offered at Level 4 with four disciplinary streams in each. Stream A is research oriented and includes a 42 Units of Credit research project and training in associated research skills. Strand B offers a broader training and includes a 24 Units of Credit project and 24 Units of Credit course work.

Strand A

Required course material comprises:
BIOS4511 Essential Skills for Biology Honours
And one 42 UNITS OF CREDIT project course from the list below.
BIOS4517 (BIOS4513 if PT) Biological Science Honours A
BIOS4527 (BIOS4523 if PT) Botany Honours A
BIOS4537 (BIOS4533 if PT) Zoology Honours A
Staff Contact: Professor David Sandeman
S1, S2
Entry requires the completion of Stages 1-3 of the Advance Science Plan in Ecology or Biological Science.
Note/s: If enrolment for Stage 4 is part-time, students must complete the course work requirements in year 1.

Strand B

Required course material comprises:
BIOS4511 Essential Skills for Biology
BIOS4521 Special Topics in Biology

****and***

24UOC project courses from the list below:

BIOS4514 Biological Science Honours B
BIOS4515 Biological Science Honours B
BIOS4516 Biological Science Honours B
BIOS4517 Biological Science Honours B

or

BIOS4524 Botany Honours B
BIOS4525 Botany Honours B
BIOS4526 Botany Honours B
BIOS4527 Botany Honours B

or

BIOS4534 Zoology Honours B
BIOS4535 Zoology Honours B
BIOS4536 Zoology Honours B
BIOS4537 Zoology Honours B

and

12UOC biology courses at Stage 3 (not completed previously) or other science courses approved by the Honours Co-ordinator.
Staff Contact: Professor David Sandeman
S1, S2
Entry requires the completion of Stages 1-3 of the Advance Science Plan in Ecology or Biological Science.

Ecology

Ecology

Stage 1

BIOS1101, BIOS1201
CHEM1011
MATH1041
LIFE1001
One General Education course totalling 3 units of credit
Elective courses totalling 18 units of credit

Stage 2

BIOS2011, BIOS2041
LIFE2001
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. Recommended
BIOS2031, BIOS2051, BIOS2061 and BIOS2621

Stage 3

Choose courses totalling 36 units of credit from:
BIOS3601, BIOS3011, BIOS3061, BIOS3071, BIOS3081, BIOS3091, BIOS3111, BIOS3611, 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)

Strand A or Strand B
Two types of Honours plan are offered at Level 4 with four disciplinary streams in each. Stream A is research oriented and includes a 42 Units of Credit research project and training in associated research skills. Strand B offers a broader training and includes a 24 Units of Credit project and 24 Units of Credit course work.

Strand A

Required course material comprises:
BIOS4511 Essential Skills for Biology Honours
BIOS4547 (BIOS4543) if PT) Ecology Honours A
Staff Contact: Professor David Sandeman
S1, S2
Entry requires the completion of Stages 1-3 of the Advance Science Plan in Ecology or Biological Science.
Note/s: If enrolment for Stage 4 is part-time, students must complete the course work requirements in year 1.

Strand B

Required course material comprises:
BIOS4511 Essential Skills for Biology
BIOS4521 Special Topics in Biology
****and***
24UOC project courses from the list below:
BIOS4544 Ecology Honours B
BIOS4545 Ecology Honours B
BIOS4546 Ecology Honours B
BIOS4547 Ecology Honours B

and

12UOC biology courses at Stage 3 (not completed previously) or other science courses approved by the Honours Co-ordinator.
Staff Contact: Professor David Sandeman
S1, S2
Entry requires the completion of Stages 1-3 of the Advance Science Plan in Ecology or Biological Science.

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 macro-molecules 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.

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 biological processes has expanded also 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
LIFE1001
One General Education course totalling 3 units of credit
Choose at least 6 units of credit from:
MATH1031, MATH1041
Choose electives to make a total of 48 units of credit for the year
(Recommended PHYS1111)

Stage 2

BIOC2101**, BIOC2201**
MICR2201
LIFE2001
One General Education course totalling 3 units of credit
Choose elective courses totalling 24 units of credit
*(Recommended: BIOS2021, MICR2011**)*

Stage 3

Choose 12 units of credit from:
BIOT3011, BIOT3061, BIOT3071, BIOT3021, BIOT3081
Choose elective courses totalling 30 units of credit
General Education courses totalling 6 units of credit

Stage 4 (Honours)

BIOT4073 (F/T) BIOT4083 (P/T)

* At least two of the level II and two of the level III courses contributing to the major must be taken at advanced level.

** Advanced level options for these courses are proposed

Chemistry

Within Advanced Science there are two plans available: Chemistry, and Medical Chemistry. Both plans provide a broad scientific education and a professional training in the chemical sciences. Fundamental, applied, environmental and industrial aspects of chemistry may be included by the appropriate choice of courses.

Chemistry

The Chemistry plan is designed for students who wish to specialise in the chemical sciences, and undertake the maximum number of chemistry courses. It is designed to provide education and training in all contemporary fields of chemistry, and should be selected by students who wish to devote the majority of their studies at Stage III to chemistry.

Within this plan there are sufficient electives available to complete the equivalent of a minor in another discipline. The School of Chemistry commends the following discipline areas: biochemistry, biotechnology, computing, geology, materials science, mathematics, physics. Other areas are available both within, and outside the Faculty of Science. These possibilities should be discussed with an advisor from the School of Chemistry.

Inclusion of advanced level studies, from more than one field of specialisation, result in a broadly based degree in the chemical sciences. For example, a combination of chemistry and biochemistry leads to further work in areas such as toxicology and neurochemistry. Combining Level III chemistry with mathematics or computing provides a valuable basis for the many applications of computers in chemistry. Chemistry with physics or materials science allows entry into the rapidly developing field of advanced materials. Alternatively, there is a combined study plan available in Materials Chemistry.

Stage 1

CHEM1031, CHEM1041*
MATH1131 *or* MATH1141 *or* MATH1011
MATH1231 *or* MATH1241 *or* MATH1021
Choose 6 units of credit from level I Physics
One Course from CHEM1000, PHYS1000, MATH1000, GEOS1000, LIFE1001
One General Education course totalling 3 units of credit
Elective courses totalling 12 units of credit

Stage 2**

CHEM2011, CHEM2021, CHEM2031, CHEM2041
FSCT2000 *or* 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
**Alternative level II courses from CHEM2821or CHEM2839 may be substituted by permission from the Head of School.

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
MATH1011 *or* MATH1131 *or* MATH1141
MATH1021 *or* MATH1231 *or* MATH1241
One Course from CHEM1000, PHYS1000, MATH1000, GEOS1000, 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 or biochemistry/molecular biology
BIOC2201 *or* BIOC2291
Plus elective courses totalling 6 units of credit
or
PHPH2102 and PHPH2201
FSCT2000 *or* LIFE2001
One General Education course totalling 3 units of credit

Stage 3

CHEM3021, CHEM3041
Further specialisation in either physiology/pharmacology or biochemistry/molecular biology
PHPH3151 and
PHPH3251 *or* 6 units of credit from other level III physiology courses
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 Chemistry and the Schools of either Physiology and Pharmacology or Biochemistry are strongly encouraged.

* Students without the assumed knowledge for these courses may substitute CHEM1011 and CHEM1021
**Alternative level II courses from CHEM2821or CHEM2839 may be substituted by permission from the Head of School.

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 utilisation 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 population 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 in Australia is the largest sector of manufacturing industry. 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. The Australian industry has a major role to play in supplying high quality foods to emerging 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.

The courses 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.

The Department of Food Science and Technology offers undergraduate training administered through the Science Student Office and in the

BSc programs in Food Science and Technology (four stages full-time 3060, six stages part-time 3070). 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 includes further formal training in food science and technology as well as an extensive research project. The BSc degree in Food Science and Technology (3060) is four Stages full-time (pass or honours).

Food Science and Technology

Stage 1

BIOS1101, BIOS1201
CHEM1031, CHEM1041*
MATH1031, MATH1041
or one of MATH1131, MATH1141
and one of MATH1231, MATH1241
LIFE1001
One General Education course totalling 3 units of credit
PHYS1111 *or* PHYS1201

Stage 2

BIOC2101, BIOC2201
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)

Stage 4 (Honours)

FOOD9420

* Students without the assumed knowledge for these courses may substitute CHEM1011 and CHEM1021

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

BIOS1101, BIOS1201
CHEM1011, CHEM1021 *or*
CHEM1031, 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

BIOS2621
LIFE2001
Choose 12 units of credit from:
BIOC2101, BIOC2201, BIOS2041, MICR2011
Elective courses totalling 24 units of credit
One General Education course totalling 3 units of credit
Note: BIOS2041 may be replaced with MATH2841 or another MATH *or* COMP course as approved by the study plan coordinators

Stage 3

BIOC3291, BIOC3151
Choose 6 or 12 units of credit from:
BIOC3121 *or* BIOC3621, MICR3021 *or* MICR3621
Choose 0 or 6 units of credit from:
BIOC3301, BIOS3071, BIOT3061
Elective courses totalling 18 units of credit
General Education courses totalling 6 units of credit

Stage 4 (Honours)

BSSM4103 (F/T), BSSM4109(P/T)

* 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.
NOTE: MATH1041 is a prerequisite for BIOS2041

Geology

The School of Geology offers the following study plan within Advanced Science.

2503 Geophysics

Professional geophysicists work closely with geologists and, appropriately, studies within the disciplines of physics, geology and mathematics are undertaken. This major is for students who intend to become professional geophysicists. Students should consult the School of Geology for program approval.

Stage 1

COMP1011
GEOL1111, GEOL1211
MATH1131 *or* MATH1141
MATH1231 *or* MATH1241
PHYS1121 *or* PHYS1131
PHYS1221 *or* PHYS1231 *or* PHYS1601
One course from GEOS1000, MATH1000, PHYS1000, CHEM1000, LIFE1001
One General Education course totalling 3 units of credit

Stage 2

COMP2811, COMP2011
GEOL2171, GEOL2131, GEOL2231
MATH2011 *or* MATH2110 *and* MATH2610
FSCT2000 *or* LIFE2001
One General Education course totalling 3 units of credit
Elective courses totalling 6 units of credit
(Recommended: GEOL2121, MATH2120, MATH2130, MATH2520, MATH2620, PHYS2601)

Stage 3

COMP3111 *or* COMP3421
GEOL3241*, GEOL3231*
MATH3101, MATH3150
PHYS2050
General Education courses totalling 6 units of credit
Elective courses totalling 12 units of credit
(Recommended: GEOL3101, GEOL3211, GEOL2291, GEOL3171, GEOL3251, PHYS3230)*

Stage 4

GEOL4303* *or* GEOL4343*
* Includes Geological fieldwork.

Marine and Coastal Studies

Marine Science programs allow specialisations in selected areas of marine science, yet also include adequate exposure to other pertinent disciplines.

Marine and Coastal Studies

Stage 1

BIOS1101, BIOS1201
GEOL1111, GEOL1211
MATH1041
Elective courses totalling 12 units of credit
LIFE1001, GEOS1000

Stage 2

MSCI2001, MSCI6200
BIOS2031,
GEOL2101
General Education courses totalling 6 units of credit
Elective courses totalling 18 units of credit
(Recommended: BIOS2011, BIOS2041, GEOG2721, GEOG2711, GEOG2811, GEOG2821, GEOL2181, GEOL2281, GEOL2231, MICR2201, MSCI2051)

Stage 3

MSCI3001, MSCI6300
BIOS3681, BIOS3091

General Education courses totalling 6 units of credit
Elective courses totalling 18 units of credit
(Recommended: BIOS3071, BIOS3111, GEOG3025, GEOG3761, GEOG3911, GEOG3921, GEOL3121, GEOL2231, MICR3071)

Stage 4 (Honours)

MSCI4003 F/T, MSCI4009 P/T

Materials Chemistry

Materials chemistry is a rapidly developing discipline concerned with the fundamental chemistry, synthesis and characterisation of materials, the understanding and prediction of the properties of materials and the development of new materials for advanced technologies. This study plan is aimed at producing graduates who will enter employment in both industry and research. It brings together the disciplines of chemistry and materials science to provide a Science degree program which is unique in Australia.

Graduates will enter careers in a wide range of fields that involve chemistry, materials development, processing, analysis and manufacturing. Graduates will be eligible for professional membership of the Royal Australian Chemical Institute and the Institute of Materials Engineering Australasia.

Stage 1 consists of core science courses in mathematics, physics, chemistry and materials science.

Stage 2 consists of specialist chemistry and materials courses which focus on the synthesis and characterisation of materials.

Stage 3 includes further development of core areas along with specially designed interdisciplinary courses in materials chemistry.

Stage 4 includes project work totalling 24 units of credit along with further specialist materials chemistry coursework.

Note that students completing stage 3 but not wishing to proceed to stage 4 have the option of transferring to the BSc (program 3970) where they will be eligible for a double major in Chemistry and Materials Science.

Note: Some Materials Science courses are only offered in alternate years. Two versions of the study pan are therefore given, to enable this variation in course offerings to be accommodated. Both versions contain the same courses. Some rearrangement of General Education and Advanced Science courses enables the loads to be balanced at Stages 2 and 3. In both plans, these latter courses can be further adjusted between Stages 2 and 3 to facilitate elective choices.

Materials Chemistry

Study Plan A

Stage 1

CHEM1011, CHEM1021
or
CHEM1031, CHEM1041
MATH1131, MATH1231
or
MATH1141, MATH1241
MATS1111, MATS1021
PHYS1121, PHYS1221
or
PHYS1131, PHYS1231
One of CHEM1000, PHYS1000, GEOS1000 *or* MATH1000
3 units of General Education

Stage 2

CHEM2011, CHEM2021, CHEM2031
MATS1112, MATS1002, MATS1183
FSCT2000 *or* LIFE2001 *or* one of CHEM1000, PHYS1000, GEOS1000 *or* MATH1000
9 units of electives in Materials Science
3 units of electives in any area
6 units of General Education

Stage 3

CHEM3021 *or* CHEM3031
MATS1283, MATS2313, MATS3443, MATS3733
CHEM3730
MATS4714 *or* CHEM4710
6 units of electives in level 3 Chemistry courses
3 units of electives in level 3 Materials Science
3 units of General Education
6 units of electives in any area

Stage 4

CHEM4704

Study Plan B

Stage 1

CHEM1011, CHEM1021
or
CHEM1031, CHEM1041
MATH1131, MATH1231
or
MATH1141, MATH1241
MATS1111, MATS1021
PHYS1121, PHYS1221
or
PHYS1131, PHYS1231
One of CHEM1000, PHYS1000, GEOS1000 *or* MATH1000
3 units of General Education

Stage 2

CHEM2011, CHEM2021, CHEM2031
MATS1112, MATS1002
CHEM3730
FSCT2000 *or* LIFE2001
9 units of electives in Materials Science
3 units of electives in any area
3 units of General Education

Stage 3

CHEM3021 *or* CHEM3031
MATS1283, MATS2313, MATS3443, MATS3733, MATS1183
MATS4714
or
CHEM4710
6 units of electives in level 3 Chemistry courses
3 units of electives in level 3 Materials Science
6 units of General Education
6 units of electives in any area

Stage 4

CHEM4704

Materials Science

The School of Materials Science and Engineering are offering the following study plan within Advanced Science.

Materials Science

Stage 1

MATS1111, MATS1021
MECH0440
CHEM1011, CHEM1021
MATH1131 *or* MATH1141
MATH1231 *or* MATH1241
PHYS1121, PHYS1221
One course from MATH1000, PHYS1000, CHEM1000, GEOS1000, LIFE1001

Stage 2*

MATS1142, MATS1162, MATS1072, MATS1082, MATS1112
MATH2049, MATH2059
CHEM2011 *and* CHEM2021 *or* CHEM2031
PHYS2030
General Education courses totalling 6 units of credit

Stage 3*

MATS1093, MATS1163, MATS2213, MATS1213, MATS1183, MATS1283
PHYS3020 and PHYS3080, PHYS3310
FSCT2000 *or* LIFE2001
Elective courses totalling 12 units of credit
General Education courses totalling 6 units of credit

Stage 4

MATS4444

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).

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 industrial 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.

Pure Mathematics

Pure Mathematics courses relevant to the mathematical aspects of Computer Science are MATH2400 and MATH2430 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.

Level II: At least two of: MATH2160, MATH2180, MATH2200, MATH2220, MATH2240.

Level III: At least three of: MATH3101, MATH3121, MATH3161, MATH3181, MATH3201, MATH3241, MATH3261, MATH3301.

In addition, the following recommendations are made for Stage 1 of the Applied Mathematics plan.

For students interested in physical sciences or for theoretical oceanography, meteorology or fluid dynamics: PHYS1121 and PHYS1221.

For students interested in social or biological sciences, at least 12 units of credit from the following: BIOS1101 and BIOS1201; PSYC1001 and PSYC1011; PHYS1121 and PHYS1221; CHEM1011 and CHEM1021.

For students interested in computational methods or computer science: COMP1011 and COMP2811.

Applied Mathematics

Stage 1

MATH1141 *or* MATH1131
MATH1241 *or* MATH1231
MATH1081
Courses totalling 6 units of credit from Science Schools other than Mathematics
Elective courses totalling 18 units of credit
One course from MATH1000, PHYS1000, CHEM1000, GEOS1000, LIFE1001
One General Education course totalling 3 units of credit

Stage 2

MATH2060
MATH2111 *or* MATH2011
MATH2130 *or* MATH2120
MATH2601 *or* MATH2501
MATH2620 *or* MATH2520
MATH2901 *or* MATH2801
MATH2301
Elective courses totalling 9 units of credit
FSCT2000 *or* 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* MATH4104

Mathematics and Computer Science

Stage 1

COMP1011, COMP1021
MATH1141 *or* MATH1131
MATH1241 *or* MATH1231
MATH1081, MATH2400
Elective courses totalling 9 units of credit
One course from MATH1000, PHYS1000, CHEM1000, GEOS1000, LIFE1001
One General Education course totalling 3 units of credit

Stage 2

MATH2111 *or* MATH2011
MATH2601 *or* MATH2501
MATH2301
COMP2011, COMP2021, COMP2041
Level III computer science courses totalling 6 units of credit
FSCT2000 *or* LIFE2001
One General Education course totalling 3 units of credit

Stage 3

MATH3301 *or* MATH3101
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 COMP4914)
General Education courses totalling 6 units of credit

Stage 4 (Honours)

MATH4003 or COMP4914

Statistics

Stage 1

MATH1141 *or* MATH1131
MATH1241 *or* MATH1231
MATH1081
Courses totalling 6 units of credit from Science Schools other than Mathematics
Elective courses totalling 18 units of credit
One course from MATH1000, PHYS1000, CHEM1000, GEOS1000, LIFE1001
One General Education course totalling 3 units of credit

Stage 2

MATH2060
MATH2111 *or* MATH2011
MATH2130 *or* MATH2120
MATH2601 *or* MATH2501
MATH2620 *or* MATH2520
MATH2901 *or* MATH2801
MATH2910 *or* MATH2810
MATH2931 *or* MATH2831
Elective courses totalling 6 units of credit
FSCT2000 *or* LIFE2001
One General Education course totalling 3 units of credit

Stage 3

MATH3901 *or* MATH3801
MATH3911 *or* MATH3811
MATH3821
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)

MATH4903 *or* MATH4904

Mathematics and Finance

Stage 1

ACCT1501
COMP1091
ECON1101, ECON1102
MATH1151
MATH1251
FINS1612
One course from MATH1000, PHYS1000, CHEM1000, GEOS1000, LIFE1001

One General Education course totalling 3 units of credit

Stage 2

MATH2111 *or* MATH2011
MATH2130 *or* MATH2120
MATH2601 *or* MATH2501
MATH2901 *or* MATH2801
MATH2910 *or* MATH2810
MATH2931 *or* MATH2831
ACCT1511
FINS2613
FSCT2000 *or* LIFE2001
One General Education course totalling 3 units of credit

Stage 3

MATH2060
Further level III mathematics courses totalling 12 units of credit*
A further level II or III mathematics course totalling 3 units of credit*
FINS2624, FINS3616
Further level III finance courses totalling 6 units of credit
Elective courses totalling 6 units of credit
General Education courses totalling 6 units of credit

Stage 4

MATH4012
Further level III mathematics courses totalling 12 units of credit*
FINS3635
Further level III finance courses totalling 6 units of credit
Elective courses totalling 12 units of credit

* It is recommended that the choice of Mathematics courses in stages 3 and 4 include at least 6 units of credit from each of the following 4 groups:
1. (computing) MATH3101, MATH3311, MATH3821
2. (discrete modelling) MATH2160, MATH2180, MATH2200, MATH3941, MATH3980
3. (continuous modelling) MATH2220, MATH3161, MATH3181, MATH3201, MATH3641, MATH3901
4. (statistics) Level III statistics

Physical Oceanography/Meteorology

Stage 1

MATH1141 *or* MATH1131
MATH1241 *or* MATH1231
MATH1081
PHYS1121 *or* PHYS1131, PHYS1221 *or* PHYS1231
Elective courses totalling 12 units of credit
One course from MATH1000, PHYS1000, CHEM1000, GEOS1000, LIFE1001
One General Education course totalling 3 units of credit

Stage 2

MATH2060
MATH2111 *or* MATH2011
MATH2130 *or* MATH2120
MATH2620 *or* MATH2520
MATH2901 *or* MATH2801
MATH2301, MATH2240
PHYS2810
GEOG2811
Elective courses totalling 3 units of credit
FSCT2000 *or* LIFE2001
One General Education course totalling 3 units of credit

Stage 3

MATH3121, MATH3241
MATH3261 *or* MATH3270
MATH3301
MSCI3001
Elective courses totalling 12 units of credit
(15 units of credit if MATH3270 is taken)
General Education courses totalling 6 units of credit

Stage 4 (Honours)

MATH4103 *or* MATH4104

Pure Mathematics

Stage 1

MATH1141 *or* MATH1131
MATH1241 *or* MATH1231
MATH1081
Courses totalling 6 units of credit from Science Schools other than Mathematics
Elective courses totalling 18 units of credit
One course from MATH1000, PHYS1000, CHEM1000, GEOS1000, LIFE1001
One General Education course totalling 3 units of credit

Stage 2

MATH2060
MATH2111 *or* MATH2011
MATH2130 *or* MATH2120
MATH2601 *or* MATH2501
MATH2620 *or* MATH2520
MATH2901 *or* MATH2801
MATH2301
Elective courses totalling 9 units of credit
FSCT2000 *or* LIFE2001
One General Education course totalling 3 units of credit

Stage 3

Level III Pure 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)

MATH4603 *or* MATH4604

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.

This program gives 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.

Honours may be awarded. The basis is a suitably weighted performance over the last three stages of this four year advanced science degree.

Medical Physics

Stage 1

BIOS1201, BIOS1101
CHEM1031 *or* CHEM1011
CHEM1041 *or* CHEM1021
MATH1131 *or* MATH1141
MATH1231 *or* MATH1241
PHYS1131, PHYS1231 *or* PHYS1241

Stage 2

BIOC2101
MATH2011, MATH2120
One Course from CHEM1000, GEOS1000, PHYS1000, MATH1000 *or* LIFE1001
PHYS2010, PHYS2020, PHYS2030, PHYS2040, PHYS2050, PHYS2060, PHYS2410, PHYS2630
General Education courses totalling 6 units of credit

Stage 3

PHPH2101
PHYS1601, PHYS3110, PHYS3120, PHYS3410
FSCT2000 *or* 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

Year 4

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* ANAT2111
MATH2160
PHYS2310, PHYS2601, PHYS3010, PHYS3050, 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, they spoil our food. However, microorganisms are also of great benefit. Indeed, microorganisms are the key participants for the turnover of nutrients and elements and they 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 to a better environment via recycling of organic wastes, maintenance of soil fertility and biodegradation of pollutants. Many foodstuffs, beverages, pharmaceuticals and other products of biotechnology are products of microbial action. The genetic engineering of microorganisms is a fundamental aspect of molecular biology and the way of the future.

Immunology, the study of the immune system, has contributed 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 programme 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:
BIOC2201, BIOS2021 *or* BIOS2621,
Elective courses totalling 24 units of credit
One General Education course totalling 3 units of credit

Stage 3

MICR3011, MICR3021, MICR3071
Choose 6 units of credit from:
MICR3031, MICR3061, MICR3081, BIOT3081, BIOS3071, BIOT3011, BIOT3041, CHEM3901, GEOG3911, FOOD2490
Elective courses totalling 18 units of credit
General Education courses totalling 6 units of credit

Stage 4 (Honours)

MICR4013 *or* MICR4023

* At least two of the Stage 2 and two of the Stage 3 courses contributing to the microbiology study plan must be taken at the advanced level.

Medical Microbiology and Immunology

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:
BIOC2101, BIOC2201, BIOS2021, PHPH2101, PHPH2201, PATH2201
Elective courses totalling 30 units of credit
One General Education course totalling 3 units of credit

Stage 3

Choose at least 18 units of credit from:
MICR3041 *or* MICR3641, MICR3051, MICR3061, MICR3081
Choose 0 -16 units of credit from
MICR3021 *or* MICR3621, MICR3031, PHPH3121, BIOC3261, BIOC3271, PATH3204, PATH3205
General Education courses totalling 6 units of credit
Further elective courses to give a total of 48 units of credit

Stage 4 (Honours)

MICR4013 *or* MICR4023

*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

BIOS1101, BIOS1201
CHEM1011, CHEM1021 *or*
CHEM1031, 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
BIOS2021 *or* BIOS2621*

MICR2201, MICR2011 *or* MICR2611*
LIFE2001
Elective courses totalling 12 units of credit
One General Education course totalling 3 units of credit

Stage 3

BIOC3121 *or* BIOC3621*, BIOC3281, MICR3021 *or* MICR3621*
Choose 6 units of credit from:
BIOC3111, BIOC3271, BIOC3131, BIOC3301, BIOT3061, MICR3011 *or* MICR3611*
Elective courses totalling 18 units of credit
General Education courses totalling 6 units of credit

Stage 4 (Honours)

BIOC4428 *or* MICR4013 *or* BIOT4073

* 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 I Mathematics courses may be substituted.

Neuroscience

This program introduces students to the biological and behavioural aspects of the nervous system. The program is based around the neuroscience courses offered by the Schools of Anatomy, Physiology and Pharmacology, and Psychology.

Neuroscience

Stage 1

BIOS1101, BIOS1201
CHEM1011, CHEM1021
PSYC1001, PSYC1011
Choose 6 units of credit from the level I Mathematics options
LIFE1001
One General Education course totalling 3 units of credit

Stage 2

ANAT2111 *or* ANAT2511
BIOC2101 and BIOC2201, *or*
BIOC2181 and BIOC2291
PHPH2101, PHPH2201
PSYC2071, PSYC2081
LIFE2001
One General Education course totalling 3 units of credit

Stage 3

ANAT3411, ANAT3421
PHPH3521, PHPH3531
Level III Psychology courses totalling 12 units of credit with one course selected from Advanced Perceptual/Cognitive Psychology (PSYC3151, PSYC3221, PSYC3311, PSYC3321) and one course from Advanced Biological Psychology (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 Schools of Anatomy, Physiology and Pharmacology, and 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, GEOS1000, LIFE1001
One General Education course totalling 3 units of credit

Stage 2

FSCT2000 *or* LIFE2001
MATH2011, MATH2120, MATH2520*
PHYS2010, PHYS2020, PHYS2030, PHYS2040, PHYS2050, PHYS2060, PHYS2630
Elective courses totalling 9 units of credit****
One General Education course totalling 3 units of credit

Stage 3

PHYS3010 *or* PHYS3210, PHYS3020, PHYS3030 *or* PHYS3230, PHYS3050***, PHYS3060***, PHYS3080
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, PHYS1601, CHEM1011 and CHEM1021.

****Students interested in Biophysics may replace PHYS3050 (or PHYS3060) with PHYS3410 provided CHEM1011, CHEM1021, BIOS1101 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 program 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 program. There are special lectures and projects in the version of PHYS1131 and PHYS1241 for physics majors. The other astronomy courses are PHYS2160 and PHYS3160 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, GEOS1000, LIFE1001
One General Education course totalling 3 units of credit

Stage 2

FSCT2000 *or* LIFE2001
MATH2011, MATH2120, MATH2520*
PHYS2010, PHYS2020, PHYS2030, PHYS2040, PHYS2050, PHYS2060, PHYS2160, PHYS2630
Elective courses totalling 6 units of credit****
One General Education course totalling 3 units of credit

Stage 3

PHYS3010 *or* PHYS3210, PHYS3020, PHYS3030 *or* PHYS3230
PHYS3050***, PHYS3060***, PHYS3080, PHYS3160
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 CHEM1021.

*****Excluded PHYS2170 and PHYS2520.*

Physics with Computer Science

This Program (Physics with Computer Science) provides a strong background in physics together with the computing skills necessary to fully utilise computers in research and industrial laboratories.

Stage 1

COMP1011, COMP1021
MATH1131 *or* MATH1141
MATH1231 *or* MATH1241
PHYS1131, PHYS1231 *or* PHYS1241, PHYS1601,
One course from PHYS1000, CHEM1000, MATH1000, GEOS1000, LIFE1001
One General Education course totalling 3 units of credit

Stage 2

COMP2011, COMP2021
FSCT2000 *or* LIFE2001
MATH2011, MATH2120, MATH2520
PHYS2020, PHYS2030, PHYS2040, PHYS2050, PHYS2060, PHYS2630
One General Education course totalling 3 units of credit

Stage 3

PHYS2010, PHYS3010 *or* PHYS3210, PHYS3020, PHYS3030 *or* PHYS3230, PHYS3080
Further Level III Physics courses totalling 15units of credit
Further Level III Computer Science courses *or* PHYS2601 totalling 12units of credit
General Education courses totalling 6 units of credit

Stage 4 (Honours)

PHYS4103

Engineering Physics

This program 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 of the program 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 1

CHEM1817
COMP1001
MATH1131 *or* MATH1141
MATH1231 *or* MATH1241
PHYS1131, PHYS1231 *or* PHYS1241, PHYS1601, PHYS2630,
One course from PHYS1000, CHEM1000, MATH1000, GEOS1000, LIFE1001
One General Education course totalling 3 units of credit

Stage 2

ELEC2031
FSCT2000 *or* LIFE1001
MATH2011, MATH2520, MATH2120, MATH3150
PHYS2030, PHYS2040, PHYS2050, PHYS2060, PHYS2601,
PHYS3770* *or* PHYS3780*
One General Education course totalling 3 units of credit

Stage 3

ELEC3004, ELEC3016
MATH2839 *or* MATH2859
PHYS2010, PHYS2020, PHYS3020, PHYS3060, PHYS3080, PHYS3310, PHYS3610, PHYS3630, PHYS3710/3720
General Education courses totalling 6 units of credit

Stage 4

ELEC4010, ELEC3013
PHYS3010 *or* PHYS3210, PHYS3030 *or* PHYS3230, PHYS3040, PHYS3110, PHYS3720/3710, 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 advanced physiology courses, each six units of credit:

PHPH3521 Membrane and Cellular Physiology (adv)
PHPH3531 Neurophysiology (adv)
PHPH3511 Cardiorespiratory and Exercise Physiology (adv)
PHPH3621 Endocrine, Reproductive and Developmental Physiology (adv)

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 advanced Pharmacology courses, each six units of credit:

PHPH3551 Introductory Pharmacology and Toxicology (adv)
PHPH3651 Clinical and Experimental Pharmacology (adv)

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

BIOS1101, BIOS1201
CHEM1011 *or* CHEM1031 and CHEM1021 *or* CHEM1041
Choose at least 6 units of credit from:
One of MATH1031, MATH1041, MATH1131, MATH1141
Elective courses totalling 12 units of credit
LIFE1001
One General Education course totalling 3 units of credit

Stage 2

PHPH2101, PHPH2201
BIOC2101 and BIOC2201, *or*
BIOC2181 and BIOC2291
LIFE2001
Elective courses totalling 18 units of credit
One General Education course totalling 3 units of credit

Stage 3

Choose 18 units of credit from:
PHPH3521,PHPH3531, PHPH3511, PHPH3621
Choose 6 units of credit from:
level III Physiology, level III Anatomy, PHPH3551, PHPH3651, BIOC3261, BIOC3271, BIOC3111, BIOC3121, MICR3041or MICR3641 *or* MICR3042, MICR3051, PATH3205, PATH3206, PATH3207
Elective courses totalling 18 units of credit
General Education courses totalling 6 units of credit

Stage 4 (Honours)

PHPH4218
Subject to satisfactory progress throughout the program (normally a credit average), students may proceed to the honours stage. Students should consult with the school of Physiology and Pharmacology, and note general guidelines for Advanced Science Stage 4.

Pharmacology

Stage 1

BIOS1101, BIOS1201
CHEM1011 *or* CHEM1031 and CHEM1021 *or* CHEM1041
Choose at least 6 units of credit from:
One of MATH1031, MATH1041, MATH1131, MATH1141
Elective courses totalling 12 units of credit
LIFE1001
One General Education course totalling 3 units of credit

Stage 2

PHPH2101, PHPH2201
BIOC2101 and BIOC2201, *or*
BIOC2181 and BIOC2291
LIFE2001
Elective courses totalling 18 units of credit
One General Education course totalling 3 units of credit

Stage 3

PHPH3551, PHPH3651
Choose 12 units of credit from level III Physiology, Biochemistry, Chemistry, Microbiology and Immunology, Anatomy, Pathology, Biotechnology, Biological Science.

Elective courses totalling 18 units of credit
General Education courses totalling 6 units of credit

Stage 4 (Honours)

PHPH4258
Subject to satisfactory progress throughout the program (normally a credit average), students may proceed to the honours stage. Students should consult with the School of Physiology and Pharmacology, and note general guidelines for Advanced Science Stage 4.

Psychology

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.

Psychologists work in clinical, correctional, counselling, legal, educational and organisational 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.

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. Psychology in the Advanced Science 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 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 New South Wales.

English Proficiency

A high proficiency in English is needed to pass Psychology courses.

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, PSYC3221, PSYC3311, PSYC3321
Advanced Biological - PSYC3051, PSYC3241, PSYC3251
Advanced Social - PSYC3121, PSYC3271, PSYC3281

* Suitable electives include courses from areas such as: Anatomy, Biological Science, Mathematics, Physiology, Science and Technology Studies, and Philosophy.

Environmental Science

3988 Environmental Science Degree

BEnvSc Full-time

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.

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 BEnvSc is designed as a 4 year (full-time) program. There is also an opportunity for students to combine the BEnvSc with a Bachelor of Arts by taking a 5 year program. Students who are unable to take the complete the BEnvSc may transfer to the 3 year Bachelor of Science and graduate with a BSc with a major in one of the environmental areas.

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 as specified in the Handbook
- A student must complete at least 36 units of credit and no more than 60 units of credit in Level I courses.
- No student may normally commence Level 2 courses until 24 units of credit Level I 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.

Environmental Science Program

Stage 1

ENVS1011
BIOS1101, CHEM1011, GEOG1701
GEOL1111 *or* GEOL1211
MATH1041*
Plus 12 units of credit in one *or* more of the discipline specialisations

Stage 2

ENVS2030, ENVS2801, ECON1107
BIOS2041 *or* GEOG2101 *or* MATH2841 *or* MATH2301
6 units of credit of General Education
18 units of credit in Level 2 courses of the discipline specialisation

Stage 3

BIOS3071, CHEM3901, GEOG3911
6 units of credit of General Education
24 units of credit in Level 3 courses of the discipline specialisation

Stage 4

Either
Environmental Honours A:
48 units of credit Research Project and methodology
or
Environmental Honours B:
24 units of credit Research Project and 24 units of credit of Level 2 or Level 3 coursework

or
Environmental C Honours:
Combination of research project and thesis with course work to total 48 units of credit, as approved by the Program Advisor.

Please refer to the ENVS course descriptions in the rear of this handbook for further details.

Discipline Specialisations

Biology

Level 1 BIOS1201
Level 2 BIOS2011, BIOS2041, plus at least 6 units of credit from BIOS2031, BIOS2051, BIOS2061
Level 3 BIOS3061, BIOS3071, BIOS3111 plus 6 units of credit of Level 3 Biology

Chemistry

Level 1 CHEM1021 *or* CHEM1041, MATH1031
Level 2 CHEM2041, CHEM2849 plus 12 units of credit of CHEM2011, CHEM2021 *or* CHEM2821, CHEM2031
Level 3 CHEM3041, CHEM3311, plus 6 units of credit of CHEM3011,CHEM3021,CHEM3031

and 6UoC of Level 2 Chemistry
Note: students who do CHEM3311 will be exempt from CHEM3901

Earth Science
(formerly Geology)

Level 1 GEOL1211
Level 2 18 units of credit from GEOL2101, GEOL2131, GEOL2181, GEOL2291
Level 3 GEOL3121, GEOL3281, GEOL2231

Geography

Level 1 GEOG1601
Level 2 GEOG2711, GEOG2721 plus a further 6 units of credit of Geography
Level 3 GEOG3761 plus a further 12 units of credit of Geography

Marine Biology

Level 1 BIOS1201
Level 2 BIOS2011, BIOS2031, BIOS2041, MSCI2001
Level 3 BIOS3071, BIOS3081, BIOS3091 plus 6 units of credit of Level 3 Marine Science

Microbiology
Level 1 BIOS1201
Level 2 BIOC2201, BIOS2011, MICR2011, MICR2201
Level 3 BIOT3081, MICR3071 plus 6 units of credit of Level 3 Microbiology

Oceanography
Level 1 MATH1231*, PHYS1121, PHYS1221
Level 2 MATH2841, MATH2011, MATH2120, MATH2240, PHYS2810
Level 3 MATH2301, MATH3121, MATH3241, MATH3261

Note: in all specialisations students may take more advanced versions of courses where these exist.

*Students who choose the Oceanography specialisation do not need to take MATH1041.

Media and Communications

3993 Bachelor of Science (Communications)

BSc(Communications)

Science Communication is a new program designed to serve students interested in a career in the human and social aspects of science, from entrepreneurship in biotechnology to science journalism and from advising on environmental policy to teaching science to the public. Offered for the first time in 2000, the program leads to a 3 year Pass or 4 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.

Conditions governing the award of the Degree

1. A student must complete 144 units of credit including 12 units of credit of General Education.
2. The degree must contain a Communications major sequence **and either** a second major drawn from those approved with the BSc (excluding those from the Schools of Philosophy and Science and Technology Studies) **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 Science and Technology Studies).
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. For entry to Honours a student must complete at least 24 units of credit at Level III in the relevant Major sequence and have the permission of the Head of School.

Outline of program

The Communications major is under development and the information below is indicative. For details of Major and Minor sequences in Science see Table A on page 37.

Stage 1

SCOM1011 Science, Technology and Society
SCOM1021 Introduction to Science Communication
24 units of credit from two Science Schools
Electives totalling 12 units of credit

Stage 2

SCOM2011 The Structure and Politics of Australian Science
SCOM2021 Professional Science Communication
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 6 units of credit of General Education

Stage 3

SCOM3011 Communicating Science – Theory and Practice
SCOM3021 Science Communication Internship
Electives in Communication totalling 6 units of credit
24 units of credit in a Science Major or Minors (continued from Stage 2)
Plus 6 units of credit of General Education

Stage 4 (Honours)

For details consult the relevant School

3994 Bachelor of Science (Media and Communications)

BSc(Media)

The Science Media and Communication program was offered for the first time in 2000. It leads to a 3 year Pass or 4 year Honours degree 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.

Conditions governing the award of the Degree

1. A student must complete 144 units of credit including 12 units of credit of General Education.
2. 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 Science and Technology Studies) **or** two approved minor sequences.
3. 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.
4. 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 Science and Technology Studies).
5. No student may 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).
7. For entry to Honours a student must complete at least 24 units of credit at Level 3 in the relevant Major sequence and have the permission of the Head of School.

Outline of program

For details of Major and Minor sequences in Science see Table A on page 37.

Stage 1

MDCM1000 New Media Technologies A
MDCM1001 New Media Technologies B

24 units of credit from two Science Schools
Electives totalling 12 units of credit

Stage 2

MDCM2000 Media, Technology and Creativity
MDCM2002 Media Production
MDCM2003 Multimedia Production

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 6 units of credit of General Education

Stage 3

MDCM3000 Media Forms
MDCM3002 Advanced Media Production
MDCM3003 Advanced Multimedia in Industry Contexts

24 units of credit in a Science Major or Minors
(continued from stage 2)
Plus 6 units of credit of General Education

Stage 4 (Honours)

For details consult the relevant School

Medical Science

3991 Medical Science Degree

Bachelor of Medical Science BMedSc Full time

This three-year degree program will provide the basis for a career in biomedical research and is an appropriate first degree for students planning to enter graduate medical or paramedical programs. Medical science is the area of science, which underpins the practice of medicine. It incorporates study of the structure and function of the human body (anatomy and physiology) as well as the way in which our form and function is inherited (genetics) and then develops from the fertilised ovum (embryology). It deals with the chemistry of living organisms (biochemistry) with particular reference to man, the role of bacteria, viruses and other microorganisms in disease (microbiology) as well as drugs which are used to cure human diseases (pharmacology), the natural defenses of the body (immunology), and the general process leading to disease (pathology).

Students enrolled in this program will have the opportunity to gain a broad perspective of the biomedical sciences, as well as to specialise in one or more of the above disciplines. They may have the opportunity to undertake a fourth year that involves a research program leading to an Honours degree.

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 BSSM1110 and BSSM2220.
- 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.

Stage 1

BIOS1101, BIOS1201
CHEM1011or CHEM1031 and CHEM1021 *or* CHEM1041
6 units of credit from MATH1031, MATH1041, MATH1131, MATH1141
BSSM1110
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, Science and Technology Studies, Psychology

Stage 2

BSSM2220
Courses totalling at least 36 units of credit from the following: ANAT2111, ANAT2200, ANAT2210, ANAT2600, ANAT2610, BIOC2181 *or* BIOC2101**, BIOC2291 *or* BIOC2201**, MICR2011*, MICR2201, PHPH2101, PHPH2201, PATH2201, BIOS2021
One General Education course totalling 3 units of credit
Elective courses totalling up to 6 units of credit from the above courses *or* from the following areas:
Biological Science, Chemistry, Computing, Mathematics, Physics, Psychology, Science and Technology.

Students anticipating doing 4th year honours program should contact the relevant Head of School for advice.

*Students taking MICR2011 are encouraged to enrol in BIOS2021. The prerequisite course, MICR2201 maybe waived with the permission of the course authority.

**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.

Stage 3

Courses totalling 42 units of credit from the following subject areas: Anatomy, Biochemistry and Molecular Genetics, Microbiology and Immunology, Pathology, Physiology and Pharmacology, Psychology, Biotechnology.
Students must nominate a major discipline by taking at least 18 units of credit in one of these subject areas and fulfilling other course requirements specified for that major.
General Education courses totalling 6 units of credit

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 Co-ordinator of the appropriate School. Students who successfully complete Stage 4 of their program will be considered for the award of Honours.

Specialist Degrees

Aviation

3980/3981 Aviation Degree Programs Full Time

Bachelor of Aviation BAv

The degree of Bachelor of Aviation is offered by the Faculty of Science with input from the Faculty of Engineering. The aim of the program is to provide an opportunity for students to prepare for a career in the aviation industry in the flying of managerial sectors, and so there are two distinct streams within the Bachelor of Aviation - Flying and Management. Each stream consists 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. In lieu of flight training, the Management 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. 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.

A total of 144 Units of Credit including 12 Units of Credit of General Education are required for the completion of the Bachelor of Aviation (3 year degree). Subject to satisfactory progress in stage 3 courses (a credit average) students may proceed to the honours stage, on approval from the head of department.

3980
Flying Stream

Stage 1

AVEN1310, AVEN1910
AVIA1100, AVIA1150, AVIA1900, AVIA1002
MATH1031, MATH1049
PHYS1149, PHYS1249
SESC1560

Stage 2

AVEN2920
AVIA2003, AVIA2800
MATH1059
General Education courses totalling 6 units of credit
Choose 9 units of credit from:
AVEN2910, AVEN2930, AVEN2220, AVIA2100, SESC2560
Further electives totalling 6 units of credit

Stage 3

AVEN3220
AVIA2700, AVIA3004 *or* both AVIA3101 and AVIA3201
General Education courses totalling 6 units of credit
Choose additional units of credit for a Stage 3 total of 48 from:
AVEN3230, AVIA3400, AVEN3410, AVEN3610, AVEN3710, AVEN3930, AVIA3710, AVIA3800, AVIA3810, AVIA3851, MATH3270, PHYS2810, PHYS2850
Electives up to 6 units of credit

Stage 4 (Honours)

AVIA4001 *or* AVIA4002

3981 Management Stream

Stage 1

AVEN1310, AVEN1910
AVIA1100, AVIA1150, AVIA1300, AVIA1850
AVIA1900
MATH1031, MATH1041
PHYS1149
SESC1560
Choose 6 units of credit from PHYS1229, ECON1103

Stage 2

AVEN2920
AVIA2400, AVIA2700
General Education courses totalling 6 units of credit
Choose 33 units of credit from:
AVEN2220, AVEN2910, AVEN2930,
AVIA2100, AVIA2500, AVIA2800, AVIA3600
PHYS2850, IROB2721, SESC2560
Elective courses totalling 6 units of credit

Stage 3

AVEN3220, AVIA3101, AVIA3201, AVIA3710
General Education courses totalling 6 units of credit
Choose 24 units of credit from:
AVEN3230, AVEN3410, AVEN3610, AVEN3710, AVEN3930
AVIA3400, AVIA3800, AVIA3810, AVIA3851, MATH3270
PHYS2810
Elective courses totalling up to 6 units of credit

Stage 4 (Honours)

AVIA4001 *or* AVIA4002

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 protein. Based on this technology, a new generation of biopharmaceuticals, including hormones, vaccines, anti-hypertensive, anti-inflammatory agents, new therapies to treat cancer 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.

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.

Course Outline

The BSc (Biotechnology) Course is four years full-time and awarded with Honours to students who have distinguished themselves in coursework and in the final year project.

Degree Requirements

General Education Requirement

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.

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 one 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 course, or transfer to the Science and Mathematics course (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 Program

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 course 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 or 65 or higher in Stage 3 of the course are normally required to transfer to the Science and Mathematics course (3970) and take out the BSc Biotechnology award at pass level.

3052 Biotechnology Full-time Program

Bachelor of Science BSc

This program in Biotechnology offers a comprehensive education in all aspects of modern applied biology. It leads to the award of a Bachelor of Science Degree over four years full-time study, with Honours for students who perform with merit.

Graduates in Biotechnology will be able to find employment in industries and other organisations involved with biopharmaceutical production and food processing, as well as in agricultural and environmental biotechnology.

Stage 1

BIOT1011	Introductory Biotechnology
BIOS1201	Molecules, Cells and Genes
CHEM1011	Fundamentals of Chemistry 1A and
CHEM1021	Fundamentals of Chemistry 1B
MATH1031	Mathematics for Life Sciences and
MATH1041	Statistics for Life and Social Sciences

or one of

MATH1011	General Mathematics 1B
MATH1131	Mathematics 1A
MATH1141	Higher Mathematics 1A

and one of

MATH1021	General Mathematics 1C
MATH1231	Mathematics 1B
MATH1241	Higher Mathematics 1B

plus elective courses totalling 12 units of credit recommended

PHYS1111	Fundamentals of Physics
PHYS1201	Life Science Physics
CHEN1020	Engineering 1CE
BIOS1101	Evolutionary & Functional Biology

Stage 2

BIOC2101	Principles of Biochemistry
BIOC2201	Principles of Molecular Biology
BIOS2011	Evolutionary and Physiological Ecology
BIOS2021	Introductory Genetics
MICR2011	Microbiology 1
MICR2201	Fundamentals of Microbiology and Immunology

plus 6 Units of Credit from:

CHEM2021	Organic Chemistry *or*
CHEM2041	Chemical & Spectroscopic Analysis
PHPH2101	Physiology 1A

General Education Course(s) totalling 6 units of credit

Stage 3

BIOT3011	Biotechnology A
BIOT3061	Biopharmaceuticals
BIOT3071	Commercial Biotechnology
BIOC3121	Molecular Biology of Nucleic Acids
MICR3041	Immunology 1
or	
MICR3641	Immunology I (Advanced)
or	
MICR3042	Principles and Applications of Immunology

plus an additional 12 units of credit to be selected from the following:

BIOC3111	Molecular Biology of Proteins
BIOC3271	Molecular Cell Biology
BIOC3281	Recombinant-DNA Techniques and Eukaryotic Molecular Biology
BIOT3081	Environmental Biotechnology
MICR3051	Immunology2
MICR3071	Environmental Microbiology

General Education Course(s) totalling 6 units of credit

Stage 4

Session 1 (6UOC)	See School Office for information on course – TBA
BIOT3021	Biotechnology B
BIOT4053	Research Project

3055 Bioprocess Engineering - Full-time Program

Bachelor of Engineering BE

The Bioprocess Engineering Program is designed to produce graduates with basic skills for employment in the pharmaceutical, fermentation/ food, agro-industrial and environmental/waste treatment industries. In the first three stages, the Program combines core chemical engineering with the basic principles of cell biology, microbiology, biochemistry and molecular biology as well as their applications in biotechnology. In the Fourth Stage, students have a broader exposure to modern developments in biotechnology/bioprocess engineering and their commercial application. This is combined with a laboratory-based research project in one of the above areas. The BPE Program obtained Full Accreditation in 1999 with the Institute of Chemical Engineers in Australia.

Stage 1

BIOS1201	Molecules, Genes and Cells
BIOT1011	Introductory Biotechnology
CEIC1020	Introduction to Chemical Engineering
CHEM1011	Fundamentals of Chemistry 1A *or*
CHEM1031	Higher Chemistry 1C
CHEM1021	Chemistry 1B *or*
CHEM1041	Higher Chemistry 1D
MATH1131	Mathematics 1A *or*
MATH1141	Higher Mathematics 1A
MATH1231	Mathematics 1B *or*
MATH1241	Higher Mathematics 1B
PHYS1169	Physics I (Chemical & Mech. Eng.) *or*
PHYS1111	Fundamentals of Physics

Stage 2

LIFE2101	Introduction to Biochemistry & Microbiology
BIOC2291	Fundamentals of Molecular Biology
CEIC2020	Introduction to Numerical Methods
CEIC2100	Material and Energy Balances
CEIC2120	Fluid Flow
CEIC2130	Heat Transfer
CHEN2050	Chemical Engineering Practice 1
CHEN2061	Introduction to Process Chemistry 1
CHEN2140	Mass Transfer
MATH2020	Mathematics 2A
MATH2030	Mathematics 2B
MATH2899	Applied Statistics CE
	General Education Course(s)

Stage 3

BIOT3011	Biotechnology A
BIOT3021	Biotechnology B
CEIC3070	Process Control
CEIC3010	Reaction Engineering
CEIC3110	Thermodynamics
CHEN3021	Systems Modelling and Analysis
CHEN3062	Unit Operations and Pressure Vessels
CHEN3065	Plant & Equipment Design
CHEN3067	Process Design & Economics
CHEN3068	Process Design & Safety
	General Education Course(s)

Stage 4

BIOT3061	Biopharmaceuticals *or*
BIOT3071	Commercial Biotechnology
BIOT4064	Research Project Theory
BIOT4065	Research Project Practice
BIOT4093	Biological Process Engineering
CEIC4120	Management and Plant Operation
CHEN4031	Environmental Management 1
CHEN4061	Design Project
	General Education Course(s)

Chemical Engineering and Industrial Chemistry

3100 Industrial Chemistry Full-time Program

Bachelor of Science BSc

Industrial Chemistry is a four year professional (prescribed) science course 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 BSc (Ind Chem)/ BSc (Comp Sci), BSc (Ind Chem)/MCom and also BSc (Ind Chem)/BA. See the Faculty of Engineering section of the handbook for more details or contact Director of Teaching and Learning, School of Chemical Engineering & Industrial Chemistry.

Degree Program

Stage 1

CEIC1010	Introduction to Chemical Industry
CEIC1020	Introduction to Chemical Engineering
CHEM1011	Fundamentals of Chemistry A **or**
CHEM1031	Higher Chemistry 1C
CHEM1021	Fundamentals of Chemistry 1B **or**
CHEM1041	Higher Chemistry 1D
MATH1131	Mathematics 1A **or**
MATH1141	Higher Mathematics 1A
MATH1231	Mathematics 1B **or**
MATH1241	Higher Mathematics 1B
MECH0130	Engineering Drawing and Solid Modelling
PHYS1621	Engineering Physics **or**
PHYS1111	Fundamentals of Physics*
CEIC1030	Communications and Business Skills **or**
PHYS1211	Concepts in Engineering Physics

*If PHYS1111 is taken then PHYS1229 must be taken in S2

Stage 2

CEIC2011	Instrumental Analysis- Theory
CEIC2012	Instrumental Analysis- Practical
CEIC2020	Introduction to Numeric Methods
CEIC2110	Material and Energy Balance
CEIC2120	Fluid Flow
CEIC2130	Heat Transfer
CHEM2021	Organic Chemistry
CHEM2839	Inorganic Chemistry
INDC2040	Physical Process Chemistry
MATH2020	Mathematics 2A
MATH2030	Mathematics 2B
MATH2899	Applied Statistics CE
GENXXXXX	General Education course/s

Stage 3

BIOT3100	Fermentation Process
CEIC3070	Process Control
CEIC3010	Reaction Engineering
CEIC3110	Thermodynamics
CHEM3829	Organic Chemistry

INDC3051	Process Chemistry and Operations
INDC3110	Industrial & Environmental Chemistry
INDC3120	Industrial Chemistry Practice
POLY3011	Polymer Science – Theory
POLY3012	Polymer Science – Practice
GENXXXXX	General Education course/s

Stage 4

CEIC4070	Automation Science
CEIC4105	Professional Electives
CEIC4120	Management and Plant Operation
INDC4061	Process Design A
INDC4062	Process Design B
INDC4091	Research Project Theory
INDC4092	Research Project Practice
GENXXXXX	General Education course/s

Computer Science

3978 Computer Science Program

Entry to this program is restricted to students who have been offered a place directly (UAC code 429019).

Computer Science involves the study of the design, construction and uses of computer systems. It is concerned with the representation of data and data structures in computer systems and the design of algorithms for automatic manipulation of this information by programming languages and machine systems. It is very much concerned with the design and development of hardware and software tools by which computer applications may be developed, but not so much with the applications themselves. It is, however, noted that non-computing elements (such as human interface or psychological aspects) can often dictate the level of success of computing systems. At the University of New South Wales, particular emphasis is given to comprehension of the basic principles behind computing tools, operating systems, compilers and translators, and computer hardware.

Students in other programs may take some Level I and Level II Computer Science courses. Level III studies in Computer Science are only available in other specified combined programs. Appropriate disciplines are Physics and Computing; Mathematics and Computer Science.

This degree is administered by the School of Computer Science and Engineering.

Computer Science

Stage 1

COMP1011 *or* COMP1711, COMP1021 *or* COMP1721
MATH1131 *or* MATH1141
MATH1231 *or* MATH1241
MATH1081

Elective courses totalling 18 units of Credit

Stage 2

COMP2011 *or* COMP2711, COMP2021, COMP2041
Elective courses totalling 24units of Credit*
General Education courses totalling 6 units of credit

Stage 3

Level III or IV Computer Science courses totalling 30 units of credit

Further elective courses totalling 12 units of Credit
General Education courses totalling 6 units of credit

With the approval of the head of the School of Computer Science and Engineering, 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 III/IV Computer Science courses. Students may also select electives from COMP9XXX courses having met the required prerequisites. Please refer to the Engineering section of this handbook for further details on these courses.

Students proposing to proceed to Stage 4 (Honours) must complete Level III/IV courses totalling 36 units of Credit Points

Stage 4 (Honours)

COMP4914

Psychology with Computer Science
(Program 3978 only)

Stage 1

COMP1011 *or* COMP1711 and COMP1021 *or* COMP1721
MATH1131 *or* MATH1141
MATH1231 *or* MATH1241
MATH1081
PSYC1001 and PSYC1011
Elective courses totalling 6 units of credit

Stage 2

COMP2011 *or* COMP2711 and COMP2041
PSYC2001, PSYC2071, PSYC2081 and PSYC2101
Elective courses totalling 6 units of credit from the list below*
General Education courses totalling 6 units of credit

Stage 3

COMP3111, COMP3411 and COMP3511
PSYC3001 and either PSYC3151 *or* PSYC3221 *or* PSYC3311 *or* PSYC3321
Elective courses totalling 12 units of credit from the list below*
General Education courses totalling 6 units of credit

Stage 4 (Honours)

COMP4913 *or* PSYC4053 and PSYC4063

Students proposing to proceed to the honours Stage in Psychology must take Psychology courses totalling 48 units of credit in Stages 2 and 3 (PSYC2001, PSYC2071, PSYC2081 and PSYC2101 at Level II and PSYC3001, either PSYC3151 *or* PSYC3221 *or* PSYC3311 *or* PSYC3221 and 2 other Psychology Level III courses).

Students proposing to proceed to the honours Stage in Computer Science must take Level III Computer Science courses totalling 24 Units of Credit.

* Elective List
COMP2021, Level III Computer Science courses not otherwise specified
PSYC2061, PSYC3011, PSYC3141, PSYC3151, PSYC3221, PSYC3241, PSYC3251, PSYC3311 and PSYC3321.

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 utilisation 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 micro-biology. 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 population 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 in Australia is the largest sector of manufacturing industry. 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. The Australian industry has a major role to play in supplying high quality foods to emerging 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.

The Department offers a four-year full-time program leading to the award of Bachelor of Science. A six-year part-time program leading to the award of the degree of Bachelor of Science (Technology), and a one year full-time honours program leading to the degree of Bachelor of Science (Honours). Graduates of these 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.

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 food wastes, and communication, and in areas such as dietetics after further training.

Program Outlines

3060 Food Science and Technology Full-time Program

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.

Stage 1

BIOS1101 Evolutionary and Functional Biology
BIOS1201 Molecules, Cells and Genes
CHEM1011 Fundamentals of Chemistry A *or*
CHEM1031 Higher Chemistry C
CHEM1021 Fundamentals of Chemistry B *or*
CHEM1041 Higher Chemistry D
FOOD1110 Introduction to Food Science
MATH1031 Mathematics for Life Sciences
MATH1041 Statistics for Life and Social Sciences
PHYS1111 Fundamentals of Physics

Stage 2

BIOC2101 Principles of Biochemistry *or*
BIOC2181 Fundamentals of Biochemistry
BIOC2201 Principles of Molecular Biology *or*
BIOC2291 Fundamentals of Molecular Biology
CHEM2921 Food Chemistry 1
FOOD3220 Nutrition
FOOD1230 Food Choice: Psychology, Preference and Acceptability
MICR2201 Fundamentals of Microbiology and Immunology
General Education (total 12 units of credit)

Stage 3

CHEM3811 Food Chemistry 2
FOOD1360 Food Processing Principles
FOOD1370 Food Processing Laboratory
FOOD1380 Food Processing and Packaging
FOOD1390 Product Design and Development
FOOD2320 Food Microbiology
FOOD2330 Quality Assurance and Control
FOOD2340 Food Safety

Stage 4 Stream A

FOOD1400 Project *or*
FOOD1480 Minor Project
FOOD5400 Industry Liaison

Plus a combination of electives to total 30 or 36 units of credit from the following list.

FOOD1470 Postharvest Technology (Not offered in 2002)
FOOD1490 Advanced Food Chemistry
FOOD2350 Forensic Food Science
FOOD2480 Advanced Food Microbiology
FOOD2490 Analytical Microbiology (Not offered in 2002)
FOOD3440 Advanced Nutrition
FOOD4450 Advanced Food Processing
ACCT9001 Introduction to Accounting A
ACCT9002 Introduction to Accounting B
BIOT3011 Biotechnology A
BIOT3021 Biotechnology B
BIOT3071 Commercial Biotechnology
ECON1103 Microeconomic Principles
ECON1104 Macroeconomic Principles
INFS1603 Business Data Management
IROB2721 Managing People
MARK1012 Marketing Fundamentals
MARK2051 Consumer Behaviour A
MARK2052 Marketing Research
MARK3091 New Product and New Service Development

Or such other electives as approved by the Head of Department. FOOD courses taken within the Department must total at least 36 units of credit.

Stage 4 Stream B: Industry Module Program

FOOD5410 Industry Practicum
FOOD5400 Industry Liaison
Plus Electives

During Stages 3 and 4 of the program excursions are made to various food industries. Detailed reports of some of these visits may be required.

3065 Honours in Food Science Full-time Program

Bachelor of Science (Honours) BSc(Hons)

This program 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 Department, or such other courses as approved by the Head of Department. Honours is awarded on the basis of performance in the research project and satisfactory completion of coursework.

Compulsory Courses

FOOD9410 Honours Research Project
FOODXXXX*

*Courses offered by the Department of Food Science and Technology or as approved by the Head of Department and dependent upon the background of the candidate. Units of credit for coursework courses may be concentrated in one session.

3070 Food Science and Technology Part-time Program

Bachelor of Science (Technology) BSc(Tech)

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. 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 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.

Stages 1 and 2

BIOS1101 Evolutionary and Functional Biology
BIOS1201 Molecules, Cells and Genes
CHEM1011 Fundamentals of Chemistry A *or*
CHEM1031 Higher Chemistry C
CHEM1021 Fundamentals of Chemistry B *or*
CHEM1041 Higher Chemistry D
FOOD1110 Introduction to Food Science
MATH1031 Mathematics for Life Sciences
MATH1041 Statistics for Life and Social Sciences
PHYS1111 Fundamentals of Physics

Note: Physics, Mathematics and Statistics are usually taken as Stage 1, the other courses as Stage 2

Stage 3

BIOC2101 Principles of Biochemistry or
BIOC2181 Introduction to Biochemistry

BIOC2201 Principles of Molecular Biology or
BIOC2291 Introduction to Molecular Biology
CHEM2921 Food Chemistry 1
FOOD1230 Food Choice: Psychology, Preference and Acceptability

Stage 4

FOOD3220 Nutrition
MICR2201 Fundamentals of Microbiology and Immunology
General Education (12 units of credit)

Stage 5

CHEM3811 Food Chemistry 2
FOOD2320 Food Microbiology
FOOD2330 Quality Assurance and Control
FOOD2340 Food Safety

Stage 6

FOOD1360 Food Processing Principles
FOOD1370 Food Processing Laboratory
FOOD1380 Food Production and Packaging
FOOD1390 Product Design and Development

Geography

Geography is the study of the human and physical environment with emphasis on spatial patterns and relationships.

The cultural significance of geography lies in its contribution to an understanding of the total environment. The geographer's skills also find practical application in the conservation and planned development of resources. Increasing numbers of geographers are employed as professionals in these applications. For instance, geomorphologists and biogeographers are undertaking resource inventory surveys and environmental assessment, and human geographers are engaged as urban and regional planners.

Program outlines

The School of Geography offers a four-year full-time program (3010). This program allows specialisations in environmental systems, urban management, resource management, or spatial information technologies.

Themes addressed in the programs include the use and management of scarce resources, the interaction between people and environment, soil conservation, vegetation management, land use conflict, place and identity, and spatial inequalities in economic and social well being.

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. Several units in geography include laboratory and project work.

The Geographical Society

It is hoped that students taking geography as a degree will participate in the activities organised by the Geographical Society. The Society is open to new ideas and to students who are concerned with fostering an interest in geography outside their formal studies. Informal seminars are organised on topics of interest to geographers.

Social activities have always been an important part of the Society and they have provided more than adequate opportunities for students to get to know each other and for students and staff to improve communication.

3010 Geography Program Full-time

Normally, most stage 4 students graduate with honours. Progression to stage 4 is subject to achieving at least a credit average in Geography courses contained within stage 3. A student will not normally be permitted to commence stage 4 until all previous Stages have been completed.

Stage 1

All of:
GEOG1601 Australian & Global Geographies: Integration & Divergence
GEOG1701 Environmental Systems & Process

And 36 Units of Credit from other Schools (Biological Science, Built Environment, Chemistry, Computer Science, Economics, Geology, Mathematics, Physics, Social Science and Policy)

See School's Enrolment Handbook for recommended courses, and course advisers.

Stage 2

All of:
GEOG2001 Field Techniques
GEOG2101 Geographical Data Analysis, I

Select three of:
GEOG2611 The Australian City
GEOG2641 Urban Environment and Economy
GEOG2711 Australian Climate & Vegetation
GEOG2721 Australian Surface Environments & Landforms
GEOG2811 Introduction to Remote Sensing
GEOG2821 Introduction to Geographic Information Systems

Select 12 Units of Credit from Geography or other Schools (Biological Science, Built Environment, Chemistry, Computer Science, Economics, Geology, Mathematics, Social Science and Policy).

Select 6 Units of Credit from General Education courses.

Stage 3

All of:
GEOG3101 Geographical Data Analysis II
GEOG3901 Australian Natural Resources

Select three of:
GEOG3411 Special Topic
GEOG3611 Surveys and Interviewing in Geography
GEOG3621 Place and the Politics of Identity
GEOG3631 Population Geography
GEOG3671 Transport, Land Use and Environment
GEOG3711 Biogeography
GEOG3721 Pedology
GEOG3761 Environmental Change
GEOG3731 Geomorphology
GEOG3811 Remote Sensing Applications & Digital Image Analysis
GEOG3821 Geographic Information Systems Applications
GEOG3861 Computer Mapping
GEOG3911 Environmental Impact Assessment
GEOG3921 Coastal Resource Management

Select 12 Units of Credit from Geography or other Schools (Biological Science, Built Environment, Chemistry, Computer Science, Economics, Geology, Mathematics, Physics, Social Science and Policy). See School advisors for recommended courses.

Select 6 Units of Credit from General Education courses

Stage 4

GEOG4001 Fieldwork for Consultants
GEOG4301 Professional Practice in Geography
GEOG4404 Thesis in Applied Geography (over 2 sessions)

Select 12 Units of Credit from:
GEOG4631 Analysis in Medical Geography
GEOG4721 Soil Degradation and Conservation
GEOG4811 Advanced Techniques in Remote Sensing
GEOG4871 Transportation Applications of GIS
GEOG4911 Vegetation Management

Or other courses from other Schools with permission from Head of School

Geology

Geology is 'the science of the Earth', and as such covers a broad spectrum of knowledge on the constitution and evolution of our planet. Applied geology involves a specific interest in the use of earth science for the benefit of humanity, including, for example, the search for and evaluation of metallic ore-bodies, accumulations of fossil fuels and groundwater resources or the application of geological knowledge to a range of engineering and environmental problems.

The Student Geological Society (Rock Soc) exists to provide further interaction between students and staff. The society organises a number of events during the year including field trips and an annual dinner.

Program Outlines

The Applied Geology program provides a comprehensive education in all aspects of earth science. It leads to the award of a Bachelor of Science (BSc) degree in four stages normally taken over four years full-time study, with Honours for students who perform with merit throughout the course program. The fourth stage can be taken part time over two years.

Fundamental principles of geology are taught through lectures, laboratory work, projects and field tutorials. At the same time students gain the practical skill and knowledge of geological applications necessary for employment in research, industry or government.

Graduates are prepared by the course to enter any branch of the geological profession, or to undertake further studies leading to a higher degree. They are also well equipped to change their field of employment as different opportunities arise.

No previous knowledge of geology is required to enter this course but a sound background in mathematics together with at least one other science subject is recommended.

A major or minor in Geology or Environmental Earth Science is also available in the Science degree program (3970). This allows students to combine geology with studies in chemistry (geochemistry), physics and mathematics (geophysics), biological sciences (palaeontology), marine science, geography or environmental systems. These programs are all of three years full-time duration, leading to a BSc at Pass level. An optional fourth year leading to Honours is available for students achieving a good academic standing.

Advanced Science programs are also available in Geophysics and Marine and Coastal Studies. Geology can be taken as a specialisation in the Environmental Science degree program.

3000 Applied Geology Program Full-time

Bachelor of Science BSc

Stage 1

GEOL1111 Earth Systems and Dynamics
GEOL1211* Earth Environments and Resources
6 Units of Credit from approved Mathematics courses
6 Units of Credit from approved Chemistry courses
Plus 24 Units of Credit from level 1 science or other courses approved by the Head of School

Stage 2

GEOL2131 Geomapping
GEOL2181 Earth Materials
At least 18 Units of Credit from the following courses:
GEOL2101 Sedimentology and Sedimentary Environments
GEOL2171 Earth Structures
GEOL2231 Environmental Geophysics
GEOL2281 Petrology
GEOL2291 Groundwater, Engineering and Environmental Geology
Select 6 Units of Credit from General Education courses

Plus 12 Unit of Credit chosen from other relevant courses within or outside the University, with the approval of the Head of School. This may include additional courses from the list above, as well as MSCI6200.

Stage 3

GEOL3131 Field Studies: Mapping
At least 18 Units of Credit from the following courses:
GEOL3101 Ore Deposits
GEOL3121 Stratigraphy and Palaeontology
GEOL3201 Field Studies: Ore Deposits and Regolith
GEOL3231 Exploration Geophysics
GEOL3241 Sedimentary Basin Resources
GEOL3281 Exploration and Environmental Geochemistry
Select 6 Units of Credit from General Education courses
Plus 12 Units of Credit chosen from other relevant courses within or outside the University, approved by the Head of School. This may include additional courses from the above list, as well as GEOL3251 and MSCI6300.

Stage 4

GEOL4101 Professional Practice
GEOL4131 Advanced Topics in Applied Geology A
GEOL4141 Advanced Topics in Applied Geology B
GEOL4204* Research Project
Other relevant courses from within or outside the University may be substituted for GEOL4131 or GEOL4141 with the approval of the Head of School. Stage 4 may be taken part-time across two years.
*Includes Geological fieldwork.

Information Systems and Business Information Technology

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 descriptions 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.

* *Defined as Schools in the Science Faculty plus those in other Faculties that currently provide programs under the authority of the Faculty of Science.*

Elective Courses

Students enrolled in any Science degree may 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.

3979 Information Systems Program

Entry to this program is restricted to students who have been offered a place directly (UAC code 429024). There is a strict quota on entry to later Stages of this program.

Information Systems is concerned with information systems analysis and design, data management, computer processing, EDP audit, management information systems and applied expert systems within business and government organisations. There is a growing maturity in the discipline as the underlying theory and associated principles become better understood and as advanced information processing techniques emerge. In many respects the development of the knowledge base, which forms the discipline, parallels developments in computing technology as new opportunities become apparent for the solution of information processing problems. Hence, information systems is concerned with the way in which computer systems are used within organisations – mainly business and government. The program is intended to develop conceptual and practical skills. After an introductory first Stage, students study systems design, database, communications and commercial programming in parallel with computer science, mathematics and management accounting courses. In the honours Stage, well-qualified students may specialise in advanced information systems and data management topics.

See also Program 3971 – Business Information Technology

Degree Program

Stage 1

ACCT1501, ACCT1511
COMP1011, COMP1021
INFS1602, INFS1603
MATH1131 *or* MATH1141 *or* MATH1011
MATH1231 or MATH1241 or MATH1021

Stage 2

MATH2801 *or* MATH2841
INFS2603, INFS2607
Elective courses totalling 6 units of credit from ECON1101, LEGT7711, IROB1712, ACTL1001
Elective courses totalling 18 units of credit
General Education courses totalling 6 units of credit

Stage 2 (Direct Stage 2 Entrants)*

ACCT1501, ACCT1511
COMP2811
INFS1602, INFS1603, INFS2603, INFS2607
General Education course(s) totalling 6 units of credit

* Students admitted at Level II must enrol in another Science Program for Stage 1. Transfer is based on academic performance at Level I. Students in this category are not required to complete one course from ECON1101, LEGT7711, IROB1712, ACTL1001.

Stage 3**

INFS3605, INFS3606, INFS3608
Elective level III INFS courses totalling 6 units of credit
Elective level II/III INFS courses totalling 6 units of credit
Plus elective courses totalling 12 units of credit
General Education courses totalling 6 units of credit

**Stage 2 Direct Entrants must complete MATH2801 *or* MATH2841 in lieu of elective courses totalling 6 units of credit

Stage 4 (Honours)

INFS4886, INFS4887, INFS4795, INFS4796
Choose 2 courses from: INFS4774, INFS4805, INFS4810, INFS4811, INFS4812, INFS4825, INFS4848, INFS4853, INFS4857, INFS4851

3971 Business Information Technology Program Full-time

This is a four year degree program for which honours may be granted. It is an industry linked education course leading to the award of the qualification Bachelor of Science (Business Information Technology). The course draws on three core disciplinary areas: Information Systems, Accounting, and Computer Science.

The course has been designed in conjunction with the Information Systems industry to provide for the needs of Australian businesses. The course combines the normal requirements for the award of the degree with coordinated industrial experience in the sponsoring organisations. A scholarship is payable from a fund donated by the sponsoring organisations. Entry to the course is limited to students awarded a scholarship through the BIT selection Procedure.

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 3971 course but who are not offered a scholarship should consider registering for first Stage entry into the 1400 program. If scholarships become available at the end of Stage 1, students undertaking the 1400 program may be offered transfer to the 3971 course.

Objectives of the Course

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.

Degree Program

Stage 1

ACCT1501, ACCT1511
COMP1011, COMP1021
INFS1602, INFS1603
MATH1131 *or* MATH1141 *or* MATH1011
MATH1231 *or* MATH1241 *or* MATH1021

Stage 2

MATH2801 *or* MATH2841
INFS2603, INFS2607, INFS2691
Elective courses totalling 6 units of credit from ECON1101, LEGT7711, IROB1712, ACTL1001
Elective courses totalling 12 units of credit
General Education courses totalling 6 units of credit

Stage 3

INFS3605, INFS3608, INFS3606, INFS3692, INFS4886
Elective courses totalling 9 units of credit
General Education courses totalling 6 units of credit

Stage 4

INFS4795, INFS4796, INFS4693, INFS4887
Choose one course from: INFS4774, INFS4805, INFS4810, INFS4811, INFS4812, INFS4825, INFS4848, INFS4853, INFS4857, INFS4891
Elective courses totalling 3 units of credit

Materials Science and Engineering

The field of Materials Science and Engineering offers unlimited possibilities for innovation and development. Attention is being focussed 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 programs leading to BE/MCom (3128) and BE/MBiomedE (3138). In addition, six year part-time BSc(Tech) programs are also offered in ceramics (3030) and metallurgy (3130).

Bachelor of Engineering Full-time Programs and Plans

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).

Industrial Experience

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 years 2 and 3.

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.

3135 Bachelor of Engineering Single Degree Program

Plan MATSE13135 BE in Physical Metallurgy
Plan MATSG13135 BE in Process Metallurgy
Plan MATSH13135 BE in Materials Engineering
Plan MATSJ13135 BE in Ceramic Engineering

Stage 1 of all plans

CHEM1101	Fundamentals of chemistry 1A
CHEM1201	Fundamentals of chemistry 1B
MATH1131	Mathematics 1A
MATH1231	Mathematics 1B
MATS1021	Computing in materials science
MATS1111	Materials science 1
MECH0130	Engineering drawing & descriptive geometry
MECH0440	Engineering statics
PHYS1121	Physics 1A
PHYS1221	Physics 1B

Total (48 UOC)

Stage 2 of all plans

CHEM2817	Physical Chemistry
MATH2049	Mathematics and Statistics for Materials Science A
MATH2059	Mathematics for Materials Science B
MATS1092	Materials and Design 1
MATS1152	Materials Engineering 1B
MATS1172	Physical Properties of Materials
MATS1182	Thermodynamics and Phase Equilibria
MATS1232	Materials Engineering 1A
MATS1242	Crystallographic and Microstructural Characterisation
MATS1262	Mechanical Properties of Materials
	General Education (6 UOC)
	Total (48 UOC)

Stage 3 of all plans

MATS1013	Diffusion and Kinetics
MATS1093	Thermodynamics of Materials 2
MATS2013	Ceramic Materials
MATS3443	Polymer Science and Engineering
MATS4013	Physical Metallurgy
MATS5013	Materials Processing
MATS5323	Modelling in Materials Engineering 1
	Professional Electives (15 UOC)
	Technical Electives (6 UOC)
	General Education (3 UOC)
	Total (48 UOC)

Stage 4 of all plans

MATS1244	Materials Industry Management A
MATS1354	Design Project
MATS1464	Professional Communication and Presentation
MATS3524	Materials Engineering Project
	Professional Electives (15 UOC)
	Technical Electives (6 UOC)
	General Education Course (3 UOC)
	Total (48 UOC)

Elective Components (Stage 4)

The following courses have particular objectives, but specific topics are chosen by students for study and research.

MATS1244	Materials Industry Management A
MATS1354	Design Project
MATS1464	Professional Communication and Presentation
MATS3524	Materials Engineering Project

Physical Metallurgy Plan

Plan MATSE13135
BE in Physical Metallurgy

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 (eg, 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:

		UOC
MATS1213	Design for Corrosion Control	3
MATS1214	Welding and Other Joining Processes	3
MATS1343	Materials Industry Management B	3
MATS1414	Surface Treatment and Wear	3
MATS3064	Composite Materials	3
MATS4023	Phase Transformations	3
MATS4133	Deformation and Strengthening Mechanisms	3
MATS4064	Thermomechanical Processing	3
MATS4083	Physical Metallurgy of Alloys	3
MATS4084	Specialty Alloys	3
MATS4213	Fractographic Analysis	3
MATS4333	Fracture Mechanics	3
MATS5424	Modelling in Materials Engineering 2	3
NANO3420	Fabrication of Nanostructured Devices	3

Process Metallurgy Plan

Plan MATSG13135
BE in Process Metallurgy

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 course, 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:

		UOC
INDC3070	Instrumentation and Process Control	3
FUEL0040	Fuel Engineering for Materials Processing	3
MATS1343	Materials Industry Management B	3
MATS2183	Refractories	3
MATS5033	Extractive Metallurgy	3
MATS5043	Heat, Fluid and Mass Flow	3
MATS5253	Metallurgical Reaction Engineering	3
MATS5394	Pollution Control in Materials Processing	3
MATS5413	Kinetics of Metallurgical Processes	3
MATS5423	Pyrometallurgy 1	3
MATS5424	Modelling in Materials Engineering 2	3
MATS5524	Pyrometallurgy 2	3
MINE3800	Mineral Processing	3

Materials Engineering Plan

Plan MATSH13135
BE in Materials Engineering

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:

		UOC
MATS1343	Materials Industry Management B	3
MATS1414	Surface Treatment and Wear	3
MATS2294	Thermal and Mechanical Properties of Ceramics	3
MATS2314	Glass-Based Ceramics	3
MATS3064	Composite Materials	3
MATS3564	Polymer Engineering 1	3
MATS3574	Polymer Engineering 2	3
MATS4023	Phase Transformations	3
MATS4133	Deformation and Strengthening Mechanisms	3
MATS4213	Fractographic Analysis	3
MATS4333	Fracture Mechanics	3
MATS5424	Modelling In Materials Engineering 2	3
NANO3420	Fabrication of Nanostructured Devices	3

Ceramic Engineering Plan

Plan MATSJ13135

BE in Ceramic Engineering

The University of New South Wales 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, electrical ceramics, whitewares, 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. 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:

		UOC
FUEL0040	Fuel Engineering for Materials Processing	3
MATS1163	Chemistry of the Solid State	3
MATS1343	Materials Industry Management B	3
MATS2153	Ceramic Processing Laboratory	3
MATS2183	Refractories	3
MATS2203	Physico-Chemical Ceramics Laboratory	3
MATS2263	Sintering of Ceramics	3
MATS2294	Thermal and Mechanical Properties of Ceramics	3
MATS2314	Glass-Based Ceramics	3
MATS2363	Ceramic Processing and Design	3
MATS4333	Fracture Mechanics	3
MATS5394	Pollution Control in Materials Processing	3
MATS5424	Modelling in Materials Engineering 2	3
NANO3420	Fabrication of Nanostructured Devices	3

Technical Electives in all four plans should be selected from the elective courses offered in Physical Metallurgy, Process Metallurgy, Materials Engineering and Ceramic Engineering.

Bachelor of Science (Technology) Part-time Programs

Bachelor of Science (Technology)
BSc(Tech)

Programs 3030 and 3130 are designed for students who are employed in the ceramic or metallurgical industries respectively. They extend 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 BSc(Tech) programs cover the same courses as the first three years of the corresponding full-time plans in BE program 3135. Programs 3030 and 3130 are identical in the first four years of study and correspond to the first two years of program 3135. Stages 5 and 6 of 3030 ceramics program are the same as the third year of the 3135 program ceramic engineering plan, while stages 5 and 6 of the 3130 program are the same as either the physical metallurgy plan or the process metallurgy plan in program 3135.

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 completed concurrently with attendance in the course, but with approval of the Head of School may be completed after completion of the prescribed course of study.

3030 Ceramics Part-time Program

Stage 1

MATH1131	Mathematics 1A
MATH1231	Mathematics 1B
PHYS1121	Physics 1A
PHYS1221	Physics 1B
	Total (24 UOC)

Stage 2

CHEM1101	Fundamentals of chemistry 1A
CHEM1201	Fundamentals of chemistry 1B
MATS1111	Materials science 1
MATS1021	Computing in materials science
MECH0130	Engineering drawing & descriptive geometry
MECH0440	Engineering statics
	Total (24 UOC)

Stage 3

CHEM2817	Physical Chemistry
MATH2049	Mathematics and Statistics for Materials Science A
MATH2059	Mathematics for Materials Science B
MATS1092	Materials and Design 1
MATS1172	Physical Properties of Materials
MATS1182	Thermodynamics and Phase Equilibria
	General Education (3 UOC)
	Total (24 UOC)

Stage 4

MATS1152	Materials Engineering 1B
MATS1232	Materials Engineering 1A
MATS1242	Crystallographic and Microstructural Characterisation
MATS1262	Mechanical Properties of Materials
	General Education (3 UOC)
	Total (24 UOC)

Stage 5

MATS1013	Diffusion and Kinetics
MATS1093	Thermodynamics of Materials 2
MATS2013	Ceramic Materials
MATS3443	Polymer Science and Engineering
	Professional Electives (9 UOC) *
	General Education (3 UOC)
	Total (24 UOC)

Stage 6

MATS4013	Physical Metallurgy
MATS5013	Materials Processing
MATS5323	Modelling in Materials Engineering 1
	Professional Electives (9 UOC) *
	General Education (3 UOC)
	Total (24 UOC)

* Professional electives as listed for Program 3135 Ceramic Engineering Plan

3130 Metallurgy Part-time Program

Stages 1 to 4

The same as stages 1 to 4 of program 3030 ceramics.

Stage 5

MATS1013	**Diffusion and Kinetics**
MATS1093	Thermodynamics of Materials 2
MATS2013	Ceramic Materials
MATS3443	Polymer Science and Engineering
	Professional Electives (9 UOC) **
	General Education (3 UOC)
	Total (24 UOC)

Stage 6

MATS4013	Physical Metallurgy
MATS5013	Materials Processing
MATS5323	Modelling in Materials Engineering 1
	Professional Electives (9 UOC) **
	General Education (3 UOC)
	Total (24 UOC)

** Professional electives as listed for Program 3135, either in the physical metallurgy plan, or in the process metallurgy plan.

3138 Bachelor of Engineering Master of Biomedical Engineering Program

BE MBiomedE

Overview of Program

An increasing number of materials engineers in Australia and overseas are involved in the development, processing, and application of materials used in many areas of biomedical engineering including orthopaedics, dental and maxilliofacial implants, artificial vascular materials, controlled drug delivery, prosthetics and orthotics, and device housings. In many areas of medical technology, a concurrent study of materials and biomedical engineering form a logical and useful training. The objectives of the concurrent degree program will prepare materials engineers to work in these areas of biomedical technology like many of their overseas counterparts.

The five-year concurrent degree program consisting of a Bachelor of Engineering (in Process Metallurgy, Physical Metallurgy, Ceramic Engineering or Materials Science) and a Master of Biomedical Engineering

(BE/MBiomedE) is specifically designed to cater for students wishing to pursue a career in biomedical engineering through the technical base of materials science and engineering. The concurrent BE/MBiomedE program is 240 units of credit (5 years full-time) by allowing 18 units of credit of graduate level MBiomedE courses to substitute for elective courses in the BE and one undergraduate BE elective to substitute for a MBiomedE elective. This overlap arrangement is only available to students who complete the BE/MBiomedE program. Students who discontinue the BE/MBiomedE program to complete the BE program only will have to complete the normal 192 units of credit BE program but may be given credit for some of the BIOM courses completed.

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 years 2 and 3.

The Institution of Engineers, Australia recognises the Bachelor of Engineering components of the BE/MBiomedE programs as meeting the examination requirements for admission to graduate and corporate membership. Furthermore, examination requirements are met for the membership of the Institution's College of Biomedical Engineering. The degree is accorded substantial or complete recognition by overseas engineering institutions.

Program Outline

The BE component of the program consists of one of the following four plans: Process Metallurgy, Physical Metallurgy, Ceramic Engineering, or Materials Engineering. 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. The first two years of all plans are identical and the third, fourth, and fifth 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. Courses pertaining to the MBiomedE component of the program are done in each of the 5 stages of the program.

Stage 1 of all plans

BIOM1001	Professional Biomedical Studies
BIOM9010	Biomedical Engineering Practice
CHEM1011	Fundamentals of Chemistry 1A
CHEM1021	Fundamentals of Chemistry 1B
MATH1131	Mathematics 1A, or
MATH1141	Higher Mathematics 1A
MATH1231	Mathematics 1B, or
MATH1241	Higher Mathematics 1B
MATS1021	Computing in Materials Science
MATS1111	Materials Science 1
PHYS1121	Physics 1A
PHYS1221	Physics 1B

Stage 2 of all plans

BIOM9420	Clinical Laboratory Science
CHEM2817	Physical Chemistry
MATH2049	Mathematics and Statistics for Materials Science
MATH2059	Mathematics for Materials Science
MATS1152	Materials Engineering 1B
MATS1182	Thermodynamics and Phase Equilibria
MATS1232	Materials Engineering 1A
MATS1242	Crystallographic and Microstructural Characterisation
MATS1262	Mechanical Properties of Materials
MECH0130	Engineering Drawing & Descriptive Geometry
MECH0440	Engineering Statics

Stage 3 of all plans

ANAT2511	Fundamentals of Anatomy
MATS1013	Diffusion and Kinetics
MATS1092	Materials and Design 1
MATS1093	Thermodynamics of Materials 2
MATS1172	Physical Properties of Materials
MATS2013	Ceramic Materials
MATS3443	Polymer Science and Engineering
MATS4013	Physical Metallurgy
MATS5013	Materials Processing
MATS5323	Modelling in Materials Engineering 1
	Professional Electives (9 UOC)
	Technical Electives (3 UOC)

Stage 4 of all plans

MATS3524	Project, or
BIOM5910	Thesis A (6 UOC, S1), and
BIOM5911	Thesis B (6 UOC, S2)
PHPH2101	Physiology 1A
PHPH2201	Physiology 1B
MATS1354	Design Project
MATS1464	Professional Communication and Presentation
	Professional Electives (9 UOC)
	Technical Electives (3 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.

MATS1354	Design Project
MATS1464	Professional Communication and Presentation
MATS3524	Materials Engineering Project

Stage 5 of all plans

BIOM9332	Biocompatibility
BIOM9410	Regulatory Requirements for Biomedical Technology
BIOM9913	Masters Project
MATS1244	Materials Industry Management A
	Biomedical Engineering Electives (18UOC)

Elective Components (Stage 5)

The following courses have particular objectives, but specific topics are chosen by students for study and research.

MATS1244	Materials Industry Management A

Academic Plans of the BE/MBiomedE Program

The professional and technical electives that define the Physical Metallurgy, Process Metallurgy, Materials Engineering and Ceramic Engineering academic plans in the BE/MBiomedE program are the same as those specified for the corresponding academic plans in BE program 3135.

3128 Bachelor of Engineering Master of Commerce Program

BE MCom

This full-time program provides the opportunity to obtain two professional degrees within five years of study. It allows students to add the degree Master of Commerce (Program 8404, Faculty of Commerce and Economics) to the degree 3135 Bachelor of Engineering (Physical Metallurgy, Process Metallurgy, Materials Engineering, or Ceramic Engineering) and fulfil an increasing need of the materials, ceramic, mineral and metallurgy industries for engineering based graduates with qualifications in the commerce disciplines. Fast-tracking of the double degrees is possible because three elective courses in Stage 4 of Program 3135 can be taken as part of the requirement for the M.Com program, and MATH2049 Mathematics and Statistics for Materials Science (Program 3135) fulfils the requirements of ECON5203 Statistics for Business (Program 8404).

The conditions governing award of the double degrees are the same as those which apply to Program 3135 BE (Physical Metallurgy, Process Metallurgy, Materials Engineering, or Ceramic Engineering) as outlined in the Science section of this Undergraduate Handbook and Program 8404 Master of Commerce as outlined in the Faculty of Commerce and Economics section of the Postgraduate Handbook. Students electing for the double degrees will initially enrol in Program 3135. For transfer in to Program 8404, students must satisfy the following requirements:

- Complete stages 1-3 in Program 3135 at a weighted average of 65% or more
- Elect to enrol in the "fast track" double degree program 3128 before entry into Stage 4 of Program 3135
- Complete courses: ACCT5901 Accounting: A User Perspective; ECON5103 Business Economics; a Core Commerce Elective during stage 4 of Program 3128
- Complete the remaining requirements of Program 3128 as outlined in the Science section of this Handbook (Program 3135).
- Elect to enrol in the Master of Commerce Program 8404 for stage 5 at the end of Stage 4 of the Program 3135.

Awarding of Honours in the BE component of program 3128 will include performance in the three Commerce courses taken in Stage 4 of Program 3128.

Program 3128 will be administered within the Faculty of Science and Program 8404 will be administered within the Faculty of Commerce and Economics.

Stage 1 to Stage 3

Same as Program 3135
Total Units of Credit, 48 each stage

Stage 4

ACCT5901	Accounting: A User Perspective
MATS1464	Professional Communication and Presentation
MATS3524	Materials Engineering Project
ECON5103	Business Economics (6 UOC)
	Core Commerce Elective (6 UOC)
	Professional Electives (12 UOC)
	Technical Electives (3 UOC)
	Total (48 UOC)

Elective Components (Stage 4)

The above mentioned courses have particular objectives, but specific topics are chosen by students for study and research.

MATS1464	Professional Communication and Presentation
MATS3524	Materials Engineering Project

Stage 5

Commerce elective courses totalling 48 units of credit to be taken according to the requirements of Program 8404, Faculty of Commerce and Economics

Nanotechnology

3617 Nanotechnology Program Full-time

BSc Nanotech

This program in Nanotechnology offers a comprehensive education in this 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 (Stage 1 – year 2002). 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.*

Graduates may expect to find employment in new, high-technology companies which seek to harness the remarkable properties of materials in a nanostructural form. However, the multidisciplinary nature of this degree will provide graduates with very marketable skills in more traditional science-based industries. Graduates would also be well qualified to take higher research degrees.

*Students may leave the program after successful completion of Stage 3. These students will be awarded a BSc with a major in Nanotechnology. Only students enrolled in program 3617 will be eligible to obtain a major in Nanotechnology.

Degree Program

Stage 1

CHEM1011	Fundamentals of Chemistry 1A *or*
CHEM1031	Higher Chemistry 1C
CHEM1021	Fundamentals of Chemistry 1B *or*
CHEM1041	Higher Chemistry 1D
MATH1131	Mathematics 1A *or*
MATH1141	Higher Mathematics 1A
MATH1231	Mathematics 1B *or*
MATH1241	Higher Mathematics 1B
PHYS1121	Physics 1A *or*
PHYS1131	Higher Physics 1A
PHYS1221	Physics 1B *or*
PHYS1231	Higher Physics 1B
MATS1111	Materials Science 1
NANO1001	Nanotechnology 1
BIOS1201	Molecules, Cells and Genes

Stage 2

PHYS2020	Computational Physics
CHEM2828	Organic and Inorganic Chemistry
CHEM2041	Chemical and Spectroscopic Analysis
NANO2002	Nanotechnology 2
PHYS2030	Laboratory A
PHYS2040	Quantum Physics
PHYS3310	Physics of Solid State Devices
PHYS2410	Biophysics 1
MATS1112	Phase Equilibria
MATS1142	Crystallography and X-ray Diffraction
BIOC2201	Principles of Molecular Biology (Advanced) *or*
BIOC2291	Fundamentals of Molecular Biology
GENX####	6 units of credit of General Education

Stage3

NANO3410	Chemistry of Surfaces
NANO3003	Nanotechnology 3
PHYS3080	Solid State Physics
NANO3420	Fabrication of Nanostructured Devices
BIOC3121	Molecular Biology of Nucleic Acids

*Electives totalling 24 units of credit

GENX####	6 units of credit of General Education

Stage 4

MATS1464	Professional Communication
NANO4004	Nanotechnology Project

*Electives totalling 9 units of credit
* Recommended Electives: NANO3440, BIOC3111, CHEM3011, CHEM3041, MATS1002, MATS1162, MATS1243, MATS2213, MATS2223, MATS4333, MATS4613, MICR2201, PHYS2630, PHYS3040, PHYS3320, PHYS3410, POLY3011, POLY3012.

Optometry

3950 Optometry Degree Program Full-time

Bachelor of Optometry BOptom

The School provides a four Stage full-time program in Optometry leading to the award of the degree of Bachelor of Optometry, at either the Pass or Honours level. Professional training including clinical optometry is interwoven with basic studies of visual and ocular science over the four Stages of the program. The only entry point into Optometry will be at Stage 1 level.

Degree Program

Stage 1

BIOS1401	Biology (Optometry)
CHEM1819	Biological Chemistry for Optometry A
CHEM1829	Biological Chemistry for Optometry B
OPTM1105	Optics and the Eye 1
OPTM1201	Ocular and Visual Science 1
OPTM1202	Clinical Optometry 1
OPTM1205	Optics and the Eye 2
OPTM1207	Foundations of Hygiene and Infectious Disease in Optometric Practice
PHYS1199	Physics (Optometry)

Stage 2

OPTM2101	Ocular and Visual Science 2A
OPTM2102	Clinical Optometry 2A
OPTM2105	Optics and the Eye 3
OPTM2201	Ocular and Visual Science 2B
OPTM2202	Clinical Optometry 2B
OPTM2206	Pathology for Optometry
PHPH2121	Principles of Physiology A
PHPH2221	Principles of Physiology B
	General Education courses totalling 6 units of credit

Stage 3

OPTM3102	Clinical Optometry 3A
OPTM3108	Ocular Disease
OPTM3203	Clinical Optometry 3B
OPTM3204	Clinical Optometry 3C
OPTM3209	Environmental Optometry
PHPH3302	Pharmacology for Optometry
PSYC3516	Psychology for Optometry
	General Education courses totalling 6 units of credit

Stage 4

MDCN8001	Principles of Medicine for Optometry Students
OPTM4114	Optometry and the Professional Environment A
OPTM4210	Research Project
OPTM4214	Optometry and the Professional Environment B
OPTM4311	Clinical Optometry 4A
OPTM4312	Clinical Optometry 4B
OPTM4313	Clinical Optometry 4C

3951 Combined Science and Optometry Program

BSc BOptom

Conditions for the combined program leading to the award of the degrees of BSc BOptom

1. Undergraduates* of The University of New South Wales who have satisfied the examiners in at least the first two Stages of the Optometry degree program may be admitted to the Science degree program with advanced standing for the purpose of qualifying for the award of the two degrees of BSc BOptom. Such undergraduates' performance shall have been of a high standard and their admission shall be subject to the approval of the Dean of the Faculty of Science.
2. In order to qualify for the award of the degree of BSc, students so admitted shall be required to complete the appropriate general studies courses and no less than 21 units of credit of either Level II or Level III and a further 21 units of credit from other Level III courses, in accordance with the Science and Mathematics Program regulations. The courses submitted for the award of the Bachelor's degree under these regulations must include at least 21 units of credit from Level III courses chosen from related disciplines in accordance with the Science program regulations.
3. In order to qualify for the award of the degree of BOptom, students so admitted shall complete the requirements of the Optometry degree program.

*In Rule 1, the word 'undergraduates' includes graduands, ie persons may be admitted under these rules if they have met all requirements for a first degree which has not yet been conferred and admission under these rules shall be no bar to the subsequent award of the first degree.

Psychology

3432 Psychology Degree Full-time

Bachelor of Psychology BPsychol

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.

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.

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 BPsychol 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 New South Wales.

Degree Program

Stage 1

PSYC1001, PSYC1011 and PSYC1021
Courses from Science Schools totalling 12 units of credit
18 elective units of credit selected from:
Arts and Social Sciences, Commerce and Economics, and Science or other approved.

Stage 2

PSYC2001, PSYC2061, PSYC2071, PSYC2081, and PSYC2101
12 Level II units of credit following on from
one of the Level I non-psychology courses
6 units of credit of General Education

Stage 3

PSYC3001, and PSYC3011
Select 1 course from each of the following three elective groups and two other Level III Psychology courses:
Advanced Perceptual/Cognitive – PSYC3151, PSYC3221, PSYC3311, PSYC3321; Advanced Biological – PSYC3051, PSYC3241, PSYC3251; Advanced Social – PSYC3121, PSYC3271, PSYC3281.
6 units of credit of General Education

Stage 4

PSYC4053 and PSYC4063

Prerequisites

Before enrolling in any course (or equivalent units of a course) the student shall have attended the classes and shall have satisfied the examiners in all relevant prerequisite courses. Prerequisites are specified in course descriptions and a student without a necessary prerequisite for a course will be blocked from enrolment in that course by NSS (NewSouth Student).

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.

Progression and Exclusion

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 falling 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.

Students not on good academic standing will be notified by the Registrar in writing. Notified students will be assessed in accordance with the University's procedures. Failure to respond accordingly to notification will result in exclusion from the degree. Students should also see the section on progression and exclusion ('Restrictions on Students Re-enrolling') in the Student Guide.

Award of the Degree

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.

Safety Science

Safety and its management has been a significant growth area for the past fifteen years. Everyone is more conscious of safety and more concerned about issues such as industrial health and safety, environmental health and child safety, traffic safety, public safety and product safety. Safety Science is evolving as a discipline with its own terminology, and common approaches to the study of safety problems and their solution involving risk assessment and risk management. At the same time safety impacts on so many aspects of commercial and community life that a wide range of activities are possible and a wide range of undergraduate study areas are relevant.

Career prospects in the Safety area are excellent. Organisations are becoming more aware of their legal and social responsibilities for safety and for the environment and it is increasingly recognised that these areas are not easy to manage and need specialist training. The majority of jobs in safety science involve health and safety at work. The role of the industrial safety officer has evolved into an occupational health and safety professional whose responsibilities encompass all activities relating to people's health and safety. Increasingly the career will involve environmental risk management and perhaps broadening into general risk management areas. Graduates can work in a number of fields such as: Safety, Ergonomics, Biomechanics, Occupational Hygiene, Risk Management, Toxicology, Safety and Environmental Management and Safety Engineering.

Program Outline

This four year program provides the basis for a career in safety, health and environmental (SHE) management or for entry to one of the more specialist areas such as ergonomics or toxicology. The program takes four years with the first three years covering the basic sciences and management issues and the fourth year involving more advanced study in specialist sub disciplines and a major project. Although all students must cover both the scientific and management aspects of safety, health and the environment, it is possible to select courses to give more emphasis to either aspect. The fourth year project is normally carried out within a workplace. The program thus provides work experience as well as a good grounding in the knowledge and skills required for a career in SHE.

3877 Safety Science Full/Part-time

Bachelor of Science BSc

Stage 1

A total of 48 units of credit are required including SESC1001, 12 units of credit of mathematics and at least 18 units of credit from other schools in the Faculty of Science. Students should note that specialisation in later years of the program will be dependent on the choice of stage 1 courses. Students are encouraged to consult the school regarding the choice of stage 1 courses

Stage 2

ANAT2151	Introduction to Functional Anatomy or
ANAT2111	Introductory Anatomy or
ANAT2511	Fundamentals of Anatomy
GEOG1711	Environmental Systems and Processes
SESC2091	Safety Health and Environmental Hazards
SESC2100	Workplace Hazards
SESC2800	Fundamentals of Toxicology (For students who did not study Chemistry in stage 1)
SESC6110	Physical Principles of Safety (For students who did not study Physics in stage 1)

Any level 2 Statistics course (students who completed MATH1041 may select an alternative course)
General Education
Electives to bring total to 48 Units of Credit

Stage 3

SESC3200	Hazard and Risk Assessment
SESC3541	Assessment of the Workplace Environment
SESC3601	Occupational Health and Safety
GEOG3911	Environmental Impact Assessment
PSYC3141	Behaviour in Organisations
or	
IROB2721	Managing People

General Education
Electives to complete 48 units of credit

Stage 4

SESC4310	Management of Health Safety and the Environment
SESC4820	Chemical Safety and Toxicology
SESC4900	Project Research Methods
SESC3410	Ergonomics 2
SESC4924	Project

Electives to complete 48 Units of credit

Electives throughout the program may be selected to allow students to follow different specialisations within safety health and environmental science. Some examples of courses, which are recommended for different specialisations, are shown below

Toxicology

BIOC2101, BIOC2201, Any Stage 2 Chemistry courses, BIOC3121, BIOC3261, Any stage 3 Chemistry courses, MICR2201, SESC3901, SESC3620, SESC4850

Environmental Safety

BIOS2011, GEOG2711, GEOL2231, PHYS2801 or PHYS2810, MATS5394, MATH2240, GEOG3901, GEOG3761

Safety Health and Environmental Management

IROB1701, ECON1107, PSYC2061, PSYC2071, PSYC3281, ENV2801, PSYC3141, SESC4850, SESC4211

Ergonomics

PSYC2071, PSYC2061, SESC2451, PSYC3141, SESC3451, SESC4410, SESC9541

Industrial Safety

PHYS2850, PHYS2310, SESC4140, SESC4820

Combined degrees with Science

Combined Programs including Science

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.

Combined Programs including Advanced Science

Students seeking to complete the Science component of a combined degree program at Advanced level would normally be expected to complete the full Honours program for the science study plan in which they are enrolled, in addition to a minimum of 96 units of credit in relevant Science courses at Levels I-III. In practice, it may be difficult to undertake some plans as part of combined degree structures. Subject to timetable constraints, students may undertake the science component of most approved combined degree program involving science, at Advanced Level. In general, students will be restricted in the number of science courses that they can undertake in such combined degrees. Where these are insufficient to allow the student to complete the recommended study plan as outlined in the Advanced Science section of this Handbook, students are advised to consult the relevant Head of School.

3930 Combined Science and Arts
3931 Combined Advanced Science and Arts

BSc BA

The combined degree of BSc BA normally requires an additional Stage of study, and enables students to complete a major sequence from those available in Table A for Science (see Program 3970) and in a School, Department, or Program of the Faculty of Arts and Social Sciences. 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.

For admission to the program, students must satisfy the entry requirements to Science or Advanced Science as well as to the Faculty of Arts and Social Sciences. In addition to the requirements of the BSc program being undertaken, students must complete a minimum of 84 units of credit in courses offered by Schools, Departments or Programs within the Faculty of Arts and Social Sciences, including an approved major sequence of 42 units of credit (refer to Lists A and B of the Faculty of Arts and Social Sciences rules in the Arts Faculty section of the handbook).

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.

This degree is administered by the Science Student Office.

3935 Combined Science and Social Science
3936 Combined Advanced Science and Social Science

BScBSocSc

In addition to the minimum requirements of the BSc program (84 units of credit), students must complete 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:

		UOC
SLSP1000	Social Science and Policy	6
or		
SLSP1002	Introduction to Policy Analysis	6
and		
SLSP1001	Research and Information Management	6
SLSP2000	Economy and Society	6
SLSP2002	Policy Analysis Case Studies	6
SLSP3000	Social Theory and Policy Analysis	6
SLSP2001	Applied Social Research 1	6
SLSP3001	Applied Social Research 2	6
SLSP3002	Social Science and Policy Project	6

and an additional 36 units of credit from an approved sequence in a particular social science discipline (List **F** in the Arts Faculty section of the handbook).

Students may complete a major (42 units of credit) in a social science discipline from List **F** in the Arts and Social Sciences Faculty by completing an additional elective course as part of the remaining 24 units of credit required for the program.

This degree is administered by the Science Student Office.

3932 Combined Environmental Science and Arts Program

Bachelor of Environmental Science and Bachelor of Arts BEnvScBA

The combined degree requires a minimum of 5 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 24UOC 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 Schools, Departments or Programs within the Faculty of Arts and Social Sciences, including an approved major sequence of 42 units of credit (refer to Lists A and B of the Faculty of Arts and Social Sciences rules in the Arts Faculty section of the handbook). 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.

This degree is administered by the Science Student Office.

4075 Science Education Program

Bachelor of Science Bachelor of Education BScBEd

This four year double degree requires the completion of a BSc degree with a major and minor in two HSC teaching subjects, plus at least one semester of first year level courses in another two teaching disciplines. Additionally Education theory courses are commenced in the first year (two courses), with an additional theory course in second year. In third year, practice teaching is done along with a teaching method course. In fourth year, a full complement of teaching method, practice teaching, professional courses and two educational theory courses are completed*.

A) Students intending to become science teachers, or wishing to graduate in the natural sciences (excluding mathematics), will be required to complete:

i) A major in one of the teaching disciplines – Physics, Chemistry, Biological Sciences, Earth and Environmental Sciences (54 units of credit). This will include at least 42 units of credit at level two and three of the discipline, of which 18 units of credit must be from level three. The major sequence excludes the upper-level General Education courses offered in the disciplines.

ii) A minor in one of the teaching disciplines – Physics, Chemistry, Biological Sciences, Earth and Environmental Sciences (36 units of credit). The minor sequence excludes the upper-level General Education courses offered in the disciplines.

iii) At least 6 units of credit at level one in each of the main teaching disciplines – Physics, Chemistry, Biological Sciences, Earth and Environmental Sciences – and at least 12 units of credit at level one in either Chemistry or Physics. That is a total of 12 units of credit beyond those first year units completed in the major and minor disciplines. The level one physics course can be 'Physics for Health and Life Scientists'.

iv) Completion of 72 units of credit in Education. The normal pattern is two courses in the first year (12 units of credit); one course (6 units of credit) in second year; and two courses: teaching method (6 units of credit); and practice teaching (6 units of credit); in third year; and 48 units of credit in fourth year, which include educational theory, practice teaching, teaching method, and professional courses.

v) Completion of 6 or 12 (depending on choice of major) other units of credit from any university discipline, at levels one, two or three.

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 units of credit of level two mathematics. For students doing a major or minor in physics or chemistry, the mathematics prerequisites will need to come out of these 12 or 18 'other' units of credit.

(b) For entry to honours (fourth year) in one of the science disciplines, at least 24 units of credit need to be taken at level three in the discipline, and approval needs to be obtained from the head of the relevant science school.

(c) In fourth year, there is the opportunity to do Computer Studies Method if 12 units of credit of computing have been completed.

B) Students wishing to become mathematics teachers, or graduate in mathematics, will be required to:

i) Complete 72 units of credit in Mathematics. These Mathematics courses must be chosen so as to fulfil 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) Completion of at least 6 units of credit of computing courses, which can be taken from a variety of different schools in the university.

iii) Completion of 72 units of credit in Education. The normal pattern is two courses in the first year (12 units of credit); one course (6 units of credit) in second year; and two courses: teaching method (6 units of credit); and practice teaching (6 units of credit); in third year; and 48 units of credit in fourth year, which include educational theory, practice teaching, teaching method, and professional courses.

iv) Completion of the balance of 192 units of credit by taking courses from any school that offers either a major or minor in Science.

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 fourth year, there is the opportunity to do Computer Studies Method if 12 units of credit of computing have been completed.

3450 Combined Science Innovation Management

Bachelor of Science Diploma in Innovation Management

BSc DipInnovMan

The Diploma in Innovation Management program is open to students commencing second year of a four year science based degree or combined degree. Students are assessed for admission based on their past leadership and entrepreneurial activities, enthusiasm and academic achievement. The diploma aims to encourage an entrepreneurial mind-set and provide students with the knowledge and skills needed for developing business opportunities based on scientific innovation. The Diploma has a focus on life sciences and is taught concurrently over the student's final 3 years of study and involves 36 units of credit divided into five formal courses and an industry work placement. To avoid study overload, most of the Diploma courses are delivered in one-week blocks during vacations with team assignments to be completed during the following academic session. At the completion of 4 years of study, students become eligible for the award of a combined Bachelor of Science and the Diploma in Innovation Management (Dip. Innov. Man).

Course material covers areas such as creativity in enterprises, lateral thinking, business principles, basic business planning and planning for new ventures, funding, management and commercialisation of intellectual property, valuation and assessment of high technology businesses. Students engage in an exercise to set up and run a business venture (in conjunction with Young Achievement Australia) and participate in case studies with Australian and International Entrepreneurs. The lectures, workshops, case studies and tutorials in each of the Diploma's courses are delivered by a well-balanced mixture of university academics and expert industry professionals. Students are required to undertake an extended placement in an innovative environment in Australia or overseas as part of their final year of studies. Assessment is focused on performance in the process section of each course (e.g. workshops and assignments) with a minor percentage based on exam performance (fundamental lecture material).

The Diploma is primarily directed at empowering future R&D scientists with an entrepreneurial education that will allow them to recognise, evaluate, develop, finance and exploit commercial opportunities in their work. Graduates with the combined qualification will also be more competitive for all employment opportunities whether they are in academia, research or administration and will have a wide range of career options. Combinations of business and technical skills are required in careers that involve: intellectual property, high technology finance (venture capital) and investment (business analysis), R&D management, high technology corporate management; government regulation and administration; bioscience sales and marketing.

The Diploma in Innovation Management program

Stage 2

INOV2101	The Creative Enterprise (X2)

Stage3

INOV2121	Professional Skills for Innovators (X1)
INOV3101	Practical Business Skills (X2)
INOV3121	Protecting and Developing (S2)

Stage 4

INOV3131	Biobusiness Workshop (X1)
INOV4101-4401	Innovation in Practice

Science and the Faculty of Engineering

Bachelor of Engineering Bachelor of Science BE BSc

For details of the Combined Science and Engineering programs refer to the appropriate schools in the Faculty of Engineering section of this handbook.

3611 Combined Science/Aeronautical Engineering Program

3661 Combined Science/Industrial Engineering Program

3681 Combined Science/Mechanical Engineering Program

3701 Combined Science/Naval Architecture Program

3725 Combined Science/Electrical Engineering Program

3730 Combined Science/Civil Engineering Program

Science and the Faculty of Medicine

3820 Combined Science and Medicine Program

Bachelor of Science Bachelor of Medicine Bachelor of Surgery BSc MB BS

For details of the Combined Science and Medicine Program refer to the Faculty of Medicine section of this handbook.

Science and the Faculty of Commerce and Economics

3529 Combined Commerce and Science Program

Bachelor of Commerce Bachelor of Science BCom BSc

For details of the Combined Science and Commerce Programs refer to the Faculty of Commerce and Economics section of this handbook.

Science and the Faculty of Law

4770 Combined Science and Law Program

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.

Undergraduate course descriptions

ACCT1501 Accounting and Financial Management 1A
School of Accounting
Staff Contact: School Office
UOC6 HPW3.5 S1 S2

This is the first course in a sequence of courses dealing with the profession and practice of accounting and the literature associated with it. 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 double-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. In so doing it introduces students to the practice of literature evaluation.

ACCT1511 Accounting and Financial Management 1B
School of Accounting
Staff Contact: School Office
UOC6 HPW3.5 S1 S2
Prerequisite/s: 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
Staff Contact: School Office
UOC6 HPW3 S1
Prerequisite/s: 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.

ACCT2532 Management Accounting: Process Improvement and Innovation (Honours)
School of Accounting
Staff Contact: School Office
Enrolment requires school approval
UOC6 HPW3 S1
Prerequisite/s: ACCT1511
Excluded: ACCT2522

The content of this course includes that of ACCT2522 Management Accounting: Process Improvement and Innovation as well as additional and more advanced work in management accounting.

ACCT2542 Corporate Financial Reporting and Analysis
School of Accounting
Staff Contact: School Office
UOC6 HPW3.5 S2
Prerequisite/s: 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.

ACCT2552 Corporate Financial Reporting and Analysis (Honours)
School of Accounting
Staff Contact: School Office
Enrolment requires school approval
UOC6 HPW3.5 S2
Prerequisite/s: ACCT1511
Excluded: ACCT2542

The content of this course includes that of ACCT2542 Corporate Financial Reporting and Analysis as well as additional and more advanced work in corporate financial reporting and accounting theory.

ACCT3563 Issues in Financial Reporting and Analysis
School of Accounting
Staff Contact: School Office
UOC6 HPW3.5 S1 S2
Prerequisite/s: ACCT2542
Excluded: ACCT3573

This is the final course in financial accounting. Building on the foundation laid in ACCT2542, it covers more advanced topics including accounting 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
Staff Contact: School Office
Enrolment requires school approval
UOC6 HPW4 S1
Prerequisite/s: ACCT2552
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
School of Accounting
Staff Contact: School Office
UOC6 HPW3 S2
Prerequisite/s: ACCT2522
Excluded: ACCT3593

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 lable of 'management accounting' constrains and enables processes of stakeholder value mangement . The course will draw upon a variety of readings and cases to explore these issues.

ACCT3585 E-Business: Strategy & Processes
School of Accounting
Staff Contact: School Office
UOC6 HPW3 S2
Prerequisite/s: 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
Staff Contact: School Office
Enrolment requires school approval
UOC6 HPW3.5 S2
Prerequisite/s: 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
Staff Contact: School Office
UOC6 HPW3 S2
Prerequisite/s: 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.

ACCT3708 Auditing and Assurance Services
School of Accounting
Staff Contact: School Office
UOC6 HPW3 S1 S2
Prerequisite/s: 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
Staff Contact: School Office
Enrolment requires school approval
UOC6 HPW3.5 S1 S2
Prerequisite/s: ACCT2542 or ACCT2552 or approval from the School
Excluded: ACCT3708

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
Staff Contact: School Office
Enrolment requires school approval
UOC12 S1 S2
Prerequisite/s: Admission to BCom Degree at Honours level majoring in Accounting.

ACCT4809 Current Developments in Auditing Research
School of Accounting
Staff Contact: School Office
Enrolment requires school approval
UOC6 HPW3 S2
Prerequisite/s: 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 and 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 development in audit theory and research.

ACCT4818 Advanced Assurance and Auditing
School of Accounting
Staff Contact: School Office
UOC6 HPW3 S2
Prerequisite/s: ACCT3708 or ACCT3718

Topics covered in this course include: risk analysis; analytical review; internal control evaluation; internal audit and operational auditing; CAATS; use of computer as an audit tool; going concern prediction; performance indicators and analytical review as an audit tool; auditing in a small business environment; compliance audits in the public sector; and investigating accountants reports.

ACCT4820 Management Accounting Issues and International Best Practice
School of Accounting
Staff Contact: School Office
UOC6 HPW3 S2
Prerequisite/s or Corequisite/s:ACCT3583 or ACCT3593

This course examines a series of contemporary challenges to management accounting and the required responses to achieve international best practice. Topics include: performance measurement and reward system design; profit and investment centre evaluation; transfer pricing; the role of management accounting in managing human resources and environmental issues; advanced cost estimation; capacity management; design of cost management systems and advanced cost analysis. A particular focus is placed on these issues in multinational organisations.

ACCT4832 Public Sector Accounting and Financial Reporting
School of Accounting
Staff Contact: School Office
UOC6 HPW3 S1
Prerequisite/s: ACCT2542 or ACCT2552

A review of accounting methods applied by Commonwealth, State and Local Government entities. Fund accounting and cash-based reporting. Accrual-based reporting including a review of the issues associated with the measurement of assets and liabilities in the public sector. Infrastructure assets, heritage assets, and obligations arising from complex transactions. Departmental and whole of government reports. Issues arising from the commercialisation of government units. Identification and costing of community service obligations. Performance indicators and the evaluation of financial performance and service quality.

ACCT4851 Current Developments in Accounting Research - Financial
School of Accounting
Staff Contact: School Office
Enrolment requires school approval
UOC6 HPW3 S1
Prerequisite/s: 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
Staff Contact: School Office
Enrolment requires school approval
UOC6 HPW3 S1
Prerequisite/s: 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.

ACCT4867 Special Topic in Accounting
School of Accounting
Staff Contact: School Office
Enrolment requires school approval
UOC6 HPW3 S1 S2
Prerequisite/s: ACCT4897

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.

ACCT4897 Seminar in Research Methodology
School of Accounting
Staff Contact: School Office
Enrolment requires school approval
UOC6 HPW3 S1
Prerequisite/s: 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.

ACCT4898 Project Seminar
School of Accounting
Staff Contact: School Office
Enrolment requires school approval
UOC6 HPW3 S1 S2

ACCT8691 Industrial Training 1
School of Accounting
Staff Contact: School Office
UOC18 S1

ACCT8692 Industrial Training 2
School of Accounting
Staff Contact: School Office
UOC18 S2

ACCT8693 Industrial Training 3
School of Accounting
Staff Contact: School Office
UOC18 S1

ACCT8694 Business Internship (Type A)
School of Accounting
Staff Contact: School Office
Enrolment requires school approval
UOC6 S1 S2
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/s: Available only to Study Abroad students.

ACCT8695 Business Internship (Type C)
School of Accounting
Staff Contact: School Office
Enrolment requires school approval
UOC12 S1 S2
Excluded: ACCT8964

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/s: Available only to Study Abroad students.

ACCT9001 Introduction to Accounting A
School of Accounting
Staff Contact: School Office
UOC3 HPW1.5 S1

This course introduces non-commerce students to the nature, purpose and conceptual foundation of accounting: information systems including accounting applications, and analysis and use of accounting reports.

ACCT9002 Introduction to Accounting B
School of Accounting
Staff Contact: School Office
UOC3 HPW1.5 S2
Prerequisite/s: ACCT9001

This course introduces non-commerce students to managerial accounting: long-range planning, budgeting and responsibility accounting; cost determination, cost control and relevant cost analyses.

ACCT9003 Introduction to Accounting Principles
School of Accounting
Staff Contact: School Office
UOC3 HPW2 S1
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
School of Economics
Staff Contact: School Office
UOC6 HPW3 S2

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
School of Economics
Staff Contact: School Office
UOC6 HPW3 S1
Prerequisite/s: 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
School of Economics
Staff Contact: School Office
UOC6 HPW3 S1
Prerequisite/s: ECON1203 or MATH1231 or MATH1241 or MATH1251

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
School of Economics
Staff Contact: School Office
UOC6 HPW3 S2

Prerequisite/s: 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)
School of Economics
Staff Contact: School Office
UOC6 HPW3 S1
Prerequisite/s: ACTL1001

Students consider the practical application of the fundamental principles of actuarial studies in an industry environment.

ACTL3001 Actuarial Statistics
School of Economics
Staff Contact: School Office
UOC6 HPW3 S1
Prerequisite/s: 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
School of Economics
Staff Contact: School Office
UOC6 HPW3 S1
Prerequisite/s: ACTL1001, ACTL2003

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
School of Economics
Staff Contact: School Office
UOC6 HPW3 S2
Prerequisite/s: 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
School of Economics
Staff Contact: School Office
UOC6 HPW3 S2
Prerequisite/s: 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.

ACTL3005 Superannuation and Retirement Benefits
School of Economics
Staff Contact: School Office
UOC6 HPW3 S2
Prerequisite/s: 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 comparisions.

ACTL3100 Industrial Training 2 (Co-op)
School of Economics
Staff Contact: School Office
UOC15 HPW3 S2
Prerequisite/s: ACTL2100

Students study, in depth, the application of actuarial principles in an industry environment.

ACTL4000 Thesis (Actuarial Studies)
School of Economics
Staff Contact: School Office
Enrolment requires school approval
UOC24 HPW6 S1 S2
Prerequisite/s: 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
School of Economics
Staff Contact: School Office
Enrolment requires school approval
UOC6 HPW3 S1
Prerequisite/s: Admission to BCom Hons in Actuarial Studies

This course develops the theory and practice underlying the actuarial management of risk-based abd 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
School of Economics
Staff Contact: School Office
Enrolment requires school approval
UOC6 HPW3 S2
Prerequisite/s: Admission to B.Comm Honours 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
School of Economics
Staff Contact: School Office
Enrolment requires school approval
UOC6 HPW3 S1 S2
Prerequisite/s: 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)
School of Economics
Staff Contact: School Office
Enrolment requires school approval
UOC24 HPW3 S1 S2
Prerequisite/s: Admission to B.Com Honours 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)
School of Economics
Staff Contact: School Office
UOC15 HPW3 S1
Prerequisite/s: ACTL3100

Students study, in depth, the application of actuarial principles in an industry environment.

AERO3101 Aerospace Design 1A
School of Mechanical and Manufacturing Engineering
Staff Contact: J Page
UOC3 HPW3 S1

Aerospace vehicle types, characteristics, size and performance. The special constraints involved 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
Staff Contact: J Page
UOC3 HPW3 S2
Prerequisite/s: AERO3101

Vehicle loads; thrust inertia, atmospheric flight (manoeuvre and gust), 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.

AERO3400 Analysis of Aerospace Structures 1
School of Mechanical and Manufacturing Engineering
Staff Contact: D Kelly
UOC3 HPW3 S2
Prerequisite/s: 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.

AERO3610 Aerodynamics and Propulsion
School of Mechanical and Manufacturing Engineering
Staff Contact: N Ahmed
UOC6 HPW6 S2
Prerequisite/s: MECH2602 or both MECH2600, MECH2700

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, propellors, rotors and fans.

AERO3620 Flight Dynamics and Systems
School of Mechanical and Manufacturing Engineering
Staff Contact: J Page
UOC3 HPW3 S1
Prerequisite/s: MECH2320 or MECH2300

Introduction to atmospheric and space environment. Aircraft performance in terms of drag, thrust and power. Minimum and maximum speeds, range and endurance. Rates of climb and energy height methods. Maneuvering and flight loads including maneuver and gust envelopes. Mission profiles including take-off and landing. Introductory longitudinal static stability; maneuver points and margins. Flight testing. Fluid, mechanical and electrical systems in aerospace vehicles; power, mass and information transfer; environment control. Flight control.

AERO4101 Aerospace Design 2A
School of Mechanical and Manufacturing Engineering
Staff Contact: J Page
UOC3 HPW3 S1
Prerequisite/s: AERO3102

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
Staff Contact: J Page
UOC3 HPW3 S2
Prerequisite/s: 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
Staff Contact: D Kelly
UOC3 HPW3 S1
Prerequisite/s: 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. Fracture mechanics and fatigue including residual strength of cracked components, crack growth, arrest and damage tolerance.

AERO4402 Analysis of Aerospace Structures 2B
School of Mechanical and Manufacturing Engineering
Staff Contact: D Kelly
UOC3 HPW3 S2
Prerequisite/s: AERO4401

Introduction to the dynamic response of aerospace structures. Aeroelasticity including control reversal, divergence and flutter. Analysis of bonded and bolted joints. Thermal stresses. Advanced topics including prediction of failure, and residual stresses.

AERO4610 Advanced Aerodynamics and Propulsion
School of Mechanical and Manufacturing Engineering
Staff Contact: N Ahmed
UOC6 HPW6 S1
Prerequisite/s: AERO3610

One-dimensional gas flow. Thermodynamic and sonic speed relations; Mach number, isentropic variable area flow, Prandtle Meyer flow, normal and oblique shock waves. Method of characteristics. Compressible potential flow. Viscous flow; method of calculating viscous drag. Engine intakes; subsonic, supersonic, ramjets, gas turbines, piston engines, design performance. Rockets. Noise. Pollution.

AERO4620 Aerospace Vehicle Dynamics and Systems
School of Mechanical and Manufacturing Engineering
Staff Contact: T Barber
UOC6 HPW6 S2
Prerequisite/s: 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.

ANAT1006 Anatomy 1
Department of Anatomy
Staff Contact: D Vu
UOC12 HPW6 S3

Objectives: To acquire sufficient knowledge of topographical, surface and radiological anatomy of the limbs, head, neck and back to form a basis for subsequent clinical studies; to understand how a knowledge of anatomy is applied in clinical practice; to know sufficient principles of tissue histology to be able to undertake successfully more detailed studies of histology and embryology in Year 2. An introductory course in human anatomy, embracing the disciplines of gross anatomy (topographical anatomy), histology and embryology. Teaching hours per week include: one 3-hour practical/tutorial class of Anatomy, with an additional 2-hour class of histology and embryology in Session 2 only, together with 1-2 hours of lectures in Session 1 and 2 hours of lectures in Session 2. Gross anatomy of the musculoskeletal system; topographical and radiological anatomy of the upper and lower limbs, head and neck, and back; introduction to microscopy and cell science; morphological aspects of cell function; histology of basic tissues (epithelia, muscle, nerve and connective tissue); early human development in utero. Assessment: In addition to the end of year assessment, there is a mid-year assessment and a mid-session assessment which contribute to the final assessment for the course but do not constitute barriers.

ANAT2007 Anatomy 2
Department of Anatomy
Staff Contact: E Tancred
UOC14 HPW7 S3
Prerequisite/s: ANAT1006

Objectives: To gain knowledge and understanding of the gross and microscopical structure of the internal organs and the brain; to be able to correlate embryonic development with the structure of normal organs and tissues and with the establishment of the anatomical relationships in the body; to correlate function and structure in the organ systems; to acquire basic understanding of the clinical relevance of the anatomical structures studied. Instruction is organised according to the organ systems and includes the cardiovascular, respiratory, alimentary, urinary, genital, endocrine, lymphatic and nervous systems. In all instances the clinical relevance of the anatomical structures is emphasised. The course consists of three subsections, each having separate lectures and tutorials: Gross Anatomy, Histology and Embryology, and Neuroanatomy. Gross Anatomy is taught in Session 1, Neuroanatomy is taught in Session 2 and Histology and Embryology are taught in both Sessions 1 and 2. Neuroanatomy covers the basic organisation and function of the brain and spinal cord with particular reference being made to the sensory and motor systems. Assessment: Apart from continuous assessment tests and practical examinations, there are separate examination papers for Histology and Embryology (S1 and S2), Gross Anatomy (S1) and Neuroanatomy (S2). Students must pass each component to pass the whole course.

ANAT2111 Introductory Anatomy
Department of Anatomy
Staff Contact: B Freeman
UOC6 HPW6 S1
Prerequisite/s: BIOS1101, BIOS1201 or PHPH1502

Introduction to gross anatomy of the whole body, based on a study of prosected 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/s: Anatomy Registration – All students who wish to enroll in ANAT2111 Introductory Anatomy must register individually at the Department of Anatomy office, Room M108, first floor Wallace Wurth Building at the following times: 10am – 3pm Tuesday 19 February and 10am – 3pm Tuesday 26 February 2002. At registration, student will be allocated to a Laboratory Class group (and time). Pre-enrolment or enrolment in any particular program does not automatically entitle a student to a place at a preferred laboratory class time.

ANAT2151 Introductory Functional Anatomy
Department of Anatomy
Staff Contact: K Ashwell
UOC3 HPW3 S1

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, or on campus if enrolments are sufficient.

ANAT2200 Basic Histology
Department of Anatomy
Staff Contact: P De Permentier
UOC3 HPW3 S1
Prerequisite/s: BIOS1101, BIOS1201

The course provides an overview of the structure of mammalian cells and their organisation into tissues. Topics include the use of the light microscope, the preparation of tissues and the recognition of artefacts. Morphology of epithelial, connective, muscular and nervous tissues will be compared with emphasis on the practical recognition of cell types and the correlation or structure and function.

Note/s: Anatomy Registration – All students who wish to enroll in ANAT2200 Basic Histology must register individually at the Department of Anatomy office, Room M108, first floor Wallace Wurth Building at the following times: 10am – 3pm Tuesday 19 February and 10am – 3pm Tuesday 26 February 2002. At registration, student will be allocated to a Laboratory Class group (and time). Pre-enrolment or enrolment in any particular program does not automatically entitle a student to a place at a preferred laboratory class time.

ANAT2210 Systems Histology
Department of Anatomy
Staff Contact: P De Permentier
UOC3 HPW3 S2
Prerequisite/s: ANAT2200 or ANAT2511

The course includes the histological examination of the major body systems: cardiovascular, respiratory, lymphatic, integumentary, digestive, endocrine, urinary, reproductive, and nervous systems. Emphasis is on integrating the microscopic structure of organs with their function and with abnormalities, which occur in common disease processes.

ANAT2300 Vertebrate Development A
Department of Anatomy
Staff Contact: M Hill
UOC3 HPW3 S1
Corequisite/s: ANAT2200, ANAT2111

This course will cover the morphological and molecular mechanisms of segmentation and patterning responsible for organising the vertebrate 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.

ANAT2310 Vertebrate Development B
Department of Anatomy
Staff Contact: M Hill
UOC3 HPW3 S2
Prerequisite/s: ANAT2300

The course will cover 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 in development. Emerging technologies, such as genomic analysis and the use of transgenic and dysfunctional mouse mutants in research, will be covered.

ANAT2511 Fundamentals of Anatomy
Department of Anatomy
Staff Contact: E Tancred
UOC6 HPW6 S2
Excluded: ANAT2111, ANAT2151, ANAT2200

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, but may be used as a prerequisite for ANAT3411 Neuroanatomy and, in exceptional circumstances, for ANAT3121 Visceral Anatomy.

ANAT2600 Biological Anthropology A: Human Ancestors
Department of Anatomy
Staff Contact: K Ashwell
UOC3 HPW3 S1
Prerequisite/s: BIOS1101, BIOS1201

This course is concerned with human evolutionary biology, focussing on human ancestors and the emergence of genus Homo. Topics include: primate evolution and behaviour, early hominid anatomy and behaviour, factors responsible for the emergence of early hominids, physical form and culture of Homo erectus and archaic Homo sapiens, evolution of the human brain, origins and biomechanics of upright walking, evolution and functional anatomy of the hand, problems and pitfalls in interpreting skeletal fossil evidence. This course is a companion to Biological Anthropology B: Modern Human Populations, but may be taken independently. Tuition is by lectures, practical classes and student tutorial presentations of key papers and topics in human evolutionary biology.

ANAT2610 Biological Anthropology B: Modern Human Populations
Department of Anatomy
Staff Contact: K Ashwell
UOC3 HPW3 S2
Prerequisite/s: BIOS1101, BIOS1201

This course is concerned with human evolutionary biology, focussing on the emergence of modern humans, their diversification, adaptation and special biological and cultural features. Topics include: the origin and dispersal of modern humans, technology and art of upper paleolithic peoples, neurologial and anatomical aspects of human language, human variation and adaptation to disease and climate, evolutionary aspects of human nutrition, problems of human childbirth, human growth development and aging, disease in ancient human populations, human prehistory in the Americas and Australia. This course is a companion to Biological Anthropology A: Human Ancestors, but may be taken independently. Tuition is by lectures, practical classes and student tutorial presentations of key papes and topics in human evolutionary biology.

ANAT3121 Visceral Anatomy
Department of Anatomy
Staff Contact: K Ashwell
UOC6 HPW6 S2
Prerequisite/s: ANAT2111

A detailed study of the visceral system, including autonomic nervous system, head and neck regions, and the cardiovascular, respiratory, gastrointestinal, and genitourinary systems. Laboratory classes include clinical cases and surface and radiological anatomy.

ANAT3131 Functional Anatomy 1
Department of Anatomy
Staff Contact: D Tracey
UOC6 HPW6 S1
Prerequisite/s: ANAT2111

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; students will also carry out their own dissections of the upper limb.

ANAT3141 Functional Anatomy 2
Department of Anatomy
Staff Contact: D Tracey
UOC6 HPW6 S2
Prerequisite/s: 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; students will also carry out their own dissections of the lower limb.

ANAT3231 Cell Biology
Department of Anatomy
Staff Contact: M Hill
UOC6 HPW4 S1 S2
Prerequisite/s: ANAT2200

To develop an understanding of the anatomy and biology of the cell. Cell biology combines traditional anatomical methods with recent cell and molecular biology techniques. Key concepts will include developmental differentiation of the cell, its polarity, motility, cytoskeleton, signal tranduction mechanisms, and outcomes. An introduction to concepts of cell and extracellular matrix interactions will also be covered. Session in which course will run to be determined.

ANAT3411 Neuroanatomy
Department of Anatomy
Staff Contact: E Tancred
UOC6 HPW6 S1
Prerequisite/s: ANAT2200 and ANAT2111; or 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
Department of Anatomy
Staff Contact: P Carrive
UOC6 HPW3 S2
Prerequisite/s: ANAT3411 or PHPH3531

Focuses on selected areas of contemporary neuroscience research interest. Includes: brain development and axon guidance, peripheral nerve regeneration, spinal cord injury, pain pathways, central control of cardiovascular function, cortical plasticity, brain imaging, mechanisms of learning and memory, motor systems 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.

ANAT3531 Functional Anatomy 1 (Adv)
Department of Anatomy
Staff Contact: D Tracey
UOC6 HPW6 S1
Prerequisite/s: ANAT2111

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; students will also carry out their own dissections of the upper limb. This course will include an assessable detailed dissection program, incorporating submission of a report based on drawings of the student's work and a review of literature within the subject area.

ANAT3541 Functional Anatomy 2 (Adv)
Department of Anatomy
Staff Contact: D Tracey
UOC6 HPW6 S2
Prerequisite/s: ANAT3531

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; students will also carry out their own dissections of the lower limb. This course will include an assessable research affiliation program, incorporating discussion and evaluation of a research project, and submission of a research report based on literature within the subject area.

ANAT3631 Cell Biology (Adv)
Department of Anatomy
Staff Contact: M Hill
UOC6 HPW4 S1 S2
Prerequisite/s: ANAT2200

To develop an understanding of the anatomy and biology of the cell. Cell biology combines traditional anatomical methods with recent cell and molecular biology techniques. Key concepts will include developmental differentiation of the cell, its polarity, motility, cytoskeleton, signal tranduction mechanisms and outcomes. An introduction to concepts of cell and extracellular matrix interactions will also be covered. This course will include an assessable research affiliation program, incorporating discussion and evaluation of a research project, and submission of a research report based on literature within the subject area. Session in which course will run to be determined.

ANAT4508 Anatomy 4
Department of Anatomy
Staff Contact: K Ashwell
Enrolment requires school approval
UOC48 S1 S2

An honours program consisting of the preparation of a research thesis and participation in School seminars.

ARCH1102 Architectural Design Workshop 1
Architecture Program
Staff Contact: A Quinlan
UOC8 HPW6 S2
Corequisite/s: BENV1122, BENV1172, ARCH1142

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 an 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 resourced across selected aspects of the History and Theory, Technology and Communication streams to maximise possibilities of integration. See BENV1122, BENV1172, ARCH1142.

ARCH1142 Communications 1
Architecture Program
Staff Contact: A Quinlan
UOC4 HPW3 S2
Corequisite/s: ARCH1102, ARCH1122, BENV1172

This foundation course is concerned with developing capabilities in a broad range of manual graphic communication skills. Theories of communication specific to the discipline and profession of architecture are concerned with critical observation, visualisation and representation of design ideas and artifacts. Students will develop abilities in fundamental drawing and sketching skills, compositional skills, basic model-making, dry rendering techniques and the application of colour. Students will be introduced to professional drawing conventions such as orthographic, para-line projections and perspective techniques. Capabilities in disciplinary specific communication skills will be developed in a series of tutorial exercises and project tasks, supported by a series of lectures. Assessable project tasks are designed to complement parallel subject areas so as to maximize relevance and integration of skill development.

ARCH1201 Architectural Design Workshop 2
Architecture Program
Staff Contact: M Gusheh
UOC8 HPW6 S1
Prerequisite/s: BENV1101, ARCH1102
Corequisite/s: ARCH1221, ARCH1271, ARCH1241

Exploration of theoretical, tectonic and technological factors influencing design thinking and practice. An emphasis on critical and strategic skills of research and 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 History and Theory, Technology and Communications streams to maximise possibilities of integration. See ARCH1221, ARCH1271, ARCH1241.

ARCH1202 Architectural Design Workshop 3
Architecture Program
Staff Contact: P Murray
UOC8 HPW6 S2
Prerequisite/s: BENV1101, ARCH1102
Corequisite/s: 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 History and Theory, Technology and Communications streams to maximise possibilities of integration. See ARCH1222, ARCH1272, BENV1242.

ARCH1221 Architectural History and Theory 3
Architecture Program
Staff Contact: P Kohane
UOC4 HPW3 S1
Prerequisite/s: BENV1101, BENV1121, ARCH1102, BENV1122
Corequisite/s: ARCH1201

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
Staff Contact: S Fung
UOC3 HPW2 S2
Prerequisite/s: BENV1101, BENV1121, ARCH1102, BENV1122
Corequisite/s: ARCH1202

History: Australian architectural and design history. Using a selection of guest speakers, each authoritative in their chosen area, this Part of the Module offers different approaches to comprehending Australian architectural and design history, demonstrates a diversity of evidential material and narratives attendant upon and determined by these approaches, and brings to the fore issues of interpretation and assimilation on the part of the recipient. Lectures consider matters of aboriginality, origins, nationalism, chronology, style, regionalism, vernacular, gender, architectural and design media, heritage, conservation, and the value systems and polemic adopted in pursuit of these. Material is presented in this Module as one- and/or two-hour lectures with occasional tutorials supplemented with readings and analyses of selected texts in architectural history and architectural theory.

ARCH1241 Communications 2
Architecture Program
Staff Contact: A Quinlan
UOC3 HPW3 S1
Prerequisite/s: ARCH1142

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
Staff Contact: P Murray
UOC6 HPW4 S1
Prerequisite/s: BENV1172

Environment: Natural and artificial lighting. Quantitative and qualitative aspects of lighting design. Electric light sources, light control and prediction methods.Structures: Structural steel design. Material characteristics, analysis and optimisation of structural systems and elements in steel. Design and behaviour of members in bending, shear and axial loading. Load path and action/effect diagrams - the use of to Multiframe. Strength and deflection. An introduction to the structural design of masonry. Codes of practice and Australian Standards.Construction: Steel in construction: framing, wall and roof cladding, basic detailing. Introduction to the Building Code of Australia [BCA]. Footing systems for steel and concrete framed buildings. Basements and retaining walls. Concrete frame, wall, floor and roof systems for low to medium scale buildings.

ARCH1272 Architectural Technologies 4
Architecture Program
Staff Contact: P Murray
UOC4 HPW3 S2
Prerequisite/s: BENV1172

Structures: Structural concrete design. Material characteristics, analysis and optimisation of structural systems and elements in steel. Design and behaviour of members in bending, shear and axial loading. Load path and action/effect diagrams - the use of to Multiframe. Strength and deflection. Codes of practice and Australian Standards. Characteristics of insitu, precast including 'tilt-up', pre- and post-stressed concrete structures.Construction: Concrete in construction - medium to high rise buildings: insitu, precast including 'tilt-up', pre- and post-stressed concrete structures. Basic detailing. Concrete finishes.

ARCH1282 Research Practice
Architecture Program
Staff Contact: R Samuels
UOC3 HPW2 S2

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
Staff Contact: A Quinlan
UOC8 HPW6 S1
Prerequisite/s: ARCH1201, ARCH1202
Corequisite/s: 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
Staff Contact: P Johnson
UOC9 HPW6 S1 S2
Prerequisite/s: 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, constructional 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 resourced across relevant stream areas to maximise possibilities of integration. 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.

ARCH1321 Architectural History and Theory 5
Architecture Program
Staff Contact: J Lang
UOC3 HPW2 S1
Prerequisite/s: ARCH1222, ARCH1202
Corequisite/s: 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 polity. 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 people-environment research.

ARCH1371 Architectural Technologies 5
Architecture Program
Staff Contact: P Murray
UOC4 HPW3 S1
Prerequisite/s: ARCH1271, ARCH1272

Environment: 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. Structures: Systems design and optimisation. Brief survey of advanced structures - including wide span, high-rise and lightweight structures. Construction: Cladding systems for walls and roofs: material selection and detailing. Stair and lift shaft construction and detailing. BCA fire performance requirements

ARCH1382 Practicum
Architecture Program
Staff Contact: A Quinlan
UOC3 HPW2 S2

This course is concerned with preparing students for a learning experience outside of UNSW. It has two components the first 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
Staff Contact: S Peter
UOC6 S1 S2
Prerequisite/s: 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
Staff Contact: S Peter
UOC9 S1 S2
Prerequisite/s: 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
Staff Contact: P Johnson
UOC9 HPW6 S1 S2
Prerequisite/s: 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
Staff Contact: P Johnson
UOC9 HPW6 S1 S2
Prerequisite/s: 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.

ARCH1403 Field Studio
Architecture Program
Staff Contact: M Tawa
UOC9 HPW6 S1
Prerequisite/s: ARCH1302

Design of small to medium scale buildings for remote locations. Emphasis on collaboration with clients and community groups. Focus on regional and site specificity - as well as the integration of space planning, construction, structure and servicing systems. Emphasis on design for social, cultural, economic and environmental sustainability. Design projects ranging across community and health facilities, individual dwellings and yards, ecotourism facilities and small civic facilities. Field work including site analysis and mapping, client consultation and collaborative design workshops. Individual and group work. Initial briefing and preliminary design sessions in the studio, followed by a two-week remote design camp, and follow-up design development and detailing workshops in studio.

Note/s: Numbers limited to 15 per session.

ARCH1404 Workshop Construction
Architecture Program
Staff Contact: M Tawa
UOC6 HPW4 S1 S2
Prerequisite/s: ARCH1302

Introduction to woodworking and metalworking workshops, processes, techniques and safety. Design development, detailing and preparation of working and shop drawings. Prefabricating building components for real projects in remote sites. Construction in workshops of prefabricated timber and metal floor, wall and roof frames, wall panels and cladding, hardware and joinery. Experience with hand tools, portable tools, wood and metal working equipment, in a supervised workshop environment. Briefing sessions in the studio, followed up by a two-week full-time workshop session.

Note/s: Numbers limited to 15 per session.

ARCH1405 Site Construction
Architecture Program
Staff Contact: M Tawa
UOC6 HPW4 S1
Prerequisite/s: ARCH1302

Construction of small to medium scale buildings in remote locations. Emphasis on prefabricated building components, their packing, transport, storage and assembly on site. Experience with different stages of the building process: site work, in-ground services, foundations and footings, roof and wall framing and cladding. Experience with hand and portable power tools, managing the building process and working in small teams under supervision. Briefing sessions in the studio, followed up by a two-week full-time construction camp.

Note/s: Numbers limited to 15 per session

ARCH1470 Building Services 1 & 2
Architecture Program
Staff Contact: S King
UOC6 HPW4 S2
Prerequisite/s: 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
Staff Contact: S Peter
Enrolment requires school approval
UOC24 S1 S2
Prerequisite/s: 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 Coordinator s 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/s: Students must seek approval from Program Coordinator to enrol in this course.

ARCH1499 Honours Project 2
Architecture Program
Staff Contact: S Peter
UOC24 S1 S2
Prerequisite/s: 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/s: Students must seek approval from Program Coordinator to enrol in this course.

ARCH1501 Investigation Workshop
Architecture Program
Staff Contact: P Johnson
UOC9 S1 S2
Prerequisite/s: ARCH1282, ARCH1302, ARCH1401, ARCH1402, 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 investigative reports.

ARCH1502 Graduation Project
Architecture Program
Staff Contact: P Johnson
UOC9 S1 S2
Prerequisite/s: ARCH1501

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.

ARCH1581 Politics, Community and Practice
Architecture Program
Staff Contact: C De Lorenzo R Samuels
UOC3 HPW2 S1 S2

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?

ARCH1582 Professional Practice 2
Architecture Program
Staff Contact: G Bell
UOC3 HPW2 S2

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.

ARCH1583 Work Experience
Architecture Program
Staff Contact: A Quinlan
UOC24 S1 S2
Prerequisite/s: BENV1101, ARCH1102

The purpose of this subject is to provide 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 subject 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 subject 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 sort and obtained in writing.

ARTS1001 Modernity and the Humanities
Faculty of Arts and Social Sciences
Staff Contact: H Pringle
UOC6 HPW3 S1
Prerequisite/s: Enrolment in program 3401 or 3423

An advanced level first year course in which issues of significance in modern life will be explored from different disciplinary standpoints. As well as exploration of the conceptual and theoretical aspects of the issues and their social impact, students will be introduced to features of characteristic research in the humanities and social sciences through study of modern texts or 'great books'.

Note/s: Compulsory course for students enrolled in program 3401 or 3423.

ARTS1100 Culture and Tradition
Faculty of Arts and Social Sciences
Staff Contact: M Lyons
Enrolment requires school approval
UOC6 HPW3 S2

An advanced interdisciplinary seminar course, open by invitation to Arts and Social Science students who have shown a high level of academic excellence achieving a high UAI score or equivalent. It is

designed to encourage discussion of topics in the Humanities and Social Sciences relevant to most Schools in the Faculty. Begins with a full day seminar to get an overview of the themes and ends with a full day essay writing workshop. Topics for discussion include the concept of culture, culture and tradition, cultural and revolutionary change, high and low culture, print and oral cultures, culture and nature and multiculturalism. Assessment is by seminar presentation and essay.

Note/s: Not available to students in program 3401 or 3423.

ARTS2000 Arts and Social Sciences Internship
School of Social Science and Policy
Staff Contact: C Healy
Enrolment requires school approval
UOC6 HPW3 S1 S2 X1 X2
Prerequisite/s: 36 units of credit in Arts and Social Science courses.

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/s: Students must have achieved a credit level or better average across the courses in their degree.

ARTS2001 Text and Interpretation
Faculty of Arts and Social Sciences
Staff Contact: H Pringle
Enrolment requires school approval
UOC6 HPW3 S1

An advanced level course in which issues of significance in early-modern and modern life and thought will be explored from different disciplinary standpoints. As well as exploration of the conceptual and theoretical aspects of the issues and their social impact, students will be introduced to features of characteristic research in the humanities and social sciences through study of a range of "texts": "great books", artistic works, film, and other artifacts. The course is divided into three sections, each of which takes as its starting point certain questions around a cluster of common themes or intellectual trends. Recurring questions involve death, vision, power, perspective, and the making of selves.

ARTS3001 Censorship and Responsibility in the Performing Arts, Film, Literature and Media
Faculty of Arts and Social Sciences
Staff Contact: R Madelaine
UOC6 HPW3 S2
Prerequisite/s: 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/s: Offered jointly by the Schools of English and Theatre, Film and Dance.

ARTS3002 Making Histories and Historians: Ethics, Scholarship and Public Roles
School of History
Staff Contact: H Graham
UOC6 HPW3 S1 S2
Prerequisite/s: 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/s: Offered jointly by the School of History and the School of Science and Technology Studies.

ARTS3004 Intellectuals and Power in the Modern World
Faculty of Arts and Social Sciences
Staff Contact: O Reinhardt
UOC6 HPW3 S2
Prerequisite/s: 48 units of credit

Concentrates on intellectuals in the twentieth century and draws on the following themes: the debate about the definition and status of intellectuals and intelligentsias; intellectuals and their publics, and the changing public perceptions of intelligentsias; the functions (if any) of intellectuals during periods of social and political turmoil (as apologists or resisters, as rabble-rousers or voices of reason, as gurus or cowards); the intellectual under totalitarianism (eg Fascism, Stalinism, military dictatorship); postmodern intellectuals. Case studies are selected from developed capitalist countries, communist and post communist societies, and various parts of the developing world, and take account of the recent challenges of feminism and the Fourth World.

Note/s: Offered by the School of Modern Language Studies.

ARTS3005 Arts and Social Sciences Graduates in the Workplace: Ethical and Social Responsibility
School of Social Science and Policy
Staff Contact: R Hall
UOC6 HPW3 S1
Prerequisite/s: 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/s: Offered by the School of Social Science and Policy.

ARTS3007 East Asian Values and Identities
Department of Chinese & Indonesian
Staff Contact: H Hendrischke
UOC6 HPW3 S2 X1
Prerequisite/s: 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/s: Offered jointly by the School of Modern Language Studies, the School of History and the School of Philosophy.

ARTS3010 Feminist Thought and Action
Faculty of Arts and Social Sciences
Staff Contact: F Lovejoy
UOC6 HPW3 X1
Prerequisite/s: 48 units of credit

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/s: Offered jointly by the School of Sociology and the School of Social Work.

ASIA1000 World History: The Big Picture
School of History
Staff Contact: N Doumanis
UOC6 HPW3 S1
Prerequisite/s: Enrolment in program 3413, 3414 or 3416
Excluded: HIST1016, 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. There will be a special Asian Studies tutorial group and tutorial topics.

ASIA1001 Introduction to Contemporary Asia
Department of Chinese & Indonesian
Staff Contact: D Reeve
UOC6 HPW3 S2

Deals historically with the great civilisations of Asia, and the transformations which produced modern Asian states. This is followed by an examination of religion, society, politics, economic and social conditions in contemporary China, Indonesia, Japan and Korea. Students will be encouraged to complete one major task on their country specialisation and one outside the specialisation.

ATAX0001 Basic Tax Law and Process
Board of Studies in Taxation
Staff Contact: School Office
UOC6 S1 S2

This course provides insight into the Australian taxation system by exploring legal process. Early modules provide an introduction to the legal system illustrated mainly by reference to taxation. Later comes more intensive study of important income and deductions cases, which are thoroughly analysed to impart excellent case and statutory interpretation skills, as a foundation in all law studies. In addition, students gain substantive knowledge of the subject area. The final module places these substantive and legal process issues in the context of the policy of taxation. The course also covers the principles of good legal writing and effective legal research.

ATAX0002 Computer Information Systems
Board of Studies in Taxation
Staff Contact: School Office
UOC6 S2

This course aims to provide the student with an understanding of the content of information systems, the types of systems and their position in society and at an organisational level. It emphasises the growing interdependence between business strategy, rules and procedures on the one hand and information systems software, hardware, data and telecommunications on the other. This course addresses the importance of data and the structuring of data and seeks to provide an introduction to the systems development life cycle, design concepts, data analysis and models and data communications. In addition, this course presents the student with an overview of information systems in order to enable each student to fully understand the concepts involved in general systems development.

ATAX0003 Microeconomics and the Australian Tax System
Board of Studies in Taxation
Staff Contact: School Office
UOC6 S1

This course provides an introduction to basic microeconomic concepts and skills, and demonstrates their use in order to gain a clear understandingof economic problems and policy issues relevant to the Australian economy. It introduces students to the economic behaviour of small decision-making units such as households, firms and government agencies, with particular reference to the effects of taxation on markets. Emphasis is placed on analytical skills and key concepts which are relevant to tax professionals including, for example, opportunity cost, market equilibrium, elasticity, substitution and income effects, tax incidence and efficiency costs of taxation.

ATAX0004 Framework of Commercial Law
Board of Studies in Taxation
Staff Contact: School Office
UOC6 S2

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 contractoral obligations have been broken.

ATAX0005 Accounting 1
Board of Studies in Taxation
Staff Contact: School Office
UOC6 S1

This course addresses the related notions of wealth and income, and the ways in which they are defined and realised through accounting practice. Against this background, students are introduced to: * the objectives and characteristics of financial information and reporting * the nature of accounting transactions and the design and functioning of record keeping systems, particularly concentrating on the accounting cycle v's the operating cycle of business * accounting systems maintained by merchandising firms and inventory control methods * modes of processing specific items and transactions affecting cash, receivables and payables, inventory and depreciable assets.

ATAX0006 Tax Administration
Board of Studies in Taxation
Staff Contact: School Office
UOC6 S1

This course examines the operation of tax institutions in Australia's mass decision making process. This includes rule making and dispute resolution. 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 penalities. It includes taxpayer protections like the Charter of Taxpayer Rights and Freedom of Information. The course introduces students to compliance models and compliance costs. It emphasises a coherent, critical understanding of the decision making system and its practical administration.

ATAX0008 Principles of Capital Gains Taxation
Board of Studies in Taxation
Staff Contact: School Office
UOC6 S2
Prerequisite/s: ATAX0001

This course is concerned with one of the principal statutory extensions to the concept of income at general law - capital gains taxation. Our study begins with an examination of the background leading to the introduction of the regime. We then examine each of the following topics:* the structure and principal features of Parts 3-1 and 3-3 of the Income Tax Assessment Act, 1997; * particular features of the capital gains tax regime; and* concessions and exemptions (including the main residence exemption).

ATAX0009 Law of Companies, Trusts and Partnerships
Board of Studies in Taxation
Staff Contact: School Office
UOC6 S1
Prerequisite/s: 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
Staff Contact: School Office
UOC6 S2
Prerequisite/s: ATAX0005

This course addresses financial accounting practice in the context of the contemporary Australian institutional and regulatory environment. It builds upon the introduction to accounting provided in ATAX 005 Accounting 1. It examines both traditional accounting rationale and the regulation of accounting practice. Against this background students prepare and analyse accounting reports (including the Profit & Loss Statement, Balance Sheet and Statement of Cash Flows), and are exposed to issues and controversies related to these reports. This course also introduces the student to management practices and the use of computer based spreadsheets.

ATAX0011 Macroeconomics, Government and the Economy
Board of Studies in Taxation
Staff Contact: School Office
UOC6 S2

Macroeconomics is the study of the entire economy and typically deals with policy issues of unemployment, business cycle, inflation/deflation, currentaccount deficit, foreign debt and government deficits. These areas of study have been greatly influenced by the Keynesian revolution in the 1930s and subsequent development 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 roles 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
Staff Contact: School Office
UOC6 S1
Prerequisite/s: 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 Ralph proposals for a unified entities regime highlight the divergences. 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. 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
Staff Contact: School Office
UOC6 S1
Prerequisite/s: 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.

ATAX0015 Intermediate Financial Accounting
Board of Studies in Taxation
Staff Contact: School Office
UOC6 S1
Prerequisite/s: ATAX0005, ATAX0010

This course is concerned with external accounting and reporting practices and, in particular, the accounting and reporting practices of listed public companies. More complicated business transactions and events are considered, as well as accounting problems in certain specific areas such as:* profit measurement *lease accounting* intangible assets * accounting for the extractive industries. In addition, the course attempts to challenge the student to think creatively and critically about financial reporting by ensuring knowledge of:* the alternative accounting practices * accounting standards and Corporations Law regulations * the different perspectives taken on the choice of technique (practice) by different participants in the reporting process.

ATAX0016 Critical Perspectives and Ethics
Board of Studies in Taxation
Staff Contact: School Office
UOC6 S1
Prerequisite/s: ATAX0001

This course requires students to evaluate critically key aspects of Australia's tax system especially relating to tax avoidance. It demands students evaluate the ethical behaviour of participants in the tax system. It ensures that students understand the ethical rules of Australia's leading professional accounting bodies. It explores legal controls on professional actions and civil liability. It concludes with a review of why rules are obeyed and explores whether formal sanctions at the legal or professional level lead to ethical conduct.

ATAX0017 Tax Accounting Systems
Board of Studies in Taxation
Staff Contact: School Office
UOC6 S2
Prerequisite/s: ATAX0001, ATAX0005

The primary focus of the course is 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 reflex 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.

ATAX0018 Tax Litigation
Board of Studies in Taxation
Staff Contact: School Office
UOC6 S2
Prerequisite/s: 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.

ATAX0020 Principles of Australian International Taxation
Board of Studies in Taxation
Staff Contact: School Office
UOC6 S2
Prerequisite/s: 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.

ATAX0021 Indirect and Business Taxes
Board of Studies in Taxation
Staff Contact: School Office
UOC6 S2
Prerequisite/s: ATAX0001

This course studies a range of State and Federal indirect taxes which impact on everyday transactions and businesses generally. The State taxes are analysed by looking at the key legislation in New South Wales. However, given the similarity of other states' comparable legislation, the concepts and skills acquired by students should be applicable in the other Australian jurisdictions,. The course addresses the basic structure and main components of: the GST; payroll tax; the Superannuation Guarantee Charge* Land Tax; and Stamp Duty. It also addresses the relationship between State and Federal taxes.

ATAX0022 Goods and Services Tax: Design and Structure
Board of Studies in Taxation
Staff Contact: School Office
UOC6 TBA
Prerequisite/s: 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.

ATAX0023 Principles of Goods and Services Tax Law
Board of Studies in Taxation
Staff Contact: School Office
UOC6 TBA
Prerequisite/s: 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.

ATAX0053 Accounting for Complex Structures and Instruments
Board of Studies in Taxation
Staff Contact: School Office
UOC6 S2
Prerequisite/s: ATAX0015

This course examines the accounting and reporting issues posed by business combinations and various financial arrangements. Topics covered include: the preparation of consolidated financial statements amd accounting for associates, joint ventures, diversified operations, foreign currency transactions, offshore operations and derivative financial instruments.

ATAX0055 Taxation of Real Estate
Board of Studies in Taxation
Staff Contact: School Office
UOC6 S1

This course examines the various taxes imposed on or in respect of real estate. These taxes include income tax (and capital gains tax), land tax, local government rates and charges, and stamp duties. The course also examines various deductions for capital expenditure on traveller accommodation and on buildings. The syllabus outline is as follows:* introduction to property law and taxation* taxation of real estate and of real estate transactions (other than sub-divisions)* capital gains tax and real estate* taxation of property development* financing of real estate transactions, including onshore and offshore investments.

ATAX0057 Business Finance
Board of Studies in Taxation
Staff Contact: School Office
UOC6 S1
Prerequisite/s: ATAX0003, ATAX0010

Business Finance is an introductory course in financial management. It stresses the modern fundamentals of corporate financial decision making with special reference to investment, financing and dividend distribution. Specific topics to be covered include: financial mathematics, security valuation, techniques for capital investment decisions, financial decision making under uncertainty (portfolio theory and capital market theory), 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.

ATAX0058 Quantitative Analysis
Board of Studies in Taxation
Staff Contact: School Office
UOC6 S2

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
Staff Contact: School Office
UOC6 S1
Prerequisite/s: ATAX0010

Management accounting systems provide managers in all types of organisations with information which enables them to comply with external regulations and reporting requirements, and to assist them in decision making, planning and control. Students having completed this course will: understand the fundamentals of management accounting; be competent in a variety of product costing systems and appreciate their uses and limitations; understand the role of budgets in organisational functioning and be able to prepare a set of operating and a master budget; and be able to prepare budget reports for assessing cost performance.

ATAX0060 Auditing and Assurance Services
Board of Studies in Taxation
Staff Contact: School Office
UOC6 S2
Prerequisite/s: 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* examine techniques used by auditors including risk analysis, evidence collection and evaluation, and audit reporting.

ATAX0605 Taxation of Trusts
Board of Studies in Taxation
Staff Contact: School Office
UOC6 S2
Prerequisite/s: 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
Staff Contact: School Office
UOC6 S2
Prerequisite/s: 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 ATAX 0321/0421 Taxation of Innovative Financial Products. This course complements ATAX 0303/0403 Taxation of Entities.

ATAX0610 Taxation of Superannuation
Board of Studies in Taxation
Staff Contact: School Office
UOC6 S1
Prerequisite/s: 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
Staff Contact: School Office
UOC6 S2
Prerequisite/s: 48 units of credit completed and a cumulative weighted average of at least 65

This course provides a general knowledge of Australian stamp duty, identifying the common themes and important areas of divergence across the various states. Students get time to focus on aspects of importance within their own jurisdiction. The course critically analyses the concepts behind stamp duties in Australia, covering the main rules and problem areas.The course examines stamp duty on conveyances, transfers of dutiable property, leases, transfers, dutiable transactions, loan securities, and trusts. Although the course has broad focus, stamp duty rules in New South Wales, Victoria, Western Australia and Queensland are specifically covered.

ATAX0615 Taxation of Specific Industries
Board of Studies in Taxation
Staff Contact: School Office
UOC6 S2
Prerequisite/s: 48 units of credit completed and a cumulative weighted average of at least 65

This course is intended to provide students with a comprehensive knowledge of the law relating to the taxation of taxpayers and industries which are subject to 'special' tax rules.However, the course is also intended to provide a critical understanding of the issues relating to the adoption of these 'special' tax rules. In particular, the course evaluates the desirability and the effectiveness of the tax system as a vehicle for delivering social welfare and other government benefits (including support and assistance to industry) and we examine the scope of, and practical issues relating to, the doctrine of tax expenditures. The course includes examination of the taxation of primary production, mining and petroleum, intellectual and industrial property, research and development and superannuation.

ATAX0921 Fieldwork Research Project
Board of Studies in Taxation
Staff Contact: School Office
UOC6 S1 S2

This course shall 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.

AUST1001 Australia: The 1890's and 1990's B
Faculty of Arts and Social Sciences
Staff Contact: B Olubas
UOC6 HPW3 S2

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
Staff Contact: R Frances
UOC6 HPW3 S1

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? Australian Environmental History 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. It 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
Faculty of Arts and Social Sciences
Staff Contact: K Thorpe
UOC6 HPW3 S1
Prerequisite/s: 36 units of credit in Arts and Social Science courses
Excluded: AUST2002, GENS4521, GENS5527

Examines pre-colonial Aboriginal Australia in areas such as religion, social organisation and material culture, and the effects of European colonisation from policies of 'protectionism' through to those of 'self-determination'.

Note/s: The course is distinct from, but complementary to AUST2005, which examines the social issues which affect indigenous Australians today.

AUST2005 Aboriginal Australia: The Post-Colonial Experience
Faculty of Arts and Social Sciences
Staff Contact: K Thorpe
UOC6 HPW3 S2
Prerequisite/s: 36 units of credit in Arts and Social Science courses
Excluded: AUST2003, GENS4521, GENS5526

Examines the contemporary issues which affect Australian Aborigines, such as health, education, racism, land rights and law, and the structural position of Aborigines within Australian society.

Note/s: The course is distinct from, but complementary to AUST2004, which examines the social issues which affect indigenous Australians today.

AUST2109 Values and Beliefs in Australian Culture
Faculty of Arts and Social Sciences
Staff Contact: A O'Brien
UOC6 HPW3 S2
Prerequisite/s: 36 units of credit in Arts and Social Science courses
Excluded: HIST2064

Provides an overview of the ways beliefs and values systems which have underpinned Australian society over 200 years have contributed to the formation of Australian culture. Analyses the competing contributions of Christianity, secular humanism, liberalism, socialism, labourism, social Darwinism, and civil religions like Anzac to Australian society and culture by focusing on four central themes - gender, class, race and politics. How did those belief and value systems influence the interplay between masculinity and femininity? How did they variously act to reinforce or bridge class difference, to fuel or quench race hatred? How did they shape political values? Examines the impact of non-Christian religions and cultures, the attraction of the New Age and values in the works of key modern imaginative writers.

AUST4500 Combined Australian Studies Honours (Research) Full-Time
Faculty of Arts and Social Sciences
Staff Contact: R Frances
Enrolment requires school approval
UOC12 S1 S2
Prerequisite/s: 42 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
Faculty of Arts and Social Sciences
Staff Contact: R Frances
Enrolment requires school approval
UOC6 S1 S2
Prerequisite/s: 42 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
Staff Contact: K Zarrabi
UOC3 HPW2 S1

The subject 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 faliure and composite materials.

AVEN1910 Introduction to Aircraft Engineering
School of Mechanical and Manufacturing Engineering
Staff Contact: J Page
UOC3 HPW2 S1

An explanation of how aircraft fly and how the 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
Staff Contact: J Page
UOC3 HPW2 S2

Exposure to the practical skills associated with aircraft maintenance conducted at the Aeroskills Center at Padstow TAFE. Introduction to workshop enironment 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
Staff Contact: Z Vulovic
UOC3 HPW2 S2

Aviation systems - Mass transfer, power transfer and information transfer fluid systems. Electrical power generation, management and distirbution. 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
Staff Contact: T Barber
UOC3 HPW2 S2

Aircraft propulsion - Elements of internal -combustion (pistion) 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, payload- range, economics, break even point field requirement. Accelerated and unaccelerated flight manoevuvering and gust envelop, energy height power and wind loading.

AVEN2930 Aviation Technologies 3
School of Mechanical and Manufacturing Engineering
Staff Contact: N Ahmed
UOC3 HPW2 S2

Aerodynamics - Introduction to basic aerodynamics of lift and drag. Dimensional analysis to relate wind tunnel results to actual flight test. Bernoulli's equation. Indicated and corrected airspeed. Airframe Analysis and Maintenance - Aircraft structural layout, configuration of wing and fuselage structures. Bending, shear and torsional stiffness. Materials selection. Elements of aeroelasticity including control reversal. Structure failure modes.

AVEN3220 Aviation Engineering Experimentation 2
School of Mechanical and Manufacturing Engineering
Staff Contact: N Ahmed
UOC3 HPW2 S1

AVEN3230 Aviation Systems and Avionics
School of Mechanical and Manufacturing Engineering
Staff Contact: Z Vulovic
UOC3 HPW2 S1

AVEN3410 Airframe Analysis and Maintenance
School of Mechanical and Manufacturing Engineering
Staff Contact: D Kelly
UOC3 HPW2 S1

AVEN3610 Aerodynamics, Stability and Control
School of Mechanical and Manufacturing Engineering
Staff Contact: N Ahmed
UOC3 HPW2 S1

AVEN3710 Aircraft Propulsion
School of Mechanical and Manufacturing Engineering
Staff Contact: R Casey
UOC3 HPW2 S1

AVEN3930 Aircraft Evaluation and Design Appraisal
School of Mechanical and Manufacturing Engineering
Staff Contact: J Page
UOC3 HPW2 S2

AVIA1002 Flying Training 1
Department of Aviation
Staff Contact: G Clynick
UOC12 HPW8 S2
Excluded: AVIA1000

Ground training and associated theory for Stage 1 of the Bachelor of Aviation (Flying). Covering theory requirements for the issue of a Private Pilot Licence (PPL) including pre-command theory, basic aeronautical knowledge, PPL theory and an introduction to Commercial Pilot Licence theory. This course encompasses ground training phases 1, 2, 3, 4 and 5 as detailed in the UNSW Manual of Flight Training, and the Civil Aviation Safety Authority's Day VFR syllabus (Aeroplane). Practical flight training to PPL is a highly recommended adjunct to this course.

Note/s: Restricted to Program 3980 Flying Stream.

AVIA1100 Aviation Human Factors 1
Department of Aviation
Staff Contact: J Faulkner
UOC3 HPW2 S1
Excluded: PROF0102

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.

AVIA1150 Air Traffic Management
Department of Aviation
Staff Contact: J Guselli
UOC3 HPW2 S1
Excluded: 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.

AVIA1300 Aeronautical Knowledge
Department of Aviation
Staff Contact: J Middleton
UOC3 HPW2 S2

Designed for management students who may not have or intend to gain, any flying experience, this course provides a broad-based cross-section of the fundamental theory of flight operation similar to that addressed within the initial theory component for stage 1 flying stream students. Topics include basic theory of flight, aircraft systems and performance, regulations and navigation.

AVIA1850 Airport Management 1
Department of Aviation
Staff Contact: School Office
UOC3 HPW4 S2

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.

AVIA1900 Aviation Economics
Department of Aviation
Staff Contact: School Office
UOC3 HPW4 S2
Excluded: PROF0203

This course covers the economics of an airline and how the management of economic problems are analysed. Demand analysis and its relation

with price and economic conditions covers revenue issues. Costs and supply are studied with reference to available airline costing information. The interaction of demand and supply are then studied and how airlines manage this aspect.

AVIA2003 Flying Training 2
Department of Aviation
Staff Contact: G Clynick
UOC18 HPW12 S1
Prerequisite/s: AVIA2003
Excluded: AVIA2000

Ground training and associated theory for Stage 2 of the Bachelor of Aviation (Flying). Covering theory requirements for the issue of a Commercial Pilot Licence (CPL), Night Visual rating (NVFR) and multi-engine endorsement. This course encompasses ground training phases 6, 7 and 8 as detailed in the UNSW Manual of Flight Training, and the Civil Aviation Safety Authority's Day VFR syllabus (Aeroplane), and Civil Aviation Regulations. Practical flight training to CPL with NVFR and multi-engine endorsement are highly recommended adjuncts to this course.

Note/s: Restricted to Program 3980 Flying Stream.

AVIA2100 Aviation Human Factors 2
Department of Aviation
Staff Contact: J Faulkner
UOC3 HPW2 S2
Prerequisite/s: AVIA1100
Excluded: PROF0202.

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.

AVIA2400 Aviation Regulations 1
Department of Aviation
Staff Contact: School Office
UOC3 HPW2 S1
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
Staff Contact: School Office
UOC3 HPW2 S1

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
Staff Contact: G Braithwaite
UOC3 HPW2 S1
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.

AVIA2800 Management of General Aviation
Department of Aviation
Staff Contact: School Office
UOC3 HPW2 S1

This course covers a broad range of the management decisions faced by the airlines. This course introduces the aviation environment within which the airline management functions and makes economic decisions. Revenue issues are studied with demand analysis, and an airline's ability to manage price and to predict loads. The key elements of supply and cost are analysed by reference to available airline data. The final aspect studied is the combination of the demand and supply issues.

AVIA3004 Advanced Flying Training
Department of Aviation
Staff Contact: G Clynick
UOC24 HPW16 S2
Prerequisite/s: AVIA2003
Excluded: AVIA3000

Ground traning 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 trainng 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/s: Restricted to Program 3980 Flying Stream.

AVIA3101 Airline Management
Department of Aviation
Staff Contact: School Office
UOC6 HPW4 S1
Prerequisite/s: AVIA1900, AVIA2003 or AVIA2400
Corequisite/s: AVIA2700
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
Staff Contact: School Office
UOC6 HPW4 S2
Prerequisite/s: 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.

AVIA3400 Aviation Regulations 2
Department of Aviation
Staff Contact: School Office
UOC3 HPW2 S2
Prerequisite/s: 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
Staff Contact: G Clynick
UOC3 HPW2 S2
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
Staff Contact: G Braithwaite
UOC6 HPW4 S2
Prerequisite/s: AVIA2700
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
Staff Contact: School Office
UOC3 HPW2 S1

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.

AVIA3810 Airport Management and Security
Department of Aviation
Staff Contact: School Office
UOC3 HPW2 S2
Excluded: AVIA3703

This is an industry based course which brings the generalities of large management into the specific context of senior airport authorities. Aviation regulations and local government issues that pertain will also be covered.

AVIA3851 Airport Management 2
Department of Aviation
Staff Contact: School Office
UOC6 HPW4 S1
Prerequisite/s: 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
Staff Contact: G Braithwaite
Enrolment requires school approval
UOC24 S1 S2

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
Staff Contact: G Braithwaite
Enrolment requires school approval
UOC48 S1 S2

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.

BENV1022 Designing as a Discursive Practice
Faculty of the Built Environment
Staff Contact: P Johnson
UOC6 HPW3 S2
Prerequisite/s: ARCH1321

Module 1, 'Speaking as...': This part of the course examines designing as a mediative and reflexive practice and explores the hermeneutical understanding of the world and its architectural equivalent wherein the designer is seen as embedded in the design process and not standing apart from it. The classes prompt ideas and provoke reactions that might not otherwise arise without thinking about designing in this way. This provocation raises matters of broad as well as finely tuned concern to designers and is intended to bring an edge to concepts by marauding fertile rhetorical ideas and practices. The classes examine themes related to both discourse and designing including language, meaning, figuration, catachresis, and the processes whereby these come into play as repertoire and suasion. Each theme has some bearing upon the way we think and design today and aims to assist students in consolidating an architectural position. Material is presented as lectures and seminars, supplemented by readings from architectural theory, literary theory, and philosophy. Module 2, 'Speaking for...': This part of the course questions certain assumptions made by architects, namely: that technology is a generative force which has the power to shape an architecture appropriate to the spirit of the age (Zeitgeist); that accepting the Zeitgeist privileges the new over the old and throws doubt on building preservation and contextual fit as serious contemporary concerns; and that these and other issues, eg.The presence of anonymous or disenfranchised others in building procurement, or notions of difference so prominent in feminist understanding, mean the architect's design responsibility is primarily aesthetic and neutral rather than ethical and political. Material is presented as one- and/or two-hour lectures and occasional tutorials supplemented with selected readings in architectural theory, philosophy and ethics.

BENV1041 Manual Rendering Techniques
Faculty of the Built Environment
Staff Contact: A Quinlan
UOC6 HPW3 S1 S2
Prerequisite/s: ARCH1241

This course provides opportunities for students to heighten their skills and techniques in architectural presentation and graphic documentation. Students are required to demonstrate and evaluate their skill and technical capabilities in the accurate representation, visualisation and modelling of specific assemblies, processes and projects. Assessable projects both in studio and in the environment will be carried out and form the basis of a portfolio of sketches. Assessment and student evaluation occurs through formal peer assessment and staff feedback on the basis of assignments and student journals.

BENV1042 World Wide Web in Presentation and Communication
Faculty of the Built Environment
Staff Contact: S Peter
UOC6 HPW3 S1 S2

Web Page: http://www.fbe.unsw.edu.au/courses/benv/1042/ 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
Faculty of the Built Environment
Staff Contact: A Quinlan
UOC6 HPW3 S1 S2

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
Faculty of the Built Environment
Staff Contact: D Prasad
UOC6 HPW3 S2

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.

BENV1074 Conceptual Structural Design
Faculty of the Built Environment
Staff Contact: School Office
UOC6 HPW3 TBA
Prerequisite/s: 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 constructional 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
Faculty of the Built Environment
Staff Contact: School Office
UOC6 HPW3 S1
Prerequisite/s: 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
Staff Contact: School Office
UOC8 HPW7 S1

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/s: BArch and BScArch students must take this course concurrently with BENV1121, BENV1141 and BENV1171.

BENV1121 Architectural History and Theory 1
Faculty of the Built Environment
Staff Contact: S Fung
UOC4 HPW3 S1
Corequisite/s: BENV1101

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: geometric 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.

BENV1122 Architectural History and Theory 2
Faculty of the Built Environment
Staff Contact: C Rice
UOC4 HPW3 S2
Corequisite/s: ARCH1102 or INTA1102

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 media, 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.

BENV1141 Computers and Information Technology
Faculty of the Built Environment
Staff Contact: School Office
UOC3 HPW3 S1

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.

BENV1171 Architectural Technologies 1
Faculty of the Built Environment
Staff Contact: P Murray
UOC9 HPW5 S1

Environment: 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: Architecture and design encompass elements of both art and science. The Foundation component of the first technology subject aims to provide students with the basic resources to undertake the quantitative side of the technology. Foundation is an introduction to (and for many students, a revision of) some physical concepts and numerical techniques fundamental to architectural technologies. Specialists in structures, environment, and construction describe the basic concepts of their fields. Foundation is basically quantitative but assumes only basic numeracy skills. Construction: Introduction to different ways of thinking about construction in relation to design practice. Investigation of the artifactual nature and materiality of buildings. Outline of construction principles and their implications for the development of construction strategies in architectural design. Introduction to building material science; sustainable resource management and life cycle energy assessment.

BENV1172 Architectural Technologies 2
Faculty of the Built Environment
Staff Contact: P Murray
UOC8 HPW5 S2

Environment: Thermal comfort and building climatology: perception and comfort; the body's responses; bioclimatic 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: Introduction to basic structural behaviour and its relationship to construction, material and environmental aspects of design. 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.

BENV1242 Computer-Aided Design
Faculty of the Built Environment
Staff Contact: School Office
UOC3 HPW3 S1 S2
Prerequisite/s: BENV1141

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-focussed 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
Staff Contact: S Peter
UOC3 HPW3 S1
Prerequisite/s: BENV1242
Excluded: BENV2401

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.

BENV1381 Professional Practice 1
Faculty of the Built Environment
Staff Contact: G Bell
UOC3 HPW2 S1

An overview of the profession and an introduction to the legal system. The client architect agreement. Types of building contracts and methods of building procurement. Aspects of the law of contract, torts, agency, trade practices, property and agency. Contract documentation and specification writing techniques. Estimating, feasibilities, cost planning, scheduling, bill of quantities and budgeting.

BENV1382 Social Responsibility and Professional Ethics
Faculty of the Built Environment
Staff Contact: R Cardew
UOC3 HPW2 S1

The aim of this course is to expose students in the Faculty to issues of social responsibility in their future professional activities. This is done by selecting for analysis case studies. The exchange of information and affirmation and contestation of values by students is considered as imporant a part of the learning process as the professional input through lectures. Instruction includes common lectures and small seminar groups made up from students from all schools in the Faculty. Assessment will include individual and collaborative submissions.

BENV2101 Adaptive Re-Use
Faculty of the Built Environment
Staff Contact: S Serle
UOC3 HPW2 S1

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.

BENV2103 Environmental Planning
Faculty of the Built Environment
Staff Contact: L Corkery
UOC3 HPW2 S2

Students will be introduced to broad concepts and issues related to environmental planning at the local, state and national levels, through readings, lectures and case studies. They will become familiar with basic methods and techniques of resource data collection and analysis, leading to sound decision making for sustainability.

BENV2104 Building Conservation 1
Faculty of the Built Environment
Staff Contact: C De Lorenzo
UOC6 HPW3 S1

An introduction to building conservation as it is practised in the architectural profession in NSW. The course will cover the role of The New Heritage Council, local councils, the Historic Houses Trust, National Trust, and ICOMOS. It will cover the development of heritage legislation, conservation planning, traditional building materials and archaeology. The final project will be based around a facilities upgrading exercise at the Sydney Opera House.

BENV2106 Landscape Design 9: Integrated Studio
Faculty of the Built Environment
Staff Contact: L Corkery
UOC4 HPW6 S1

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
Faculty of the Built Environment
Staff Contact: L Corkery
UOC9 HPW6 S1
Prerequisite/s: 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.

BENV2108 Environmental Systems and Technology
Faculty of the Built Environment
Staff Contact: School Office
UOC3 HPW3 S1

This elective will develop an understanding of traditional building materials such as stone, copper, zinc, iron, steel, stale, timber, glass and concrete. Students will visit a stoneyard, a blacksmith's workshop, a copper workshop and learn techniques from traditional craftspeople. Skills in paint analysis and traditional painting methods will be taught. Students will prepare a study of a traditional building material, examining its history, manufacture, current use and conservation.

BENV2112 Landscape Design for Well Being
Faculty of the Built Environment
Staff Contact: L Corkery
UOC3 X1

This course will explore restorative and therapeutic landscapes for a varietty of settings and client groups, eg hospitals, hospices and special care facilities. A design project for a specific site and client will be carried our following lectures and site visits with visiting practitioners.

BENV2114 International Design Study Experience
Faculty of the Built Environment
Staff Contact: School Office
UOC3 S1

This elective aims to introduce students to the International Design world through a series of projects that will culminate in a study tour of major international manufacturers and exhibitions. After completion of this course students willl have a greater knowledge and understanding of different design companies who are successfully manufacturing and producing products in Europe. They will discover the complexities of bringing in to being products that contribute to the world in which we live. They will gain experience in managing and working within a team as well as having to consult with industry. They will learn how to work wiithin a budget and integrate management skills with team work.

BENV2117 Visual Resource Analysis & Management
Faculty of the Built Environment
Staff Contact: School Office
UOC3 X2

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.

BENV2119 Heritage Conservation
Faculty of the Built Environment
Staff Contact: School Office
UOC3 S2

This course will provide an introduction to heritage conservation, covering heritage philosophy, heritage legislation, heritage authorities (such as the NSW Heritage Office), the ICOMOS Burra Charter, Conservation management plans, world heritage, and traditional building materials. The majority of the course will focus on one heritage project, which could be the preparation of a Conservation Management Plan, adapative re-use of a heritage place, or planning within a heritage streetscape or precinct.Course convenors will be either Otto Cserhalmi Director of Otto Cserhalmi and Partners, Jacqui Goddard, Conservation Director of The National Trust of Australia, NSW, or Anne Warr, Heritage Manager at the City of Sydney. Guest lecturers will include heritage architects from the NSW Heritage Office and The National Trust of Australia, NSW.

BENV2121 Introduction to Classical Design Principles
Faculty of the Built Environment
Staff Contact: P Johnson
UOC6 HPW3 S2
Prerequisite/s: ARCH1201 or ARCH1202

This course provides an appreciation of the classical foundations of western architectural tradition connected to practical skills and knowledge in manipulating classical principles to produce an original design. Lectures cover classicism from ancient Greece to the present and seminars include freehand sketching, a field excursion to a classical building and the design of a hypothetical classical project. Assessment by projects.

BENV2122 Modelling Sustainable Design
Faculty of the Built Environment
Staff Contact: School Office
UOC6 S2

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 and LCAid, 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.

BENV2201 Twentieth-century Australian Architecture
Faculty of the Built Environment
Staff Contact: S Fung
UOC3 HPW2 S1 S2

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.

BENV2202 Architects and Their Practices
Faculty of the Built Environment
Staff Contact: P Hogben
UOC6 HPW2 S2

This course examines the different pressures, expectations and opportunities that architects face within the first ten years of professional practice. This involves recognising how the history of architectural education relates to various ideological conceptions of aesthetic and technical training. Students will be required to look at the early work of a selection of architects from the nineteenth and twentieth centuries, noting how that work captures the possibilities of experimentation and application of theoretical concepts and social ideals. The concrete forces of employment, financing and architect-builder-client relations will also be examined. Material is presented as lectures and seminars.

BENV2203 Introduction to 20th - century Japanese Architecture
Faculty of the Built Environment
Staff Contact: S Fung
UOC6 HPW3 S2

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.

BENV2205 Classical Architecture
Faculty of the Built Environment
Staff Contact: S Fung
UOC3 HPW2 S2

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 Academism 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
Faculty of the Built Environment
Staff Contact: S Fung
UOC3 HPW2 S2

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 as two-hour lectures.

BENV2209 Theorising Architectural Practices
Faculty of the Built Environment
Staff Contact: S Fung
UOC6 HPW3 TBA

The notion of theory as a conceptual setting for strategic design practices. Reading theory and architectural design as parallel and critical practices are examined for theorising practice and practicing theory. The implications and efficacy of theoretical contexts and thematics for various aspects of architectural design practice - including design processes and tactics; community, gender, culture and ethics; spatial and temporal articulation; technology, materiality, and assemblage. Studies and readings of selected texts in philosophy, cultural studies and fiction - as well as architectural theories and precedents. Material is presented as lectures and seminars.

BENV2210 Architecture and Music: Parallels and Practice
Faculty of the Built Environment
Staff Contact: M Tawa
UOC6 HPW3 S1

This course examines musical composition as metaphor for architectural design. It studies musical characteristics and motifs such as tonality, rhythm, harmonics, dynamics, sonority and timbre, order, harmony and

articulation in musical composition. Themes of whole and part, fragment, limits, interval, alterity and representation will be explored. Architectural implications for geometry, space and spatial dynamics, tectonics, assemblage and materiality will be developed and explored. Material will be presented as lectures and developed in occasional seminars and design workshops. Projects may include one or more of the following activities: readings of selected texts in philosophy, architecture and music theory; listening to and analysing various kinds of music; preparing analytical drawings, process models, visual essays and audio-visual presentations.

BENV2211 Criticism and Evaluation
Faculty of the Built Environment
Staff Contact: C De Lorenzo
UOC6 HPW3 S2

Architectural criticism is as much about a discourse of ideas as it is about the attempt to clarify for the writer and reader the successes and failures of a particular building/built environment. The purpose of this course is to encourage students to think critically about the nature of criticism, particularly as it is affected by broader cultural criteria. Can criticisms give us useful information about a buildings functional and symbolic achievements and its capacity to enhance the environment? What might a built environment and critique of it tell us about our society, about the values endorsed by the critic, and about our own criteria for excellence? How have visual artists engaged in critiques about the built environment? It seems that no two critics agree on the criteria for evaluating the built environment and it is anticipated that in the classroom evaluative criteria will be equally contested. For an informed discussion to take place it is necessary to know the current literature and debates. A bibliography has been prepared from which approximately two items have been selected as recommended reading for each class. All students are expected to have read something for each class and to substantiate their claims by keeping a critical diary of all items read. Material is presented as two-hour seminars in which all students are expected to participate actively. Assessment will include individual and group work.

BENV2212 Architecture and Culture
Faculty of the Built Environment
Staff Contact: P Kohane
UOC6 HPW3 S1
Prerequisite/s: 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 out 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
Faculty of the Built Environment
Staff Contact: C De Lorenzo
UOC3 HPW2 S1

This course introduces 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 classes 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, post modernism, 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.

BENV2216 Interior Theory
Faculty of the Built Environment
Staff Contact: W MacMahon
UOC6 HPW3 S2

A detailed exploration of the way we experience space. A study of how and to what extent this experience may be modified manipulated and determined by the application of various 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
Faculty of the Built Environment
Staff Contact: S Serle
UOC6 HPW3 S2

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
Faculty of the Built Environment
Staff Contact: C Evans
UOC3 HPW2 S2

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
Faculty of the Built Environment
Staff Contact: J Weirick
UOC3 HPW2 S2

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
Faculty of the Built Environment
Staff Contact: C Evans
UOC3 HPW2 S1

Students are introduced to the philosophy of nature as a continuous thread in the history of ideas. Concepts of 'culture' and 'nature' are critically reviewed against the production of designed landscapes. Skills in philosophical analysis, essay writing and the formal presentation of seminar papers are extended.

BENV2221 State of the Art: Contemporary Landscape Design
Faculty of the Built Environment
Staff Contact: J Weirick
UOC3 HPW2 S1

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
Faculty of the Built Environment
Staff Contact: C De Lorenzo
UOC2 S1 S2

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 material 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
Faculty of the Built Environment
Staff Contact: C De Lorenzo
UOC3 S1 S2

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
Faculty of the Built Environment
Staff Contact: C De Lorenzo
UOC6 S1 S2

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 7,500.

BENV2226 Chinese Gardens
Faculty of the Built Environment
Staff Contact: S Fung
UOC6 HPW3 TBA

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
Faculty of the Built Environment
Staff Contact: S Fung
UOC6 HPW3 TBA

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.

BENV2229 Spectacles, Mardi Gras and Fascist Rallies: the Use of Public Space
Faculty of the Built Environment
Staff Contact: S Fung
UOC3 HPW3 S1

This course examines the history of public spectacles from the Renaissance to the late twentieth century. It analyses these as designed events and as political manipulations of cultural memories associated with public spaces. Some examples include the entry of Henri V into Paris, Louis XIV's use of the Gardens of Versailles, the 'Haussmann-isation' of Paris as boulevards for military parades, the World Exposition of 1851 at the Crystal Palace, 'E42' the Fascist plan of a Roman suburb for a World Fair, Leni Reifenstahl's documentation of the 1936 Berlin Olympics and the Nuremberg rallies, Las Vegas as a continuous spectacle of consumer excess, and the Sydney Mardi Gras.

BENV2230 Principles and Philosophy of Design
Faculty of the Built Environment
Staff Contact: H Stephens
UOC3 HPW3 S2
Excluclusions: INTA2101, INTA2102

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 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. Students who have completed INTA2101 or INTA2102 cannot enrol in this course.

BENV2231 Process in Architecture and Landscape
Faculty of the Built Environment
Staff Contact: S Fung
UOC6 HPW3 S1

This elective deals with ideas of process in architectural and landscape architectural writings. Recent developments on the east coast of the United States and in the Netherlands are the focus of this elective. (E.g. projects by Adriaan Geuze, MVRDV and West 8; writings by James Corner, Stan Allen, and Sanford Kwinter, etc.) The elective will explore the idea that these recent developments have, more than at any other time in this century, opened possibilities for fruitful engagement with Chinese cultural interests. Four weeks of the programme will be devoted to comparative work.

BENV2232 Thinking Through Drawings 1
Faculty of the Built Environment
Staff Contact: S Fung
UOC6 HPW3 S1
Prerequisite/s: 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: Rem Koolhaas, Ben van Berkel, MVRDV, Enric Miralles, Herzog and de Meuron, Kazuyo Seijima and Tadao Ando.

BENV2233 Architectural Images
Faculty of the Built Environment
Staff Contact: S Fung
UOC6 HPW3 S2

This elective takes as its subject the current fascination in architectural discourse and practice with 'the image'. In order to develop an understanding of the diverse uses and effects of the image in contemporary architecture, this elective will relate them to the discourse on ornament in the early 20th century and to the interior as the site of an emerging architectural awareness about the image's role in architectural experience. From these historical studies, we will establish the ideas of image reproducibility and image exchange as crucial to the possibility of cross-cultural exchange in architecture. In the second part of the elective, we shall test the usefulness of these Western studies of the architectural image for developing a vocabulary for discussing contemporary Chinese architecture. Chinese architects have not had much opportunity to see first-hand 20th-century architecture in the West, and their access to Western architectural developments has been largely dependent on images reproduced in print media. This highlights the role of architectural images in constructing a Chinese sense of what is 'current'.

BENV2237 Thinking Through Drawings 2
Faculty of the Built Environment
Staff Contact: S Fung
UOC6 HPW3 S2
Prerequisite/s: 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: Enric Miralles, Peter Wilson, Rafael Moneo, Alvaro Siza and Peter Zumthor.

BENV2238 Modern Architecture in India & Middle East
Faculty of the Built Environment
Staff Contact: M Gusheh
UOC6 HPW3 S2

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
Faculty of the Built Environment
Staff Contact: D Alic
UOC6 HPW3 S1

This course promotes an understanding of 20th-century architecture interms 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 would 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 capitol 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
Faculty of the Built Environment
Staff Contact: S Fung
UOC6 HPW3 S1

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 imaged 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
Faculty of the Built Environment
Staff Contact: S Fung
UOC6 HPW3 S2

This course looks at the relation between some of the common materials of building construction as they exits 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.

BENV2244 Materials and Their Symbolism
Faculty of the Built Environment
Staff Contact: L Zamberlan
UOC3 HPW3 S1
Prerequisite/s: INTA2202

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. Excursions.

BENV2245 Colour and Light in Environmental Design
Faculty of the Built Environment
Staff Contact: H Stephens
UOC6 HPW3 S2
Prerequisite/s: INTA2102 or equivalent year one Design Studio

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 awareness of the difference between the additive and subtractive systems of light-projected and physical colour.

BENV2301 Architectural Spatialisation
Faculty of the Built Environment
Staff Contact: S Peter
UOC6 HPW3 S1

Investigation of the basic aesthetic, technical and conceptual aspects of drawing. The course is studio-based incorporating lectures and modified lectures with an emphasis on direct experience with the various media of drawing. Subject matter will include portrait, still life, landscape and the human figure. Media instruction will include pencil, conte, charcoal, ink, pen, wash, etc. Gallery visits and field trips will be incorporated.

BENV2302 Architectural Rendering Techniques- Wet Media
Faculty of the Built Environment
Staff Contact: A Quinlan
UOC6 HPW3 S1 S2

Investigation into colour theory, the history of painterly rendering techniques and media as well as the various disciplines of still life, landscape, and figure painting. The course is studio-based with lectures, discussions and demonstrations. Gallery visits and field trips will be incorporated.

BENV2303 Drawing: Architectural Thematics
Faculty of the Built Environment
Staff Contact: A Quinlan
UOC6 HPW3 S1 S2

Investigation of the basic aesthetic, technical and conceptual aspects of drawing. The course is studio-based incorporating lectures and modified lectures with an emphasis on direct experience with the various media of drawing. Subject matter will include landscape, the built environment, and the human figure. Media instruction will include pencil, conte, charcoal and ink.

BENV2304 Colour Theory in Architecture and its Environs
Faculty of the Built Environment
Staff Contact: H Stephens
UOC3 HPW2 S2

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 and Interior Architects
Faculty of the Built Environment
Staff Contact: H Stephens
UOC6 HPW3 S1

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 will 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 Exhibition
Faculty of the Built Environment
Staff Contact: A Quinlan
UOC3 S2
Prerequisite/s: ARCH1402

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 liaison 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.

BENV2401 Digital Design Techniques
Faculty of the Built Environment
Staff Contact: S Peter
UOC6 HPW3 S2

Web Page: http://www.fbe.unsw.edu.au/courses/benv/2401/ This course is intended for students who have not done BENV1242 and BENV1341. The course is an exploration of the techniques that can be used to present designs digitally, including 2D and 3D CAD, modelling, animation and image editing. Assessment is based on a small number of simple exercises and one larger project (presenting a design). Students who have completed IDES3231 (or BENV1242 and BENV1341) cannot enrol in this course.

BENV2402 Design Modelling - Time Based Visualisation
Faculty of the Built Environment
Staff Contact: A Quinlan
UOC6 HPW3 S2
Prerequisite/s: BENV1341 or BENV2401 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
Staff Contact: J Plume
UOC3 HPW2 S2
Prerequisite/s: 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
Faculty of the Built Environment
Staff Contact: S Peter
UOC3 HPW2 S2

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
Faculty of the Built Environment
Staff Contact: S Peter
UOC6 HPW3 S1

Web Page: http://www.fbe.unsw.edu.au/courses/benv/2405/ Introduction to the fundamentals of interactive computer graphics programming. Advanced techniques including mouse-based input, menu-based interfaces and colour manipulation. Assessment is be through a series of short exercise and one larger programming project.

BENV2406 Design and Computation
Faculty of the Built Environment
Staff Contact: J Plume
UOC3 HPW2 S1
Prerequisite/s: 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
Faculty of the Built Environment
Staff Contact: O Greste
UOC6 HPW3 S2
Prerequisite/s: BLDG3282

This course discusses the specification, development and use of computer based information systems in the management of building construction projects. The focus is on the logical and physical design of database systems and their use for range of information management applications. Topics include: current networking and communication technologies; digital document formats and environment; information system lifecycle; relational data base structures; shared information databases through project intranets; computer programs for cost management; and CAD product modeling standards for interoperability with other applications. The course involves practical use of spreadsheet, and data base programs, with a focus is on developing good skills with the Excel spreadsheet program and the Access data base program.

BENV2409 Advanced Multimedia
Faculty of the Built Environment
Staff Contact: A Quinlan
UOC6 HPW3 S2
Prerequisite/s: 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
Faculty of the Built Environment
Staff Contact: S Peter
UOC6 HPW3 S2
Prerequisite/s: 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.

BENV2413 Architectural Analysis with Rhino
Faculty of the Built Environment
Staff Contact: A Quinlan
UOC6 HPW3 S2
Prerequisite/s: ARCH1301 or INTA1301

This course employs the 3d modelling program Rhinoceros to explore the use of computers as an investigative tool for architectural design. A particular focus of this course is the exploration of architectural compositional language such as point, line and plane: massing and volumes: scaffolding, frame and infill. Course material will be presented as lectures (in the computing lab) and on line technical tutorials. Students are required to complete the on line technical tutorials independently so that allocated lab hours can be used effectively for focussed lectures and student digital modelling, exploration and experimentation. There will be 3 assignment tasks. Students are required to exhibit their assignments on the Web. Familiarity with constructing web based presentations (Benv1141) would assist the efficient completion of assignments.

BENV2602 Advanced Structural Design
Faculty of the Built Environment
Staff Contact: J Carrick
UOC3 HPW2 S2

The behaviour and analysis of indeterminate structures. Computational techniques for indeterminate and other complex structural systems. Structural CAD applications. Architectural/Structural design issues: envelope, structure interaction, structural detailing and structural expression; dynamic loads; new materials and systems; assembly and erection techniques etc.

BENV2603 Lightweight Structural Design
Faculty of the Built Environment
Staff Contact: V Sedlak
UOC6 HPW3 S1

Integrated architectural/structural/constructional/environmental design of cable, cable-net, membrane, tensegrity, shell and folded surface structures in lightweight materials (concrete, timber, metals and composites). Current issues related to on-going research and development. Structural ideologies. Seminar and project(s). Model and computer laboratory work and occasional construction workshop.

BENV2604 Structural Systems: Basic
Faculty of the Built Environment
Staff Contact: V Sedlak
UOC6 HPW3 S1

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.

BENV2605 Case Studies in Architectural Structures
Faculty of the Built Environment
Staff Contact: School Office
UOC6 S2
Prerequisite/s: ARCH1371

Case studies are an essential pre-requisite to any architectural design process.This subject aims to fill a need for a computer-based systemised approach to in-depth study of remarkable buildings, in particular into their technological aspects such as structural form, system and behaviour, their construction, fabric and material. Students choosing to elect the course will be introduced to a proven and well documented approach to investigation and understanding of structural and constructional aspects of buildings and will apply this approach to selective cases. Data generated will be edited and placed into an international database of case studies where they will become a resource for design which will be accessible to a wider student audience. Thus, your work will benefit others, as well as the work of others will benefit you in your current and future study.

BENV2701 Advanced Building Materials (Ceramics)
Faculty of the Built Environment
Staff Contact: W Lawson
UOC6 HPW3 S1

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)
Faculty of the Built Environment
Staff Contact: W Lawson
UOC6 HPW3 S2

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)
Faculty of the Built Environment
Staff Contact: W Lawson
UOC6 HPW3 S2

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
Faculty of the Built Environment
Staff Contact: A Kreisler
UOC3 HPW2 S1 S2

A review of recent developments, current trends and possible future directions in building design, construction systems, detailing and documentation. Case studies, projects, seminars.

BENV2705 Spatial Construction Studies
Faculty of the Built Environment
Staff Contact: P Murray
UOC6 HPW3 S2

This course is a rigorous and disciplined examination of skilfully (ie. artfully) designed works of architecture. The course will require students to investigate the physical (spatial and constructional) orders of two buildings with the aim of interpreting/understanding what these orders are and why they are the way they are. The investigations will be based on drawings and models of the chosen buildings (to be made by the students), on appropriate texts and on lectures given during the session. The selection of buildings will be partly based on the availability of good documentation and critical writings. These are necessary in order to achieve the desired level of rigour. Students will be divided into two groups, each group focusing on one of the buildings. A comparison of the two buildings is an important means of initiating discussion and will be one of the aims of the investigation. Material is presented as a mix of lectures and tutorials.

BENV2707 Advanced Landscape Engineering
Faculty of the Built Environment
Staff Contact: L Corkery
UOC3 HPW2 S2

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
Faculty of the Built Environment
Staff Contact: W MacMahon
UOC6 HPW3 S2

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 Const 6 (Industrialisation & Technological Change)
Faculty of the Built Environment
Staff Contact: M Marosszeky
UOC3 HPW3 S1

Concept of industrialisation; historical trends. International experience. Effect of demand on construction technology. Tolerance in building; quality management, modular coordination. New technologies in manufacture and construction. Government policy. Internationalisation and future trends.

BENV2710 International House Practice
Faculty of the Built Environment
Staff Contact: P Forsythe
UOC3 HPW2 S2

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
Faculty of the Built Environment
Staff Contact: G Bell
UOC6 S2

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
Faculty of the Built Environment
Staff Contact: L Zamberlan
UOC3 HPW3 S1
Prerequisite/s: INTA2102 or equivalent year one Design Studio

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
Faculty of the Built Environment
Staff Contact: L Zamberlan
UOC3 HPW3 S2
Prerequisite/s: BENV2713

A guided research-based course concerned with the design and manufacture of furniture and fitments for mainly commercial applications. A research project and practical design assignment will focus on specific case studies.

BENV2715 Textiles in Interior Architecture
Faculty of the Built Environment
Staff Contact: H Stephens
UOC3 HPW3 S2
Prerequisite/s: INTA2102 or equivalent year one Design Studio

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.

BENV2803 Facility Planning
Faculty of the Built Environment
Staff Contact: S Serle
UOC6 HPW3 S1

Facility planning is the practice of coordinating the physical workplace with its business objectives. It strategically integrates the principles of business administration, interior architecture and the behavioural and engineering sciences. This course covers material associated with facility, strategic and tactical planning with regard to: accommodation, occupational health and safety and security; environmentally sustainable design in the context of the workplace; space planning systems; integration of services and telecommunications within the office. Contemporary strategies for the design of the modern office.

BENV2804 Construction Planning and Management
Faculty of the Built Environment
Staff Contact: C De Lorenzo
UOC3 HPW2 S1 S2

The role of the Architect and Builder in the traditional building procurement process. Construction management and coordination of the building process. New management directions for improved performance and coordination in the building industry. The role of the Developer and Project Manager in the procurement of buildings. Building economics and property evaluation. Principles of scientific management and organization, individual group behaviour, motivation techniques, planning, organising, directing and control.

BENV2805 Project Management and The Design Process
Faculty of the Built Environment
Staff Contact: School Office
UOC6 HPW3 S1

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.

BENV2806 Organisational Behaviour
Faculty of the Built Environment
Staff Contact: School Office
UOC3 HPW3 S1

Organizational design. Types of organizations and fitting organizational structure to environment. Leadership. Reward processes. Expectancy Theory. Organizational change.

BENV2807 Management 7 (Marketing)
Faculty of the Built Environment
Staff Contact: School Office
UOC3 HPW3 S1

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.

BENV2808 Law for Builders 3
Faculty of the Built Environment
Staff Contact: School Office
UOC3 HPW3 S1
Prerequisite/s: BLDG3272

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 a valuer, which establish valuation principles; understand the major objectives of principal New South Wales Acts dealing with real estate or interests therein.

BENV2812 Documentation Techniques for Major Buildings
Faculty of the Built Environment
Staff Contact: School Office
UOC6 HPW2 TBA

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.

BENV2901 City Planning Today
Faculty of the Built Environment
Staff Contact: S Thompson
UOC3 HPW2 S1
Excluded: Program 3360

Introduction to the purpose, scope, and application of planning. What is Town Planning and how does it impinge on the related professions of building, surveying and landscape architecture? The course will cover basic planning law and administration, urban processes, housing policy, social planning, environmental protection and heritage preservation. The future of cities, housing and transportation will also be canvassed.

BENV2902 The City: Sydney
Faculty of the Built Environment
Staff Contact: J Weirick
UOC3 HPW2 S1

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
Faculty of the Built Environment
Staff Contact: J Lang
UOC6 HPW3 S2

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
Faculty of the Built Environment
Staff Contact: C De Lorenzo
UOC6 HPW3 S2

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.

BENV2905 Multivariate Analysis for Planning
Faculty of the Built Environment
Staff Contact: R Zehner
UOC3 HPW3 S2
Prerequisite/s: PLAN1052

The use of multivariate techniques to analyse medium to large survey-based data sets. The specific techniques covered in a given year depend in part on the data sets available for analysis, but will focus in any event on multiple regression, including approaches to the analysis of non-linear relationships, and on factor analysis.

BENV2906 Politics, Power and Policy
Faculty of the Built Environment
Staff Contact: P Williams
UOC3 HPW3 S2

The aim of the course is to create an understanding of the complex forces and processes (political, ideological, economic, etc.) which operate in the management of urban areas. Issues covered include relationships between urban government, politics, planning, the community and various interest groups. Urban theory. The relationship between public policy and planning. The social context of planning. The different social needs within Australian society. The formulation and implementation of policy.

BENV2907 Planning Elective
Faculty of the Built Environment
Staff Contact: R Freestone
UOC3 HPW3 S1 S2

During each session, various planning electives are offered which allow students to pursue a topic of their interest in-depth. Electives are not standardized each year and are subject to the availability of individual staff members. In the past topics have included heritage and conservation, transport and environment, urban design, regional economic analysis, rural planning, cultural studies and post-modernist thought. A list of electives are proposed at the beginning of each session.

BENV2911 Land Economics
Faculty of the Built Environment
Staff Contact: R Cardew
UOC6 HPW3 S2
Prerequisite/s: BLDG4314

Ability to apply relevant valuation techniques to a broad range of common land use types; acquisition of 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.

BENV2912 Property Management
Faculty of the Built Environment
Staff Contact: J Kim
UOC3 HPW3 S2

Introduction of property asset management, Overview of property market and investment analysis, Lease and tenancy management, Residential property management, Commercial and industrial property management, Retail property management, Total costs concept, Building maintenance and maintenance economics, Strata title management, Taxation in property management.

BENV7703 Cultural Studies
Faculty of the Built Environment
Staff Contact: School Office
UOC3 TBA

This subject explores contemporary issues facing the professional planner working in an increasingly diverse and complex society. Various cultural, social and environmental issues that challenge ethnic communities, children, the aged, women, Aborigines and homeless people are examined. Students are encouraged to question their own prejudices and values as they develop better understandings of the needs of these groups. The ability of the planning system to respond is explored, as are creative and inter-disciplinary approaches that can be facilitated by urban planners.

BINF1001 Bionformatics 1
School of Computer Science and Engineering
Staff Contact: School Office
UOC6 HPW5 S2
Prerequisite/s: COMP1011 or COMP1711
Excluded: COMP1821, COMP1721

BINF2001
Bioinformatics 2
Staff Contact: School Office
UC 6 S2 HPW 6
Prerequisites: BINF1001

Examines key issues in bioinformatics from a biological perspective - the unique conflux of complexity, uncertainty and unity in biology creates a set of grand challenges for computer scientists. Specific topics include metabolic simulations; inference of genetic control networks; determination and modelling of biomolecular structures; and rational drug design. Practical work will investigate current approaches to these challenges, the state of progress and directions for future expansion.

BIOC1319 Biochemistry for Medical Students
School of Biochemistry and Molecular Genetics
Staff Contact: M Edwards
UOC12 HPW6 S3

Objectives: To obtain sufficient understanding of chemistry and biochemistry to recognise the essentially molecular basis of all living systems; to acquire a knowledge of chemistry and biochemistry essential for the study of physiology and pharmacology; to gain experience in laboratory skills and the use of the scientific method; to understand the structure, function and biosynthesis of the macromolecules that are indispensable to life; to gain insight into the ways in which the body uses metabolic fuels and the regulation of these metabolic processes so that growth and homeostasis are maintained; to understand the basis of practical biochemistry, including those procedures that are relevant to clinical diagnosis. Brief Discription: Classification of matter and theories of the structure of matter. Chemical bonding, molecular structure and chemical behaviour. Equilibrium and change in chemical systems. Introduction to colloidal systems. Structure and reactions of organic compounds relevant to biological systems. Introduction to the biochemistry of macromolecules. Bioenergetics and enzyme catalysis. A survey of the principal metabolic pathways, their functions, interrelationships, and regulation. Introductory endocrinology and whole body metabolism.Assessment: In addition to both a mid-year and end of year examination, there is continuous assessment throughout the year.

BIOC1320 Biochemistry for Medical Students (Special Program)
School of Biochemistry and Molecular Genetics
Staff Contact: M Edwards
UOC4 S1 S2

This special program is for students exempt from the Chemistry component of BIOC1319 (Biochemistry for Medical Students).Objectives: To obtain sufficient understanding of biochemistry to recognise the essentially molecular basis of all living systems; to acquire a knowledge of biochemistry essential for the study of physiology and pharmacology; to gain experience in laboratory skills and the use of the scientific method; to understand the structure, function and biosynthesis of the macromolecules that are indispensable to life; to gain insight into the ways in which the body uses metabolic fuels and the regulation of these metabolic processes so that growth and homeostasis are maintained; to understand the basis of practical biochemistry, including those procedures that are relevant to clinical diagnosis. Brief Description: Introduction to colloidal systems. Structure and reactions of organic compounds relevant to biological systems. Introduction to the biochemistry of macromolecules. Bioenergetics and enzyme catalysis. A survey of the principal metabolic pathways, their functions, interrelationships, and regulation. Introductory endocrinology and whole body metabolism.Assessment: In addition to both a mid-year and end of year examination, there is continuous assessment throughout the year.

BIOC2101 Principles of Biochemistry (Advanced)
School of Biochemistry and Molecular Genetics
Staff Contact: I McFarlane
UOC6 HPW6 S1
Prerequisite/s: BIOS1101 or BIOT1011, BIOS1201, CHEM1011 or CHEM1031, CHEM1021 or CHEM1041
Excluded: BIOC1319, BIOC2181

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 protiens 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/s: 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 Biochemistry and Molecular Genetics
Staff Contact: K Barrow
UOC6 HPW6 S1
Prerequisite/s: BIOS1101 or BIOT1011, BIOS1201, CHEM1011 or CHEM1031, CHEM1021 or CHEM1041
Excluded: BIOC1319, BIOC2101

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 functions 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 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/s: 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.

BIOC2201 Principles of Molecular Biology (Advanced)
School of Biochemistry and Molecular Genetics
Staff Contact: V Murray
UOC6 HPW6 S2
Prerequisite/s: BIOS1101 or BIOT1011, BIOS1201, CHEM1011 or CHEM1031, CHEM1021 or CHEM1041
Excluded: BIOC2291

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, hybridization 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/s: 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 plan.

BIOC2291 Fundamentals of Molecular Biology
School of Biochemistry and Molecular Genetics
Staff Contact: H Shoory
UOC6 HPW6 S2
Prerequisite/s: BIOS1101 or BIOT1011, BIOS1201, CHEM1011 or CHEM1031, CHEM1021 or CHEM1041
Excluded: BIOC2201

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; hybridization 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/s: 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.

BIOC2329 Medical Biochemistry and Genetics
School of Biochemistry and Molecular Genetics
Staff Contact: P Little
UOC8 HPW4.5 S3
Prerequisite/s: BIOC1319

To acquire knowledge of biochemical aspects of the functions and control mechanisms of the major body systems in humans; to understand the regulation of the adaptive responses of body function to different forms of stress; to understand those biochemical processes which are of preticulare relevance to clinical practice and a study of pharmacology; to gain experience in problem-solving approaches to the biochemical aspects of normal and disease states; to introduce students to those aspects of modern molecular biology relevant to humans; to provide a basis for the study of human genetics.Lectures, audio-visual and clinical demonstrations deal with endocrine systems, lipid metabolism, connective tissue, neurochemistry; purine, pyrimidine and nucleic acid metabolism, recombinant DNA procedures, gene probes, pedigree analysis, inborn errors of metabolism, X- and Y- linked inheritance, human cytogenetics. Clinical material illustrates the princples being studied and underlines the relevance of the course to the study of medicine. Assessment: Examinations are held mid-year and end of year, and include the contents of both lectures and audiovisuals.

BIOC3111 Molecular Biology of Proteins
School of Biochemistry and Molecular Genetics
Staff Contact: G King
UOC6 HPW6 S1
Prerequisite/s: BIOC2101, 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 Biochemistry and Molecular Genetics
Staff Contact: L Lutze-Mann
UOC6 HPW6 S1
Prerequisite/s: BIOC2101, BIOC2201
Excluded: BIOC3621

Detailed analysis of gene structure and function including: structure and properties of polynucleotides such as DNA and RNA; structure of chromatin; mechanisms and 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; protein production using recombinant DNA systems. Practical work illustrates and complements the lectures and provides experience with contemporary molecular techniques.

BIOC3131 Biochemistry and Genetic Engineering of Plants
School of Biochemistry and Molecular Genetics
Staff Contact: I McFarlane
UOC6 HPW6 S1
Prerequisite/s: BIOC2101, BIOC2201

The techniques of recombinant DNA technology and plant tissue culture with their application to the modification and improvement of plant productivity. Plant organ, tissue and cell culture, organogenesis, embryogenesis and clonal plant propagation. The long term preservation of germplasm and plant genetic resources. Useful products from plant cultures and the technology of plant cell culture. Structure and expression of plant genes. Plant molecular biology including cloning plant genes and vectors for gene cloning. Genetic manipulation of plants to improve their natural resistance to pests, disease and environmental stress. Practical work provides training in the basic techniques of plant tissue culture with application of selected techniques to plant genetic engineering.

BIOC3151 Human Genetics and Variation
School of Biochemistry and Molecular Genetics
Staff Contact: A Wilton
UOC6 HPW6 S1
Prerequisite/s: BIOS2021or BIOS2621

This course aims to develop a student's abilities to use molecular and traditional genetic data to solve genetic problems that arise in a variety of applications, from industry and human biology, to wildlife management. Computer simulations and projects with Industries will be used extensively. Natural or recombinant genes interact with one another and the environment to produce whole organisms and the variation between them. This course will present modern methods for investigating the molecular basis of heritable characteristics as diverse as morphology and behaviour, in a variety of species, at levels from the family to the population. Identification of quantitative trait loci and variation will be examined including natural selection, artificial selection, forensics and ethical issues.

BIOC3261 Human Biochemistry
School of Biochemistry and Molecular Genetics
Staff Contact: M Edwards
UOC6 HPW6 S2
Prerequisite/s: BIOC2101, BIOC2201

Covers the aspects of metabolism that are of particular relevance to the human. The major topics covered will be selected from: Nutrition, exercise, neurochemistry, xenobiotics, nucleotide and one-carbon metabolism, genetic diseases and molecular aspects of parasitology. The role of triglyceride, cholesterol and lipoprotein metabolism in human health, and other selected areas of human nutrition. Specialised aspects of endocrinology and neurochemistry including prostaglandins, leukotrienes, enkephalins and endorphins. The interrelation of purines, pyrimidines, folate and cobalamin metabolism in humans. Xenobiotics: the metabolism of foreign compounds by humans. Biochemical aspects of genetic disease including the use of recombinant DNA techniques for prenatal diagnosis and carrier detection. Molecular studies of malaria and other parasites of the human. Practical work to amplify the lectures.

BIOC3271 Molecular Cell Biology
School of Biochemistry and Molecular Genetics
Staff Contact: L Lutze-Mann
UOC6 HPW6 S2
Prerequisite/s: BIOC2101, BIOC2201
Excluded: BIOC3671

Cell biology from a molecular viewpoint. Biochemical aspects of cellular organisation. The arrangement of the component molecules of organelles, their function in integrated cellular metabolism and the molecular interactions between the cells of multicellular organisms. The biochemistry of the cytoskeleton, carriers and intracellular transport systems. The regulation of cellular processes at the molecular endocrine level. Growth and differentiation. Aspects of cancer metabolism, the biochemistry of cell to cell communication and the structure and function of the extracellular matrix. Practical work amplifies the lectures.

BIOC3281 Recombinant DNA Techniques and Eukaryotic Biology
School of Biochemistry and Molecular Genetics
Staff Contact: N Whitaker
UOC6 HPW6 S2
Prerequisite/s: BIOC3121

The organisation of the genomes of higher organisms derived mainly from the application of recombinant DNA technology and related techniques. Methods used for the isolation, identification and characterisation of eukaryotic genomes in terms of the organisation of single copy and repeated sequences and of coding and non-coding sequences and of several gene clusters, eg the alpha and beta globin gene cluster. Mechanisms known to operate in the control of eukaryotic gene expression, both at the DNA level and at the level of RNA processing. Review of several specialised genetic systems in plants and animals such as mitochondria, chloroplasts and RNA and DNA tumour viruses. Practical work provides training in the use of sterile techniques and in working with polynucleotides under nuclease-free conditions, using basic techniques such as hybridisation and DNA sequencing.

BIOC3291 Genes, Genomes and Evolution
School of Biochemistry and Molecular Genetics
Staff Contact: A Wilton
UOC6 HPW6 S2
Prerequisite/s: BIOS2021or BIOS2621

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. Ecological genetics and molecular evolution, genetics of cellular division process and developmental genetics. Practical uses of genetics including the use of transposable elements to manipulate genetic stock, transgenesis, genetics of cancer, pedigree analysis, disease gene mapping, gene therapy, cytogenetics. Unusual genetic mechanisms. Perspectives on genetics, history and future. Practical work and exercises to complement the lecture.

BIOC3301 Biochemistry Laboratory Project (Advanced)
School of Biochemistry and Molecular Genetics
Staff Contact: A Bagnara
Enrolment requires school approval
UOC6 S1 S2

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/s: 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 Biochemistry and Molecular Genetics
Staff Contact: L Lutze-Mann
UOC6 HPW6 S1
Prerequisite/s: BIOC2101, BIOC2201
Excluded: BIOC3121

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 described above 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; nulceic 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 will also be used to enhance the theoretical and practical aspects of the syllabus.

BIOC3671 Molecular Cell Biology (Advanced)
School of Biochemistry and Molecular Genetics
Staff Contact: L Lutze-Mann
UOC6 HPW6 S2
Prerequisite/s: BIOC2101, BIOC2201
Excluded: BIOC3271

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 of cells from single cell to whole organism. The theoretical coverage willl 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 careeers in molecular cell biology or related disciplines.

BIOC4318 Biochemistry 4 Honours Full-Time
School of Biochemistry and Molecular Genetics
Staff Contact: A Bagnara
Enrolment requires school approval
UOC24 S1 S2

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 Biochemistry and Molecular Genetics
Staff Contact: A Bagnara
Enrolment requires school approval
UOC24 S1 S2

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.

BIOM1000 Professional Biomedical Studies
Graduate School of Biomedical Engineering
Staff Contact: School Office
UOC1 S1

BIOM1001 Professional Biomedical Studies
Graduate School of Biomedical Engineering
Staff Contact: School Office
UOC3 HPW1 S1

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.

BIOM1001 Professional Biomedical Studies
Graduate School of Biomedical Engineering
Staff Contact: K Schindhelm
UOC3 HPW1 S1

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.

BIOM5000 Thesis A
Graduate School of Biomedical Engineering
Staff Contact: School Office
UOC3 HPW6 S1 S2

For BE(Mech)/MBiomedE students only. To be taken in the year of completing the BE(Mech)/MBiomedE degree course.

BIOM5001 Thesis Part A
Graduate School of Biomedical Engineering
Staff Contact: School Office
UOC6 S1

Thesis topic for BE(Mech)/MBiomedE students only.

BIOM5910 Thesis Part A
Graduate School of Biomedical Engineering
Staff Contact: School Office
UOC6 HPW8 S1 S2

Thesis topic for BE(Elec)/MBiomedE students only.

BIOM5911 Thesis Part B
Graduate School of Biomedical Engineering
Staff Contact: School Office
UOC6 HPW8 S1 S2

Thesis topic for BE(Elec)/MBiomedE students only.

BIOM5912 Thesis Parts B&C (Comp/Mbiomede)
Graduate School of Biomedical Engineering
Staff Contact: School Office
UOC15 S1 S2

Thesis topic for BE(Comp)/MBiomedE students only.

BIOM5920 Thesis A (Comp UG)
Graduate School of Biomedical Engineering
Staff Contact: School Office
UOC3 S1 S2

BIOM5921 Thesis B (Comp UG)
Graduate School of Biomedical Engineering
Staff Contact: School Office
UOC12 S1 S2

BIOM5930 Research Project A
Graduate School of Biomedical Engineering
Staff Contact: School Office
UOC6 S1 S2

Thesis topic for BE(Chem)/MBiomedE students only.

BIOM5931 Research Project B
Graduate School of Biomedical Engineering
Staff Contact: School Office
UOC6 S1 S2

Thesis topic for BE(Comp)/MBiomedE students only.

BIOM9010 Biomedical Engineering Practice
Graduate School of Biomedical Engineering
Staff Contact: School Office
UOC3 HPW2 TBA

Introduction to clinical situations in hospitals. Presentation of guest lectures by eminent people working in this field. Lecture topics include cardiology, neurology, orthopaedics, rehabilitation.

Note/s: Compulsory for all students.

BIOM9020 Research Project (15Cp)
Graduate School of Biomedical Engineering
Staff Contact: School Office
UOC6 S1 S2

BIOM9311 Mass Transfer in Medicine
Graduate School of Biomedical Engineering
Staff Contact: School Office
UOC6 HPW3 TBA

Mass transfer in the living organism and in extracorporeal medical devices. Principles of diffusion and convection. Models of gas transfer in the lung. Transfer of solutes at the capillary level. Haemodialysis, haemofiltration, plasma filtration and blood oxygenators. Transfer across the peritoneal membrane-dialysis or drug delivery. Drug delivery across the skin.

BIOM9321 Physiological Fluid Mechanics
Graduate School of Biomedical Engineering
Staff Contact: School Office
UOC6 HPW3 TBA

Fluid mechanics of unsteady flow. Fundamentals of biological fluid flow by way of the governing equations. Kinematics and dynamics, viscous and inertial flow, boundary layers, separation, physiological flows (cardiac, vascular, pulmonary, urinary, etc.) and flow in artificial organs. Emphasis on physical rather than mathematical understanding of the relevant phenomena, to allow realistic appraisal of the nature of flow in a given organ.

BIOM9410 Regulatory Requirements of Biomedical Technology
Graduate School of Biomedical Engineering
Staff Contact: School Office
UOC6 HPW3 TBA

The regulatory requirements of medical devices in Australia, Japan, North America and Europe will be reviewed. Data collation and documentation methods are examined, case studies of medical device registration will be presented.

BIOM9420 Clinical Laboratory Science
Graduate School of Biomedical Engineering
Staff Contact: B Milthorpe
UOC6 HPW3 S1

The technologies, tests and operation of a variety of clinical laboratories (biochemistry, haematology, immunology, histology). Engineering solutions to the automation of chemical and biochemical assays, design and development of instrumentation, limitations of automated systems. Data recording, tracking and validation. Routes to innovation in a clinical laboratory.

BIOM9430 Electromedical Standards
Graduate School of Biomedical Engineering
Staff Contact: A Avolio
UOC6 HPW3 S1

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. Acceptance testing procedures. Certification schemes for electromedical equipment. National and international legal requirements.

BIOM9440 Biomedical Practical Measures
Graduate School of Biomedical Engineering
Staff Contact: School Office
UOC6 HPW3 TBA

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/s: Limited number of places - contact School Office.

BIOM9450 Clinical Information Systems
Graduate School of Biomedical Engineering
Staff Contact: School Office
UOC6 HPW3 TBA

Healthcare information and communications, including telemedicine, medical informatics, networks and privacy. Data collection, medical coding and classification. Standards for medical data interchange. Aspects of database design, client/server topologies.

Note/s: Limited number of places - contact School Office.

BIOM9501 Computing for Biomedical Engineers
Graduate School of Biomedical Engineering
Staff Contact: N Lovell
UOC6 HPW3 S1

Algorithm design and documentation; programming in standard PASCAL and in Delphi for Windows; object oriented program design; event driven programming in a graphical environment; database structures and interfacing.

Note/s: 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
Staff Contact: B Milthorpe
UOC6 HPW3 S1

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
Staff Contact: School Office
UOC6 HPW2 TBA

Statics and dynamics of the musculoskeletal system: mathematical modelling and computer simulation, analysis of pathological situations.

BIOM9551 Biomechanics of Physical Rehabilitation
Graduate School of Biomedical Engineering
Staff Contact: School Office
UOC6 HPW2 TBA

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/s: This course is not offered on a regular basis.
Assumed Knowledge: BIOM9541

BIOM9561 Mechanical Properties of Biomaterials
Graduate School of Biomedical Engineering
Staff Contact: School Office
UOC6 HPW3 TBA

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
Staff Contact: A Avolio
UOC6 HPW3 S1

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 (eg. bedside ECG monitor).

Note/s: A reasonably advanced background in microprocessors is required. Entry to course is by interview.
Assumed Knowledge: BIOM9040 and BIOM9050 or equivalents

BIOM9603 Image and Flow Cytometry
Graduate School of Biomedical Engineering
Staff Contact: School Office
UOC6 TBA

Technology, techniques and uses of flow and image cytometry. Flow and cytometers (analysis and cell sorting), image analysis and cell counting from slides. Preparation and staining of cells. Data acquisition and analysis. Applications in medical research and diagnosis.

Note/s: Basic electronics/computing background required.

BIOM9621 Biological Signal Analysis
Graduate School of Biomedical Engineering
Staff Contact: School Office
UOC6 HPW3 TBA

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/s: Basic electronics and mathematics background required.

BIOM9701 Dynamics of the Cardiovascular System
Graduate School of Biomedical Engineering
Staff Contact: C Bertram
UOC6 HPW3 S1

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/s: Some mathematics background desirable.

BIOM9913 Project Report
Graduate School of Biomedical Engineering
Staff Contact: School Office
UOC12 S1

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.

BIOS1101 Evolutionary and Functional Biology
School of Biological Science
Staff Contact: P Adam
UOC6 HPW5 S2

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/s: Practical seat assignments must be obtained at the Biological Science Student Office (Rm G27 Biological Sciences Bld) BEFORE Session 2 starts. The Course Guide is available for purchase at the same time.

BIOS1201 Molecules, Cells and Genes
School of Biological Science
Staff Contact: P Adam
UOC6 HPW5 S1

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 Geology 53-100, or Biology 53-100, or 3 unit Science 90-150, or 4 unit Science 1-50

Note/s: 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. Practical and tutorial seat assignments must be obtained at the Biology Enrolment Centre on the day of enrolment. The course guide is available for purchase during enrolment week. Equipment required for practical classes is listed in the Course Guide and must be purchased before session starts. Students must consult it for details of the course and assessments. The course commences in Week 1.

BIOS1401 Biology (Optometry)
School of Biological Science
Staff Contact: P Adam
UOC4 HPW4 S1

The course covers the basic principles of cellular and animal biology. Includes practical work.

Note/s: Available only to students in Optometry programs 3950 and 3951.

BIOS2011 Evolutionary and Physiological Ecology
School of Biological Science
Staff Contact: R Brooks
UOC6 HPW5 S1

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

Note/s: Students must enrol at the Biological Science Registration Centre, Room G21, Biological Sciences Building

BIOS2021 Genetics
School of Biological Science
Staff Contact: W Sherwin
UOC6 HPW5 S2
Excluded: BIOS2621

Genome structure and life cycles in prokaryotes and eukaryotes: DNA, gene mapping, cytogenics. 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, CHEM1011 or CHEM1101

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. Students must enrol at the Biological Science Registration Centre, Room G21, Biological Sciences Building

BIOS2031 Biology of Invertebrates
School of Biological Science
Staff Contact: I Suthers
UOC6 HPW5 S2

A comparative study of morphology, taxonomy, functional biology and evolutionary relationships of invertebrates. Emphasis on major phyla and marine forms. Practical work includes anatomy of living and preserved specimens (including dissections) , the pragmatic use of identification keys and how animals adapt to the environment. Personal expenses will be incurred.

Assumed Knowledge:BIOS1101 and BIOS1201

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. There is a compulsory field camp during the mid session break.

BIOS2041 Biometry
School of Biological Science
Staff Contact: R McMurtrie
UOC6 HPW5 S1

Development of skills in applying statistics to biological data. Design and analysis of biological experiments. Sampling strategies for estimating population size. Analysis of community structure using multivariate statistics. Simulation modelling in population biology, and statistical fitting of non-linear models to population growth data. Improving

statistical models using analysis of residuals. Examples will be drawn from ecological, behavioural, genetic, microbial and immunological data. Practical work emphasises problem-solving and hands-on experience with computer packages.

BIOS2051 Flowering Plants
School of Biological Science
Staff Contact: A Ashford
UOC6 HPW5 S2

Basic plant biology including cell structure, plant morphology and anatomy, water and sugar transport, seed structure and physiology, plant growth and development arborescence, leaves and photosynthesis, roots, micro-organisms and nutrition, evolution of land plants and plant taxonomy. Practical work: plant anatomy and light microscopy; plant identification.

Assumed Knowledge:BIOS1101 and BIOS1201

Note/s: Students must enrol at the Biology Enrolment Centre, Room G21, Biological Sciences Building

BIOS2061 Vertebrate Zoology
School of Biological Science
Staff Contact: P Banks
UOC6 HPW5 S1

Comparative study of the Chordata, with particular reference to the vertebrates, including morphology, systematics, evolution and natural history, with reference to selected aspects of physiology and reproduction. Practical work to supplement lectures.

Assumed Knowledge:BIOS1101 and BIOS1201

Note/s: Practical class allocations must be obtained during re-enrolment week from room G21, Biological Science Building. Enrolment in this course may be subject to quota restrictions. Such restrictions will only apply to students taking this course as an elective. Field excursions are compulsory and will involve expense to individual students.

BIOS2621 Genetics (Advanced Level)
School of Biological Science
Staff Contact: W Sherwin
UOC6 HPW6 S2
Excluded: BIOS2021

Genome structure and life cycles in prokaryotes and eukaryotes: DNA, gene mapping, cytogenics,. 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 humans and genetic engineering. The Advanced Level course will involve additional projects, practicals and tutorials.

Assumed Knowledge:BIOS1101, BIOS1201, CHEM1011

Note/s: Available to students in 3990 (Advanced Science, Life Sciences) and, subject to availability of places, to other high performing students. Students must enrol at the Biological Science Registration Centre, Room G21, Biological Sciences Building.

BIOS3011 Animal Behaviour
School of Biological Science
Staff Contact: D Croft
UOC6 HPW5 S2

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 Science
Staff Contact: M Beal
UOC6 HPW5 S1

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.

BIOS3061 Plant Ecosystem Processes
School of Biological Science
Staff Contact: G Hyde
UOC6 HPW5 S1

Interactions of plants with their soil and atmospheric environments. Plant growth and decomposition processes. Cycling of carbon, water and nutrients in plant ecosystems. Role of fungi in ecosystems. Mineral nutrition and water uptake in plants. Root systems. Plant strategies for improving mineral nutrition. The role of symbiosis in mineral nutrition. Impacts of global change on vegetation. Role of terrestrial ecosystems in the global carbon budget. Relating vegetation to climate.

BIOS3071 Conservation Biology and Biodiversity
School of Biological Science
Staff Contact: W Sherwin
UOC6 HPW5 S1
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. Field excursions are compulsory and will involve expense to individual students.

Assumed Knowledge:BIOS1101 and BIOS1201

Note/s: Students must enrol at the Biology Enrolment Centre, Room G21, Biological Sciences Building

BIOS3081 Ocean Biology and Fisheries
School of Biological Science
Staff Contact: I Suthers
UOC6 HPW5 S1
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 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.

Assumed Knowledge:BIOS2031 and BIOS2041

Note/s: A compulsory field trip will be held during the mid-session break.

BIOS3091 Marine and Aquatic Ecology
School of Biological Science
Staff Contact: A Poore
UOC6 HPW5 S2

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.

BIOS3111 Population and Community Ecology
School of Biological Science
Staff Contact: R McMurtrie
UOC6 HPW5 S2
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.

BIOS3161 Life in Arid Lands
School of Biological Science
Staff Contact: D Croft
UOC6 HPW5 S2

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, salination 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.

BIOS3301 Population and Community Ecology for Environmental Engineers
School of Biological Science
Staff Contact: R McMurtrie
UOC3 HPW3 S2

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/s: Restricted to Environmental Engineering Programs.

BIOS3601 Advanced Field Biology
School of Biological Science
Staff Contact: P Banks
UOC6 HPW45 S1

An advanced practical training in diversity, systematics, biology and identification of terrestrial animals and plants. The course is run principally as an intensive 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: BIOS2041 and familiarity with principles of systematics

Note/s: Available to students in 3990 (Advanced Science, Life Sciences) with unfilled places available to students in courses 3976 (Environmental Science, Biological Environments) and 3970 (Biological Science and Ecology Majors with a credit average).

BIOS3671 Conservation Biology and Biodiversity (Advanced Level)
School of Biological Science
Staff Contact: W Sherwin
UOC6 HPW6 S1
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:BIOS1101 and BIOS1201

Note/s: Available to students in 3990 (Advanced Science, Life Sciences) and, subject to availability of places, to other high performing students. Students must enrol at the Biology Enrolment Centre, Room G21, Biological Sciences Building.

BIOS3681 Ocean Biology and Fisheries (Advanced Level)
School of Biological Science
Staff Contact: I Suthers
UOC6 HPW6 S1
Excluded: BIOS3081

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, BIOS2041

Note/s: Available to students in 3990 (Advanced Science, Life Sciences) and, subject to the availability of places, to students in BEnvironSci (Biology 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-seesion break.

BIOS4511 Essential Skills Biology Honours
School of Biological Science
Staff Contact: D Sandeman
Enrolment requires school approval
UOC6 S1 S2

The course covers essential skills needed for the Honours project and any subsequent degree as well as in outside employment. Principal topics covered include presentation skills (written, oral and audiovisual including computer-aided presentations), database and library usage, information retrieval and usage of major computer packages as well as more specific research skills which may be tailored to particular interest groups.

BIOS4513 Biological Science Honours A (P/T)
School of Biological Science
Staff Contact: D Sandeman
Enrolment requires school approval
UOC10.5 S1 S2

A major research project in Biological Science

Note/s: Plus BIOS4511. If enrolment for Stage 4 is part-time, students must complete the course work requirements in year 1. 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.

BIOS4514 Biological Science Honours B
School of Biological Science
Staff Contact: D Sandeman
Enrolment requires school approval
UOC24 S1 S2

A 24UOC research project in Biological Science, to be completed within a single session.

Note/s: Plus BIOS4511, BIOS4521 and 12UOC biology 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 Science
Staff Contact: D Sandeman
Enrolment requires school approval
UOC18 S1 S2

A 18UOC research project in Biological Science, to be taken in combination with BIOS4518, to total 24UOC over 2 sessions.

Note/s: Plus BIOS4511, BIOS4521 and 12UOC biology 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 Science
Staff Contact: D Sandeman
Enrolment requires school approval
UOC12 S1 S2

A 12UOC research project in Biological Science taken for two sessions to total 24UOC.

Note/s: Plus BIOS4511, BIOS4521 and 12UOC biology 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.

BIOS4517 Biological Science Honours A (Full Time)
School of Biological Science
Staff Contact: D Sandeman
Enrolment requires school approval
UOC21 S1 S2

A major research project in Biological Science

Note/s: Plus BIOS4511. 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 Science
Staff Contact: D Sandeman
Enrolment requires school approval
UOC6 S1 S2

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/s: Plus BIOS4511, BIOS4521 and 12UOC biology 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.

BIOS4521 Special Topics in Biology
School of Biological Science
Staff Contact: G Hyde
Enrolment requires school approval
UOC6 S1 S2

Literature research and presentation assignments in areas of biology not specifically covered in other courses in the program. The program is designed to expand coverage of biological topics and to integrate material present in earlier BIOS courses; Provide experience in location, presentation and discussion of biological information.

Note/s: Available to students enrolled in Strand B of BIOS Honours, Strands B and C of ENVS Honours and other Honours students in a biological discipline as approved by the Honours Coordinator

BIOS4523 Botany Honours A
School of Biological Science
Staff Contact: D Sandeman
Enrolment requires school approval
UOC10.5 S1 S2

A major research project in Botany.

Note/s: Plus BIOS4511. If enrolment for Stage 4 is part-time, students must complete the course work requirements in year 1. 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 Science
Staff Contact: D Sandeman
Enrolment requires school approval
UOC24 S1 S2

A 24UOC research project in Botany, to be completed within a single session.

Note/s: Plus BIOS4511, BIOS4521 and 12UOC biology 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 Science
Staff Contact: D Sandeman
Enrolment requires school approval
UOC18 S1 S2

A 18UOC research project in Botany, to be taken in combination with BIOS4528, to total 24UOC over 2 sessions.

Note/s: Plus BIOS4511, BIOS4521 and 12UOC biology 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 Science
Staff Contact: D Sandeman
Enrolment requires school approval
UOC12 S1 S2

A 12UOC research project in Botany taken over two sessions to total 24UOC.

Note/s: Plus BIOS4511, BIOS4521 and 12UOC biology 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.

BIOS4527 Botany Honours A (F/T)
School of Biological Science
Staff Contact: D Sandeman
Enrolment requires school approval
UOC21 S1 S2

A major research project in Botany.

Note/s: Plus BIOS4511. 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 Science
Staff Contact: D Sandeman
Enrolment requires school approval
UOC6 S1 S2

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/s: Plus BIOS4511, BIOS4521 and 12UOC biology 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.

BIOS4533 Zoology Honours A (P/T)
School of Biological Science
Staff Contact: D Sandeman
Enrolment requires school approval
UOC10.5 S1 S2

A major research project in Zoology.

Note/s: Plus BIOS4511. If enrolment for Stage 4 is part-time, students must complete the course work requirements in year 1. 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 (F/T)
School of Biological Science
Staff Contact: D Sandeman
Enrolment requires school approval
UOC24 S1 S2

A 24UOC research project in Zoology, to be completed within a single session.

Note/s: Plus BIOS4511, BIOS4521 and 12UOC biology 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 Science
Staff Contact: D Sandeman
Enrolment requires school approval
UOC18 S1 S2

A 18UOC research project in Zoology, to be taken in combination with BIOS4538, to total 24UOC over 2 sessions.

Note/s: Plus BIOS4511, BIOS4521 and 12UOC biology 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 Science
Staff Contact: D Sandeman
Enrolment requires school approval
UOC12 S1 S2

A 12UOC research project in Zoology taken for two sessions to total 24UOC.

Note/s: Plus BIOS4511, BIOS4521 and 12UOC biology 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.

BIOS4537 Zoology Honours A (F/T)
School of Biological Science
Staff Contact: D Sandeman
Enrolment requires school approval
UOC21 S1 S2

A major research project in Zoology.

Note/s: Plus BIOS4511. 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 Science
Staff Contact: D Sandeman
Enrolment requires school approval
UOC6 S1 S2

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/s: Plus BIOS4511, BIOS4521 and 12UOC biology 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.

BIOS4543 Ecology Honours A (P/T)
School of Biological Science
Staff Contact: D Sandeman
Enrolment requires school approval
UOC10.5 S1 S2

A major research project in Ecology.

Note/s: Plus BIOS4511. If enrolment for Stage 4 is part-time, students must complete the course work requirements in year 1. 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 Science
Staff Contact: D Sandeman
Enrolment requires school approval
UOC24 S1 S2

A 24UOC research project in Ecology, to be completed within a single session.

Note/s: Plus BIOS4511, BIOS4521 and 12UOC biology 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 Science
Staff Contact: D Sandeman
Enrolment requires school approval
UOC18 S1 S2

A 18UOC research project in Ecology, to be taken in combination with BIOS4548, to total 24UOC over 2 sessions.

Note/s: Plus BIOS4511, BIOS4521 and 12UOC biology 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 Science
Staff Contact: D Sandeman
Enrolment requires school approval
UOC12 S1 S2

A 12UOC research project in Ecology, taken for two sessions to total 24UOC.

Note/s: Plus BIOS4511, BIOS4521 and 12UOC biology 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.

BIOS4547 Ecology Honours A (F/T)
School of Biological Science
Staff Contact: D Sandeman
Enrolment requires school approval
UOC21 S1 S2

A major research project in Ecology.

Note/s: Plus BIOS4511. 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 Science
Staff Contact: D Sandeman
Enrolment requires school approval
UOC6 S1 S2

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/s: Plus BIOS4511, BIOS4521 and 12UOC biology 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
Department of Biotechnology
Staff Contact: D Glenn
UOC6 HPW4 S2

This course will focus on the overview of the impact of biotechnology in the achievement of contemporary objectives in the field of medicine, plant and animal science, in food, marine and environmental sciences and draw comparisons with conventional technologies. The concepts of bioethics, patenting and other regulatory issues will also be introduced. The course is intended to cover the broad concept of biotechnology, its historical and contemporary relevance.

BIOT3011 Biotechnology A
Department of Biotechnology
Staff Contact: D Glenn
UOC6 HPW6 S1
Prerequisite/s: BIOC2101, BIOC2201
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.

BIOT3021 Biotechnology B: Biotechnology and Bioprocessing
Department of Biotechnology
Staff Contact: P Rogers
UOC6 HPW6 S2
Prerequisite/s: BIOT3011

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 antobiotics, 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.

BIOT3061 Biopharmaceuticals
Department of Biotechnology
Staff Contact: S Mahler
UOC6 HPW6 S2
Prerequisite/s: BIOC2101, BIOC2201

The human health care industry is entering an exciting new era, with a wide range of biopharmaceuticals now approved for human use. The sequencing of the human genome, the evolution of new methods for the 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 analytical biotechnology including mass spectrometry. On-line bioinformatics tutorials and assignments associated with model biopharmaceuticals are included in the practical program.

BIOT3071 Commercial Biotechnology
Department of Biotechnology
Staff Contact: P Gray
UOC6 HPW4 S2

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; licencing 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 (GMO s) 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 theraputic goods; regulatory procedures for biotechnology derived therapeutics, process validation. Marketing, licencing and business case studies.

BIOT3081 Environmental Biotechnology
Department of Biotechnology
Staff Contact: L Foster
UOC6 HPW5 S2

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. Similarly, 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.

BIOT3100 Fundamentals of Biotechnology
Department of Biotechnology
Staff Contact: L Foster
UOC3 HPW2 S2

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, bioresources 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/s: Restricted to programs 3055, 3100 and 3040.

BIOT3611 Biotechnology A (Advanced)
Department of Biotechnology
Staff Contact: D Glenn
UOC6 HPW6 S1
Prerequisite/s: BIOC2101, BIOC2201
Excluded: BIOT3011

This course is available to Advance Science students or as an advanced option to students in other appropriate science programs. The advanced course differs to Biotechnology A (BIOT3011) by providing greater opportunities for self-directed learning, separate laboratory practicals, and for research planning under the guidance of mentors from the academic or research staff. The lecture component of the course differs from that in BIOT3011 in the number and content of lecture and laboratory exams.The goal of the course is to build on the fundamentals acquired in previous courses and develop an understanding of the commercial applications of biological systems. The course will consider the principles involved in microbial processes for chemical, pharmaceutical and food production on a commercial scale. The lecture component will address the nature of the genetic tools used to optimise product formation; the influence of environmental factors on microbial productivity; biodiversity issues; bioprocesses; the nature of industrially important cell types from prokaryotic to higher eukaryotic cells; and the commercial and marketing issues inherent in biotechnological processes. Lectures are supplemented by industrial presentations. The laboratory component includes manipulation of industrially important microorganisms. The development of team skills in a critical review of current research areas is a feature of the course. The course is intended for students interested in the commercial and multidiscplinary perspectives of processes using microbial and other cell types.

BIOT3621 Biotechnology B: Biotechnology and Bioprocessing (Advanced)
Department of Biotechnology
Staff Contact: P Rogers
UOC6 HPW6 S2
Prerequisite/s: BIOT3611

The course covers the bioprocessing and economic principles involved in the operation, development and design of large scale biotechnology-based processes. It includes analysis of fermentation kinetics, batch and continuous modes of operation, bioprocess optimisation, principles of fermentor scale up, downstream processing and bioprocess design as well as principles of economic feasibility analysis. Selected bioprocesses will be examined in detail, including ethanol from renewable resources, amino acid production, antibiotics, large scale manufacture of plasmid DNA, production of viral vectors for gene therapy and the manufacture of therapeutic recombinant proteins from bacterial, yeast and mammalian hosts. Laboratory sessions and case studies will supplement lecture material.The advanced course in Biotechnology B will cover the same core material as Biotechnology B (BIOT3021), but will have a more extensive laboratory/ research component integrated with a technical/ economic feasibility evaluation and business plan for a new recombinant product.

BIOT4053 Research Project - Biotechnology
Department of Biotechnology
Staff Contact: S Mahler
Enrolment requires school approval
UOC18 HPW18 S1 S2

The experimental investigation of some aspects of biotechnology.

Note/s: Restricted to programs 3052.

BIOT4064 Research Project Theory
Department of Biotechnology
Staff Contact: C Marquis
Enrolment requires school approval
UOC3 S1 S2 X1

The course requires that a student elect a topic in Bioprocess Engineering and undertake a literature survey under the supervision of member of staff. This forms the basis of actual project work undertaken in BIOT4065.

BIOT4065 Research Project Practice
Department of Biotechnology
Staff Contact: C Marquis
Enrolment requires school approval
UOC6 S1 S2
Prerequisite/s: BIOT4064

A practical investigation of an aspect of bioprocess engineering is undertaken under the supervision of a staff member. A written thesis on the experimental work is submitted and an oral presentation of the major research findings is undertaken. Students can select reserch project areas from the following: microbial and yeast fermentation, production of recombinant proteins, enzymatic transformations, plant cell culture, mammalian cell culture, environmental biotechnology including bioleaching and bioremediation.

Note/s: Restricted to program 3055.

BIOT4073 Biotechnology Honours Full-Time
Department of Biotechnology
Staff Contact: D Glenn
Enrolment requires school approval
UOC24 S1 S2

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/s: Restricted to program 3990.

BIOT4093 Biological Process Engineering
Department of Biotechnology
Staff Contact: C Marquis
UOC12 HPW6 S1 S2
Prerequisite/s: MICR2201

This course includes coursework material in bioprocess engineering principles and modern biotechnology techniques. Also incorporated in this course is a practical component. Bioprocess engineering principles covered include basic metabolic pathways, stoichiometry and kinetics of growth and product formations, heat balances, secondary metabolite productions and structural kinetic models, sterilisation, oxygen mass transfer, mixing, instrumentation, down- stream processing, legal and ethical issues related to biotechnology products. Principles are applied to a variety of processes including cell culture-derived biopharmaceuticals.

Note/s: Restricted to program 3055.

BLDG1002 Construction 2 (Low Rise Residential)
Building Construction Management Program
Staff Contact: P Forsythe
UOC4 HPW4 S2
Prerequisite/s: BLDG1201

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.

BLDG1010 Communications and Resource Usage
Building Construction Management Program
Staff Contact: J Kim
UOC3 HPW2 S1

Using the library. Accessing information: reading, summarising and report writing. Organization of and participation in meetings, seminars and lectures. Graphic communication: photography, drafting and detailing.

BLDG1051 Structures 1
Building Construction Management Program
Staff Contact: O Greste
UOC4 HPW3 S2

This course presents the concepts of static force equilibrium for statically determinate structures, and introduces the concepts of structural design. Topics covered include loads on structures; external and internal forces; conditions of force and moment equilibrium; free body diagrams; 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. In addition, a number of case studies are presented to show how structures of various types support vertical and lateral loads.

BLDG1091 Built Environment 1
Building Construction Management Program
Staff Contact: School Office
UOC3 HPW2 S1

The intention is to develop an understanding of the relevance of man's culture (that thing which his social, economic, political, religious and physical environment gives rise to) to the nature of buildings and settlements which he devises, and an appreciation of the architecture and building (in particular in terms of materials and construction) of those cultures which can be seen to be providing the line to modern 'western' building from as far back as 'the stone ages'.

BLDG1111 Building Science 1 (Materials)
Building Construction Management Program
Staff Contact: M Marosszeky
UOC4 HPW4 S1

Properties of materials; plasticity, elasticity, density, porosity, hardness. Optical, electrical, thermal and acoustic properties. Deterioration. Properties and manufacture of building materials; wood, wood products, cements, limes, concrete, bricks, metals, fibre cement, ceramics, plastics, sealants and mastics, stones.

BLDG1151 Building Services 1 (Hydraulics)
Building Construction Management Program
Staff Contact: School Office
UOC3 HPW2 S1

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.

BLDG1201 Construction 1 (Domestic Construction)
Building Construction Management Program
Staff Contact: P Forsythe
UOC4 HPW4 S1

Functional requirements and methods of building single 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 report on house construction.

BLDG1210 Construction Maths
Building Construction Management Program
Staff Contact: School Office
UOC3 HPW2 S1

Calculus: differentiation and integration; practical applications. 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.

BLDG1261 Management 1 (Management Principles)
Building Construction Management Program
Staff Contact: T Uher
UOC4 HPW2 S1

Basic management principles; functions of management; management objectives. Structure of the construction industry; benchmarking; total quality management; constructability; partnering and strategic alliance; reengineering. Development process and statutory controls.

BLDG1271 Law for Builders 1
Building Construction Management Program
Staff Contact: School Office
UOC3 HPW2 S2

Law, including 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 obligation. Court structures; sale of goods; a general introduction to the law of bankruptcy. General principles of law of agency. Law of partnership.

BLDG1411 Building Economics 1 (Micro Economics)
Building Construction Management Program
Staff Contact: School Office
UOC4 HPW2 S2

The theory of prices and allocation of goods and services; An introduction to welfare economics. The economic structure and function of the building and construction industry, illustrated with examples. An introduction to investment analysis.

BLDG2003 Construction 3 (Framed Buildings)
Building Construction Management Program
Staff Contact: X Zou
UOC4 HPW4 S1
Prerequisite/s: BLDG1002

Study of structural steel and concrete frames; large span factory roofing, precast concrete walling, welding techniques, fire requirements, cladding methods, installation of cranes and machine footings, site works, dewatering, shoring, piling on site observation and report on factory building.

BLDG2112 Building Science 2 (Concrete and Metals)
Building Construction Management Program
Staff Contact: School Office
UOC4 HPW4 S2

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 building: structural ferrous alloys; structural and architectural nonferrous 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.

BLDG2152 Building Services 2 (Mechanical)
Building Construction Management Program
Staff Contact: School Office
UOC3 HPW2 S2

Ventilation theory; ventilation systems and equipment; refrigeration theory; air conditioning heat loads; air conditioning equipment; electrical equipment; telephones and security; lifts and escalators; detection and fire protection; garbage and incinerators.

BLDG2261 Management 2 (Planning and Control)
Building Construction Management Program
Staff Contact: T Uher
UOC4 HPW2 S1
Prerequisite/s: BLDG1261, BLDG1271

Operation research techniques and their relevance to building; concept of planning and control; Bar chart, CPM, PERT, line of balance, multiple activity chart; computer applications of CPM. Principles and application of work study. Introduction to risk management and decision theory.

BLDG2264 Management 3 (Contracts)
Building Construction Management Program
Staff Contact: T Uher
UOC4 HPW2 S2
Prerequisite/s: BLDG1261

Introduction to contracts management; project lifecycle; options for project delivery and contract price; subcontracting. Analysis of standard forms of contract; contract disputes; litigation, arbitration and mediation; contract insurance; restitution.

BLDG2301 Quantity Surveying 1
Building Construction Management Program
Staff Contact: P Marsden
UOC4 HPW4 S2
Prerequisite/s: BLDG1002

Quantity surveying; historical background; functions of the quantity surveyor; introduction to 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, woodwork, roofing, concrete and groundwork.

BLDG2400 Research Methods
Building Construction Management Program
Staff Contact: D McGeorge
UOC3 HPW2 S2

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.

BLDG2411 Building Economics 2 (Macro Economics)
Building Construction Management Program
Staff Contact: School Office
UOC3 HPW2 S1

The function of the national economy and the role economic policies and their impact on the building and construction industry. The national finance system. The role of the Australian economy in the world. Investment analysis.

BLDG2500 Construction Management Project 1
Building Construction Management Program
Staff Contact: School Office
UOC3 HPW2 S2
Prerequisite/s: BLDG1002

An integrated individual or team project that draws together material covered in all courses of the first three semesters of the Program. Simulation of construction conditions including technical, management, business and social aspects that have to be considered by the construction professional.

BLDG3004 Construction 4 (High Rise Buildings)
Building Construction Management Program
Staff Contact: X Zou
UOC4 HPW4 S1
Prerequisite/s: BLDG2003, BLDG1051

Functional requirements and building techniques of highrise buildings and major building projects; structural systems, enclosure systems and environmental control systems and their interrelation from a construction standpoint; various methods and materials commonly used to solve functional demands; comparison of systems of construction, selection of plant and equipment cranes hoists concrete pumps etc.; principles of fire protection in highrise projects; cladding in concrete, metal and glass; ceiling and partition systems; integration and coordination of services. On site observation and report on high rise building.

BLDG3005 Construction 5 (Techniques)
Building Construction Management Program
Staff Contact: X Zou
UOC4 HPW4 S2
Prerequisite/s: BLDG3004

Specialised building techniques employed on major projects including the use of plant, equipment and various construction systems: excavation equipment, shoring, ground anchorage, pile drivers, formwork, slip form, cranage, concrete handling. Construction methods with minimal impact on the environment. Integrated construction systems. Students undertake onsite studies. Emphasis on method of construction rather than the attributes of the finished product.

BLDG3052 Structures 2
Building Construction Management Program
Staff Contact: O Greste
UOC4 HPW3 S1
Prerequisite/s: BLDG1051

This course presents the principles of structural design for strength, stability and serviceability. Case studies of structural failures are examined as a means to understanding structural design principles. The focus is on the design of steel and concrete structures using limit state design. Topics covered include loads on structures; load carrying mechanisms in various structure types; failure modes in beams and columns; design of beams and columns in steel; bolted joints in steel structures; design of reinforced concrete beams and slabs for bending, shear, deflection; concrete bond and anchorage; durability and concrete cover; reinforcement in columns, footings and other elements; reinforcement detailing.

BLDG3070 Geotechnical Engineering for Building
Building Construction Management Program
Staff Contact: G Swarbrick
UOC3 HPW2 S2

Engineering Knowledge for Construction Management graduates of geotechnical matters relating to investigations, design and construction of buildings enabling them to discuss and brief civil and geotechnical engineers to do the work; supervise personnel carrying out construction quality control; understand the advantages and limitations of types of foundations systems; design footings and simple retaining walls for temporary construction.

BLDG3266 Management 4 (People Management)
Building Construction Management Program
Staff Contact: M Loosemore
UOC3 HPW2 S1
Prerequisite/s: BLDG1261

Definition of Personnel Management and Human Resources Management. Stages in the development of human resources management. The leadership/ management dialectic. Inter-personnel skill development. Team building. Performance management and continuous improvement.

BLDG3272 Law for Builders 2
Building Construction Management Program
Staff Contact: School Office
UOC3 HPW2 S1 S2
Prerequisite/s: BLDG1271

Commercial law; Corporations; Trade practices; Consumer protection; Torts; Remedies; Succession; Local government; Real property; Administrative law.

BLDG3275 Management 5 (Construction and Quality Management)
Building Construction Management Program
Staff Contact: J Kim
UOC4 HPW2 S2
Prerequisite/s: BLDG1261

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 quality management; quality management in design and construction including QC, QA and TQM. Application of ITP based tools. Benchmarking.

BLDG3280 Occupational Psychology, Health and Safety
Building Construction Management Program
Staff Contact: School Office
UOC3 HPW2 S1

History of Industrial Relations in Australia. Enterprise agreements. Restructuring Federal and New South Wales Government policies. State and Federal awards. EEO and OH&S. Proactive site safety management. Statutory safety requirements.

BLDG3282 Computer Applications in Building
Building Construction Management Program
Staff Contact: O Greste
UOC4 HPW2 S2
Prerequisite/s: BENV1141
Excluded: BENV2401

This course discusses computer applications for construction project management, and the creation and distribution of information within the building industry. It includes topics such as: networking and communication technologies; digital document formats and environment; spreadsheets; database systems; computer programs for project planning, cost estimating and cost management; shared project information databases; and CAD product modeling standards for interoperability with estimating and planning applications. The course involves practical use of spreadsheet, data base, and project planning programs, with a focus is on developing good skills with the Excel spreadsheet program.

BLDG3303 Quantity Surveying 2
Building Construction Management Program
Staff Contact: P Marsden
UOC4 HPW4 S1
Prerequisite/s: BLDG2301

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.

BLDG3321 Estimating 1
Building Construction Management Program
Staff Contact: School Office
UOC4 HPW2 S1
Prerequisite/s: BLDG2301

Introduction to techniques used by building estimators. Topics include the analysis of costs of material, plant and labour, and the estimation of unit rates; labour and plant scheduling, preliminary items, general and site overheads, the preliminary estimate.

BLDG3500 Construction Management Project 2
Building Construction Management Program
Staff Contact: School Office
UOC6 HPW4 S2
Prerequisite/s: BLDG2500

An integrated individual or team project that draws together material covered in all subjects of the first five semesters of the Program. Projects are drawn from the field of Facilities Management (FM), with emphasis on the development of integrative and problem solving skills; communication skills; research and analytical methods and professional practice. The nature of the topic of FM encourages the exploration of some of the wider roles which construction managers can play in the modern construction environment.

BLDG4275 Dispute Avoidance and Resolution
Building Construction Management Program
Staff Contact: School Office
UOC3 HPW2 S2
Prerequisite/s: BLDG2264

Nature of claims, remedies, alternative dispute resolution, mediation, expert appraisal, litigation, moot arbitration.

BLDG4303 Quantity Surveying 3
Building Construction Management Program
Staff Contact: P Marsden
UOC3 HPW3 S2
Prerequisite/s: BLDG3303

Functions of the cost planner; liaison with consultants; cost planning techniques including practical exercises; cost control and design economics; professional practice.

BLDG4314 Building Economics 3
Building Construction Management Program
Staff Contact: School Office
UOC6 HPW3 S2
Prerequisite/s: ACCT9002

The business environment; business structures; taxation, depreciation; operating costs; economics of building plant and materials handling systems; financial control in the erection, management and demolition of buildings.

BLDG4422 Estimating 2
Building Construction Management Program
Staff Contact: P Marsden
UOC6 HPW3 S1
Prerequisite/s: BLDG3321

Advanced estimating techniques, competitive tendering, contract cost adjustments; computer techniques applied to estimating.

BLDG4492 Property Development and Valuation
Building Construction Management Program
Staff Contact: J Kim
UOC3 HPW3 S2

A total approach to the building process through the four stages of pre-design, design, construction and post-construction. Market research, establishing client's needs, site selection and analysis, feasibility studies and financing methods. General principles of valuation. Judicial valuation, legal precedent, land titles and rights. Depreciation assessment. Building maintenance cycles. Time value of money and equivalence. Methods and philosophies of determining market valuations. Preparation of development applications cost value analysis, value management LCC and services integration.

BLDG4501 Thesis Foundation
Building Construction Management Program
Staff Contact: D McGeorge
UOC6 S1 S2
Prerequisite/s: BLDG2400, BLDG3500

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
Staff Contact: D McGeorge
UOC9 S1 S2
Prerequisite/s: BLDG4501

Thesis: for Honours Degree. Results of research on selected Thesis topic. Thesis requires the student to survey the literature on the chosen topic, develop an hypothesis, collect information and data, effectively process and document the research results and draw reasoned conclusions from them. Project: for Pass Degree. An in depth structured study or state of the art study of a technical topic. It should rely strongly on recent authoritative information and should synthesise the knowledge embodied in the technical literature in a well structured manner seeking to address a significant technical question with rigour.

BLDG9998 Quantity Surveying Industry Program
Building Construction Management Program
Staff Contact: P Marsden
UOC12 S1 S2

Students proposing to apply for membership in the Australian Institute of Quantity Surveyors 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 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 Industry Program
Building Construction Management Program
Staff Contact: P Marsden
UOC12 S1 S2

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.

BSSM1110 Perspectives in Medical Science 1
School of Science and Technology Studies
Staff Contact: S Hardy
UOC3 HPW2 S2

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 by written work and participation, open-book class test. For information regarding this course, please contact the School of Science and Technology Studies.

BSSM2220 Perspectives in Medical Science 2
School of Medical Sciences
Staff Contact: J Carmody
UOC3 HPW2 S2

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 BSSM1110, 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 to 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.

BSSM4013 Combined Geology Physics Honours Full-Time
Faculty of Science
Staff Contact: Science Student Office
Enrolment requires school approval
UOC24 S1 S2

Combines Geology and Physics, made by arrangement with the Heads of the two Schools.

CEIC0010 Mass Transfer and Material Balances
School of Chemical Eng and Industrial Chemistry
Staff Contact: M Brungs
UOC3 HPW3 S1
Prerequisite/s: CHEM1101, CHEM1201, CIVL2505

Mechanisms and models of mass transfer at fixed and free interfaces. Diffusion. Convection. Adsorption. Phase equilibria. Calculation of mass transfer rates at surfaces with simple geometry. Mass transfer in dispersions. Applications of material balances to process calculations in chemical operations. Conventions in methods of analysis and measurement. Stoichiometry. Process calculations associated with gases and liquids. Problems involving bypass, recycle and purge. Differential material balances. Energy balances. Environmental engineering applications.NOTE: Servicing Course ie. a course taught within courses offered by other Faculties.

CEIC0030 Environmental Protection in the Process Industries
School of Chemical Eng and Industrial Chemistry
Staff Contact: P Crisp
UOC6 S1 S2
Prerequisite/s: CEIC0010, INDC4120

The course comprises four components: Process safety; Reliability. Failure rate. Series, parallel and redundant systems. Hazard and operability studies (HAZOP). Risk criteria. Fault treee analysis. Quantitative risk assessment. Pressure and explosion relief. Laboratory safety. Industrial air pollution control; Ventilation. Gas cleaning. Inertial collection. Fabric filtration. Wet scrubbing. Electrostatic precipitation. Removal of pollutant gases. Choice of gas cleaning equipment. Industrial waste treatment; Clean technology. Air pollution. Industrial water pollution control Membrane technology. Waste minimisation. Site remediation. Odour monitoring laboratory. Catalyst technology. Invited lectures. Industry visit. Report writing. Presentation of reports. Case studies. Analysis of pollutants; Laboratory-based component, covering the principal methods used for environmental trace analysis. Gas chromatography. Liquid chromatography. Visible, UV and IR spectrophotometry. Atomic emission and absorption spectrophotometry.Note: Servicing Course ie: a course taught within a Program offered by other Faculties.

CEIC0050 Atmospheric Process Chemistry
School of Chemical Eng and Industrial Chemistry
Staff Contact: P Crisp
UOC3 HPW3 S1
Prerequisite/s: CHEM1101, CHEM1201 or CHEM1011 and CHEM1021 or CHEM1031 and CHEM1041

Provides essential chemistry for understanding the processes which are responsible for air pollution. Composition and structure of the atmosphere. Natural gas chemistry. Free-radical gas-phase chemistry. Sources, transformation and sinks for atmospheric gases. Combustion processes. Smog chemistry. Radiochemistry. Biochemistry of toxic chemicals. Chemistry of polluting processes.

CEIC1010 Introduction to the Chemical Industry
School of Chemical Eng and Industrial Chemistry
Staff Contact: F Lucien
UOC3 HPW3 S1

Introduction to basic Chemical Engineering and Industrial Chemistry concepts, design, flow sheets, safety and environmental issues. The profession, ethics and careers, Laboratory, Pilot Plant and Industry visits. Case studies of the chemical process industry. Introduction to computing and the student computing facilities, including the use of word processing and spreadsheets within the profession.

CEIC1020 Introduction to Chemical Engineering
School of Chemical Eng and Industrial Chemistry
Staff Contact: F Lucien
UOC6 HPW6 S2

Introduction to material and energy balances. Basic calculations associated with chemical process operations. Units, stoichiometry, composition, pressure, ideal gases, equations of state, phase equilibria, thermal properties, steam tables. This material is in addition to MECH0330 Engineering Mechanics.MECH0330 Engineering Mechanics: Composition and resolution of forces, laws of equilibrium. Friction, static s of rigid bars, pin-jointed frames and beams. Simple states of stress. Statics of fluids. Rectilinear motion, curvilinear motion using rectangular and natural coordinates. Simple rotation. Equations of motion. Work, energy and power. Impulse and momentum.

CEIC1030 Communication & Business Skills
School of Chemical Eng and Industrial Chemistry
Staff Contact: F Lucien
UOC6 S2

Experience is gained in business practices including: company types, structure and organisation, company financing and operation, personnel management, accounting, company law, industrial relations and trade union practices, marketing. A Business Plan is written and company liquidation is undertaken. Product development and quality management issues are covered. Oral and written communication skills are developed.

CEIC2011 Instrumental Analysis - Theory
School of Chemical Eng and Industrial Chemistry
Staff Contact: M Brungs
UOC3 HPW3 S1

Data treatment, error analysis, sampling. Basic principles of volumetric analysis. Solubility and pH calculations. Electronic analysis: potentiometric, voltametric and coulometric. Spectrophotometric analysis: UV/visible, atomic emission, atomic absorption, X ray diffraction and fluorescence. Chromatographic analysis: gas chromatography, high performance liquid chromatography, and ion chromatography.

CEIC2012 Instrumental Analysis - Prac
School of Chemical Eng and Industrial Chemistry
Staff Contact: M Brungs
UOC3 HPW3 S2
Prerequisite/s: CEIC2011

Development of laboratory skills with a range of analytical instruments which includes: Selective ion electrode, polarography, potentiometric titrations, UV/Visible spectrophotometery, X-Ray Fluorescence and Diffraction, Gas and Ion chromatography.

CEIC2020 Introduction to Numerical Methods
School of Chemical Eng and Industrial Chemistry
Staff Contact: T Pham
UOC3 HPW3 S1
Prerequisite/s: CEIC1020, MATH1231 or MATH1241, PHYS1169 or PHYS1111

Computing for scientific and chemical engineering applications using Pascal. Brief review of basic computer concepts. The Pascal 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 Eng and Industrial Chemistry
Staff Contact: D Wiley
UOC3 HPW3 S1
Prerequisite/s: CEIC1020

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 psychometric 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 Eng and Industrial Chemistry
Staff Contact: R Amal
UOC3 HPW3 S1
Prerequisite/s: CEIC1020, PHYS1169 or PHYS1111

Dimensional Analysis. Fundamental concepts of Fluids. Simplification of the Navier-Stokes Equation. Fluid Statics. Integral Equations; continuity, Bernoulli s equation, momentum and energy equations. Flow in closed conduits, including laminar and turbulent flow and losses due to friction. Boundary layer theory. Measurement in Fluid mechanics; viscosity, pressure, velocity, flow rate. Pumps and pumping; blowers, compressors, pipes and fittings. Introduction to Boundary Layer Theory.

CEIC2130 Heat Transfer
School of Chemical Eng and Industrial Chemistry
Staff Contact: R Sheikholeslami
UOC3 HPW3 S2

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 Eng and Industrial Chemistry
Staff Contact: N Foster
UOC4 HPW3 S1 S2
Prerequisite/s: CEIC2110, CHEN2061, OR INDC2040

Introduction to reactor design: ideal batch, steady state mixed flow, steady state plug flow, size comparisons of ideal reactors, optimisation of operating conditions. Multiple reactor systems: reactors series and parallel, mixed flow reactors of different sizes in series, recycle reactors, autocatalytic reactions. Multiple reactions: reactor design for reaction in parallel and reactions in series, series-parallel reactions. Temperature effects: heat of reaction, equilibrium constants, optimum temperature progression, adiabatic and non-adiabatic operation, product distribution and temperature. Kinetics of rate processes: Significance of the rate laws and models for distributed and lumped parameter systems. Experimental measurement and correlation of process rates.

CEIC3070 Process Control
School of Chemical Eng and Industrial Chemistry
Staff Contact: J Bao
UOC4 HPW4 S2
Prerequisite/s: CEIC2011, CEIC2020, MATH2030

Concepts of process control, including: dynamic modelling of processes, linearization, Laplace transforms, transfer functions, 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 Eng and Industrial Chemistry
Staff Contact: V Chen
UOC3 HPW3 S1
Prerequisite/s: CEIC2110, CHEN2061, OR INDC2040

Review of first law of thermodynamics; second law of thermodynamics. Auxiliary functions and conditions of equilibrium. Thermodynamic properties of fluids; thermodynamic properties of homogeneous mixtures. Chemical reaction equilibria; calculation of equilibrium compositions for single reactions. Phase equilibria; the phase rule, equilibrium. Engineering applications of thermodynamics. Heat engines, refrigeration.

CEIC4070 Laboratory Automation Science
School of Chemical Eng and Industrial Chemistry
Staff Contact: J Bao
UOC4 HPW4 S1
Prerequisite/s: CEIC3070

The application of computers, to real-time data acquisition and process control in chemical laboratories and selected processes of interest to

industrial chemists. Introduction to real-time digital operations and data manipulation. Organisation of a process control computer. Hardware considerations. The process computer interface. Sequential and programmable logic control of batch processes. Data acquisition and process monitoring techniques. Digital process control PID controller tuning. Graphics in process monitoring and control. Direct Digital Control.

CEIC4101 Professional Electives Advanced
School of Chemical Eng and Industrial Chemistry
Staff Contact: School Office
UOC3 S2
Prerequisite/s: 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 SHOULD ENROL IN THE SPECIFIC CEIC6000 NOT THE GENERIC CEIC4101 COURSE NUMBER. Not all courses run at any one time.

CEIC4102 Professional Electives Extended
School of Chemical Eng and Industrial Chemistry
Staff Contact: T Tran
UOC3 S1
Prerequisite/s: 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 SHOULD ENROL IN THE SPECIFIC CEIC6000 NOT THE GENERIC CEIC4102 COURSE NUMBER. Not all courses are offered at any one time.

CEIC4103 Professional Electives
School of Chemical Eng and Industrial Chemistry
Staff Contact: T Tran
UOC3 S1
Prerequisite/s: 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 SHOULD ENROL IN THE SPECIFIC CEIC6000 NOT THE GENERIC CEIC4103 COURSE NUMBER. Not all courses are offered at any one time.

CEIC4104 Professional Electives
School of Chemical Eng and Industrial Chemistry
Staff Contact: T Tran
UOC3 S1
Prerequisite/s: 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 SHOULD ENROL IN THE SPECIFIC CEIC6000 NOT THE GENERIC CEIC4104 COURSE NUMBER. Not all courses are offered at any one time.

CEIC4105 Professional Electives
School of Chemical Eng and Industrial Chemistry
Staff Contact: T Tran
UOC3 S2
Prerequisite/s: 132 units of credit

To be chosen from offering in: CEIC6101 Advanced Reaction Engineering; CEIC6102 Advanced Process Control; CEIC6104; Advanced Polymers; CEIC6206 Minerals Engineering - Practice; CEIC6207 Environmental Management 2B; CEIC6208 Business Management in Chemical Engineering B. STUDENTS SHOULD ENROL IN THE SPECIFIC CEIC6000 NOT THE GENERIC CEIC4105 COURSE NUMBER. Not all subjects are offered at any one time.

CEIC4106 Professional Electives
School of Chemical Eng and Industrial Chemistry
Staff Contact: School Office
UOC3 S2
Prerequisite/s: 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 SHOULD ENROL IN THE SPECIFIC CEIC6000 NOT THE GENERIC CEIC4106 COURSE NUMBER. Not all courses are offered at any one time.

CEIC4120 Management and Plant Operation
School of Chemical Eng and Industrial Chemistry
Staff Contact: T Davis
UOC6 S2
Prerequisite/s: 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. Students will be required to operate a computer controlled chemical plant. 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 subject also includes SESC3310: This is an objective 5 subject 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 topic areas, which are: 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 Eng and Industrial Chemistry
Staff Contact: School Office
Enrolment requires school approval
UOC3 S2
Prerequisite/s: 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 subject also includes SESC3310: This is an objective 5 subject 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 topic areas, which are: professional ethics, environmental related issues, safety and liability and controls of future technology.

CEIC4200 Industrial Experience
School of Chemical Eng and Industrial Chemistry
Staff Contact: School Office
UOC18 S1

CEIC4201 Industrial Experience
School of Chemical Eng and Industrial Chemistry
Staff Contact: School Office
UOC18 S2

CEIC6101 Advanced Reaction Engineering
School of Chemical Eng and Industrial Chemistry
Staff Contact: A Adesina
UOC3 S2

This course covers in-depth considerations of the analysis and design of non-isothermal reactors, treatment of variable-density systems, non-catalytic gas-solid reactions (application to minerals processing, pharmaceutics and microelectronic processing), kinetics of heterogenous reactions, diffusion and raction in porous crystals, design of fixed bed reactors, trickle-bed and slurry bed reactors.

CEIC6102 Advanced Process Control
School of Chemical Eng and Industrial Chemistry
Staff Contact: J Bao
UOC3 S2

Concepts of linear Multi-Input Multi-Output (MIMO) systems, state-space representation of process systems, linear spaces and linear operators, controllability and observability analysis, Lyapunov stability analysis, stability of interconnected systems, linear optimal control, frequency-domain analysis and controller synthesis for MIMO process systems. Introduction to model predictive control, system identification, robus control, decentralised control.

CEIC6103 Advanced Particle & Serparation Process
School of Chemical Eng and Industrial Chemistry
Staff Contact: R Amal
UOC3 S2

The course covers lectures and demonstrations on: Particle characterisation and preparation using the latest techniques, floc characterisation and its relevance in separation techniques. There will also be relevant lectures on other aspects of separation technologies, theory and practice, novel applications to industry and environment management.

CEIC6104 Advanced Polymers
School of Chemical Eng and Industrial Chemistry
Staff Contact: T Davis
UOC3 S2

In past years this course has focussed upon three main areas (a) reaction engineering and catalyst aspects of polyolefins; (b) advanced free radical polymerisation; (c) polymers for biomedical applications. The lectures will also cover new methods of polymerisation, new polymers and new applications.

CEIC6201 Minerals Engineering
School of Chemical Eng and Industrial Chemistry
Staff Contact: T Tran
UOC3 S1

Lectures/Tutorials - 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 Eng and Industrial Chemistry
Staff Contact: School Office
UOC3 S1

CEIC6204 Business Mangement in Chemical Engineering A
School of Chemical Eng and Industrial Chemistry
Staff Contact: Contact School
UOC3 S1

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 lemming 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 Eng and Industrial Chemistry
Staff Contact: J Stubington
Enrolment requires school approval
UOC3 S1 S2

Current energy resources and alternatives for the future. Basic princples of fuel conversion processes: gasification, carbonisation, oil refining etc. Introduction to combustion of solid, liquid and gaseous (fossil) fuels.

CEIC6206 Minerals Engineering - Practical
School of Chemical Eng and Industrial Chemistry
Staff Contact: T Tran
UOC3 S2

Practice - This part of the course involves a metallurigical testwork program where students will be required to conduct tests to determine conditions for optimising processing options. Students are required to process an ore using mineral processing equipment to determine optimum design criteria for processing the raw material given into final products.

CEIC6207 Environmental Management 2B
School of Chemical Eng and Industrial Chemistry
Staff Contact: R Burford
UOC3 S2

CEIC6208 Business Managementin CE B
School of Chemical Eng and Industrial Chemistry
Staff Contact: R Burford
UOC3 S2

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, bench-marking.

CEIC6209 Fuel & Energy 2
School of Chemical Eng and Industrial Chemistry
Staff Contact: J Stubington
UOC3 S2

Fundamentals of combustion science and engineering. Fuel plant technology. Energy management and technologies for the efficient use of fuel.

CEIC6210 Biochemical Processing 2
School of Chemical Eng and Industrial Chemistry
Staff Contact: School Office
UOC3 S2

CHEM1000 Chemistry at the Cutting Edge
School of Chemistry
Staff Contact: D Duffy
UOC3 HPW2 S2

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/s: Restricted to Advanced Science students.

CHEM1011 Fundamentals of Chemistry 1A
School of Chemistry
Staff Contact: N Duffy
UOC6 HPW6 S1 S2

Elements, compounds and stoichiometry. Basic atomic structure and periodicity. Properties of gases. Thermodynamics (1st Law). Reactions classes. Equilibrium. Acids and bases. Behaviour of oxides, hydroxides, halides. Reactions of organic compounds. Chemical kinetics.

CHEM1021 Fundamentals of Chemistry 1B
School of Chemistry
Staff Contact: N Duffy
UOC6 HPW6 S2 X1
Prerequisite/s: CHEM1011

Atomic and molecular structure. Properties of solutions. Solids and solubilities. Aqueous chemistry. Thermodynamics (2nd Law, entropy and free energy). Electrochemistry. Mechanisms in organic chemistry.

CHEM1031 Higher Chemistry 1C
School of Chemistry
Staff Contact: N Duffy
UOC6 HPW6 S1

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
Staff Contact: N Duffy
UOC6 HPW6 S2
Prerequisite/s: CHEM1031

Properties of gases. Atmospheric chemistry. Properties of liquids and solids. Solubility and properties of solutions.Thermodynamics and equilibrium. Aqueous chemistry. Electrochemistry. Includes advanced laboratory work.

CHEM1817 Chemistry 1ME
School of Chemistry
Staff Contact: N Duffy
UOC3 HPW3 S2 X1
Excluded: CHEM1101, CHEM1201, CHEM1031, CHEM1041

Stoichiometry. Atomic and molecular structure. States of Matter, Equilibrium, Oxidation and reduction, electro-chemistry and corrosion of metals. Introduction to organic chemistry, structure and properties of polymers.

Note/s: Restricted to Plan 3610, 3663, 3680, 3685, 3700 and 3985 program 0176 Alternative courses are available to avoid timetable clashes. Please consult with School of Chemistry.

CHEM1819 Biological Chemistry for Optometry Students A
School of Chemistry
Staff Contact: N Duffy
UOC6 HPW6 S1

Atomic structure and periodicity. Structure and shapes of molecules. States of matter. Thermodynamics - First and Second laws. Equilibrium; acid-base chemistry and solubility. Electrochemistry; redox chemistry. Chemical reactions, rates and mechanisms.

Assumed Knowledge:A good knowledge of chemistry (corresponding to HSC 2Unit chemistry 65-100)

Note/s: Restricted to program 3950.

CHEM1829 Biological Chemistry for Optometry Students B
School of Chemistry
Staff Contact: N Duffy
UOC6 HPW6 S2
Prerequisite/s: CHEM1819

Carbon compounds and their reactions. Amino acids, proteins, carbohydrates, nucleic acids and lipids. Biological organic chemistry. Enzymology. Bioenergetics, Carbohydrate metabolism; oxidative phosphorylation. Metabolism and hormone function.

Note/s: Restricted to program 3950.

CHEM1900 Chemistry for Prosthetics and Orthotics
School of Chemistry
Staff Contact: N Duffy
UOC3 HPW3 S1

The classification and structure of matter. Molecular structure and bonding. Intermolecular forces. Chemical reactions. Energy and chemical reactions; equilibrium. Structure, properties and reactions of organic compounds relevant to medicine.

Assumed Knowledge:A basic knowledge of chemistry equivalent to year 11 high school level.

Note/s: Only offered off-campus via web delivery.

CHEM2011 Physical Chemistry
School of Chemistry
Staff Contact: N Roberts
UOC6 HPW6 S2
Prerequisite/s: CHEM1011 or CHEM1031, CHEM1021 or CHEM1041, MATH1021 or MATH1031 or MATH1231 or MATH1241.

First, second and third laws of thermodynamics. Applications of thermodynamics. Chemical and phase equilibria. Principles and applications of electrochemistry. Colloid, interface and surface chemistry. Reaction kinetics, temperature and concentration dependence of reaction rates, reaction mechanisms.

Note/s: Alternative courses are available to avoid timetable clashes. Please consult with School of Chemistry.

CHEM2021 Organic Chemistry
School of Chemistry
Staff Contact: N Roberts
UOC6 HPW6 S2
Prerequisite/s: 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
Staff Contact: N Roberts
UOC6 HPW6 S1
Prerequisite/s: CHEM 1011 or CHEM1031, CHEM1021 or CHEM1041
Excluded: CHEM2839

Concepts and consequences of quantum theory. Electronic and geometric structure of atoms and molecules. Solid state chemistry. Coordination chemistry. Transition and post-transition metal chemistry. Chemistry of non-transition elements.

Note/s: Alternative courses are available to avoid timetable clashes. Please consult with School of Chemistry.

CHEM2041 Chemical and Spectroscopic Analysis
School of Chemistry
Staff Contact: N Roberts
UOC6 HPW6 S1
Prerequisite/s: CHEM1011 or CHEM1031, CHEM1021 or CHEM1041, MATH1021 or MATH1031 or MATH1231 or MATH1241
Excluded: CHEM2849

Principles and applications of chemical and analytical spectroscopy. Statistical treatment of data. Titrimetric and potentiometric analysis. Separation techniques.

Note/s: Alternative courses are available to avoid timetable clashes. Please consult with School of Chemistry.

CHEM2718 Physical Chemistry for Materials Science and Engineering
School of Chemistry
Staff Contact: N Roberts
UOC3 S1
Prerequisite/s: CHEM1011 or CHEM1031, CHEM1021 or CHEM1041, MATH1231 or MATH1241 or MATH1021
Excluded: CHEM2011, CHEM2818

Thermodynamics; first, second and third laws. Chemical Equilibria. Electrochemistry, electrochemical cells. Chemical kinetics.

CHEM2821 Biological Organic Chemistry
School of Chemistry
Staff Contact: N Roberts
UOC6 HPW6 S1
Prerequisite/s: CHEM1011 or CHEM1031, CHEM1021 or CHEM1041

The chemistry of selected classes of organic compounds of biological importance. Sugars and polysaccharides. Lipids. Amino acids and proteins. Enzyme-catalysed reactions. Heterocyclic chemistry, including vitamins.

Note/s: A satisfactory performance in CHEM2821 may be accepted as a prerequisite for CHEM3021. Consult the School of Chemistry.

CHEM2839 Inorganic Chemistry
School of Chemistry
Staff Contact: N Roberts
UOC6 HPW6 S2
Prerequisite/s: CHEM1011 or CHEM1031, CHEM1021 or CHEM1041
Excluded: CHEM2031

Electronic structure of atoms and molecules structure, energetics and banding in the solid state. Principles of co-ordination chemistry. Occurrence, preparation, properties and reactions of selected compounds of transition and main group elements.

CHEM2921 Food Chemistry 1
School of Chemistry
Staff Contact: N Roberts
UOC6 HPW6 S2
Prerequisite/s: CHEM1011 or CHEM1031, CHEM1021 or CHEM1041

Introduction to food chemistry. Alcohol and Carbonyl chemistry. Carbohydrates. Lipids, amino acids and proteins. Enzyme reactions and applications in food chemistry. Vitamins, pigments, flavours and food addititves.

CHEM3011 Physical Chemistry
School of Chemistry
Staff Contact: R Bishop
UOC6 HPW6 S1
Prerequisite/s: 6 units of credit in Level 1 Physics, CHEM2011, CHEM2031 or CHEM2839, 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
Staff Contact: R Bishop
UOC6 HPW6 S1
Prerequisite/s: CHEM2021

Synthesis and reactions of the principal types of aromatic heterocyclic systems. Stereochemistry. Synthesis and reactions of carbocyclic systems. Application of spectroscopic methods, eg nuclear magnetic resonance, mass spectrometry, to determination of organic structures.

CHEM3031 Inorganic Chemistry
School of Chemistry
Staff Contact: R Bishop
UOC6 HPW6 S1
Prerequisite/s: CHEM2031 or CHEM2839

Descriptive chemistry and bonding, stereochemistry, magnetic and spectroscopic properties, stabilities of complexes of normal and inner transition series elements. Stabilisation of oxidation states. Aspects of the chemistry of p-block elements including the inert pair effect.

CHEM3041 Analytical Chemistry
School of Chemistry
Staff Contact: R Bishop
UOC6 HPW6 S1
Prerequisite/s: CHEM2041 or CHEM2849

Instrument design, theory and operating principles for the following instrumental areas: electrochemical, atomic and molecular spectroscopy, chromatography, mass spectrometry, automated analysis.

CHEM3101 Project Laboratory in Chemistry
School of Chemistry
Staff Contact: R Bishop
UOC6 HPW6 S2
Prerequisite/s: CHEM3011 or CHEM3021 or CHEM3031 or CHEM3041

Group projects in instrumental and synthetc 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
Staff Contact: R Bishop
UOC6 HPW6 S2
Prerequisite/s: 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/s: 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
Staff Contact: R Bishop
UOC12 HPW12 S2
Prerequisite/s: 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/s: 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
Staff Contact: R Bishop
UOC6 HPW6 S2
Prerequisite/s: CHEM3021

Aspects of bioorganic, bioinorganic and bioanalytical chemistry including: Natural products chemistry, antibiotics and drugs, herbicides and pesticides. The occurance, coordination and role of metals in biology, enzyme and immunoassays in chemical analysis, biosensors.

CHEM3311 Environmental Chemistry
School of Chemistry
Staff Contact: R Bishop
UOC6 HPW6 S2
Prerequisite/s: 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.

CHEM3811 Food Chemistry 2
School of Chemistry
Staff Contact: R Bishop
UOC6 S1

Water in food. Dispersed systems; colloids and gels. Chemistry of colours and flavours in food. Food additives. Minerals. Food toxicants; pesticide residues. Theory and practice of modern methods of food analysis. Analytical principles. Official methods of anaylsis. Major instrumental techniques and their applications. Choice of an analytical method.

CHEM3829 Organic Chemistry
School of Chemistry
Staff Contact: R Bishop
UOC6 HPW6 S1
Prerequisite/s: CHEM2021

The spectroscopic 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.

CHEM3901 Environmental Toxicology
School of Chemistry
Staff Contact: R Bishop
UOC6 HPW6 S2
Prerequisite/s: CHEM1011 or CHEM1031.

Classification and properties of toxic substances. Biological properties of important classes of chemical compounds. Fate of xenobiotics in the human body, including detoxification and bioactivation. Chemical transformations of pollutants in the environment; air, water and soil pollution. Analysis of environmental pollutants at trace levels.

CHEM4003 Advanced Chemistry 4 Honours
School of Chemistry
Staff Contact: G Edwards
Enrolment requires school approval
UOC24 S1 S2

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
Staff Contact: G Edwards
Enrolment requires school approval
UOC24 S1 S2

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.

CHEM4005 Chemical Sciences 4 (Honours)
School of Chemistry
Staff Contact: G Edwards
Enrolment requires school approval
UOC24 S1 S2

Designed for those with broad interests in Science but with a wish to specialise in Chemistry. A varied program that will give students a high level of basic research skills, with emphasis on the critical evaluation of data and communication of results. Consists of a limited series of lectures and and seminars on advanced topics in Chemistry, a literature review and research project on a major topic outside the review area.

CHEN2050 Chemical Engineering Laboratory 1
School of Chemical Eng and Industrial Chemistry
Staff Contact: V Chen
UOC3 HPW3 S2
Prerequisite/s: 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 Eng and Industrial Chemistry
Staff Contact: M Skyllas-Kazacos
UOC6 HPW6 S1
Prerequisite/s: CHEM1021 or CHEM1041

Definitions of classical thermodynamics. Pressure-volume -temperature properties of industrially important fluids. Applications of thermochemistry in industry. Conversion of heat into work. Concept of lost work. Heat engines and refrigeration cycles. General properties of solutions. Maximum conversion of reactants in batch and flow reactors. Reactor design and chemical kinetics. Reaction rates in industrial batch and flow reactors. Electrochemical principles in the context of important industrial electrochemical processes. Properties and applications of electrolytes. Industrial electrochemical processes, electrodes and cells. Surface phenomena. An integrated laboratory incorporating experiments designed to demonstrate the principles covered in the lecture material.

CHEN2062 Introduction to Process Chemistry 2
School of Chemical Eng and Industrial Chemistry
Staff Contact: P Crisp
UOC3 HPW3 S2
Prerequisite/s: CHEN2061

An introduction to and survey of the organic and inorganic chemistry of industrially important products.

CHEN2140 Mass Transfer
School of Chemical Eng and Industrial Chemistry
Staff Contact: J Stubington
UOC3 HPW3 S2

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 Eng and Industrial Chemistry
Staff Contact: A Adesina
UOC3 HPW2 S1
Prerequisite/s: CEIC2020, 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 Eng and Industrial Chemistry
Staff Contact: A Adesina
UOC3 HPW3 S2
Prerequisite/s: 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 optimization covered include single and multi-dimensional nonlinear optimization, 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 Eng and Industrial Chemistry
Staff Contact: A Adesina
UOC3 HPW3 S2
Prerequisite/s: CEIC2120, CEIC2130, CHEN2140, MATH2030

Review of the analogy between mass, momentum and thermal transport. Derivation of the equations of change for: Isothermal systems - continuity and equation of motion, Non-isothermal systems - forced and free convection. Multicomponent systems. Case studies: Cone-and-plate viscometer, Vortex prediction in a stirred tank, Transpiration cooling, Free convection heat transfer from a vertical plate; simultaneous heat and mass transfer; drying. Mass transfer with chemical reaction. Transient analysis of transport phenomena: Viscous laminar flow, Heat conduction in solids. Diffusion - Evaporation and unsteady-state diffusion with chemical reaction. Two-dimensional transport problems. Power law fluids - momentum and thermal transport.

Note/s: This course is an extension of material given in CEIC2120 Fluid Flow, CEIC2130 Heat Transfer and CHEN2140 Mass Transfer.

CHEN3062 Particles, Separation, Heat Exchangers and Pressure Vessels
School of Chemical Eng and Industrial Chemistry
Staff Contact: N Foster
UOC6 S1

Stage wise separation processes: binary distillation, liquid-liquid extraction, solid-liquid extraction and absorption. HTU/NTU methods for the design and analysis of packed columns. Surface separation processes. Phase equilibria for multicomponent systems. Procedures for selection, design, specification and representation of pressure vessels and heat exchangers according to engineering standards and procedures. Particle size analysis. Fluid-particle interactions: drag coefficient, effect of Reynolds number. Terminal velocity, effect of shape and concentration. Drops and bubbles. Particle-particle interactions including flocculation. Flow through porous media. Darcy, Carman-Kozeny, Ergun equations. Application of fluid-particle systems: Sedimentation and thickening. Elutriation. Cyclones. Packed beds. Single phase flow. Filtration: constant pressure theory, specific resistance, equipment filter aids, centrifugal. Fluidisation: minimum fluidisation velocity, two-phase theory, bubble properties, applications. Spouting. Pneumatic and hydraulic conveying. Solids handling. Properties of granular solids and powders affecting storage and movement. Stockpiles, silos and hoppers: Feeders, convey or belts and elevators.

CHEN3065 Plant and Equipment Design
School of Chemical Eng and Industrial Chemistry
Staff Contact: T Pham
UOC4 HPW4 S2
Prerequisite/s: 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 contact. Membrane and other surface separation processes. Cooling towers. Drying. Multi-component separation: graphical methods, shortcut methods and rigorous computer techniques for the design and analysis of stagewise separation processes. Azeotropic and extractive distillation. Synthesis of separation sequences. Energy conservation in separation systems.

CHEN3067 Process Design & Economics
School of Chemical Eng and Industrial Chemistry
Staff Contact: T Pham
UOC3 HPW3 S1
Prerequisite/s: CEIC2110, CEIC2130, MATH2030

Process development: All activities required from the conception of the idea to produce a product through to the finalisation of the process flow diagram including process selection and evaluation, process design and process representation. Process economics: Capital and operating costs of a process plants. Fixed and variable costs. Break-even analysis. Cost estimation methods. Project financing. Process materials: The use, performance limits and selection of metals, plastics, refractories, ceramics and glass in construction of process plants. Corrosion, strength of materials, use of codes and standards.

CHEN3068 Process Design & Safety
School of Chemical Eng and Industrial Chemistry
Staff Contact: G Bushell
UOC3 HPW3 S2
Prerequisite/s: CEIC2110, CEIC2130, MATH2030

Process simulation: steady state and dynamic simulation of process plants including the use of industrial simulation packages. Process control: Development and representation of control schemes for process plant. Process safety: Techniques for assessing safety and risk of existing and proposed process plants. Systems reliability, HAZOP and HAZAN. Pressure and explosion relief. Laboratory safety.

CHEN3080 Chemical Engineering Practice 2
School of Chemical Eng and Industrial Chemistry
Staff Contact: J Stubington
UOC3 HPW3 S1
Prerequisite/s: CEIC2110, CEIC2120, 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 Eng and Industrial Chemistry
Staff Contact: R Amal
UOC3 HPW3 S1

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 Eng and Industrial Chemistry
Staff Contact: D Wiley
UOC8 HPW6 S1
Prerequisite/s: 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 Eng and Industrial Chemistry
Staff Contact: V Chen
UOC3 HPW3 S1 S2
Prerequisite/s: 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 Eng and Industrial Chemistry
Staff Contact: V Chen
UOC12 HPW10 S1 S2
Prerequisite/s: CHEN4091

The experimental investigation of some aspect of an elected topic area in Chemical Engineering.

CHEN4093 Small Research Project Theory
Staff Contact: V Chen
UOC4 HPW4 S1

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
Staff Contact: V Chen
UOC8 HPW8 S2

The experimental investigation of some aspect of an elected topic area in Chemical Engineering.

CHIN1006 Introductory Chinese A1 (Complete Beginners)
Department of Chinese & Indonesian
Staff Contact: School Office
UOC6 HPW6 S1

This is an integrated Standard Modern Chinese language skills program for beginners without any knowledge of Chinese which combines listening, speaking, reading and writing. The emphasis is on the development of communicative language competence. The course includes an introduction to Chinese culture and civilisation.

CHIN1007 Introductory Chinese A2
Department of Chinese & Indonesian
Staff Contact: School Office
UOC6 HPW6 S2
Prerequisite/s: CHIN1006

Further consolidation and development of language skills acquired in CHIN1006.

CHIN1106 Introductory Chinese B1 (Speakers of Other Dialects)
Department of Chinese & Indonesian
Staff Contact: P Lee
UOC6 HPW5 S1

Designed for students who have a rudimentary knowledge of the Chinese language or are speakers of dialects other than Standard Modern Chinese. The course includes an introduction to Chinese culture and civilisation.

Note/s: Excluded HSC Chinese or equivalent.

CHIN1107 Introductory Chinese B2 (Speakers of Other Dialects)
Department of Chinese & Indonesian
Staff Contact: P Lee
UOC6 HPW5 S2
Prerequisite/s: CHIN1106

Further consolidation and development of language skills acquired in CHIN1106.

CHIN1206 Introductory Chinese C1
Department of Chinese & Indonesian
Staff Contact: Y Fang
UOC6 HPW5 S1

Designed for students with some proficiency in Standard Modern Chinese. It aims at advancing students' competence in Chinese and English so as to prepare them for professional translation and interpreting. Includes a functional writing component, a public-speaking component, a tutorial component as well as an introduction to Chinese culture and civilisation.

Assumed Knowledge:HSC Chinese or equivalent.

Note/s: Enrolment is subject to the result of a language proficiency test.

CHIN1207 Introductory Chinese C2
Department of Chinese & Indonesian
Staff Contact: Y Fang
UOC6 HPW5 S2
Prerequisite/s: CHIN1206

Further consolidation and development of language skills acquired in CHIN1206.

CHIN2006 Intermediate Chinese Language A1
Department of Chinese & Indonesian
Staff Contact: Y Fang
UOC6 HPW5 S1
Prerequisite/s: CHIN1000 or CHIN1007
Excluded: CHIN2000, CHIN2005, CHIN2010

Designed for students who have acquired a basic level of spoken Chinese and a working knowledge of up to six hundred characters in CHIN1006 and CHIN1007. The language component of 4 hours per week combines thought provoking conversation topics with a communicative approach and aids to consolidate written skills. The cultural component of 1 hour per week complements the language components.

Note/s: Excluded HSC Chinese.

CHIN2007 Intermediate Chinese Language A2
Department of Chinese & Indonesian
Staff Contact: Y Fang
UOC6 HPW5 S2
Prerequisite/s: CHIN2006

A continuation of CHIN2006. The language component of 4 hours per week is complemented by the cultural component of 1 hour per week.

Note/s: Excluded HSC Chinese.

CHIN2106 Intermediate Chinese Language B1
Department of Chinese & Indonesian
Staff Contact: P Lee
UOC6 HPW4.5 S1
Prerequisite/s: CHIN1001 or CHIN1107
Excluded: CHIN2001, CHIN2105, CHIN2110

This course includes comparative language study based on Chinese and Australian topics. Emphasis is given to both oral and writing skills. The language component of 3.5 hours per week is complemented by the cultural component of 1 hour per week.

CHIN2107 Intermediate Chinese Language B2
Department of Chinese & Indonesian
Staff Contact: P Lee
UOC6 HPW4.5 S2
Prerequisite/s: CHIN2106
Excluded: CHIN2001, CHIN2105, CHIN2110

A continuation of CHIN2106. The language component of 3.5 hours per week is complemented by a cultural component of 1 hour per week.

CHIN2210 Chinese English Translation
Department of Chinese & Indonesian
Staff Contact: School Office
UOC6 HPW3 S1
Prerequisite/s: 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
Staff Contact: Y Zhong
UOC6 HPW3 S2
Prerequisite/s: 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
Staff Contact: J Von Kowallis
UOC6 HPW3 S1
Prerequisite/s: CHIN1100 or CHIN1207
Excluded: CHIN3020

Offers an overview of contemporary Chinese literature from 1949 to the present. It covers different genres such as short stories, prose and poetry as well as literary criticism.

CHIN2221 Classical Chinese Literature
Department of Chinese & Indonesian
Staff Contact: J Von Kowallis
UOC6 HPW3 S2
Prerequisite/s: 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. This course presents to students 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.

CHIN2301 Social and Cultural Change in Contemporary China
Department of Chinese & Indonesian
Staff Contact: School Office
UOC6 HPW3 S1
Prerequisite/s: 36 units of credit

Examines the changes in social structure brought about by post-Mao economic reforms, and how Chinese people are reflecting on these rapid transformations through contemporary popular culture. Topics include: the increasing disparity between urban and rural life, changing class structures, the single child family policy, the emergence of consumer culture, and the emergence of new social identities.

Note/s: The course will be taught in English.

CHIN2302 Chinese Cinema
Department of Chinese & Indonesian
Staff Contact: J Von Kowallis
UOC6 HPW3 S1
Prerequisite/s: 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. This course 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 Chinese Gender Formations and Identities
Department of Chinese & Indonesian
Staff Contact: School Office
UOC6 HPW3 S2
Prerequisite/s: 36 units of credit

Introduces students to some of the key issues in Chinese gender studies. Examines how Chinese concepts of masculinity and feminity have been created and transformed, both through social structures and institutions (eg family, state, economy) and through literature, film, and popular culture. A major focus is on the interaction between gender and other identity categories such as class, ethnicity, and sexuality.

Note/s: The course will be taught in English.

CHIN2310 Along the Silk Road: Conquerors, Traders and Explorers
Department of Chinese & Indonesian
Staff Contact: H Hendrischke
UOC6 HPW3 X2
Prerequisite/s: 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.

CHIN2312 Chinese Seminar Option
Department of Chinese & Indonesian
Staff Contact: H Hendrischke
UOC6 HPW3 S1 S2
Prerequisite/s: 36 units of credit

A three hour a week seminar on selected topics on the culture and society of China.

CHIN2400 China Imagined and Perceived
Department of Chinese & Indonesian
Staff Contact: J Von Kowallis
UOC6 HPW3 S2
Prerequisite/s: 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
Staff Contact: H Hendrischke
UOC6 HPW3 S1
Prerequisite/s: CHIN1207

Introduces students to the language requirements for business and management in China through project work on Chinese language management case studies. We will discuss and analyse 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
Staff Contact: H Hendrischke
UOC6 HPW3 S1
Prerequisite/s: 48 units of credit

An introduction to business and management in the People's Republic of China. The course covers China's macro-economic and micro-economic environment, including enterprise reform, enterprise finance and stock markets, accounting and taxation, foreign trade and internationalisation, and the management of foreign invested enterprises. The nature of Chinese business enterprises and management practices will be covered in detail, as well as Australian-Chinese business relations, including trade and investment links.

CHIN2800 Cantonese Phonology
Department of Chinese & Indonesian
Staff Contact: P Lee
UOC6 HPW3 S1
Prerequisite/s: CHIN1207

This course introduces Cantonese phonology to Mandarin speakers who have completed the first-year courses.

Note/s: Excludes Cantonese speakers.

CHIN2801 Cantonese Morphology
Department of Chinese & Indonesian
Staff Contact: P Lee
UOC6 HPW3 S2
Prerequisite/s: CHIN2800

Analyses Hong Kong Cantonese morphology in terms of root, stem, affix and loan words. Looks at the comparison of Hong Kong Cantonese morphemes with their semantic equivalents in Mandarin, as well as some aspects of written language.

Note/s: Excludes Cantonese speakers.

CHIN3006 Advanced Chinese A1
Department of Chinese & Indonesian
Staff Contact: Y Fang
UOC6 HPW3 S1
Prerequisite/s: CHIN2000 or CHIN2005 or CHIN2007
Excluded: CHIN3000

This course 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.

CHIN3007 Advanced Chinese A2
Department of Chinese & Indonesian
Staff Contact: Y Fang
UOC6 HPW3 S2
Prerequisite/s: CHIN3006
Excluded: CHIN3000

Further consolidation and development of language skills acquired in CHIN3006.

CHIN3018 Chinese Culture and Communication 1 (Advanced)
Department of Chinese & Indonesian
Staff Contact: Y Fang
UOC6 HPW3 S1
Prerequisite/s: 12 units of credit in CHIN20## or CHIN21## courses
Excluded: CHIN3008, CHIN3009

This course complements the core courses CHIN3006/3007 and CHIN3106/3107 by providing several options from which students choose one during the session. Options include a) Contemporary Chinese Literature, b) Chinese Cinema and c) Social and Cultural Change in Contemporary China.

CHIN3019 Chinese Culture and Communication 2 (Advanced)
Department of Chinese & Indonesian
Staff Contact: H Hendrischke
UOC6 HPW3 S2
Prerequisite/s: 12 units of credit in CHIN20## or CHIN21## courses
Excluded: CHIN3008, CHIN3009.

This course complements the core courses CHIN3006/3007 and CHIN3106/3107 by providing several options from which students choose one during the session. Options are a) Classical Chinese Literature, b) China Imagined and Perceived and c) Chinese Gender Formations and Identities.

CHIN3106 Advanced Chinese Language B1
Department of Chinese & Indonesian
Staff Contact: School Office
UOC6 HPW3 S1
Prerequisite/s: CHIN2001 or CHIN2105 or CHIN2107
Excluded: CHIN3001

Covers a wide range of texts and sources from Chinese media through the study of which students will familiarise themselves with contemporary Chinese language usage. Students will also gain practice in preparing written and oral presentations, including computer-based presentations, on the topics covered.

CHIN3107 Advanced Chinese Language B2
Department of Chinese & Indonesian
Staff Contact: Y Zhong
UOC6 HPW3 S2
Prerequisite/s: CHIN3106
Excluded: CHIN3001

Further consolidation and development of language skills acquired in CHIN3106.

CHIN3900 Advanced Chinese Studies
Department of Chinese & Indonesian
Staff Contact: J Von Kowallis
UOC6 HPW3 S1
Prerequisite/s: 36 units of credit including 12 units of Chinese at credit level
Excluded: CHIN3300

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. Students will become acquainted with the major authors and their contributions

to the field. This is one of two courses designed primarily for intending Honours students who want to prepare themselves for the research work involved in a BA (Honours) degree in Chinese or Asian Studies.

CHIN3901 Research Methods in Chinese Studies
Department of Chinese & Indonesian
Staff Contact: J Von Kowallis
UOC6 HPW3 S2
Prerequisite/s: 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 a BA (Honours) degree in Chinese or Asian Studies.

CHIN4000 Chinese Honours Research Full-Time
Department of Chinese & Indonesian
Staff Contact: H Hendrischke
Enrolment requires school approval
UOC24 S1 S2
Prerequisite/s: 54 units of credit in Chines 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/s: 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
Staff Contact: H Hendrischke
Enrolment requires school approval
UOC12 S1 S2
Prerequisite/s: 54 units of credit in Chines 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/s: 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
Staff Contact: H Hendrischke
Enrolment requires school approval
UOC12 S1 S2
Prerequisite/s: 48 units of credit in Chines Studies at an average of 70%, CHIN3901 or CHIN3301

For Combined Honours, students are required to present a thesis as approved by the Heads of the two participating Schools/Departments.

Note/s: Combined Honours programs require coordination between the two schools/departments involved.

CHIN4550 Combined Chinese Honours Research Part-Time
Department of Chinese & Indonesian
Staff Contact: H Hendrischke
Enrolment requires school approval
UOC6 S1 S2
Prerequisite/s: 48 units of credit in Chines Studies at an average of 70%, CHIN3901 or CHIN3301

For Combined Honours, students are required to present a thesis as approved by the Heads of the two participating Schools/Departments.

Note/s: Combined Honours programs require coordination between the two schools/departments involved.

CMED3001 Medical Ethics and Health Law
School of Community Medicine
Staff Contact: P McNeill
UOC4 HPW1.5 S2
Prerequisite/s: MDSG2001

Medical Ethics and Health Law builds on medical ethics presented particularly in second year Human Behaviour, to give students additional preparation for ethical issues which arise in their placements in hospitals, general practice and community settings during Years 3 to 6. The subject introduces students to medical practitioners responsibilities in law including the duty of care, obligations to maintain privacy and confidentiality, and the legal basis of registration and de-registration of medical practitioners. Principles of ethics and rules of law are considered in relation to specific issues including cloning and genetic engineering, withdrawal of treatment, and the funding of health care. Tutorials are based on material covered in lectures and seek to expand students understanding of ethics and law through discussion, structured debates and tutorial exercises. The overall aim of the subject is that students learn to demonstrate and apply an understanding of ethics and law as a part of their commitment to social responsibility and considerate and appropriate treatment of patients (and others) in the practice of medicine. Assessment: Consists of two tutorial assignments and an essay (which total 50% of the marks) and an end of session examination (contributing a further 50%).

COFA7000 Creative Village
School of Art
Staff Contact: E Ashburn
UOC6 HPW6 X1

Full-time program between 30/1/02 and 01/03/02. Site visits required.

This elective is an interdisciplinary studio between architecture and landscape architecture with students from the College of Fine Arts. Projects dealing with issues of community arts, sustainable design and collaborative methods in art and design are undertaken by interdisciplinary teams of students. These experiences provide an excellent training in community consultation and community art works.

COMD1001 Comparative Development: The Pre-Industrial World
Faculty of Arts and Social Sciences
Staff Contact: P Ross
UOC6 HPW3 S1
Excluded: COMD1000

An investigation of various pre-industrial societies including hunter-gatherers and sedentary agriculturalists with emphasis on structural similarities before European domination. Describes a long history of connections, mutual influences, and equality in the material condition of humankind, and concludes with the coming of industrial capitalism.

COMD1002 Comparative Development: Poor World, Rich World
Faculty of Arts and Social Sciences
Staff Contact: P Ross
UOC6 HPW3 S2
Excluded: COMD1000

An analysis of the deepening inequalities and uneven development within industrial capitalism. Considers such issues as racism, environmental threat, politics of trade and aid, de-colonisation, gender inequalities and delayed industrialisation in the so-called Third World.

COMD2000 The Theory and Practice of Development
School of Social Science and Policy
Staff Contact: M Johnson
UOC6 HPW3 S1
Prerequisite/s: 36 units of credit in Arts and Social Science courses
Excluded: SLSP2701

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.

COMD2020 Making/Unmaking the Third World: History and Global Development II
Faculty of Arts and Social Sciences
Staff Contact: J Levy
UOC6 HPW3 S1
Prerequisite/s: 36 units of credit
Excluded: HIST2061, SPAN2429, INST2000

This course (which is the second part of a two-part sequence, either part of which can be taken discretely) explores the history of global inequality in the twentieth century. Some of the themes considered include:

colonialism and its legacies; the history of the idea of development; the state in economic development; the World Bank and the IMF; and the question of globalisation.

COMD2050 Technology Sustainable Development & the Third World
Faculty of Arts and Social Sciences
Staff Contact: J Merson
UOC6 HPW3 S1
Prerequisite/s: 36 units of credit in Arts and Social Science courses
Excluded: SCTS3001, 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.

COMD4500 Combined Honours (Research) in Comparative Development F/T
Faculty of Arts and Social Sciences
Staff Contact: M Berger
Enrolment requires school approval
UOC12 S1 S2
Prerequisite/s: 36 units of credit in COMD including COMD2000 at an average of 70%

For Combined Honours, students are required to present a thesis as approved by the Heads of the participating Schools or Departments.

COMD4550 Combined Honours (Research) P/T
Faculty of Arts and Social Sciences
Staff Contact: M Berger
Enrolment requires school approval
UOC6 S1 S2
Prerequisite/s: 36 units of credit in COMD including COMD2000 at an average of 70%.

For Combined Honours, students are required to present a thesis as approved by the Heads of the participating Schools or Departments.

COMP1001 Introduction to Computing
School of Computer Science and Engineering
Staff Contact: A Papagelis
UOC6 HPW6 S1 S2

Introductory concepts and basic skills training for competence with personal computers. Foundational concepts of hardware and software. History of computers, leading to modern practice in data processing, sound, graphics, animation, interfaces, the use of applications, programming languages and networks including the Internet. Practical training in MS Office applications and other software tools for the IBM PC, for graphic manipulation, Web page design, word processing, database, spreadsheet and elementary Visual Basic programming. Introduction to social and ethical issues of computer crime. The discriminating use of such technologies for a better world.

COMP1011 Computing 1A
School of Computer Science and Engineering
Staff Contact: J Plaice
UOC6 HPW6 S1 S2
Corequisite/s: MATH1131 or MATH1141
Excluded: COMP1811

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) or COMP1001.

COMP1021 Computing 1B
School of Computer Science and Engineering
Staff Contact: School Office
UOC6 HPW6 S1 S2
Prerequisite/s: COMP1011 or COMP1711
Excluded: COMP1821, COMP1721

Introduction to procedural programming in an object-oriented language (Java). Algorithmic processes: state, sequence, selection, iteration/ recursion. Data modelling: atomic types, arrays, classes, inheritance. Introduction to fundamental data structures and algorithms. Lab: programming exercises and assignments.

COMP1091 Computing with C
School of Computer Science and Engineering
Staff Contact: School Office
UOC6 HPW6 S1

Introduction to computers as workplace tools: operating systems, spreadsheets, databases, web searching and authoring, professional ethics in using computers. Introduction to problem solving via computers; defining problems, reasoning about problems, designing and testing solutions. Introduction to programming (in the C language): data, control, functions, libraries, fundamental algorithms. Practical work: laboratories and programming assignments.

COMP1711 Higher Computing 1A
School of Computer Science and Engineering
Staff Contact: R Buckland
Enrolment requires school approval
UOC6 HPW7 S1
Excluded: COMP1011, COMP1811

As for COMP1011 but in greater depth. Defining problems. Reasoning about and solving problems using Logic, Abstarction, Specification, Algorithms and Data Structures. Exposure to a functional programming lanmguage (Haskell(for practical experience with these concepts. Introduction to software engineering and professional ethics Lab: programming assingments. Assumed Knowledge: There is no specific assumed knowledge. This course should be taken by those with HSC mark 2 and 3 unit Maths (145-150) or 3 and 4 unit Maths (186-200) or UAI > 97.

COMP1721 Higher Computing 1B
School of Computer Science and Engineering
Staff Contact: School Office
UOC6 HPW7 S2
Prerequisite/s: DN in COMP1011 or DN in COMP1711
Excluded: COMP1021, COMP1821

As for COMP1021 but in greater depth and breadth. Introduction to procedural programming in an object-oriented language (Java). Algorithmic processes: state, sequence, selection, iteration/recursion. Data modelling: atomic types, arrays, classes, inheritance. Introduction to fundamental data structures and algorithms. Lab: programming exercises and assignments.

COMP2011 Data Organisation
School of Computer Science and Engineering
Staff Contact: School Office
UOC6 HPW5 S1 S2
Prerequisite/s: COMP1021 or COMP2811

Data types and data structures: abstractions and representations; dictionaries, priority queues and graphs; AVL trees, splay trees, B-trees, heaps. File Structures: storage device characteristics, keys, indexes, hashing. Memory management. Lab: programming assignments including group project.

COMP2021 Digital System Structures
School of Computer Science and Engineering
Staff Contact: School Office
UOC6 HPW5 S1 S2
Prerequisite/s: COMP1021 or COMP1821
Excluded: ELEC2012

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 the design and operation of hardware models of digital and computer systems. The mapping of high level programming constructs (programs and data structures) through intermediate levels of abstraction to the hardware level of a computer system will be introduced.

COMP2041 Software Construction: Techniques and Tools
School of Computer Science and Engineering
Staff Contact: School Office
UOC6 HPW5 S2
Prerequisite/s: COMP1021 or COMP2811

Software system decomposition and design. Overview of the software development life-cycle. Command languages. Version control and configuration management, programming for reliability. Testing and debugging techniques. Profiling and code improvement techniques. Practical work involving programming-in-the-large.

COMP2110 Software System Specification
School of Computer Science and Engineering
Staff Contact: School Office
UOC3 HPW2.5 S1
Prerequisite/s: COMP1021
Corequisite/s: INFS2603

Formal specification: set theory, logic, schema calculus, case studies. the Z specification notation. The relationship between informal specification methods such as data flow, and Object-Oriented methods, such as OMT, and formal methods like Z. This course will attempt to develop the case for rigorous specification methods. Project work for this subject will be done within SENG2010.

COMP2411 Logic and Logic Programming
School of Computer Science and Engineering
Staff Contact: School Office
UOC6 HPW5 S1

Introduction to logic for computer scientists: 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.

COMP2711
Higher Data Organisation
Staff Contact: School Office.
UC 6 S1 HPW 7
Prerequisites: Mark of atleast 75 in (COMP1021 or COMP1721)

Note/s: Enrolment requires School approval.

As for COMP2011 but in greater depth and breadth.

COMP2811 Computing B
School of Computer Science and Engineering
Staff Contact: A Taylor
UOC6 HPW6 S1 S2
Prerequisite/s: COMP1011 or COMP1711 or COMP1811; Exclusion: COMP1821, COMP1021, COMP1721

Introduction to procedural programming in an object-oriented language (Java). Algorithmic processes: state, sequence, selection, iteration/ recursion. Data modelling: atomic types, arrays, classes, inheritance. Introduction to fundamental data structure and algorithms. Lab: programming exercises and assignments.

COMP3111 Software Engineering
School of Computer Science and Engineering
Staff Contact: A Nymeyer
UOC6 HPW5 S1 S2
Prerequisite/s: COMP2011
Excluded: COMP9008.

Informal specification: Data flow diagram methodology, analysis, design, testing, management and documentation of software. formal specification: set theory, logic, schema, calculus, case studies. The Z specification notation. Managing the project life cycle. CASE tools. A major group project is undertaken.

COMP3120 Introduction to Algorithms
School of Computer Science and Engineering
Staff Contact: School Office
UOC3 HPW2.5 S2
Prerequisite/s: COMP2011
Excluded: COMP3121, COMP9101.

Design and algorithms using divide-and-conquer, greedy, inductive, parallel and systolic strategies. Models of computations. Correctness and complexity analysis. Time and space analysis: worst- and average- and amortised case algorithms. Algorithms: sorting and searching, trees, graphs and matrices.

COMP3121 Algorithms and Programming Techniques
School of Computer Science and Engineering
Staff Contact: School Office
UOC6 HPW5 S2
Prerequisite/s: COMP2011
Excluded: COMP9101, COMP3120.

Correctness and efficiency of algorithms. Computational complexity: time and space bounds. Techniques for best-case, worst-case and average-case time and space analysis. Designing algorithms using induction, divide-and-conquer and greedy strategies. Algorithms: sorting and order statistics, trees, graphs, matrices. Intractability: classes P, NP, and NP-completeness, approximation algorithms.

COMP3131 Parsing and Translation
School of Computer Science and Engineering
Staff Contact: School Office
UOC6 HPW5 S2
Prerequisite/s: COMP2011
Excluded: COMP9102.

Covers the fundamental principles in programming languages and implementation techniques for compilers (emphasis on compiler front ends). Course contents include: program syntax and semantics, formal translation of programming languages, finite-state recognisers and regular expressions, context-free parsing techniques such as LL(k(and LR(k), attribute grammars, syntax-directed translation, type checking and code generation. Lab: implementation of a compiler in a modern programing language for a small programming language.

COMP3141 Software System Design and Implementation
School of Computer Science and Engineering
Staff Contact: School Office
UOC6 HPW5 S1
Prerequisite/s: COMP2110 or COMP3111

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.

COMP3151 Foundations of Concurrency
School of Computer Science and Engineering
Staff Contact: School Office
UOC6 HPW5 S2
Prerequisite/s: COMP2011

Concurrency = processes + communication. Communication via shared variebles vs message passing. Models of concurrency: true concurrency vs interleaving. Abstrations: atomicity, locks and barriers, semaphores, monitors, threads, RPC, rendezvous. Classical problems: mutual exclusion, dining philosophers, sleeping barber, termination detection, gravitational N-body problem.Practical work: programming assignments using the C-like language MDP.

COMP3211 Computer Architecture
School of Computer Science and Engineering
Staff Contact: School Office
UOC6 HPW5 S2
Prerequisite/s: COMP2021 or ELEC2041
Excluded: COMP9211

Combinatorial and sequential circuit design; synchronisation, communication and arbitration; register transfer specification (Modal). Arithmetic Design Strategies. Memory Organisation: physical and virtual address space; operating system and compiler support; memory mapping and caching. Communications Organisation: shared memory, memory mapping; network systems. Processor Design: the instruction pipeline; hardwired and micro-programmed control; instruction sets; RISC and object-based processor organisation. Error Detection/Correction and Fault Tolerance; coding theory. Lab: major design project.

COMP3221 Microprocessors and Embedded Systems
School of Computer Science and Engineering
Staff Contact: School Office
UOC6 HPW5 S2
Prerequisite/s: COMP2021
Excluded: ELEC2041, ELEC3020, COMP9221

The concept of a microprocessor system, busses, address spaces, memory devices, bus timing, bus standards, the VME bus, I/O device interfacing, polling, interrupts, DMA interfaces, the 68000 processor family, the C

programming language, device drivers, the device driver software environment, other microprocessors, advanced topics. Laboratory work involves interfacing to and programming MC68000-series microprocessor-based systems. Lab: experimental work involving hardware and software.

COMP3231 Operating Systems
School of Computer Science and Engineering
Staff Contact: School Office
UOC6 HPW5 S1 S2
Prerequisite/s: COMP2011 or COMP2711, COMP2021 or ELEC2041
Excluded: COMP9201

Operating System Organisation and services. Process management: scheduling, synchronisation and communication. Memory management: virtual memory, paging and segmentation. Storage management: disk scheduling, file systems. Protection and security. Distributed operating systems and file systems. Case studies: UNIX & NT. Lab: Programming assignments.

COMP3311 Database Systems
School of Computer Science and Engineering
Staff Contact: School Office
UOC6 HPW5 S2
Prerequisite/s: COMP2011
Excluded: COMP9311, INFS3608

Data models: entity-relationship, relational, object-oriented. Relational database management systems: data definition, query languages, development tools. Database application design and implementation. Architecture of relational database management systems: storage management, query processing, transaction processing. Lab: design and implementation of a database application using Oracle, SQL, PL/SQL, Oracle Web Server.

COMP3331 Computer Networks and Applications
School of Computer Science and Engineering
Staff Contact: School Office
UOC6 HPW5 S1 S2
Prerequisite/s: COMP2011

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.

COMP3411 Artificial Intelligence
School of Computer Science and Engineering
Staff Contact: A Hoffmann
UOC6 HPW5 S1
Prerequisite/s: COMP2011
Excluded: COMP9414

Machine intelligence. Principles: knowledge representation, automated reasoning, machine learning. Tools: AI programming languages, control methods, search strategies, pattern matching. Applications: computer vision, speech recognition, natural language processing, expert systems, game playing, computer-aided learning. Philosophical and psychological issues. Lab: logic programming assignments.

COMP3421 Computer Graphics
School of Computer Science and Engineering
Staff Contact: T Lambert
UOC6 HPW5 S1
Prerequisite/s: COMP2011
Excluded: COMP9415, COMP9701

Graphics hardware: scan conversion of lines and polygons. 2D transformations: windowing, clipping, viewports. User interfaces. 3D transformations: perspective transformation, 3D clipping, hidden surface removal, lighting and texture maps. Hierarchical modelling of objects, modelling curves and surfaces with splines and fractals. Graphics standards. Lab: programming assignments.

COMP3511 Human Computer Interaction
School of Computer Science and Engineering
Staff Contact: School Office
UOC6 HPW5 S2
Prerequisite/s: COMP2011
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.

COMP3710 Software Project Management
School of Computer Science and Engineering
Staff Contact: School Office
UOC3 HPW2.5 S2
Prerequisite/s: MATH2859, COMP2011

This course introduces various aspects of software project management. Special emphasis is given to planning, size measurement, size estimation, resource estimation, schedule estimation, and earned value tracking. Concepts of size estimation are introduced via a series of five programming assignments from Watts Humphrey's Personal Software Process.

COMP3720 Total Quality Management
School of Computer Science and Engineering
Staff Contact: School Office
UOC3 HPW3 S1 S2
Prerequisite/s: MATH2849 or MATH2859, COMP3710
Excluded: COMP0001

This course introduces elements of statistical methods underlying quality management in the context of software development. Special emphasis is placed on economics of software quality, development of a quality strategy, yield management, defect removal strategies and defect prevention strategies. Techniques for review, code review and inspections are also covered in detail. These ideas are introduced via a series of five programming assignments from Watts Humphrey's Personal Software Process.

COMP4001 Object-Oriented Software Development
School of Computer Science and Engineering
Staff Contact: School Office
UOC6 HPW4 S1
Prerequisite/s: COMP2011

Assumed Knowledge: Competancy in C. Note/s: Quota Applies. 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. Assessment will involve two short assignments and one substantial programming project to be carried out in small groups.

COMP4011 Web Applications Engineering
School of Computer Science and Engineering
Staff Contact: School Office
UOC6 S1
Prerequisite/s: 30 units of credit in level 3 COMP courses and an average of 75 over all COMP courses

Web technologies and architectures. Design of Web-based applications: usability, scalability, security issues. Technologies for Web-based applications: web servers, databases, ACS toolkit. Lab: design and implementation of a substantial Web service.

COMP4012 Cryptographic Approaches to Distributed Systems Security
School of Computer Science and Engineering
Staff Contact: School Office
Enrolment requires school approval
UOC6 HPW5 TBA

A program of advanced course work offered by a new or visiting Staff member in an area of computer science/engineering. Syllabus details will be available from the school office before the start of session.

COMP4111 Distributed Object Systems and Technology
School of Computer Science and Engineering
Staff Contact: School Office
UOC6 HPW6 TBA
Prerequisite/s: Passed at least one Level 3 Computer Science course

Assumed Knowledge: Programming skills in C++/JavaThis subject provides a comprehensive introduction to the underlying technologies and architectures used in real-life distributed object systems. The topics covered include object request brokers (CORBA), directory services, security services, distributed transaction processing, common application architectures, performance implications and reliability and fault tolerances.

COMP4131 Programming Language Semantics
School of Computer Science and Engineering
Staff Contact: School Office
UOC6 S2
Prerequisite/s: COMP2011

COMP4141 Theory of Computation
Staff Contact: A/Prof A Sharma
UC 6 S1 L3 T1
Prerequisites: Undergraduates: A total of 75% in level 3 COMP courses, min of 18uc
Postgraduates: 75% in Group B/C courses, min of 18uc.

Computability: primitive recursive functions, computable functions, universal programs, undecidability, Church-Turing thesis, Turing machines, recursively enumerable sets and elementary recursive function theory; Complexity: the sets P and NP, NP-completeness and Cooks theorem. Logic: predicate logic and its unsatisfiability problem.

COMP4411 Experimental Robotics
School of Computer Science and Engineering
Staff Contact: School Office
UOC6 HPW5 S1
Prerequisite/s: 12 units of credit from COMP3### or 12 units of credit from COMP9###

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.

COMP4412 Introduction to Modal Logic
School of Computer Science and Engineering
Staff Contact: School Office
Enrolment requires approval
UOC6 HPW5 S2

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.

COMP4415 Logical Foundations of Artificial Intelligence
School of Computer Science and Engineering
Staff Contact: School Office
Enrolment requires approval
UOC6 HPW4 S1
Excluded: COMP4412

Note/s: Permission of Instructor required. Excluded COMP4412 (1996)This course is a presentaion 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.

COMP4903 Industrial Training (B.E.)
School of Computer Science and Engineering
Staff Contact: School Office
UOC0 S1 S2

S1 or S2 Students enrolled in courses 3645, 3722, 3726 and 3728 must complete a minimum of 60 days industrial training. At least some of this should be obtained in Australia. Students are required to submit to the School evidence from their employers confirming completion of the prescribed training and a report, typically 2000 words long, summarising the work done and training received. Students will formally enrol in the subject in Year 4, although they are strongly encouraged to complete as much industrial experience as possible in the breaks between the early years of the course.

COMP4904 Industrial Placement
School of Computer Science and Engineering
Staff Contact: School Office
UOC0 S1 S2
Excluded: COMP4903

COMP4910 Thesis Part A
School of Computer Science and Engineering
Staff Contact: R Bautarua
UOC3 HPW7 S1 S2
Prerequisite/s: 126 units of credit

The thesis is done in the last two sessions of the BE degree course. For full-time students, seven hours per week in the first session and fourteen 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 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 session.

COMP4911 Thesis Part B
School of Computer Science and Engineering
Staff Contact: R Bautarua
UOC15 HPW14 S1 S2
Prerequisite/s: COMP4910

The thesis is done in the last two sessions of the BE degree course. For full-time students, seven hours per week in the first session and fourteen 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 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 session.

COMP4913 Computer Science 4 Honours Part Time
School of Computer Science and Engineering
Staff Contact: School Office
UOC6 S1 S2
Prerequisite/s: Computer Science Honours Program

COMP4914 Computer Science 4 Honours Full Time
School of Computer Science and Engineering
Staff Contact: School Office
UOC24 S1 S2
Prerequisite/s: Computer Science Honours Program

CURRENT COURSE DESCRIPTION AND/OR NOTES TO BE PROVIDED BY FACULTY OF ENGINEERING.

COMP4920 Professional Issues and Ethics
School of Computer Science and Engineering
Staff Contact: School Office
UOC3 HPW2.5 S1

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.

COMP9015 Issues in Computing
School of Computer Science and Engineering
Staff Contact: School Office
UOC3 HPW3 S2

A review of issues that affect the use of Computer Systems. Topics that may be covered include: the human implications of computing systems, the effect of computing operations on organisational structure, software copyright, privacy, the role of computing systems and information systems

in decision making, the significance of the timeliness of information and its implication on the value of decision making and the requirements for a computing system.

COMP9018 Advanced Graphics
School of Computer Science and Engineering
Staff Contact: School Office
Enrolment requires school approval
UOC6 S2

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 metropolis 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.

COMP9116 Software System Development Using the B-Method and B-Toolkit
School of Computer Science and Engineering
Staff Contact: School Office
UOC6 HPW3 S2
Prerequisite/s: COMP3111 or COMP9008.

The B-Method is a rigorous mathematically based method for the development of reliable software. The method covers the complete software cycle from requirements 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.

COMP9231 Integrated Digital Systems
Staff Contact: C. Kwok
UC 6 S2 HPW 4
Prerequisites: COMP2021 or COMP9022
Note/s: Excluded ELEC4532.

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. Lab: design project.

COMP9242 Advanced Operating Systems
Staff Contact: Associate Professor G. Heiser
UC 12 S2 HPW 4
Prerequisite: A minimum 65% in COMP9201 or COMP3231
Corequisite: COMP9211 or COMP3211

Note/s: Quota applies (50)

Covers operating systems design and implementation issues at an advanced level, focussing on specific issues such as performance and on current OS research area s. 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 microkernal system will be used to provide hands-on experience with low-level implementation of OS components.

COMP9243 Distributed Systems
School of Computer Science and Engineering
Staff Contact: School Office
UOC6 HPW3 S1
Prerequisite/s: 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.

COMP9314 Next Generation Database Systems
School of Computer Science and Engineering
Staff Contact: School Office
UOC6 HPW3 TBA
Prerequisite/s: COMP2011

Detailed examination of current developments and future trends in database management systems and languages. The emphasis is on object-oriented database systems. Other topics are drawn from: deductive databases, temporal databases, multimedia databases, data warehousing, data mining, client/server systems, Web-based databases.

COMP9315 Database Systems Implementation
School of Computer Science and Engineering
Staff Contact: School Office
UOC6 HPW3 S1
Prerequisite/s: COMP2011

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.

COMP9316 eCommerce Systems Implementation
School of Computer Science and Engineering
Staff Contact: School Office
UOC6 S2
Prerequisite/s: COMP9021 or COMP1021 or COMP1711 or COMP2811; and COMP9311 or COMP3311 or INFS5926 or INFS3608

Assumed Knowledge: Programming skill to at lease the level of COMP9021/COMP1021.eCommerce: Models, Architectures, and Systems. Principles: integration, coupling, security, scalability. eCatalogs: Modelling, Querying, and Integrating Web Data. EDI - Electronic Data Interchange. Component-based Mediators and eCommerce. XML-based eCommerce Frameworks.Workflows and eCommerce. Agents and eCommerce. eMarketplaces. Commercial Products and Architectures.

COMP9332 Network Routing and Switching
School of Computer Science and Engineering
Staff Contact: School Office
UOC6 HPW3 S2
Prerequisite/s: COMP3331 or COMP9331

This subject 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). Advance Internet addressing: CIDR, VPN, NAT. In depth discussion of interior and exterior routing protocols, such 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.

COMP9333 Advanced Computer Networks
School of Computer Science and Engineering
Staff Contact: School Office
UOC6 HPW3 S1
Prerequisite/s: COMP9332

Note/s: Quota Applies (50).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, RTCP 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.

COMP9416 Knowledge Based Systems
School of Computer Science and Engineering
Staff Contact: School Office
UOC6 HPW3 TBA
Prerequisite/s: COMP9414 or COMP3411

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.

COMP9417 Machine Learning
School of Computer Science and Engineering
Staff Contact: School Office
UOC6 HPW3 S2
Prerequisite/s: COMP9414 or COMP3411

Note/s: Excluded: COMP4416 (1996).Decision tree learning algorithms (such as C4.5), covering algorithms (such as AQ), instance based learning, case-based learning, nearest neighbour classifiers, genetic algorithms, inductive logic programming theoretical analysis of learning algorithms.

COMP9444 Neural Networks
School of Computer Science and Engineering
Staff Contact: School Office
UOC6 HPW3 S2

Note/s: Assumed Knowledge: COMP9024. Topics chosen from: Network architectures: perceptrons, Hopfield and Kohonen nets, ART models, back-propagation trained feed-forward networks, recurrent nets, weightless nets. Computational complexity analysis of training neural network architectures. Probabilistic analysis of generalisation capabilities of feed-forward networks. Hardware based neural nets. Introduction to fuzzy logic, neurotrained nets; designing successful applications of neural networks; tensor product networks; and recent developments in neural networks. The assessment will include a lab project related to application of neural nets.

COMP9517 Image Processing and Applications
School of Computer Science and Engineering
Staff Contact: School Office
UOC6 HPW3 S1
Prerequisite/s: 12 units of credit from COMP3### or 12 units of credit from COMP9###

Note/s: Assummed Knowledge: COMP9024. Undergraduates need 2 level 3 courses or equivalent.Fundamental principles for visual representation and image processing. Techniques in image transform, enhancement, compression and segmentation, feature extraction, pattern recognition, multimedia processing and authoring, and scientific visualisation. Applications in communications, consumer electronics, medicine, management, entertainment, defence, robotics, and geophysics.

COMP9518 Pattern Recognition and Computer Vision
School of Computer Science and Engineering
Staff Contact: School Office
UOC6 HPW3 S2
Prerequisite/s: COMP9517

Principles of pattern recognition and computer vision; review of early processing. Pattern Recognition: classification techniques; structural and syntactic pattern recognition; document image analysis and character recognition; statistical pattern recognition. Computer Vision: 2D and 3D representation; model-based vision and image understanding; motion analysis and active vision; applications in medical imaging, robot vision, satellite imaging, multimedia.

COMP9519 Multimedia Authoring and Cooperative Agents
School of Computer Science and Engineering
Staff Contact: School Office
UOC6 HPW4 TBA
Prerequisite/s: COMP3331 or COMP9331
Excluded: COMP4012.

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.

COMP9790 Principles of GNSS Positioning
School of Computer Science and Engineering
Staff Contact: School Office
UOC6 HPW5 S1
Prerequisite/s: 18 units of credit of Level 3 Computer Science courses; Exclusion: GMAT4900

Note/s: This course is equivalent to GMAT4900 and is only available to students in stage 4. 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.

COMP9791 Modern Navigation & Positioning Technologies
School of Computer Science and Engineering
Staff Contact: School Office
UOC6 HPW5 S2
Prerequisite/s: Complete 18 units of credit of Level 3 Computer Science courses; Exclusion: GMAT4910

Note/s: This course is equivalent to GMAT4910. This course presents an overview of the various satellite-based and non-satellite navigation technologies and some of their applications. Various user receiver configutations, system augmentations an implementation issues will be analysed. These include: differential GPS (DGPS) schemes and services, real-time systems and their communciation 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 navigation will be discussed. Data fusion techniques for integrating GPS (or GLONASS) with INS, such as Kalman Filtering, will be presented. Particular emphasis will be placed on the role such positioning technologies will play in Intelligent Transport Systems (ITS) and future L-Commerce applications. Students will gain hands-on experience with a variety of navigation technology.

CRIM1000 Criminal Law and Justice 1
School of Social Science and Policy
Staff Contact: D Brown
UOC6 HPW4 S1
Prerequisite/s: Enrolment in program 3422

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
Staff Contact: D Brown
UOC6 HPW4 S2
Prerequisite/s: 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
Staff Contact: J Chan
UOC6 HPW3 S1
Prerequisite/s: 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.

CVEN0616 Structures for Chemical Engineering
School of Civil and Environmental Engineering
Staff Contact: School Office
UOC3 HPW2 TBA

Theory of structures: Moduli of elasticity, simple stress and strain. Compound bars, temperature stresses. Thin shells. Stress at a point. Strain at a point. Principal stresses and strains. Relationship between load, shear force and bending moment. Moments of inertia, principal moments of inertia. Stresses due to axial force, bending moment, shear force, and torsion. Differential equations of simple beam theory. Deflection of beams. Statically indeterminate beams. Strain energy. Deflections at a single load. Shock loads. Theory of centrally loaded column and eccentrically loaded columns.

Note/s: This is a servicing course for other Schools.

CVEN0636 Properties of Materials
School of Civil and Environmental Engineering
Staff Contact: N Gowripalan
UOC3 HPW3 S2

Mechanical behaviour of materials. Response to static loading in tension, compression, shear and bending. Use of static test data in analysis and design; variability of material properties; factors of safety. Hardness tests. Creep in solid materials. Response to dynamic loading; fatigue; impact. Deterioration of engineering materials. Rheological classification of materials.

Note/s: This is a servicing course for other Schools.

CVEN0646 Water and Wastewater Engineering
School of Civil and Environmental Engineering
Staff Contact: J Ball
UOC3 HPW3 S1

Basic concepts of hydraulics: Fluid properties, hydrostatics, motion of fluids, conduit flow and open channel flow. Scope and applications of hydrology: Hydrologic measurements, rainfall analysis, storm rainfall-runoff relations, flood estimation, surface and groundwater sources, transmission and distribution. Urban drainage design: Relationship between urban development and each of water supply, wastewater and stormwater drainage. Subdivision layouts.

Note/s: This is a servicing course for other Schools.

CVEN0656 Soil and Pavement Engineering
School of Civil and Environmental Engineering
Staff Contact: G Swarbrick
UOC3 HPW3 S2

Basic properties of soils and soil mechanics; Classification of soils; soil forming processes; seepage of water through soils; shear strengths, bearing capacity, settlement of foundations, stability of slopes and embankments, earth pressures and simple design of retaining walls; Concepts related to land use and transport systems; Pavement design based on engineering classification;site investigation for pavements, sampling and in-situ testing of subgrades, design practice of urban and rural roads, intersections and interchanges; base and sub-base materials; subgrade space improvement.

Note/s: This is a servicing course for other Schools.

CVEN1021 Civil Engineering Practice 1A
School of Civil and Environmental Engineering
Staff Contact: S Foster
UOC4 HPW2 S1

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
Staff Contact: B Cathers
UOC6 HPW4 S2

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
Staff Contact: R Gilbert B Uy
UOC4 HPW3 S1 S2

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 (determinancy, internal hinges); analysis of trusses (methods of joints and sections); cables; fluid statics including hydorstatic pressure, body forces, buoyancy, stability, and manometry; introduction to three dimensional statics.

CVEN1024 Dynamics
School of Civil and Environmental Engineering
Staff Contact: R Lawther N Gowripalan
UOC4 HPW3 S1 S2

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
Staff Contact: G Swarbrick
UOC4 HPW3 S1 S2

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
Staff Contact: N Gowripalan
UOC4 HPW3 S2

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
Staff Contact: School Office
UOC4 HPW4 S2
Corequisite/s: CVEN1312, PHYS1979, MATH1131 or MATH1141

Chemical species in the atmosphere and natural waters. Air and water pollutants. Basic structural chemistry and its environmental significance. Structural units in organic molecules, their formation and interconversion. Organic pollutants.

Assumed Knowledge:CHEM1011.

CVEN1721 Environmental Engineering Practice 1A
School of Civil and Environmental Engineering
Staff Contact: School Office
UOC4 HPW2 S1

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.

CVEN1722 Environmental Engg Practice 1B
School of Civil and Environmental Engineering
Staff Contact: School Office
UOC6 HPW4 S2

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.

CVEN2022 Civil Engineering Practice 2
School of Civil and Environmental Engineering
Staff Contact: W Peirson
UOC3 HPW2 S2
Prerequisite/s: 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 and risk- quantification.

Assumed Knowledge:CVEN1021, CVEN1022.

CVEN2023 Mechanics of Solids
School of Civil and Environmental Engineering
Staff Contact: M Attard
UOC3 HPW3 S1
Prerequisite/s: 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; stressses and strains at a point; principal stresses and strains.

Assumed Knowledge: MATH1231.

CVEN2025 Engineering Computations 1
School of Civil and Environmental Engineering
Staff Contact: A Sharma
UOC3 HPW3 S1

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
Staff Contact: N Gowripalan
UOC3 HPW3 S1

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
Staff Contact: S Davis
UOC3 HPW2 S2

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 anlalysis, synthesis and investigation. Decision making. Allownace for variability and uncertainty. Case studies.

Assumed Knowledge:CVEN1022, CVEN1025.

CVEN2126 Engineering Construction 1
School of Civil and Environmental Engineering
Staff Contact: S Davis
UOC3 HPW3 S1

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 including scaffolding and formwork; dewatering systems; specialist techniques including drilling, compressed air and fluid power systems; explosives and blasting, ground anchors, grouting methods; aggregate production including quarrying, dredging, building construction including foundations, piles, cranes, steel construction, concrete construction and masonry construction; a selection of particular construction activities including dam construction, coffer dams and caissons, tunnelling, pipelines and road, railway and bridge construction.

Assumed Knowledge:CVEN1022.

CVEN2222 Geotechnical Engineering 1
School of Civil and Environmental Engineering
Staff Contact: School Office
UOC3 HPW3 S1

A course covering an introduction to Geotechnical Engineering and Geology. Topics include: history of the earth; plate tectonics; fomation of different soils and rocks; classification of soils and rocks; structural geology and mapping; site investigation concepts and the geotechnical model.

CVEN2322 Structural Engineering 1
School of Civil and Environmental Engineering
Staff Contact: B Uy
UOC6 HPW6 S2
Prerequisite/s: CVEN2322

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; determinancy; principles of virtual work; the force method (flexibility analysis). Design Strand: Introduction to limit states 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 memebers; local buckling; Euler buckling; design of laterally supported steel beams; simple steel connections.

Assumed Knowledge:CVEN2023.

CVEN2525 Introduction to Water Engineering
School of Civil and Environmental Engineering
Staff Contact: W Peirson
UOC3 HPW3 S2
Prerequisite/s: 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
Staff Contact: J Ongerth
UOC3 HPW2 S2
Prerequisite/s: 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
Staff Contact: School Office
UOC3 HPW2 S1
Prerequisite/s: 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.

CVEN3024 Civil Engineering Practice 3B
School of Civil and Environmental Engineering
Staff Contact: School Office
UOC3 HPW2 S2
Prerequisite/s: 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.

CVEN3025 Engineering Computations 2
School of Civil and Environmental Engineering
Staff Contact: R Lawther
UOC3 HPW3 S1

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:MATH2019, CVEN2025.

CVEN3125 Engineering Construction 2
School of Civil and Environmental Engineering
Staff Contact: School Office
UOC3 HPW3 S2
Prerequisite/s: CVEN2126

Construction management issues dealing with resources of people, money, equipment and materials. An introduction to the design, planning and management of constuction 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.

CVEN3222 Geotechnical Engineering 2
School of Civil and Environmental Engineering
Staff Contact: Contact School
UOC3 HPW3 TBA
Prerequisite/s: 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.

CVEN3223 Geotechnical Engineering 3
School of Civil and Environmental Engineering
Staff Contact: Contact School
UOC3 HPW3 S2
Prerequisite/s: CVEN3222

An introductory course to fundamentals of soil mechanics. Topics include: Mohr circle, failure criterion, strength of soils, soil testing, shear stress-strain behaviour of soils, slope stability, site investigation and mechanics of unsaturated soils.

CVEN3322 Structural Engineering 2
School of Civil and Environmental Engineering
Staff Contact: M Bradford
UOC6 HPW6 S1 S2
Prerequisite/s: CVEN1023

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) of analysis for 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 frmas; plastic analysis of continuous beams.

CVEN3324 Structural Engineering 3
School of Civil and Environmental Engineering
Staff Contact: School Office
UOC3 HPW3 S2

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).

CVEN3438 Transport Planning and Environment
School of Civil and Environmental Engineering
Staff Contact: U Vandebona
UOC3 HPW3 S1

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 transporation, 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.

CVEN3448 Transport Engineering
School of Civil and Environmental Engineering
Staff Contact: P Hidas
UOC3 HPW3 S1 S2

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.

CVEN3526 Water Resources Engineering
School of Civil and Environmental Engineering
Staff Contact: School Office
UOC3 HPW3 S1

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, hydorgraph analysis, storm runoff and loss rates, rainfall estimation - IFD diagrams and design

hyetographs, concepts of flood estimation, deterministic rational method, probabilistic rational method, time-area methods, unit hydrographs concepts.

CVEN3527 Water Engineering
School of Civil and Environmental Engineering
Staff Contact: School Office
UOC3 HPW3 S2
Prerequisite/s: 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 jumpsl, gradually varied flow profiles, sediment characteristics, Shields diagram, beform, sediment stability, channel side slopes, suspended sediment, fluvial sediment transport capacity estimators, groundwater, hydraulic conductiviity, Darcy's Law, intrinsic permeability, water potential, hydraulic head, unsaturated zone, aquifers, aquicludes, aquitards, steady state flow, transient flow, effective stress, transmissivity, storativity.

CVEN3531 Principles and Applications of Aquatic Chemistry
School of Civil and Environmental Engineering
Staff Contact: N Ashbolt
UOC3 HPW3 S2
Prerequisite/s: CVEN3223, CVEN4225.

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.

CVEN3723 Environmental Engg Practice 3A
School of Civil and Environmental Engineering
Staff Contact: School Office
UOC3 HPW2 S1
Prerequisite/s: 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.

CVEN3724 Environmental Engg Practice 3B
School of Civil and Environmental Engineering
Staff Contact: School Office
UOC3 HPW2 S2
Prerequisite/s: 84 units of credit

CVEN3724 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.

CVEN3725 Waste Management
School of Civil and Environmental Engineering
Staff Contact: School Office
UOC3 HPW3 S1

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.

CVEN3726 Environmental Policy, Law and Economics
School of Civil and Environmental Engineering
Staff Contact: School Office
UOC3 HPW3 S2

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
Staff Contact: J Ball
UOC6 S1 S2
Prerequisite/s: 132 units of credit completed and WA of 62 units of credit

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.

CVEN4001 Honours Thesis Part B
School of Civil and Environmental Engineering
Staff Contact: J Ball
UOC4 S1 S2
Prerequisite/s: CVEN4000

Part B of the honours thesis. Course description as for CVEN4000.

CVEN4008 Industrial Training
School of Civil and Environmental Engineering
Staff Contact: B Shackel G Nawar
UOC1 S1 S2

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 S1 in Year 4 and to present a seminar during Session 1 of Year 4 outlining their industrial training experiences.

CVEN4027 Civil Engineering Practice 4A
School of Civil and Environmental Engineering
Staff Contact: School Office
UOC6 HPW4 S1

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 mulit-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 fo working drawings and project reports similar to those required in industry.

CVEN4028 Ciivl Engineering Practice 4B
School of Civil and Environmental Engineering
Staff Contact: School Office
UOC6 HPW4 S1

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
Staff Contact: School Office
UOC6 HPW4 S1

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 progam. 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
Staff Contact: D Carmichael
UOC3 HPW3 S1

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 outliing their industrial training experiences.

Assumed Knowledge:CVEN3126.

CVEN4139 Advanced Construction and Project Management
School of Civil and Environmental Engineering
Staff Contact: D Carmichael
UOC4 HPW3 S2
Prerequisite/s: 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
Staff Contact: B O'Brien
UOC4 HPW3 S2
Prerequisite/s: CVEN3126, CVEN4126

Professional level construction and project management skills and techniques.

CVEN4159 Advanced Construction Technology and Engineering
School of Civil and Environmental Engineering
Staff Contact: B O'Brien D Carmichael
UOC4 HPW3 S1 S2
Prerequisite/s: 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
Staff Contact: School Office
UOC3 HPW3 S1
Prerequisite/s: 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.

CVEN4269 Environmental Geotechnics
School of Civil and Environmental Engineering
Staff Contact: G Swarbrick
UOC4 HPW3 S2
Prerequisite/s: CVEN3223, CVEN4225

Geotechnical design of landfills; contaminant migration in soils; emediation of contaminated sites. Mine waste management, including tailings disposal and acid mine drainage.

CVEN4279 Rock and Slope Engineering
School of Civil and Environmental Engineering
Staff Contact: K Douglas
UOC4 HPW3 S2

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
Staff Contact: R Fell
UOC4 HPW3 S2

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, and 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
Staff Contact: N Khalili-Naghadeh
UOC4 HPW3 S2

Topic 1 plus 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
Staff Contact: School Office
UOC3 HPW3 S1

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.

CVEN4339 Design of Bridges
School of Civil and Environmental Engineering
Staff Contact: F Tin Loi
UOC4 HPW3 S2

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.

CVEN4349 Special Topics in Concrete, Steel and Composite Structures
School of Civil and Environmental Engineering
Staff Contact: R Gilbert
UOC4 HPW3 S2
Prerequisite/s: CVEN3223, CVEN4225

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
Staff Contact: R Lawther
UOC4 HPW3 S2

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
Staff Contact: U Vandebona
UOC4 HPW3 S2
Prerequisite/s: CVEN3438

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
Staff Contact: P Hidas
UOC4 HPW3 S2
Prerequisite/s: 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
Staff Contact: P Hidas
UOC4 HPW3 S2
Prerequisite/s: 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
Staff Contact: School Office
UOC3 HPW3 S1

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; potable water distribution systems; sewage collection systems; and stormwater systems.

CVEN4533 Transport and Fate of Pollutants
School of Civil and Environmental Engineering
Staff Contact: R Acworth
UOC3 HPW3 S1

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
Staff Contact: A Schafer
UOC4 HPW3 S2
Prerequisite/s: 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
Staff Contact: J Ball
UOC4 HPW3 S2

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
Staff Contact: A Sharma
UOC4 HPW3 S2

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
Staff Contact: N Ashbolt
UOC4 HPW3 S2
Prerequisite/s: 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 Engg Practice 4A
School of Civil and Environmental Engineering
Staff Contact: School Office
UOC6 HPW4 S1
Prerequisite/s: 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 appllication 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.

CVEN4728 Environmental Engg Practice 4B
School of Civil and Environmental Engineering
Staff Contact: School Office
UOC6 HPW4 S1
Prerequisite/s: 132 units of credit

This final year integrating course involves formulating designs for and solution to real world environmental engineering problems in the areas of groundwater, environmental geotechnics and waste 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 industy.

CVEN4729 Environmental Engineering Practice 4C
School of Civil and Environmental Engineering
Staff Contact: School Office
UOC6 HPW4 S1
Prerequisite/s: 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 thoughout the undergraduate progam. 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 industy.

DANC1001 Dance Styles 1
School of Theatre, Film and Dance
Staff Contact: D Spurgeon
UOC6 HPW7.5 S1
Prerequisite/s: 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
School of Theatre, Film and Dance
Staff Contact: D Spurgeon
UOC6 HPW7.5 S2
Prerequisite/s: DANC1001

Extends the student's acquisition of technical mastery over the body begun in Dance Styles 1.

DANC1101 Anatomical Foundations of Dance Education
School of Theatre, Film and Dance
Staff Contact: D Spurgeon
UOC6 HPW3 S1
Prerequisite/s: Enrolment in program 3408

Studies the basic principles of anatomy as a foundation for the understanding of human movement and function.

DANC1102 Teaching Safe Dance
School of Theatre, Film and Dance
Staff Contact: D Spurgeon
UOC6 HPW3 S2
Prerequisite/s: DANC1101

Provides the knowledge essential to a detailed analysis of dance technique in order to allow safe class construction and instruction. Injury prevention is a primary concern.

DANC2000 Dance Analysis and Composition 1
School of Theatre, Film and Dance
Staff Contact: D Spurgeon
UOC6 HPW4 S1
Prerequisite/s: DANC1002 or THST1101 or THFI1002 or DANC1103

or FILM1101
Excluded: THST2140, PFST2000

Studies (a) a range of systems and methods of analysing dance, leading to a comprehensive understanding of the ways in which movement makes meaning and (b) an introduction to dance making and the fundamentals of dance composition.

DANC2002 Theatre Production
School of Theatre, Film and Dance
Staff Contact: R Gregg
UOC6 HPW4 S2
Prerequisite/s: DANC1002 or THST1101 or THFI1002 or DANC1103 or FILM1101
Excluded: PFST2002

Addresses the question of how theatre and dance are presented and produced, provides the comprehensive theoretical basis involved in staging a production, along with practical experience in selected areas of production.

Note/s: BA(Dance)BEd Students should be aware that for them this course involves at least 20-30 extra hours of production time in mid-late November. This includes some weekday timeslots, and up to 5 evenings. Please check with the Staff Contact for exact dates and times in late April.

DANC2005 Dance Analysis and Composition 2
School of Theatre, Film and Dance
Staff Contact: R Gregg
UOC6 HPW4 S2
Prerequisite/s: DANC2000 or PFST2000
Excluded: PFST2005

A detailed study of the nature and role of composition in dance and the relationship between composition and the process and product of choreography.

Note/s: Composition workshops are of a highly practical nature. Students must be prepared to spend time outside of class working with peers on composition tasks.

DANC2007 History of Dance
School of Theatre, Film and Dance
Staff Contact: D Spurgeon
UOC6 HPW4 S1
Prerequisite/s: DANC1002 or THST1101 or THFI1002 or DANC1103 or FILM1101
Excluded: DANC2001

Explores the nature and historical background of dance as an art form and as musical theatre. The emphasis is on major events and figures in Western European, American and Australian ballet, modern and jazz dance.

DANC2014 Dance and Technology
School of Theatre, Film and Dance
Staff Contact: R Gregg
UOC6 HPW2 S1
Prerequisite/s: DANC1002 or THST1101 or THFI1002 or DANC1103 or FILM1101
Excluded: PFST2014

This course explores the video camera as a means of both documenting and creating dance. It introduces students to contemporary software packages that allow for computer-generated choreography and it considers the role of Labanotation as both a tool for recording dance and a means of creating new works.

DANC2103 Dance Styles 3
School of Theatre, Film and Dance
Staff Contact: D Spurgeon
UOC6 HPW7.5 S1
Prerequisite/s: DANC1001, DANC1002

Course requires a demonstration of skill and competence in Classical Ballet, Modern Dance and Jazz Dance.

DANC2104 Dance Styles 4
School of Theatre, Film and Dance
Staff Contact: D Spurgeon
UOC6 HPW7.5 S2
Prerequisite/s: DANC1001, DANC1002

Expands and consolidates the student's mastery of a range of practical dance styles.

DANC2105 Dance Styles 5
School of Theatre, Film and Dance
Staff Contact: D Spurgeon
UOC6 HPW7.5 S1
Prerequisite/s: DANC1001, DANC1002

Expands and consolidates the student's mastery of a range of practical dance styles.

DANC2106 Dance Styles 6
School of Theatre, Film and Dance
Staff Contact: D Spurgeon
UOC6 HPW7.5 S2
Prerequisite/s: DANC1001, DANC1002

Expands and consolidates the student's mastery of a range of practical dance styles.

DANC2107 Dance Styles 7
School of Theatre, Film and Dance
Staff Contact: D Spurgeon
UOC6 HPW7.5 S1
Prerequisite/s: 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
School of Theatre, Film and Dance
Staff Contact: D Spurgeon
UOC6 HPW4 S2
Prerequisite/s: 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.

DANC2204 Dance Teaching Practice
School of Theatre, Film and Dance
Staff Contact: D Spurgeon
UOC9 S2
Prerequisite/s: EDST1461 and 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/s: This course is a formal requirement of the BA(Dance)BEd program in Year 4.

DANC2209 Dance Method A
School of Theatre, Film and Dance
Staff Contact: D Spurgeon
UOC3 HPW2 S1
Prerequisite/s: DANC1001, DANC1002, 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
School of Theatre, Film and Dance
Staff Contact: D Spurgeon
UOC3 HPW2 S2
Prerequisite/s: DANC2209

This course, which extends and develops the work of DANC2209 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
School of Theatre, Film and Dance
Staff Contact: D Spurgeon
Enrolment requires school approval
UOC24 S1 S2
Prerequisite/s: 54 units of credit in THFI/THST/FILM/DANC 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
School of Theatre, Film and Dance
Staff Contact: D Spurgeon
Enrolment requires school approval
UOC12 S1 S2
Prerequisite/s: 54 units of credit in THFI/THST/FILM/DANC 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.

ECOH1301 Australia in the Global Economy
School of Economics
Staff Contact: School Office
UOC6 HPW3 S1

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.

ECOH1302 Australia and the Asia-Pacific Economies
School of Economics
Staff Contact: School Office
UOC6 HPW3 S2

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.

ECOH2305 Modern Asian Economic History
School of Economics
Staff Contact: School Office
UOC6 HPW3 TBA
Prerequisite/s: ECON1102

This course examines the contrasting histories of Asian economies in the modern period. Four major areas are considered - Japan, China, India and Indonesia. Focus is on the nature of the Asian economies and the impact of the West prior to 1949, and the history of planning in the four nations since the Second World War. Four specific themes are considered: the impact of Japanese development on Asia; economic planning and policy in China; problems of the modern Indian economy; and planning for scientific and technological development in modern Asia.

ECOH2311 German Economy and Society
School of Economics
Staff Contact: School Office
UOC6 HPW3 S2
Prerequisite/s: ECON1102

The German Industrial Revolution 1850-1914; the origins and socio-economic impact of World War 1; the Treaty of Versailles, the hyperinflation of the early 1920s and economic recovery 1925-29; the Great Depression and the Nazi economic recovery; the German war economy 1930-45; the economic and social development of West and East Germany 1945-90; German economy and society in retrospect and prospect.

ECOH2313 Australian Economic Development in the Twentieth Century
School of Economics
Staff Contact: School Office
UOC6 HPW3 S1
Prerequisite/s: ECON1102

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.

ECOH2318 Making the Market
School of Economics
Staff Contact: School Office
UOC6 HPW3 S1
Prerequisite/s: ECON1102

This course is concerned with the evolution of the market as a means of distribution of goods and services. It focuses on the Australian experience since the later 19th century, in an international context. Among the areas covered are: the history of retailing and wholesaling; consumer sovereignty and the development of advertising; the evolution of consumer credit; efforts to subvert the market; and distribution of non-market economic systems.

Note/s: For Art students 36 Level 1 Units of Credit in Arts is required

ECOH2319 Economic Policy in Australia
School of Economics
Staff Contact: School Office
UOC6 HPW3 S2
Prerequisite/s: ECON1102

This course is concerned with the nature and development of economic policy in Australia since the establishment of the Commonwealth. It deals with policy issues in economic management such as fiscal, tariff, immigration, finance, employment and trade as well as those in social development such as education, health, housing and welfare. It aims to analyse the formulation of policy, the growth of State intervention in economic and social activities and the more recent trends towards deregulation. Attention will be paid to the impact upon Australian policy development of outside forces such as the two world wars, the Great Depression and fluctuations in the international economy. Finally, this course considers the ideological underpinnings of economic and social policy formation in Australian society and places economic rationalism in a historical perspective.

ECOH2321 Growth and Development of International Business
School of Economics
Staff Contact: School Office
UOC6 HPW3 TBA
Prerequisite/s: ECON1102

The historical origins and development of international business from the late 19th century. Topics covered include: growth of managerial capitalism; strategies of corporate growth such as vertical integration and diversification; the development of multinational enterprises in the 20th century; international competitiveness of business; the changing business environment; relations with government; business ethics in historical perspective. Case studies will be drawn from major international firms originating in Britain, Europe, USA and Japan. Students will be encouraged to gain insights into the strategy and structure of modern business corporations by analysis of their development in the past.

ECOH2322 Business and the New Europe
School of Economics
Staff Contact: School Office
UOC6 HPW3 S2
Prerequisite/s: ECON1102
Excluded: 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 course is of relevance not only to those interested in European issues. It also has implications for other regional arrangements (ASEAN and NAFTA) which are at an earlier stage in the integration process.

ECOH4321 Economic History 4 Honours
School of Economics
Staff Contact: School Office
Enrolment requires school approval
UOC48 S1 S2
Prerequisite/s: ECON1102

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. (For details of coursework options, see the Faculty of Commerce and Economics Handbook.)

ECOH4327 Thesis (Economic History)
School of Economics
Staff Contact: School Office
Enrolment requires school approval
UOC24 HPW3 S1 S2

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. The thesis topic must be approved by the Head of School before the end of November in the year preceding the Honours year.

ECON1101 Microeconomics 1
School of Economics
Staff Contact: School Office
UOC6 HPW3 S1 S2

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
Staff Contact: School Office
UOC6 HPW3 S1 S2
Prerequisite/s: 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.

ECON1103 Microeconomic Principles
School of Economics
Staff Contact: School Office
UOC6 HPW3 S1
Excluded: ECON1101

Introduces economics as a social science; scarcity, resource allocation and opportunity cost; consumer and producer behaviour as the basis for supply and demand analysis; introduction to marginal analysis; applications of supply and demand analysis; efficiency concepts and market forces.

ECON1104 Macroeconomic Principles
School of Economics
Staff Contact: School Office
UOC6 HPW3 S2
Prerequisite/s: ECON1103
Excluded: ECON1102

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. Also covered are models of the determination of equilibrium income; an analysis of the role of financial institutions; and an introduction to the analysis of macroeconomic policy.

ECON1107 Elements of Environmental Economics
School of Economics
Staff Contact: School Office
UOC6 HPW3 S1
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
Staff Contact: School Office
UOC6 HPW3 S1 S2
Excluded: MATH1032, MATH1042, 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 of 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 programmes.

ECON1203 Quantitative Methods B
School of Economics
Staff Contact: School Office
UOC6 HPW3 S1 S2
Prerequisite/s: ECON1202
Excluded: MATH1032, MATH1042, MATH1131, MATH1231, MATH1141, MATH1241

Course topics include: Frequency distributions; measures of central tendency; dispersion and skewness; introduction to probability theory; the binomial distribution; the normal distribution; point estimation of population parameters and confidence intervals; hypothesis tests; the t and chi square and F distributions; bivariate regression; estimation; and hypothesis testing.

ECON2101 Microeconomics 2
School of Economics
Staff Contact: School Office
UOC6 HPW3 S1
Prerequisite/s: ECON1101

Course covers: choice theory, including intertemporal choice, and labour supply; extensions of price theory; the theory of production, costs and supply; market structures including oligopoly models; externalities; and provides an introduction to general equilibrium and welfare analysis.

ECON2102 Macroeconomics 2
School of Economics
Staff Contact: School Office
UOC6 HPW3 S2
Prerequisite/s: ECON1102

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
Staff Contact: School Office
UOC6 HPW3 S2
Prerequisite/s: ECON1101 or ECON1103

Examines how government affects the business environment at the microeconomic level. The case for intervention and the benefits of deregulation and privatisation are analysed, with reference to particular industries. The effects on business of government instrumentalities 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.

ECON2104 Applied Macroeconomics
School of Economics
Staff Contact: School Office
UOC6 HPW3 S1
Prerequisite/s: ECON1102 or ECON1104

Examines economic growth and fluctuations and the effect this has on the business environment and the community. Explains the main macroeconomic tools and techniques used by governments and the central bank to implement fiscal, monetary and incomes policies. The implications for inflation, unemployment, interest rates and exchange rates, and foreign debt are discussed.

ECON2105 Economics of Corporations
School of Economics
Staff Contact: School Office
UOC6 HPW3 S2
Prerequisite/s: ECON1101 or ECON1103

Examines the economics of internal organisations in firms, corporations and other formal organisations. Addresses questions such as: why do organisations arise in market economies, how are incentives designed in organisations, how do organisations coordinate the decisions of many diverse agents, how does organisational design affect business strategy? Issues of transaction cost economics, informational economics and principal-agent theory are discussed.

ECON2107 The Economics of Information and Technology
School of Economics
Staff Contact: School Office
UOC6 HPW3 S1
Prerequisite/s: ECON1101 or ECON1103

Information, market failure and R & D. Asymmetric information. Localised learning. Technological change and intellectual property rights. The economics of innovation. Market structure, patents, inventions and R & D. Information technology. Biotechnology. Clusters of innovations and the diffusion of innovations. A National Technology Strategy?

ECON2109 Economics of Natural Resources
School of Economics
Staff Contact: School Office
UOC6 HPW3 S1
Prerequisite/s: ECON1101 or ECON1103

Provides an introduction to the exploitation of natural resource systems examined within an economic framework, particularly forestry, fisheries, water, oil and other minerals. Also looks at policies required to ensure improved management without overexploitation of these renewable and non-renewable resources under different property-right regimes.

ECON2111 Economics of Global Interdependence
School of Economics
Staff Contact: School Office
UOC6 HPW3 S2
Prerequisite/s: ECON1102 or ECON1104

Looks at Australia in an interdependent world; direction and composition of world trade; trade in services; trade theory and trade policy; strategic trade policy and imperfect competition; international competitiveness; barriers to trade and trading blocs; international institutions and policy; NAFTA, WTO and EU; World Bank and IMF; foreign currency markets; and international policy coordination.

ECON2112 Game Theory and Business Strategy
School of Economics
Staff Contact: School Office
UOC6 HPW3 S1
Prerequisite/s: ECON1101 or ECON1103

Outlines the basic tools and concepts in game theory and explores its applicability to a wide variety of real business situations. Business decision-making is inherently strategic and game theory shows what outcomes occur when agents interact strategically with one another. Applications from auction theory, industrial organisation, labour and environmental economics and public policy are examined.

ECON2113 Economics of E-Commerce
School of Economics
Staff Contact: School Office
UOC6 HPW3 S2
Prerequisite/s: ECON1101 or ECON1103

Electronic commerce is radically altering economic activities and the social environment. It affects large sectors of the economy, such as communications, finance, retail trade, education, health and government. It affects the way that businesses interact. This course examines the impact of e-commerce, and the way that business should behave strategically in this new environment. The topics covered include, (with case studies), the planning of product lines of information goods, the development of value-maximising pricing strategies, the management of intellectual 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
Staff Contact: School Office
UOC6 HPW3 S1
Prerequisite/s: ECON1102 or ECON1104

This course introduces a number of important facts concerning Japanese business and government and analyses them by applying theorectical 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
Staff Contact: School Office
UOC6 HPW3 S1
Prerequisite/s: ECON1102 or ECON1104

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
Staff Contact: School Office
UOC6 HPW3 S2
Prerequisite/s: ECON1101 or ECON1103

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
Staff Contact: School Office
UOC6 HPW3 S1
Prerequisite/s: 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 exercises feature throughout, using an econometric computer.

ECON2207 Econometric Methods
School of Economics
Staff Contact: School Office
UOC6 HPW3 S2
Prerequisite/s: ECON2206

This course covers estimation of econometric models using cross-section data, discrete choice models, and instrumental variable estimators. Practical computer applications feature throughout.

ECON2208 Operations Research
School of Economics
Staff Contact: School Office
UOC6 HPW3 S2
Prerequisite/s: ECON1202

Introduces operations research as the systematic application of quantitative methods to the analysis of problems involving decision making in economics and related disciplines. Includes linear programming, quadratic programming and dynamic programming with applications to transportation, inventory and portfolio selection and other economic related fields.

ECON2209 Business Forecasting
School of Economics
Staff Contact: School Office
UOC6 HPW3 S1
Prerequisite/s: ECON1203

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
Staff Contact: School Office
UOC6 HPW3 S1
Prerequisite/s: ECON1203

Statistical distribution theory: moments, normal, T, chi-square, F, and multivariate normal distributions. Basic asymptotic theory. Approaches to estimation and significance tests in univariate and multivariate models.

ECON2291 Quantitative Methods A (Arts)
School of Economics
Staff Contact: School Office
UOC6 HPW3 S1 S2
Excluded: MATH1032, MATH1042, MATH1131, MATH1231, MATH1141, MATH1241

Examines: Mathematics of Finance (compound interest, present value, annuities); Matrix Algebra (operations with matrices, determinants, matrix inverse, rank solutions of 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 programmes.

ECON2292 Quantitative Methods B (Arts)
School of Economics
Staff Contact: School Office
UOC6 HPW3 S1 S2
Excluded: ECON2290, ECON2203

Course topics include: frequency distributions; measures of central tendency; dispersion and skewness; introduction to probability theory; the binomial distribution; the normal distribution; point estimation of population parameters and confidence intervals; hypothesis tests; the t and chi square and F distributions; bivariate regression; estimation; and hypothesis testing.

Note/s: This course requires a level of computer literacy.

ECON3101 Markets and Public Choice
School of Economics
Staff Contact: School Office
UOC6 HPW3 S1
Prerequisite/s: ECON2101

Considers the theory of various types of market failure including uncertainty, property rights problems and congestion, and the role of government in measuring, correcting and restructuring markets to remedy these problems.

ECON3104 International Monetary Economics
School of Economics
Staff Contact: School Office
UOC6 HPW3 S1
Prerequisite/s: ECON2102

Considers topics in monetary theory, including theories of monetary exchange, inflation, financial intermediation, exchange rate determination and monetary policy in an international context.

ECON3105 Economic Analysis of Productivity
School of Economics
Staff Contact: School Office
UOC6 HPW3 S2
Prerequisite/s: ECON2101

Provides an economic analysis of the concept of productivity. What is productivity? Why does it matter? How can we measure it? Topics to be covered include; the microeconomic foundations of productivity levels and productivity growth, the measurement of productivity and empirical studies of productivity measurement for Australia and overseas countries.

ECON3105 •Economic Analysis of Productivity
School of Economics
Staff Contact: School Office
UOC6 HPW3 TBA
Prerequisite/s: ECON2101

Provides an economic analysis of the concept of productivity. What is productivity? Why does it matter? How can we meausre it? Topics to be covered include: the microeconomic foundations of productivity levels and productivity growth, the measurement of productivity and empirical studies of productivity measurement for Australia and overseas countries.

ECON3106 Public Finance
School of Economics
Staff Contact: School Office
UOC6 HPW3 S2
Prerequisite/s: ECON1101 or ECON1103

Topics covered include: general aspects of public sector expenditure and its financing with special reference to Australia; the role of government in the economy; principles and types of public expenditure; taxation theory, tax sharing and revenue systems; economic and welfare aspects of different types of taxes; inflation and tax indexation; loan finance and the public debt.

ECON3107 Economics of Finance
School of Economics
Staff Contact: School Office
UOC6 HPW3 S1
Prerequisite/s: ECON2101

Provides a treatment of the microeconomic foundations of modern finance. Many valuation or pricing formulas in modern finance are derived from the requirement that arbitrage profits are non-existent in properly functioning capital markets. The aim of the course is to show that the valuation formulas used in modern finance can also be derived from the microeconomic theory of markets in general equilibrium. Begins with a discussion of how economics agents make decisions when some aspect of the economic environment in which they operate is uncertain. This entails a discussion of expected utility theory and stochastic dominance, which form the cornerstone of modern financial economics. Asset pricing models are developed within the context of general eqilibrium portfolio choice problems. The notion that uncertainty in the economic environment can be dealt with by the introduction of state-contingent securities and that these securities lead to efficient market outcomes is fully discussed. The micoreconomic theory underlying the determination of firms' value is developed. This leads to a discussion of the Modigiliani-Miller proposition that the capital structure of the firm is irrelevant in determining its value. The course concludes with a discussion of the implications of informational asymmetrics for financial theories, with particular emphasis on insurance markets.

ECON3109 Economic Growth, Technology and Structural Change
School of Economics
Staff Contact: School Office
UOC6 HPW3 S1
Prerequisite/s: ECON2101 or ECON2103

Topics covered include: characteristics of economic growth and development, role of capital accumulation, labour, technology and natural resources; the application of growth models to development issues; the role of industrialisation, structural change and development strategies in promoting economic growth; and income inequality and economic welfare.

ECON3110 Development Economics
School of Economics
Staff Contact: School Office
UOC6 HPW3 S2
Prerequisite/s: ECON2101 or ECON2103

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 Industrializing Economies of East Asia
School of Economics
Staff Contact: School Office
UOC6 HPW3 S2
Prerequisite/s: ECON1102 or ECON1104

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
Staff Contact: School Office
UOC6 HPW3 S1
Prerequisite/s: ECON1102 or ECON1104

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.

ECON3116 International Economics
School of Economics
Staff Contact: School Office
UOC6 HPW3 S2
Prerequisite/s: 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
Staff Contact: School Office
UOC6 HPW3 S2
Prerequisite/s: ECON1102 or ECON1104

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 Economic Reasoning
School of Economics
Staff Contact: School Office
UOC6 HPW3 S2
Prerequisite/s: ECON2102

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
Staff Contact: School Office
UOC6 HPW3 S1
Prerequisite/s: ECON2105, ECON2112

This course aims to equip students with the knowledge and skills necessary to tackle many of the complex strategic decisons facing modern managers. Topics to be covered include: the economics of mergers and acquisitions; strategic competition over prices, quality characteristics and capacity; profitability and entry into new industries; R&D and the strategic importance of innovation; collusion and other methods to reduce competition and the role of networks in modern economies.

ECON3202 Mathematical Economics
School of Economics
Staff Contact: School Office
UOC6 HPW3 S1
Prerequisite/s: 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
Staff Contact: School Office
UOC6 HPW3 S2
Prerequisite/s: 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
Staff Contact: School Office
UOC6 HPW3 S1
Prerequisite/s: ECON2207

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 commonly-met 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
Staff Contact: School Office
UOC6 HPW3 S2
Prerequisite/s: 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.

ECON3213 Comparative Forecasting Techniques
School of Economics
Staff Contact: School Office
UOC6 HPW3 S2
Prerequisite/s: ECON2206 or ECON2209

This course includes the following topics: exponential smoothing; Box-Jenkins techniques: transfer functions; VAR models; and a combination of forecasts, accuracy of forecasts, and spreadsheets and forecasts.

ECON3290 Introductory Econometrics (Arts)
School of Economics
Staff Contact: School Office
UOC6 HPW3 S1
Excluded: ECON3206

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 exercises feature throughout, using an econometric computer.

ECON3291 Econometric Methods (Arts)
School of Economics
Staff Contact: School Office
UOC6 HPW3 S2
Excluded: ECON3207

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
Staff Contact: School Office
UOC6 HPW3 S1
Prerequisite/s: ECON2101, ECON2102

Selected topics in advanced microeconomics and macroeconomics.

ECON4101 International Trade
School of Economics
Staff Contact: School Office
UOC6 HPW3 S1
Prerequisite/s or Corequisite/s:ECON4100

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 Industrial Organisation
School of Economics
Staff Contact: School Office
UOC6 HPW3 S2
Prerequisite/s or Corequisite/s: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 subject.

ECON4103 Business Cycles and Growth
School of Economics
Staff Contact: School Office
UOC6 HPW3 S2
Prerequisite/s or Corequisite/s: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
Staff Contact: School Office
UOC6 HPW3 S1
Prerequisite/s or Corequisite/s:ECON4100

Traditional models of labour supply; participation and hours of work, immigration. Provision of training and skills, human capital theory. The theory of screening, specific and general skills models. Demand for labour, marginal productivity theory, labour hoarding, quit rates and turnover. Internal labour markets. The theory of wage differentials and the structure of earnings. Labour market segmentation. Trade unions and theories of bargaining.

ECON4105 Seminar in Research Methods
School of Economics
Staff Contact: School Office
Enrolment requires school approval
UOC6 HPW3 S1 S2

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
Staff Contact: School Office
Enrolment requires school approval
UOC48 HPW6 S1 S2
Prerequisite/s: 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 for details (see the Faculty of Commerce and Economics Handbook).

Note/s: Students are expected to do a substantial amount of work on their thesis before the commencement of the academic year. They must have a topic approved by the Head of School before the end of the year preceeding their entry into their final year.

ECON4127 Thesis (Economics)
School of Economics
Staff Contact: School Office
Enrolment requires school approval
UOC24 HPW3 S1 S2

Note/s: Students are expected to do a substantial amount of work on their thesis before the commencement of the academic year. They must have a topic approved by the Head of School. Students are required to present a seminar on the topic of their thesis.

ECON4201 Applied Econometrics
School of Economics
Staff Contact: School Office
UOC6 HPW3 S1
Prerequisite/s: ECON2207, ECON2101 or ECON2102

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 heteoskedasticity, 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
Staff Contact: School Office
UOC6 HPW3 S2
Prerequisite/s: 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; heteroscedasticity and unit roots.

ECON4227 Thesis (Econometrics)
School of Economics
Staff Contact: School Office
Enrolment requires school approval
UOC24 HPW3 S1 S2

Note/s: Students are expected to do a substantial amount of work on their thesis before the commencement of the academic year. They must have a topic approved by the Head of School before the end of the August recess in the year preceding their entry into Year 4.

EDST1101 Educational Psychology 1
School of Education
Staff Contact: P Chandler
UOC6 HPW3 S1

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.

EDST1102 Social Foundations of Education
School of Education
Staff Contact: M Matthews
UOC6 HPW3 S2

Examines sociological and philosophical aspects of Australian education: interrelations between society, the economy and education; different forms of school system; structure and evolution of NSW schooling; role of government and pressure groups in the determination of curriculum and the distribution of resources; educational testing and inequalities in educational achievement: differing accounts of inequality, sexism in school

systems, affirmative action programs and their putative justifications; the educational influence of both schools and families. Philosophical matters: ethics of affirmative action proposals; justice in the distribution of educational resources; justification of curriculum decisions.

EDST2010 Educational Psychology 2
School of Education
Staff Contact: R Low
UOC6 HPW3 S1
Prerequisite/s: EDST1101
Excluded: EDST1201

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, in reading, in mathematics and in science.

EDST2020 Ethics and Education
School of Education
Staff Contact: R Bibby
UOC6 HPW3 S1 S2
Prerequisite/s: 36 units of credit
Excluded: EDST1302, EDST3911

The aims of education and the justification of compulsion. Social Justice, equality and fairness. Children's rights, democracy and multiculturalism. Controversy and values in schools.

EDST2030 History, Philosophy and Science Teaching
School of Education
Staff Contact: M Matthews
UOC6 HPW6 S2
Prerequisite/s: EDST1102
Excluded: EDST1303

Examines the justification for, and ways of teaching, the historical and philosophical components of the curriculum of the NSW Years 7-10 and 11,12 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/s: Offered in condensed mode during 6 non-practice teaching weeks. Contact the School for dates and details.

EDST2041 Stress and Anxiety in Students and Teachers
School of Education
Staff Contact: P Jin
UOC6 HPW3 S1
Prerequisite/s: EDST1101
Excluded: EDST1304

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.

EDST2042 Theory and Practice in the Classroom
School of Education
Staff Contact: R Low
UOC6 HPW3 S1 S2
Prerequisite/s: EDST1101,EDST1102
Excluded: EDST1366

Examines teaching, learning and other educational processes within schools. Has both practical and theoretical components. The practical component requires students to attend and observe school room activities for 3 hours per week. The theoretical component requires students to complete an independent project based on their school observations. Students will select the focus of their study from an area of education they have previously studied.

Note/s: Attendance at an orientation meeting in week 1 is compulsory. Contact the School for details at the beginning of each session. Involves individual research off-campus.

EDST2045 Teacher Effectiveness, Research and Practice
School of Education
Staff Contact: P Ayres
UOC6 HPW3 S1
Prerequisite/s: EDST1101, EDST1102
Excluded: EDST1451, EDST3904

Explores concepts of teacher effectiveness, the measurement of teacher effectiveness and teacher development. Uses current research to identify those teacher skills and behaviours that effectively facilitate student achievement in a variety of learning contexts.

EDST2050 Gifted and Talented Students: Recognition and Response
School of Education
Staff Contact: K Hoekman
UOC6 HPW3 S1
Prerequisite/s: EDST1101
Excluded: EDST1205

Designed to equip prospective teachers with the skills to recognise and respond to the needs of intellectually gifted students, including students from disadvantaged and minority groups. Critically examines the theories of giftedness and talent which currently influence education systems in Australia, and NSW in particular. 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 in relation to current research on providing optimal contexts for learning for students of high intellectual potential.

EDST2052 Relationships Between Personality, Mood, Motivation and Learning
School of Education
Staff Contact: R Low
UOC6 HPW3 S2
Prerequisite/s: EDST1101
Excluded: EDST1452

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.

EDST2060 Educational Programs and Curricula for Intellectually Gifted Students
School of Education
Staff Contact: K Hoekman
UOC6 HPW3 S2
Prerequisite/s: EDST1205 or EDST2050
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
Staff Contact: M Varvaressos
UOC6 HPW3 S1
Prerequisite/s: EDST1102
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.

EDST3090 Introductory Teaching Experience
School of Education
Staff Contact: School Office
Enrolment requires school approval
UOC6 HPW7 S1

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 twelve weeks.

Note/s: A Method 1 course in a teaching specialisation is a co-requisite.

EDST3901 Education Research Methods (Advanced)
School of Education
Staff Contact: P Jin
UOC6 HPW3 S1
Prerequisite/s: 36 units of credit including 6 units of Education at credit level

A program of study prescribed to meet the individual needs of students intending to study for honours in education.

EDST3904 Research into Teacher Effectiveness (Advanced)
School of Education
Staff Contact: P Ayres
UOC6 HPW3 S1
Prerequisite/s: 36 units of credit including 6 units of Education at credit level
Excluded: EDST2045, EDST1451

Explores the research into effective teachers and effective schools. Examines the attributes of effective teachers and discusses how the identification of these skills, behaviours and qualities can be used. As part of their assessment students will be required to synthesise current research literature and conduct a project based on that reading.

EDST3908 Multiculturalism and Education (Advanced)
School of Education
Staff Contact: M Varvaressos
UOC6 HPW3 S1
Prerequisite/s: 36 units of credit including 6 units of Education at credit level
Excluded: EDST2070, EDST1207

Focuses on the way multiculturalism has or has not influenced education. Considers the varying definitions of multiculturalism over the last twenty-five years. Critically examines the reality and the rhetoric of Commonwealth and State government policies. Fundamental conceptions of race, identity, and 'Otherness' are explored in the light of these policies. Looks at the history of 'difference' and how schooling has reacted to this position of the individual, at a social justice and at a political level. Comparisons are with Canada, the USA, South Africa and Europe. As part of their assessment students will be required to read current research literature and conduct a project based on that reading.

EDST3911 Equality, Justice and Issues in Education (Advanced)
School of Education
Staff Contact: R Bibby
UOC6 HPW3 S1
Prerequisite/s: 36 units of credit including 6 units of Education at credit level
Excluded: EDST2020, EDST1302

Freedom and compulsion in education. Justice, equity and equality. The supposed conflicts between justice and freedom. Children's rights. Democracy and schools. Competition policies in education: parents and the marketplace.

EDST4000 Education Honours Full-Time
School of Education
Staff Contact: K Hoekman
Enrolment requires school approval
UOC24 S1 S2
Prerequisite/s: 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/s: Intending Honours students are advised to consult the School about their program of study.

EDST4050 Education Honours Part-Time
School of Education
Staff Contact: K Hoekman
Enrolment requires school approval
UOC12 S1 S2
Prerequisite/s: 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/s: Intending Honours students are advised to consult the School about their program of study.

EDST4080 Special Education
School of Education
Staff Contact: R Howard
UOC6 HPW3 S1
Prerequisite/s: EDST1101 and EDST1102
Excluded: EDST1448

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.

EDST4081 Professional Issues in Teaching
School of Education
Staff Contact: R Bibby
UOC6 HPW3 S1
Prerequisite/s: EDST1101 and 1102
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 schooling; 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/s: May not be counted towards a major sequence in program 3400 BA.

EDST4090 Teaching Experience
School of Education
Staff Contact: M Varvaressos
UOC12 S2
Prerequisite/s: EDST4091 and 6 units of credit in Method courses
Excluded: EDST1450, EDST2450

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.

EDST4091 Microteaching
School of Education
Staff Contact: P Ayres
UOC3 S1
Prerequisite/s: EDST1101 and EDST1102
Excluded: EDST4091.

Aims to help students develop a practical understanding of a selection of research based skills that may be applied to a variety of teaching contexts. Microteaching experiences are used to facilitate opportunities for observation, practice, reflection and evaluation to promote the development of a flexible repertoire of basic instructional skills and teaching competencies.

Note/s: Taught in conjunction with Method courses.

EDST4092 Computer Skills for Teachers
School of Education
Staff Contact: P Ayres
UOC3 HPW2 S2
Prerequisite/s: 6 units of credit in Method courses
Excluded: EDST1492

Designed to focus on practical computer skills that teachers will need on a day-to-day basis. Computer skill workshops centre 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/s: Taught in conjunction with Method courses. Designed to meet the NSW DET requirements for new teachers in government schools. Normally completed over the last weeks of Session 2. Students are required to attend computer laboratory sessions.

EDST4121 Chinese Method 1
School of Education
Staff Contact: P Ayres
UOC3 HPW4 S1
Corequisite/s: EDST4091
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.

EDST4122 Chinese Method 2
School of Education
Staff Contact: P Ayres
UOC3 HPW5 S2
Prerequisite/s: EDST1469 or EDST4121
Excluded: EDST1429, EDST2429, EDST1470
Continuation of the topics in EDST4121.

EDST4123 Commerce/Economics Method 1
School of Education
Staff Contact: P Ayres
UOC3 HPW3 S1
Corequisite/s: EDST4091

Designed to provide students with the necessary knowledge and skills to operate as commerce teachers in secondary schools. Introduces a variety of teaching methods, including project work and case study. Examination of resources that are appropriate for the presentation of content. Assessment techniques and the NSW school syllabuses and how they are implemented in the classroom.

EDST4124 Commerce/Economics Method 2
School of Education
Staff Contact: P Ayres
UOC3 HPW4 S2
Prerequisite/s: EDST4123
Continuation of the topics studied in EDST4123.

EDST4125 Drama Method 1
School of Education
Staff Contact: P Ayres
UOC3 HPW3 S1
Corequisite/s: EDST4091
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/s: 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
Staff Contact: P Ayres
UOC3 HPW4 S2
Prerequisite/s: EDST1461 or EDST4125
Excluded: EDST1421, EDST2421, EDST1462
Continuation of the topics in EDST4125.

EDST4127 English Method 1
School of Education
Staff Contact: P Ayres
UOC3 HPW3 S1
Corequisite/s: EDST4091
Excluded: EDST1422, EDST2422, EDST1403, EDST4129, 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.

EDST4128 English Method 2
School of Education
Staff Contact: P Ayres
UOC3 HPW4 S2
Prerequisite/s: EDST1463 or EDST4127
Excluded: EDST1423, EDST2423, EDST1404, EDST4130, EDST1464
Continuation of the topics in EDST4127.

EDST4129 English Double Method 1
School of Education
Staff Contact: P Ayres
UOC6 HPW6 S1
Corequisite/s: EDST4091
Excluded: EDST1422, EDST2422, EDST1463, EDST4127, EDST1403

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 of assessment. Extensive coverage of current English curriculum development initiatives and research based instructional strategies will be provided. Intensive application and evaluation of both the Junior and Senior syllabus will be facilitated.

Note/s: Available only to DipEd students.

EDST4130 English Double Method 2
School of Education
Staff Contact: P Ayres
UOC6 HPW8 S2
Prerequisite/s: EDST1403 or EDST4129
Excluded: EDST1423, EDST2423, EDST1464, EDST4128, EDST1404
Continuation of the topics covered in EDST4129.

EDST4131 Literacy / English as a Second Language Method 1
School of Education
Staff Contact: P Ayres
UOC3 HPW3 S1
Corequisite/s: EDST4091
Excluded: EDST1424, EDST2424, EDST1465

Aspects of language and language theory; various teaching skills and strategies, different lesson types and the fundamentals of planning units of work. Principles 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.

EDST4132 Literacy / English as a Second Language Method 2
School of Education
Staff Contact: P Ayres
UOC3 HPW4 S2
Prerequisite/s: EDST1465 or EDST4131
Excluded: EDST1425, EDST1466, EDST2425
Continuation of the topics listed in EDST4131.

EDST4133 French Method 1
School of Education
Staff Contact: P Ayres
UOC3 HPW4 S1
Corequisite/s: EDST4091
Excluded: EDST1430, 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.

EDST4134 French Method 2
School of Education
Staff Contact: P Ayres
UOC3 HPW5 S2
Prerequisite/s: EDST1471 or EDST4133
Excluded: EDST1431, EDST2431, EDST1472

Continuation of the topics in EDST4133.

EDST4135 Geography Method 1
School of Education
Staff Contact: P Ayres
UOC3 HPW3 S1
Corequisite/s: EDST4091
Excluded: EDST1493

Designed 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 instructions, and designing items for assessment.

EDST4136 Geography Method 2
School of Education
Staff Contact: P Ayres
UOC3 HPW4 S2
Prerequisite/s: EDST1493 or EDST4135
Excluded: EDST1494
Continuation of the topics in EDST4135.

EDST4137 German Method 1
School of Education
Staff Contact: P Ayres
UOC3 HPW4 S1
Corequisite/s: EDST4091
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.

EDST4138 German Method 2
School of Education
Staff Contact: P Ayres
UOC3 HPW5 S2
Prerequisite/s: EDST1475 or EDST4137
Excluded: EDST1435, EDST2435, EDST1476
Continuation of the topics in EDST4137.

EDST4139 Greek Method 1
School of Education
Staff Contact: P Ayres
UOC3 HPW4 S1
Corequisite/s: EDST4091
Excluded: EDST1485

Covers a variety of approaches to the teaching of languages other than English in secondary classrooms; examines the contribution of linguistics to how children learn languages other than English and also the current New South Wales school syllabuses. Studies a range of resource materials with particular attention to the use of audio-visual resources and a range of techniques designed to motivate learners. Practical issues such as lesson preparation and assessment practices are considered.

EDST4140 Greek Method 2
School of Education
Staff Contact: P Ayres
UOC3 HPW5 S2
Prerequisite/s: EDST1485 or EDST4139
Excluded: EDST1486
Continuation of the topics listed in EDST4139.

EDST4141 History Method 1
School of Education
Staff Contact: P Ayres
UOC3 HPW3 S1
Corequisite/s: EDST4091
Excluded: EDST1426, EDST2426, EDST1405, EDST4143, EDST1467

Aims and objectives of history teaching and the principles which underpin the selection and application of teaching methods for secondary school students. Teaching strategies for effective operation in classroom situations; practical tasks such as analysing the history syllabus, planning units of instruction, selecting media of instruction, and designing items for assessment.

EDST4142 History Method 2
School of Education
Staff Contact: P Ayres
UOC3 HPW4 S2
Prerequisite/s: EDST1467 or EDST4141
Excluded: EDST1427, EDST2427, EDST1406, EDST4144, EDST1468
Continuation of the topics listed in EDST4141.

EDST4143 History Double Method 1
School of Education
Staff Contact: P Ayres
UOC6 HPW6 S1
Corequisite/s: EDST4091
Excluded: EDST1426, EDST2426, EDST1467, EDST4141, EDST1405

Aims and objectives of history teaching and the principles which underpin the selection and application of teaching methods for secondary school students. Teaching strategies for effective operation in classroom situations; practical tasks such as analysing the history syllabus, planning units of instruction, selecting media of instruction, and designing items for assessment. Extensive coverage of current History curriculum development initiatives and research based instructional strategies will be provided. Intensive application and evaluation of both the Junior and Senior syllabus will be facilitated.

Note/s: Available only to DipEd students.

EDST4144 History Double Method 2
School of Education
Staff Contact: P Ayres
UOC6 HPW8 S2
Prerequisite/s: EDST1405 or EDST4143
Excluded: EDST1406, EDST1427, EDST1468, EDST2427, EDST4142
Continuation of the topics in EDST4143.

EDST4145 Indonesian Method 1
School of Education
Staff Contact: P Ayres
UOC3 HPW4 S1
Corequisite/s: EDST4091
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.

EDST4146 Indonesian Method 2
School of Education
Staff Contact: P Ayres
UOC3 HPW5 S2
Prerequisite/s: EDST1483 or EDST4145
Excluded: EDST1437, EDST2437, EDST1484
Continuation of the topics in EDST4145.

EDST4147 Japanese Method 1
School of Education
Staff Contact: P Ayres
UOC3 HPW4 S1
Corequisite/s: EDST4091
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.

EDST4148 Japanese Method 2
School of Education
Staff Contact: P Ayres
UOC3 HPW5 S2
Prerequisite/s: EDST1473 or EDST4147
Excluded: EDST1433, EDST2433, EDST1474
Continuation of the topics in EDST4147.

EDST4149 Mathematics Method 1
School of Education
Staff Contact: P Ayres
UOC6 HPW6 S1
Corequisite/s: EDST4091
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; relevant issues, including assessment, problem solving, gender and mathematics; practical experience in the preparation of lesson plans and a range of teaching techniques appropriate for mathematics.

EDST4150 Mathematics Method 2
School of Education
Staff Contact: P Ayres
UOC6 HPW8 S2
Prerequisite/s: EDST1479 or EDST4149
Excluded: EDST1445, EDST2445, EDST1480
Continuation of the topics listed in EDST4149.

EDST4151 Science Method 1
School of Education
Staff Contact: P Ayres
UOC6 HPW8 S1
Corequisite/s: EDST4091
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.

EDST4152 Science Method 2
School of Education
Staff Contact: P Ayres
UOC6 HPW10 S2
Prerequisite/s: EDST1481 or EDST4151
Excluded: EDST1447, EDST2447, EDST1482.
Continuation of the topics listed in EDST4151.

EDST4153 Spanish Method 1
School of Education
Staff Contact: P Ayres
UOC3 HPW4 S1
Corequisite/s: EDST4091
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.

EDST4154 Spanish Method 2
School of Education
Staff Contact: P Ayres
UOC3 HPW5 S2
Prerequisite/s: EDST1477 or EDST4153
Excluded: EDST1439, EDST2439, EDST1478
Continuation of the topics in EDST4153.

EDST4155 Business Studies Method 1
School of Education
Staff Contact: P Ayres
Enrolment requires school approval
UOC3 HPW3 S1
Corequisite/s: EDST4091

Designed to equip students with the essential knowledge and skills to teach Business Studies in Years 11 and 12. Introduces students to a variety of teaching methods including project work and case studies. Consistent with the NSW syllabus, focuses on the key themes of small business and its relationship with economic growth, business goals and plans, accounting, finance, marketing, employment relations, globalisation and social responsibilities. Also examines how a Business Research Task is used for HSC assessment, and how outcomes guide teaching and learning.

EDST4156 Business Studies Method 2
School of Education
Staff Contact: P Ayres
Enrolment requires school approval
UOC3 HPW3 S2
Prerequisite/s: EDST4155
Continuation of the topics in EDST4155.

EDST4157 Computing Studies Method 1
School of Education
Staff Contact: P Ayres
Enrolment requires school approval
UOC3 HPW3 S1
Corequisite/s: EDST4091

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.

EDST4158 Computing Studies Method 2
School of Education
Staff Contact: P Ayres
Enrolment requires school approval
UOC3 HPW3 S2
Prerequisite/s: EDST4157
Continuation of topics covered in EDST4158.

ELEC0806 Industrial Electrical Design
School of Electrical Eng and Telecommunications
Staff Contact: A Coster
UOC3 HPW4 S2

This subject deals with fundamentals of Electrical Engineering relevant to Industrial Design. Without going into great detail or building on the ultimate physical properties of matter, the course will often use the concept of electrons. That, together with your everyday knowledge of electrical applications, will be the starting point. On completion you will have knowledge of some useful topics including the terminology of Electrical Engineering; which electric motor to choose depending on its application; Electrical Safety; Standards; etc. On the journey, the syllabus for ELEC0806 will cover Ohm's law, concepts of AC and DC voltage and current, the basics of transformers, motors and electromechanical product systems, electromagnetic interference, shielding and earthing.

ELEC0807 Electrical Engineering 1E
School of Electrical Eng and Telecommunications
Staff Contact: E Spooner
UOC6 HPW6 S2
Prerequisite/s: PHYS1169 or PHYS1002 or PHYS1918

Circuit theory: analysis and design of DC and AC circuits, comprising various energy sources and complex impedances, 3 phase circuits. Laboratory methods: electrical safety, transformers and motors, signal generators, measuring devices, oscilloscopes. Instrumentation: operational amplifiers, sensors, simple signal processing, AC machines and DC machines.

ELEC0809 Electrical Engineering 1C
School of Electrical Eng and Telecommunications
Staff Contact: E Spooner
UOC3 HPW5 S1
Prerequisite/s: PHYS1169 or PHYS1002 or PHYS1918

Circuit theory: analysis and design of DC and AC circuits, comprising various energy sources and complex impedances, 3-phase circuits. Laboratory methods: electrical safety, signal generators, measuring devices, oscilloscopes. Transformers and AC machines and induction motors. DC machines and motors.

ELEC1010 Introduction to Electrical Engineering
School of Electrical Eng and Telecommunications
Staff Contact: I Skinner
UOC3 HPW3 S1

Introduction to the nature and scope of electrical engineering, including communications, computing, electrical energy, electronics and systems. Careers for electrical engineers. Verbal and written communication and inter-personal skills in engineering.

ELEC1011 Electrical Engineering 1
School of Electrical Eng and Telecommunications
Staff Contact: D Clements
UOC6 HPW6 S1 S2

Passive electrical components. Electric circuit concepts and relationship to field theory. Kirchhoff s laws. Node and mesh analysis of resistive networks. Network theorems. Controlled sources. Transient conditions. Sources of periodic signals. Average and r.m.s. values. Circuit models of diodes and transistors. Combinational logic principles and circuits.

ELEC1041 Digital Circuits
School of Electrical Eng and Telecommunications
Staff Contact: S Nooshabadi
UOC6 HPW4 S2 X1
Prerequisite/s: ELEC1011

Realisations of combinational circuits: MSI devices, ROMs, PLAs, synchronous, sequential logic circuits: latches, flip flops, counters, registers. Algorithmic state machines: systematic design procedures. A Synchronous sequential logic circuits, design applications. PLDs, VHDL.

ELEC2015 Electromagnetic Applications
School of Electrical Eng and Telecommunications
Staff Contact: F Rahman
UOC3 HPW3 S2
Prerequisite/s: PHYS2939 or PHYS2949

General field properties. Electric and magnetic fields. Inductance and capacitance. Dielectric and magnetic materials and their applications. Electrodynamic forces. Transformer and motor action: rotating magnetic fields. Dielectric and induction heating. Applications of Maxwell s equation. Transmission lines from circuit and electromagnetic viewpoints. Electromagnetic radiation. Some health and regulatory considerations.

ELEC2031 Circuits and Systems
School of Electrical Eng and Telecommunications
Staff Contact: K Daly
UOC3 HPW3 S1 S2
Prerequisite/s: ELEC1011
Excluded: ELEC2032

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; homogenous and particular solutions for first and second order linear differential equations; computer aided analysis of signals and systems, including state space representations; continuous time signals, sinusiods 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.

ELEC2032 Electronics and Systems
School of Electrical Eng and Telecommunications
Staff Contact: K Daly
UOC3 HPW3 S1 X1
Prerequisite/s: ELEC2031

Linear Time Invariant Circuits and Systems; continuous & discrete time systems; time invariance, causality; impulse and step responses; convolution integral and sum; relationship to frequency response; stability of circuits and systems. Transistor amplifier; stability, limit cycles. Linearisation of non-linear systems; non-linear circuits; non-linear elements (diodes, transistors, saturation); small signal analysis of resistive non-linear circuits; small signal analysis of transistor amplifiers.

ELEC2041 Microprocessors and Interfacing
School of Electrical Eng and Telecommunications
Staff Contact: S Nooshabadi
UOC6 HPW4 S1
Prerequisite/s: COMP1011, ELEC1041

The programmer's model of a microprocessor: writing assembly language programs. The hardware model of a microprocessor: synchronous and asynchronous busses. Interfacing concepts: I/O Organisation, address decoding, static and dynamic memory interfacing. Direct I/O for simple peripherals. I/O support devices: PIAs, ACIAS. Interrupt-driven I/O: interrupt vectors, interrupt handlers, DMA controllers. Standard microcomputer busses: VME, EISA, SCSI and others. Laboratory interfacing experiments using 8-bit and 16-bit hardware, assembly language software, real-time kernels and operating systems.

ELEC2042 Real Time Instrumentation
School of Electrical Eng and Telecommunications
Staff Contact: R Eaton
UOC3 HPW4 S1 S2
Prerequisite/s: (ELEC1041 and COMP1021) or (SOLA1051, ELEC1041) or
Corequisite/s: MTRN3202

Object oriented programming: structured programming, data abstraction, classes, overloading, inheritance, polymorphism, C++. Hardware requirements for real time applications: systems model of the computer, process-related interfaces (digital, analog, clocks), scaling, data transfer (polling, interrupts, DMA), serial data transmission, multi-plexing, bus systems, instrumentation bus. Software development: real-time specification standards. Real time specification and design: state machines, specification techniques. Simple real time kernels: state machine multi-tasking, co-routines, interrupts, foreground/background systems. Engineering applications: systems model of instrumentation data communication network protocols.

ELEC3004 Signal Processing and Transform Methods
School of Electrical Eng and Telecommunications
Staff Contact: A Bradley
UOC6 HPW5 S1 S2
Prerequisite/s: ELEC2032

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 Eng and Telecommunications
Staff Contact: C Grantham
UOC6 HPW4 S1
Prerequisite/s: ELEC2015

Introduction to energy systems; three-phase circuits, overview of electricity generation, transmission, distribution storage and utilisation. Transformers: equivalent circuit, elimination of harmonics. Electric shock and prevention. Electrical fires. Electrical machines: fundamentals and applications of DC and AC machines. Small electrical machines. Introduction to power electronics: single- and three-phase switching of electrical power. Heat generation in and effects on electrical equipment. Insulation systems and determination; mathematical model of heat source. Heat transfer by conductions; convection and radiation. Dynamic temperature behaviour and intermittent ratings of equipment.

ELEC3006 Electronics A
School of Electrical Eng and Telecommunications
Staff Contact: A Dzurak
UOC6 HPW5 S1
Prerequisite/s: ELEC2032

Frequency analysis of amplifiers. Design and analysis of feedback amplifiers. Amplifier stability analysis. Comparators. Schmidt triggers. Waveform generators: sinusoidal, square, triangular. Waveform shaping circuits. Multiplier. A-D and D-A converters.

ELEC3014 Systems and Control 1
School of Electrical Eng and Telecommunications
Staff Contact: P Neilson
UOC6 HPW5 S2
Prerequisite/s: ELEC2032.

History of feedback control/Differential equations/Laplace transforms/ Transfer functions/Poles & Zeros/State space models/Computer model of 2nd order system/Modelling mechanical systems/Gears/DC servo motor and load/First and second order systems/Underdamped systems/Block diagram algebra/ Signal flow graphs/ Mason's rule/Stability/Routh-Hurwitz criterion/Steady state errors/Static error constants and system type number/ Steady state errors for disturbances/Root locus theory/rules for sketching root locus/Generalized root locus/Transient response design via gain adjustment/Pole sensitivity/ Design via root locus/Ideal integral control/ Lag compensation/PD control/ Lead compensation/PID control/Lag-lead compensation/Feedback compensation/Bode plots/Nyquist plots/Nyquist stability criterion/Gain margin and phase margin/Time delay/Stability via Bode plots/Closed-loop transient vs open-loop frequency response/M&N

circles/Nichols chart/ Introduction to design via frequency response /Gain adjustment/Lag compensation/Lead compensation. 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 Eng and Telecommunications
Staff Contact: C Grantham
UOC6 HPW4 S2
Prerequisite/s: 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 Eng and Telecommunications
Staff Contact: A Dzurak
UOC6 HPW4 S2
Prerequisite/s: 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-idealities 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 Eng and Telecommunications
Staff Contact: D Taubman
UOC6 HPW5 S2

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, stnadards, patents, quality and reliability, safety, (electronic) manufacturing methods and systems, engineering innovations.Design Methodology: Systematic design procedures, design documentation. Designing for quality, for manufacture, for maintenance, for minium life cycle cost. Use of computer aids for project management, drawing, PCB design, circuit analysis and sythesis, documentation,e tc.Engineering Drawing and Graphical Communications: Standards, projections, dimensioning, tolerancing, and drawing interpretation.Aspects of Electronic Design: Device specifications, component choices, soucring, data sheets, tolerances, aging, thermal dissipation, passive componenet 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 Eng and Telecommunications
Staff Contact: R Eaton
UOC6 HPW4 S2
Prerequisite/s: ELEC2042 or MECH3202 or MTRN3202

Real-Time Specification and Design: program specification methods; state-based discrete event specification; Petri nets; timing analysis; simulation techniques. Real-Time Kernels: Co-routines and multi-tasking; queueing models and realisations; pre-emptive scheduling; scheduling algorithms; intertask communication and synchronisation; event-driven systems; real-time memory management; system performance, analysis and optimisation; reliability, testing and fault tolerance; multiprocessing systems. Control System Realisation: controller structures; implementation of continuous and discrete controllers; robustness issues; programmable logic controllers. Networks; coding; serial data transmission; modems, layered protocols; standards; simple LANs.

ELEC3402 Introductory Physiology for Engineers
School of Electrical Eng and Telecommunications
Staff Contact: B Celler
UOC6 HPW4 S2
Prerequisite/s: ELEC2032

An introduction to biophysics and physiology for engineers. Cells, tissues and organ systems with emphasis on their functional and regulatory characteristics and their interaction. An introduction to computer models of physiological control systems demonstrating their value in understanding the dynamics of complex neural, hormonal and circulatory responses to changes in homeostasis.

ELEC4010 Introduction to Management for Electrical Engineers
School of Electrical Eng and Telecommunications
Staff Contact: School Office
UOC3 HPW4 S1
Prerequisite/s: 96 units of credit

The purpose of this subject is to introduce students to key management concepts and techniques in the content of electrical engineering. Topics to be discussed will be taken from accounting, economics, finance, marketing, decision-making techniques, operations research, project and strategic management, human resources, industrial relations and law.

ELEC4011 Ethics and Electrical Engineering Practice
School of Electrical Eng and Telecommunications
Staff Contact: I Skinner
UOC3 HPW2 S2
Prerequisite/s: 120 units of credit

An introduction to the nature and origins of 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 for 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, together with a report. The report, typically 2000-3000 words long, should summarise the actual technical work performed, and should address the extent to which the aims of the industrial training, above, 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 Eng and Telecommunications
Staff Contact: E Ambikairajah
UOC6 HPW5 S1
Prerequisite/s: ELEC3004 or ELEC3012

Digital Oscillators. Decimation and interpolation. Frequency-Sampling Filters, Comb filters. Advanced design of digital filters and their implementation in Matlab. Discrete Fourier transform (DFT). Fast transform (FFT) algorithms. Wavelet Transform (WT). Comparison between FFT and WT. Multirate Systems. Quadrature-Mirror Filter Bank, Multilevel Filter Banks, Polyphase Decomposition. FIR Lattice filters, All-pole IIR Lattice filters and their implementation. Adaptive filters. Least square filter design. inverse filtering. Wiener filters, Noise reduction. Linear prediction and the Levinson algortihm. Analysis of Finite-word length effects. Limit Cycles. Round-off noise. Nonstationary Signal Processing.

ELEC4205 Electrical Energy Systems
School of Electrical Eng and Telecommunications
Staff Contact: T Blackburn
UOC6 HPW4 S1
Prerequisite/s: ELEC3005

Review of the basic concepts used in power system analysis: phasers, 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. Insulation system design and practical limitations. High voltage equipment testing methods and their use in insulation condition monitoring of electrical energy systems. Quality of supply. The impact of EMC and EMI requirements on electrical energy systems.

ELEC4216 Electrical Drive Systems
School of Electrical Eng and Telecommunications
Staff Contact: C Grantham
UOC6 HPW4 S2
Prerequisite/s: ELEC3005

Electrical Drive systems. Elements of Drive systems and their requirements for servo and industrial drive applications. Drive representation, quadrant operation, dynamic and regenerative braking. Transfer function representations of dc motor and converter and drive performance analysis. Performance analysis of induction motor drives with variable voltage, voltage source, current source and variable frequency supply. Performance analysis of synchronous and reluctance motors with variable frequency supply. Transducers in electric drive systems. The analysis of asymmetrically connected induction motors. Unified machine theory. Computer aided design and analysis.

ELEC4240 Power Electronics
School of Electrical Eng and Telecommunications
Staff Contact: F Rahman
UOC6 HPW4 S1
Prerequisite/s: ELEC3006

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 uninterruptable 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 Systems and Control 2
School of Electrical Eng and Telecommunications
Staff Contact: P Neilson
UOC6 HPW5 S1
Prerequisite/s: ELEC3014

In this course we consider a modern control theory approach to the design of computer controllers for multivariable dynamical systems (e.g., design of an automatic pilot for an aircraft). We will focus first on issues of digital control and then consider a state space theory approach. We will discuss the pulse transfer function, discrete-time equivalents and design of linear controllers using the polynomial approach and the Diophantine theorem. This will lead to a thorough investigation of both discrete-time and continuous-time state space design methods for MIMO systems. We will discuss the use of principal gains for assessing and shaping system performance before exploring optimal control methods for design of Linear Quadratic Gaussian (LQG) controllers and Kalman filters.

ELEC4413 Systems and Control 3
School of Electrical Eng and Telecommunications
Staff Contact: A Savkin
UOC6 HPW4 S2
Prerequisite/s: 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; noise models and stochastic systems; numerical integration and implementation of continuous designs; observers and Kalman filtering; LQG control; simple loop shaping; internal models and model following; Aspects of implementation are constantly emphasised.

ELEC4444 New Business Creation
School of Electrical Eng and Telecommunications
Staff Contact: School Office
UOC6 HPW4 S2
Prerequisite/s: 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 Eng and Telecommunications
Staff Contact: B Celler
UOC6 HPW5 S2
Prerequisite/s: ELEC3004 or ELEC3012

This course broadly deals with the design and development of biomedical instrumentation for clinical measurement and biomedical research. It will be strongly focused on 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.

Note/s: ELEC3402 recommended.

ELEC4503 Electronics C
School of Electrical Eng and Telecommunications
Staff Contact: C Kwok
UOC6 HPW5 S1
Prerequisite/s: ELEC3006

Advanced analog circuit techniques for signal processing and interfacing. Basic active filters characteristics and design techniques. Realisation of active filters: continuous time RC and op amp circuits. Switched capacitor filters. Analog multipliers and their application in modulation, demodulation, gain control and phase comparison. The phase-locked loop: VCO design, lock and capture processes. Applications. Power amplifiers; class A, class B, efficiency and linearity.

ELEC4522 Microelectronics Design and Technology
School of Electrical Eng and Telecommunications
Staff Contact: C Kwok
UOC6 HPW4 S1
Prerequisite/s: 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 Eng and Telecommunications
Staff Contact: S Nooshabadi
UOC6 HPW4 S2
Prerequisite/s: 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 Eng and Telecommunications
Staff Contact: T Blackburn
UOC3 HPW4 S1 S2
Prerequisite/s: 132 units of credit and weighted average mark of 65, ELEC3017

The thesis 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 subject 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.

ELEC4911 Thesis Part B
School of Electrical Eng and Telecommunications
Staff Contact: T Blackburn
UOC9 HPW10 S1 S2
Prerequisite/s: ELEC4910

Thesis Part B typically involves the theoretical development or modelling of the preliminary work completed in Thesis Part A. A written thesis report must be submitted on each project by Tuesday of Week 14 of the session in which ELEC4911 is undertaken.

ELEC4914 Group Thesis Part A
School of Electrical Eng and Telecommunications
Staff Contact: T Blackburn
UOC3 HPW4 S1 S2
Prerequisite/s: ELEC3017 and 132 units of credit.

The group thesis 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 subject is carried out. Generally, the group 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.

ELEC4915 Group Thesis Part B
School of Electrical Eng and Telecommunications
Staff Contact: T Blackburn
UOC9 HPW10 S1 S2
Prerequisite/s: ELEC4914

Group Thesis Part B typically involves the theoretical development or modeling of the preliminary work completed in Group Thesis Part A. A written report must be submitted by Tuesday of Week 14 of the session in which ELEC4915 is undertaken.

ENGL1001 Ways of Writing: An Introduction to Literary Genres
School of English
Staff Contact: P Alexander
UOC6 HPW3 S1
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
Staff Contact: B Olubas
UOC6 HPW3 S2

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 interpreted, imaginatively constructed, and theorised. Includes reference to intersecting cultural forms such as film and music.

ENGL1007 The Canon of English Literature
School of English
Staff Contact: W Walker
UOC6 HPW3 S2

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.

ENGL1008 Reading Australia: Bodies, Dreams, Memories
School of English
Staff Contact: B Olubas
UOC6 HPW3 S1

Introduces students to the study of canonical and contemporary Australian texts. Beginning with an examination of contemporary gendered and racialised identities articulated in film, students will explore the course themes (bodies, dreams, memories) in texts from various genres and periods.

ENGL2101 Women on the Apron Stage
School of English
Staff Contact: R Madelaine
UOC6 HPW3 S2
Prerequisite/s: 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.

ENGL2103 Jane Austen in Context
School of English
Staff Contact: C Alexander
UOC6 HPW3 S2
Prerequisite/s: 6 Level 1 units of credit in English and 36 units of credit overall
Excluded: ENGL3254

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 way 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.

ENGL2104 Poetry, Virtue, Corruption: Milton to Burns
School of English
Staff Contact: W Walker
UOC6 HPW3 S1
Prerequisite/s: 6 Level 1 units of credit in English and 36 units of credit overall

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.

ENGL2203 The Twentieth Century: Modernism and Modernity
School of English
Staff Contact: P Alexander
UOC6 HPW3 S1
Prerequisite/s: 6 Level 1 units of credit in English and 36 units of credit overall
Excluded: 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.

ENGL2206 Nineteenth-Century Prose: Romantic & Victorian Fiction and Non-Fiction 1789-1914
School of English
Staff Contact: C Alexander
UOC6 HPW3 S1
Prerequisite/s: 6 Level 1 units of credit in English and 36 units of credit overall
Excluded: ENGL2201, ENGL2202

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.

ENGL2207 Nineteenth-Century English Poetry: Romantic and Victorian Poetry 1789-1914
School of English
Staff Contact: P Alexander
UOC6 HPW3 S2
Prerequisite/s: 6 Level 1 units of credit in English and 36 units of credit overall
Excluded: ENGL3257

A study of English poetry from 1789 to 1914 within the context of contemporary religious, philosophical, social, political, and scientific thought.

ENGL2305 African Resistance Writing
School of English
Staff Contact: S Kossew
UOC6 HPW3 S1
Prerequisite/s: 6 Level 1 units of credit in English and 36 units of credit overall

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.

ENGL2400 Twentieth-Century Women Writers
School of English
Staff Contact: B Olubas
UOC6 HPW3 S2
Prerequisite/s: 6 Level 1 units of credit in English and 36 units of credit overall

Introduces the work of major and adventurous women writers of this century, which draws on the genres of novel, short story, poetry and drama. A wide range of issues will be explored, including formal innovation, identity formation and the interaction of gender, race and class within the practices of writing and reading.

ENGL2505 Australian Children's Literature and Literacy
School of English
Staff Contact: C Painter
UOC6 HPW3 S1
Prerequisite/s: 6 Level 1 units of credit in English and 36 units of credit overall
Excluded: ENGL2570

Critically examines both the development of Australian writing for children and Australian early childhood literacy practices. Questions addressed include: How is Australia's unique history and contemporary complexity expressed in children's books? What are the theoretical bases and practical methodologies associated with competing approaches to teaching children to read and write in Australia?

ENGL2701 The Australian Cultural Text
School of English
Staff Contact: W Ashcroft
UOC6 HPW3 S2
Prerequisite/s: 36 units of credit in Arts and Social Science courses

Studies the ways in which Australian culture has emerged through different discourses which can themselves be read as texts. Issues examined include culture, textuality, nationalism, modernism, notions of cultural differences, the constitution of 'place' as a cultural phenomenon and principles of 'exclusion' such as gender and race.

ENGL3302 Myths of Self and Society - Irish Writing and Its Relevance for Australian Society
School of English
Staff Contact: P Kuch
UOC6 HPW3 S1
Prerequisite/s: 6 Level 1 units of credit in English and 36 units of credit overall

Not only have Irish writers figured prominently as modernists and postmodernists but they have persistently and often controversially engaged the society of their day. Studies the way selected writings of Wilde, Synge, Yeats, Joyce, O'Casey, Beckett and Heaney image the Irish situation and examines the implications for contemporary Australian society.

ENGL3400 The Gothic: A Genre, Its Theory and History
School of English
Staff Contact: M Hollington
UOC6 HPW3 S1
Prerequisite/s: 6 Level 1 units of credit in English and 36 units of credit overall

Explores two avenues of approach to the Gothic: 1) formalist, emphasising the conventions, effects and paradigmatic structure of the genre; 2) historical, exploring what connections might be traced between the Gothic and the periods in which it flourishes. Emphasis is on prose fiction written in English, but examples from other literatures and arts, especially film, will also be discussed.

ENGL3460 Crime Fiction, Film and Theatre
School of English
Staff Contact: R Madelaine
UOC6 HPW3 S1
Prerequisite/s: 6 Level 1 units of credit in English and 36 units of credit overall

Focuses on fictional problematisations of justice, crime detection and law enforcement. The texts illustrate a range of criminological issues as well as a range of fictional media and styles, from Renaissance revenge drama to modern crime novels, film and theatre.

ENGL3502 Professional Writing
School of English
Staff Contact: S Eggins
UOC6 HPW3 S2
Prerequisite/s: 36 units of credit
Excluded: 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.

ENGL3753 Creative Writing A
School of English
Staff Contact: H Smith
UOC6 HPW3 S1
Prerequisite/s: 36 units of credit
Excluded: ENGL3750, GENT0205

Explores a wide range of approaches to creative writing with an emphasis on the development of writing strategies and analysis of the writing process. Includes poetry, fiction, writing for performance, hypertext and intermedia work (which combines text, sound and image). Students can specialise in areas which most interest them.

ENGL3754 Creative Writing B
School of English
Staff Contact: A Brewster
UOC6 HPW3 S2
Prerequisite/s: 36 units of credit
Excluded: ENGL3751, GENT0205

Development of explorative approaches to creative writing. Emphasis is on experimental methodologies which encompass both a practical and theoretical investigation of language.

ENGL3902 Contemporary Critical and Cultural Theory
School of English
Staff Contact: B Olubas
UOC6 HPW3 S2
Prerequisite/s: 36 units of credit, including 6 uoc in ENGL at credit level

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
Staff Contact: C Alexander
Enrolment requires school approval
UOC24 S1 S2

Prerequisite/s: 54 units of credit in ENGL including 6 Level 1 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
Staff Contact: C Alexander
Enrolment requires school approval
UOC12 S1 S2
Prerequisite/s: 54 units of credit in ENGL including 6 Level 1 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
Staff Contact: C Alexander
Enrolment requires school approval
UOC12 S1 S2
Prerequisite/s: 48 units of credit in ENGL including 6 Level 1 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
Staff Contact: C Alexander
Enrolment requires school approval
UOC6 S1 S2
Prerequisite/s: 48 units of credit in ENGL including 6 Level 1 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
Faculty of Science
Staff Contact: P Adam
UOC6 HPW6 S1

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/s: Restricted to the Environmental Science Programs 6861-6869.

ENVS2030 The Human Environment
Faculty of Science
Staff Contact: S Mooney
UOC6 HPW4 S2
Prerequisite/s: ENVS1011
Excluded: ENVS2010, ENVS2020, GEOG2641

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
Faculty of Science
Staff Contact: P Adam
UOC6 HPW4 S2
Prerequisite/s: 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.

ENVS4104 Environmental Science 4 Biology B (Honours) Full-Time
Faculty of Science
Staff Contact: P Adam
Enrolment requires school approval
UOC24 S1 S2

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/s: Completion of 144UOC (with credit average) of an appropriate Environmental Science program is required for enrolment.

ENVS4107 Environmental Science 4 Biology A (Honours) Full-time
Faculty of Science
Staff Contact: P Adam
Enrolment requires school approval
UOC21 S1 S2

Full year research project and thesis.

Note/s: Superior performance in 144UOC of an appropriate Environmental Science program, including all core requirements is required for enrolment. Enrolment in BIOS4511 is also required.

ENVS4118 Environmental Science 4 Biology C (Honours) Full-Time
Faculty of Science
Staff Contact: P Adam
Enrolment requires school approval
UOC24 S1 S2

Combination of research project and thesis with course work approved by the Program Advisor.

Note/s: 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
Faculty of Science
Staff Contact: P Adam
Enrolment requires school approval
UOC24 S1 S2

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/s: Completion of 144UOC (with credit average) of an appropriate Environmental Science program is required for enrolment.

ENVS4207 Environmental Science 4 Marine A (Honours) Full-time
Faculty of Science
Staff Contact: P Adam
Enrolment requires school approval
UOC21 S1 S2

Full year research project and thesis.

Note/s: Superior performance in 144UOC of an appropriate Environmental Science program, including all core requirements is required for enrolment. Enrolment in BIOS4511 is also required.

ENVS4218 Environmental Science 4 Marine C (Honours) Full-Time Faculty of Science
Staff Contact: P Adam
Enrolment requires school approval
UOC24 S1 S2

Combination of research project and thesis with course work approved by the Program Advisor.

Note/s: Completion of 144UOC (with credit average) of an appropriate Environmental Science program is required for enrolment.

ENVS4304 Environmental Science 4 Microbial B (Honours) Full-Time Faculty of Science
Staff Contact: P Adam
Enrolment requires school approval
UOC24 S1 S2

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/s: Completion of 144UOC (with credit average) of an appropriate Environmental Science program is required for enrolment.

ENVS4308 Environmental Science 4 Microbial A (Honours) Full-Time Faculty of Science
Staff Contact: P Adam
Enrolment requires school approval
UOC24 S1 S2

Full year research project and thesis.

Note/s: Superior performance in 144UOC of an appropriate Environmental Science program, including all core requirements is required for enrolment.

ENVS4318 Environmental Science 4 Microbial C (Honours) Full-Time Faculty of Science
Staff Contact: P Adam
Enrolment requires school approval
UOC24 S1 S2

Combination of research project and thesis with course work approved by the Program Advisor.

Note/s: 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 Faculty of Science
Staff Contact: P Adam
Enrolment requires school approval
UOC24 S1 S2

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/s: Completion of 144UOC (with credit average) of an appropriate Environmental Science program is required for enrolment.

ENVS4408 Environmental Science 4 Chemistry A (Honours) Full-Time Faculty of Science
Staff Contact: P Adam
Enrolment requires school approval
UOC24 S1 S2

Full year research project and thesis.

Note/s: Superior performance in 144UOC of an appropriate Environmental Science program, including all core requirements is required for enrolment.

ENVS4418 Environmental Science 4 Chemistry C (Honours) Full-Time Faculty of Science
Staff Contact: P Adam
Enrolment requires school approval
UOC24 S1 S2

Combination of research project and thesis with course work approved by the Program Advisor.

Note/s: Completion of 144UOC (with credit average) of an appropriate Environmental Science program is required for enrolment.

ENVS4504 Environmental Science 4 Geography B (Honours) Faculty of Science
Staff Contact: P Adam
Enrolment requires school approval
UOC24 S1 S2

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/s: Completion of 144UOC (with credit average) of an appropriate Environmental Science program is required for enrolment.

ENVS4508 Environmental Science 4 Geography A (Honours) Full-Time Faculty of Science
Staff Contact: P Adam
Enrolment requires school approval
UOC24 S1 S2

Full year research project and thesis.

Note/s: Superior performance in 144UOC of an appropriate Environmental Science program, including all core requirements is required for enrolment.

ENVS4518 Environmental Science 4 Geography C (Honours) Full-Time Faculty of Science
Staff Contact: P Adam
Enrolment requires school approval
UOC24 S1 S2

Combination of research project and thesis with course work approved by the Program Advisor.

Note/s: Completion of 144UOC (with credit average) of an appropriate Environmental Science program is required for enrolment.

ENVS4604 Environmental Science 4 Geology B (Honours) Full-Time Faculty of Science
Staff Contact: P Adam
Enrolment requires school approval
UOC24 S1 S2

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/s: Completion of 144UOC (with credit average) of an appropriate Environmental Science program is required for enrolment.

ENVS4608 Environmental Science 4 Geology A (Honours) Full-Time Faculty of Science
Staff Contact: P Adam
Enrolment requires school approval
UOC24 S1 S2
Full year research project and thesis

Note/s: Superior performance in 144UOC of an appropriate Environmental Science program, including all core requirements is required for enrolment.

ENVS4618 Environmental Science 4 Geology C (Honours) Full-Time Faculty of Science
Staff Contact: P Adam
Enrolment requires school approval
UOC24 S1 S2

Combination of research project and thesis with course work approved by the Program Advisor.

Note/s: 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 Faculty of Science
Staff Contact: P Adam
Enrolment requires school approval
UOC24 S1 S2

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/s: Completion of 144UOC (with credit average) of an appropriate Environmental Science program is required for enrolment.

EURO1000 The New Europe A
Faculty of Arts and Social Sciences
Staff Contact: J Milfull
UOC6 HPW3 S1

Despite a surprisingly rapid economic recovery after the catastrophe of World War II and the remarkable success of European integration, Western European nations were effectively relegated 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/s: 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
Staff Contact: J Milfull
UOC6 HPW3 S2

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/s: 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
Staff Contact: G Minnerup
UOC6 HPW3 S2
Prerequisite/s: 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 though the centuries, and discusses their relevance to the contemporary difficulties of the European Union.

EURO2001 Gender, Race, Nature and Reason
Faculty of Arts and Social Sciences
Staff Contact: J Milfull
UOC6 HPW3 S2
Prerequisite/s: 36 units of credit

Vital concepts like equality, freedom and emancipation seem inseparable from the European "Enlightenment". Yet the following century saw the development of a new and more subtle form of patriarchy, the increasing discrimination and exploitation of colonised peoples and minorities, and the emergence of nationalism and Fascism. Explores a range of texts in literature, music, philosophy and social history from the eighteenth century to the present, and seeks to analyse both the so-called "failure(s) of enlightenment" and the impact of the two central and inter-related concepts, nature and reason, that shaped its program.

EURO2300 The German - Jewish Experience
Faculty of Arts and Social Sciences
Staff Contact: J Milfull
UOC6 HPW3 S1
Prerequisite/s: 36 units of credit
Excluded: 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, 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.

EURO2301 The Attractions of Fascism
Faculty of Arts and Social Sciences
Staff Contact: J Milfull
UOC6 HPW3 S2
Prerequisite/s: 36 units of credit
Excluded: SOCA3311

The social psychology of Fascism and its "aesthetics", the seductive forms in which its inhuman aims were presented to appeal to both classes and individuals. An attempt to explain, through the study of documents, literary texts and film, the attractions of Fascism for broad sectors of European society without whose support and tolerance it could never have retained power, and the implications for our understanding of our own society.

EURO2321 German Revolutions?
Faculty of Arts and Social Sciences
Staff Contact: G Minnerup
UOC6 HPW3 S1
Prerequisite/s: 36 units of credit
Excluded: HIST2421

For a nation said to be docile followers of authority, the Germans have had rather more than their fair share of revolutions this century: the workers' revolution of 1918, Hitler's "national revolution" of 1933, the "antifascist- democratic revolution" in Eastern Germany in 1945, and most recently, the "Protestant revolution" of 1989 in the GDR which led to German reunification. Studies the events, personalities, ideas and forces involved in the four upheavals; the extent to which it is really justified to speak of them as "revolutions", and places them in the broader context of Germany's dramatic twentieth-century history as the points of transition from one regime to another.

EURO2401 Modern Italy since Napoleon
Faculty of Arts and Social Sciences
Staff Contact: M Lyons
UOC6 HPW3 S1
Prerequisite/s: 36 units of credit
Excluded: HIST2401

Surveys Italian history from the creative legacy of Bonaparte to the collapse of the Christian Democrat hegemony and the anti-corruption campaigns of the 1990s. Special attention will be paid to the Risorgimento, as well as to Italy under Fascism. Discusses long-term social problems such as the Mafia, migration, the Mezzogiorno, regionalism and Italy's uneven economic development. Italy's relative poverty and the historic fragility of nationalist aspirations will be emphasised, but not at the expense of the 'economic miracle', or Italy's current role within the EU. Discussion material will include film and literary sources.

EURO2410 Nineteenth-Century Europe, 1815-1914: Bourgeois Culture, Peoples' Revolutions
Faculty of Arts and Social Sciences
Staff Contact: M Lyons
UOC6 HPW3 S1
Prerequisite/s: 36 units of credit
Excluded: HIST2410

Themes in the political, social and cultural history of 19th century Europe. One part of the course will deal with the great 19th century revolutions of 1830, 1848, 1871 and 1905. A second theme is the rise of the modern city, with special reference to the rebuilding of Paris. Also discusses aspects of dominant bourgeois culture, including the new domestic ideology and the role of women within it. Students will be expected to discuss novels and the visual arts as well as works of historical analysis.

EURO2411 Spain: From Loss of Empire to European Integration
Faculty of Arts and Social Sciences
Staff Contact: P Ross
UOC6 HPW3 S1
Prerequisite/s: 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.

EURO2700 What is Postcommunism? Central and Eastern Europe after 1989
Faculty of Arts and Social Sciences
Staff Contact: M Krygier
UOC6 HPW3 S2
Prerequisite/s: 36 units of credit
Excluded: LAWS2232

When European communist states collapsed like a pack 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.

EURO3900 Advanced Program A
Faculty of Arts and Social Sciences
Staff Contact: J Milfull
UOC6 HPW3 S1
Prerequisite/s: 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
Staff Contact: J Milfull
UOC6 HPW3 S2
Prerequisite/s: 36 units of credit including 6 units of European Studies at credit level

Topics in modern European history and culture (consult co-ordinator).

EURO4500 Combined Honours (Research) in European Studies Full-Time
Faculty of Arts and Social Sciences
Staff Contact: J Milfull
Enrolment requires school approval
UOC12 S1 S2
Prerequisite/s: 36 units of credit in EURO with an average of 70% and permission from co-ordinator

Combined Honours candidates are required to present a cross-disciplinary thesis approved by the Heads of two participating schools/programs.

Note/s: No coursework component is currently available.

EURO4550 Combined Honours (Research) in European Studies Part-Time
Faculty of Arts and Social Sciences
Staff Contact: J Milfull
Enrolment requires school approval
UOC6 S1 S2
Prerequisite/s: 36 units of credit in EURO with an average of 70% and permission from co-ordinator

Combined Honours candidates are required to present a cross-disciplinary thesis approved by the Heads of two participating schools/programs.

FILM1101 Introduction to Film
School of Theatre, Film and Dance
Staff Contact: D Davis
UOC6 HPW5 S1
Excluded: THFI1000, THFI1001

Provides an introduction to the study and analysis of film and its reception.

FILM2001 Contemporary Approaches to the Cinema
School of Theatre, Film and Dance
Staff Contact: G Kouvaros
UOC6 HPW4.5 S2
Prerequisite/s: THST1101 or FILM1101 or DANC1103 or THFI1002

Analyses and tests a number of contemporary theoretical approaches to the cinema.

FILM2002 Australian Cinema
School of Theatre, Film and Dance
Staff Contact: School Office
UOC6 HPW4.5 S2
Prerequisite/s: THST1101 or FILM1101 or DANC1103 or THFI1002 or DANC1002 or 48 units of credit in Arts and Social Sciences

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.

FILM2008 Film Genres
School of Theatre, Film and Dance
Staff Contact: School Office
UOC6 HPW4.5 S1
Prerequisite/s: THST1101 or FILM1101 or DANC1103 or THFI1002 or DANC1002 or 48 units of credit in Arts and Social Sciences

Examines the development, production and exploitation of various film genres, ranging from the western to comedy and musical to documentaries, thrillers and science-fiction, and explores the relevance of these genres to fundamental questions of human existence, universal or local.

FILM2010 Electronic Media in Perspective
School of Theatre, Film and Dance
Staff Contact: R Harley
UOC6 HPW3 S1
Prerequisite/s: THST1101 or FILM1101 or DANC1103 or THFI1002 or DANC1002 or 48 units of credit in Arts and Social Sciences

New technologies of television, video, computers, telecommunications and robotics are changing the nature of global communications and entertainment. This course looks at the development of television, television drama and the ways artists and independent producers have contributed to the development of new media from video art to 'virtual reality'.

FILM2013 Theories of Cinema Spectatorship
School of Theatre, Film and Dance
Staff Contact: School Office
UOC6 HPW4 S1
Prerequisite/s: THST1101 or FILM1101 or DANC1103 or THFI1002 or DANC1002 or 48 units of credit in Arts and Social Sciences
Excluded: FILM3904

Studies ways in which (a) different historical formations of cinema enable and entail different modes of spectatorship (in particular, the recent work on preclassical and postclassical spectatorship), and (b) different forms of cinema (e.g. the horror film, porn and the cult film) can be seen to elicit particular spectatorial practices.

FILM2014 Film Comedy: The Theory and Practice of Comedic Performance in Cinema
School of Theatre, Film and Dance
Staff Contact: L Trahair
UOC6 HPW4 S1
Prerequisite/s: THST1101 or FILM1101 or DANC1103 or THFI1002 or DANC1002 or 48 units of credit in Arts and Social Sciences

Tracing the work of a variety of cinematic comedians from the silent era to the present, this course examines the predominant features of comic performance in cinema. The approach will be interdisciplinary, endeavouring to situate such performance in relationship to the philosophy of the comic.

FILM2018 Cinemas of Asia and the Pacific Rim
School of Theatre, Film and Dance
Staff Contact: D Davis
UOC6 HPW4 S1
Prerequisite/s: THST1101 or FILM1101 or DANC1103 or THFI1002 or DANC1002 or 48 units of credit in Arts and Social Sciences

Examines the histories, auteurs, styles and politics of film industries in the region, excluding Japan/China. Problematises the concept of "national cinema" and focus on films that question orthodox nationalities and cultural specificities. Discussions will also be framed by problems of cross-cultural analysis in relation to Orientalism, Third World Cinema, post-colonialism, and the exploitation of sex, violence and ethnographic practices.

FILM2019 Issues of Aesthetics and Representations in French Cinema
School of Theatre, Film and Dance
Staff Contact: L Trahair
UOC6 HPW4 S2
Prerequisite/s: THST1101 or FILM1101 or DANC1103 or THFI1002 or DANC1002 or 48 units of credit in Arts and Social Sciences

Examines a range of French films, from the pre-war French School to the Left Bank Group, focussing on issues relating to aesthetics and representation.

FILM2021 The Hollywood System
School of Theatre, Film and Dance
Staff Contact: D Davis
UOC6 HPW4.5 S2
Prerequisite/s: THST1101 or DANC1103 or FILM1101 or THFI1002 or DANC1002 or 48 units of credit in Arts & Social Sciences
Excluded: FILM2005, FILM2006

How can the history of Hollywood be viewed as narrative, corporate and cultural system? Covers the rise of continuity and stars, consolidation of the mode of production, including genres, and vertical integration of the major studios through 1950. This period also sees such politically sensitive movements as film noir, postwar melodrama, and the Red Scare. At the same time, the studios had to sell off their theatres and confront television. Independent production and corporate conglomeration changed the structure, but not the ultimate function of Hollywood entertainment. Concludes with discussion of recent scholarship on "New Hollywood," including new technologies and globalisation.

FILM3001 Video Exercise
School of Theatre, Film and Dance
Staff Contact: R Harley
UOC6 HPW3 S2
Prerequisite/s: FILM2001 or FILM2004 or FILM2005 or FILM2006 and 18 units of credit from FILM2001-2017

Introduces the basic concepts that underlie a video production, from script to final cut, plus some practical experience of video-making.

FILM3904 Theories of Cinema Spectatorship
School of Theatre, Film and Dance
Staff Contact: School Office
UOC6 HPW3 S1
Prerequisite/s: 24 units of credit in DANC or THST or FILM or THFI or PFST at an average of credit or better
Excluded: FILM2013

A study of the ways in which (a) different historical formations of cinema enable and entail different modes of spectatorship (in particular, the recent work on 'preclassical' and 'postclassical' spectatorship), and (b) different forms of cinema (eg horror film, porn and cult films) can be seen to elicit particular spectatorial practices.

FINS1612 Capital Markets and Institutions
School of Banking and Finance
Staff Contact: R Wixted
UOC6 HPW3 S1 S2

Corequisite/s: ECON1101, ECON1202

This course focuses on the major financial markets, including the equity, money, bond, exchange rate and derivatives markets. Students learn about the basics of financial instruments in these markets, such as bank bills, treasury bonds, futures and options. In addition, students are exposed to the tools of analyses and the roles and innovations of major financial institutions. These include the banks and non-banks, such as finance companies, building societies and credit unions, life and insurance companies as well as funds management companies.

FINS1613 Business Finance
School of Banking and Finance
Staff Contact: W Bertin
UOC6 HPW3 S1 S2
Corequisite/s: FINS1612 or any two of ACCT1511, ECON1102, ECON1203

This course looks at the essential aspects of financial decision-making in business firms. 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 then covered. The course will also include: alternative approaches to valuation; factors affecting the formulation of the capital structure; and influence of the capital market environment. Finally, the implications of financial risk, taxation, arbitrage, and the conflict of interest between managers and investors on the value of business firms will be introduced.

FINS2622 Asian Capital Market
School of Banking and Finance
Staff Contact: J Wang V Hooper
UOC6 HPW3 S1 S2
Prerequisite/s: FINS1612 or FINS2612

This course provides an introduction to financial markets in major Asian economies. Topics covered include: a brief review of the historical development in different countries; comparison of institutional structure and regulatory systems for equity, derivative, foreign exchange, and banking markets; the impact of regulation on institutions and market behaviour; and contemporary issues related to Asian markets. .

FINS2624 Portfolio Management of Financial Assets
School of Banking and Finance
Staff Contact: H Yip
UOC6 HPW3 S1 S2
Prerequisite/s: FINS1613 or FIN2613

This course introduces modern investment theories with an equal emphasis on theory and practice. Numerous finance models including the Markowitz model, CAPM, SIM, and the Black-Scholes option pricing models are discussed in detail to provide students with a solid background knowledge so that they can understand and appreciate the practical implications of these models on investment management. Topics include: bond valuation and analysis; the impact of tax on the choice of bonds; the application of the duration concept to gap management and bond trading strategy; stock valuation models and technical analysis; understanding the formula and implications of the Black Scholes option pricing model; the pricing of share futures and bond futures; the strategic use of options and futures for hedging and investment; the use of attribution analysis to evaluate portfolio performance and asset allocation among the money, bond and stock markets. The lecture program is complemented by a coherent laboratory program. The latter is aimed to introduce spreadsheet applications to securities pricing and investment theories. The hands-on experience of using spreadsheet applications to generate graphics allows students to see for themselves the relationships among financial variables presented in the textbooks.

FINS3616 International Business Finance
School of Banking and Finance
Staff Contact: K Fong V Hooper
UOC6 HPW3 S1 S2
Prerequisite/s or Corequisite/s:FINS2624

Management of the financial functions of firms operating in several separate countries. Necessary theory and evidence basic to an understanding of international capital and foreign exchange markets, the benefits of international diversification, use of the capital asset pricing model in foreign investment decisions and cost of capital for multinational corporations, financial management of multinational corporations, foreign direct investment and financial and political risks, the role of multinational banks and the financial benefits of Euro-currencies and Euro-bonds, short-term financing and international equity markets.

FINS3623 Entrepreneurial and Small Business Finance
School of Banking and Finance
Staff Contact: B Gibson
UOC6 HPW3 S2
Prerequisite/s: FINS1613 or FIN2613

The course examines various aspects of entrepreneurial finance to small to medium enterprises in Australia and considers financial decisions made from start-up until the original shareholders cash out via the public offering. Theories associated with entrepreneurship and specifically small sized corporations 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 finance views with practical issues and problems faced by small to medium sized firms. Other topics addressed include: how to value new start-up firms/projects; how to value new technology; technology; technology transfers; venture capital and equity and debt capital from the public and private sectors. Students will be required to write a report in the form of a financial business plan for an assigned small firm. This project provides students with hands-on practical experience and allows them to solve basic financial problems faced by small firms in a real business setting.

FINS3625 Applied Corporate Finance
School of Banking and Finance
Staff Contact: J Suchard
UOC6 HPW3 S1 S2
Prerequisite/s: FINS1613 or FIN2613

This course focuses on advanced issues associated with the investment and financing decisions of corporations. Topics include mergers and takeovers, management buy-outs, executive compensation schemes, advanced capital budgeting problems, and issues in treasury management. The treatment includes a discussion of ethical issues.

FINS3626 International Corporate Governance
School of Banking and Finance
Staff Contact: K Fong
UOC6 HPW3 S1
Prerequisite/s: ACCT1511, FINS1613 or FINS2613

Corporate Governance deals with the ways in which suppliers of finance assure themselves of getting a return on their investment. This course is of enormous practical importance as it impinges upon the flows of capital to corporate entities and the repatriation of profits to the providers of finance. The corporate activities of the 80s, such as mergers, acquisitions, leveraged buy-outs via junk bonds and the subsequent spectacular collapses, have shown the importance of good corporate governance mechanisms. The course deals with the analysis of the financial aspects of incentive contracts, the protection of financial rights of minority shareholders, the prohibition of financial managerial self-dealing, the financial implications of concentrated ownership, and corporate governance systems in the USA, UK, Japan, Germany, Australia and some Asian countries. In addition, specific topics include: financial ownership and control; board structures; roles and financial responsibilities of directors; financial corporate performance; executive compensation; implications of financial and investment decisions; institutional shareholders; special issues surrounding major asset acquisition/disposal; and mergers and acquisitions.

FINS3630 Bank Financial Management
School of Banking and Finance
Staff Contact: I Sharpe
UOC6 HPW3 S1 S2
Prerequisite/s: FINS1612 or FINS2612 and FINS1613 or FINS2613

This course looks at: theory and practice of banking from a financial management perspective; banks and the financial services industry; regulatory restrictions and financial management; performance analysis and strategic planning; asset management - liquidity, investment and loan management; liability and deposit management; capital structure and dividend decisions; and financial management implications of electronic banking, international banking, and other developments.

FINS3631 Risk and Insurance
School of Banking and Finance
Staff Contact: D Li
UOC6 HPW3 S1
Prerequisite/s: FINS1613 or FINS2613;
Prerequisite/s or Corequisite/s:FINS2624

The nature of commercial, financial and physical risk is explored. In addition to the theory of risk, the way in which insurance has evolved to deal with this important aspect of the economic environment is studied in depth. Case studies are used to illustrate points of practical relevance. Emphasises the mathematical and statistical foundations of the discipline. Topics in the area of risk include, risk premia, insurance ratings, simulations of risky environments, physical risk, and death. Insurance is approached as a natural commercial response to risk with inference from insurance data, general insurance, motor insurance, very large risks, and life assurance.

FINS3633 Real Estate Finance and Investment
School of Banking and Finance
Staff Contact: G Noti
UOC6 HPW3 S2
Prerequisite/s: FINS2624

This course evaluates real estate financing, the mechanics of the mortgage market, and the application of modern finance theory to the evaluation, selection and management of property investments. Topics include the role of regulation, taxation, government agencies, property trusts, and the banking system in promoting real estate activity. This course analyses real estate prices and yields, diversification aspects, and use of property as an inflation hedge, and evaluates leasing, type of tenancy, property options and property trusts.

FINS3634 Credit Analysis and Lending
School of Banking and Finance
Staff Contact: J Bartle
UOC6 HPW3 S1
Prerequisite/s: FINS1612 or FINS2612 and FINS1613 or FINS2613

The focus of this course is credit analysis and lending emphasising finance theory and practical applications. The course includes: credit analysis; credit scoring and modelling; loan products; loan pricing; commercial lending; consumer lending; special risk markets such as small business, agricultural and real estate; international and trade financing; managing the loan portfolio; and problem loans. The course includes case study work.

FINS3635 Options, Futures and Risk Management Techniques
School of Banking and Finance
Staff Contact: L Yang
UOC6 HPW3 S1 S2
Prerequisite/s: FINS2624

This is 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
Staff Contact: D Colwell
UOC6 HPW3 S2
Prerequisite/s: FINS2624

This course 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, Cos-Ingersoll-Ross and Heath-Jarrow-Morton are also discussed.

FINS3640 Financial Modelling for Funds Management
School of Banking and Finance
Staff Contact: T Henker
UOC6 HPW3 S1 S2
Prerequisite/s: FINS2624

This course covers the essential analytical and quantitative tools that are necessary for funds management. It aims at showing how to carry out the computations and simulations needed to implement commonly used models in funds management. The focus of the course is on tactical funds management and it covers a wide range of financial models in the areas of investment analysis, portfolio theory, portfolio risk management and investment style analysis. It also focuses on the recent advances in derivatives pricing methods in conjunction with their tactical and strategic applications. An essential component of this course involves the use of Excel and financial and statistical software packages.

FINS3641 International Investment and Funds Management
School of Banking and Finance
Staff Contact: R Bhar
UOC6 HPW3 S2
Prerequisite/s: FINS3640

This course looks at the development and evaluation of alternative funds management strategies for international portfolios. Topics include: asset allocation decisions; domestic versus international fund components; integration of equity bond and cash management; program trading and design of algorithms for automated decisions. It also covers the essential aspects of financial risk management, which include: the use of financial derivatives in pro-active strategic management of foreign rate risk; performance evaluation of international funds management strategies; recent developments in the field. Students will be required to manage a portfolio of international stocks and bonds and evaluate its performance at the end of a finite horizon.

FINS3642 Strategies for International Funds Management
School of Banking and Finance
Staff Contact: J Reeves D White
UOC6 HPW3 S1 S2
Prerequisite/s: FINS3640

This course 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. This course also covers recent innovations in the development and management of some strategic special-purpose funds, which are designed for investors interested in particular financial markets such as foreign exchange markets and stock markets. This will incorporate extensive use of computer spreadsheets, macros, and programs in order to aid the student to examine individual stock data and calculations and later hedge a fund via the derivatives market. Students are required to adopt their own innovations in international risk management. The course also involves extensive use of excel and financial and statistical packages.

FINS3650 International Banking
School of Banking and Finance
Staff Contact: S Kim
UOC6 HPW3 S2
Corequisite/s: FINS3616

Topics include: the nature and theory of international banking, the main institutions and markets in which international banks are involved; correspondent banking relationships; cross-border financing; performance measurement and evaluation; foreign direct investment in banking; exchange rate risk; non-compliance risk arising in the financing of foreign trade; sovereign risk; and off-balance sheet risk. The course also presents and analyses the current issues in international financial services and the fundamental and non-fundamental exchange rate modelling and forecasting with a particular emphasis on the market microstructure.

FINS3651 International Insurance Management
School of Banking and Finance
Staff Contact: D Li
UOC6 HPW3 S2
Prerequisite/s or Corequisite/s:FINS2624

A course 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 will be surveyed, highlighting the importance of differing economic, social, and political environments. Topics will include: inter alia; the structure of insurance markets internationally; 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

FINS3774 Financial Decision Making Under Uncertainty
School of Banking and Finance
Staff Contact: D Michayluk
Enrolment requires school approval
UOC6 HPW3 S1
Prerequisite/s: Credit in FINS2624

Finance is concerned with decision making, at both the individual and corporate level, which involves uncertain pay-offs in multiple periods of time. Toward a better understanding of the operations of these decisions, this course provides an intermediate exposition of the fundamentals of portfolio selection and corporate finance. Specifically, the course will examine: (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. This course will also emphasise and reinforce those techniques that underlie advanced studies in asset pricing and corporate finance.

FINS4775 Research Methods in Finance 1
School of Banking and Finance
Staff Contact: A Sim
Enrolment requires school approval
UOC6 HPW3 S1
Excluded: FINS3775

The objective of the course is to review applications of mathematical and statistical tools to applied problems and current research in finance.

Assumed Knowledge:Credit or better in FINS3774

FINS4776 Advanced Topics in Asset Pricing
School of Banking and Finance
Staff Contact: D Michayluk
UOC6 HPW3 S1
Prerequisite/s: FINS3774, FINS3775

This course provides an in-depth and advanced treatment of asset pricing theories and examines selected tests of the validity of the theories. The emphasis is on applying mathematical and statistical tools to derive results which are usually given without proofs in preceding courses as well as deriving new results to reflect current research. Examination of empirical tests aims at pointing out how research can be implemented and modified to suit local market conditions. In addition, the subject also introduces a relatively new area of financial economics: security market micro-structure and the implications for empirical research in finance. Topics include: utility theory, portfolio theory and capital asset pricing models, arbitrage pricing theory, option and futures pricing, intertemporal models in finance and security market micro-structure.

FINS4777 Advanced Topics in Corporate Finance
School of Banking and Finance
Staff Contact: L Woo
UOC6 HPW3 S1
Prerequisite/s: FINS3774, FINS3775

This course introduces contemporary theoretical literature relevant for an advanced treatment of the study of investment and financing decisions of firms under alternative assumptions about the institutional environment within which such decisions are made. Emphasis is given to the corporate form of business. Furthermore, special cases of investment and financing decisions such as mergers, takeovers and leveraged buy-outs are focused on. The conceptual basis is such that it allows discussions of ethical issues in relation to corporate decisions and management compensation schemes. The course structure consists of lectures and a seminar program. In the latter, students are encouraged to supplement theoretical discussions with empirical evidence.

FINS4778 Recent Developments in Banking Research
School of Banking and Finance
Staff Contact: School Office
UOC6 HPW3 TBA
Prerequisite/s: FINS3774, FINS3775

This course focuses on recent developments in theory and empirical research relating to banking and bank management. Topics include: the development of banking models; the uniqueness of banks and bank lending; advanced techniques in bank risk management; analysis of bank cost functions in the context of economies of scale, economies of scope, expense preference behaviour, and the contestable markets hypothesis; the regulatory environment and its impact on bank valuation and banking practice; optimal capital and capital adequacy; modelling off-balance sheet activities; and models of international banking.

FINS4779 Research Methods in Finance 2
School of Banking and Finance
Staff Contact: A Sim
UOC6 HPW3 S2
Prerequisite/s: FINS3774, FINS3775

This course is a more advanced course in empirical methods in finance, covering general methodological aspects, testing of hypotheses and falsifiability principle; a review of relevant econometric material and its application to topics such as generalised beta models of market equilibrium (including CAPM, APT), foreign exchange risk premium, stock price variability and volatility estimation.

FINS4793 Thesis A (Finance)
School of Banking and Finance
Staff Contact: School Office
Enrolment requires school approval
UOC6 S1

The thesis is to be approved and supervised by the School of Banking and Finance

FINS4794 Thesis B (Finance)
School of Banking and Finance
Staff Contact: Contact School
Enrolment requires school approval
UOC18 S2

Note/s: The thesis is to be approved and supervised by the School of Banking and Finance.

FOOD 1110 Introduction to Food Science
Department of Food Science and Technology
Staff Contact: J Cox
UOC6 HPW6 S2

This course will provide students with an introduction to the Department and the breadth of food science and technology, as well as provide knowledge of and practical opportunities to develop generic skills in oral and written communication required by students in their career within and beyond the University environment. Topics to be covered in food science and technology include: an introduction to the principles of food production and consumption; food in history, society, economics and politics; development of the food industry in Australia; nutritional, physiological and psychological roles of food; role of microbiology and biotechnology in production of innovative, yet safe, nutritious, quality food products. Topical issues include: food irradiation - risk versus benefit; genetic engineering and biotechnology - new food sources; food additives - necessary evils?; environmental impact of food processing; food marketing and education - who should the consumer believe? Coverage of generic skills will include: approaches to oral communication; creating visual aids; academic argument/debate; writing of reports; public communication; anatomy, search and critique of scientific literature; working in teams; time management; experimental design.

FOOD1230 Food Choice: Psychology, Preference and Acceptability
Department of Food Science and Technology
Staff Contact: J Paton
UOC6 HPW6 S2

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 (eg. anorexia, bulimia); diet and consequences for physical and mental activity (eg. sports diets); implications for food product development, process development, marketing, advertising and diet design.

FOOD1310 Food Preservation
Department of Food Science and Technology
Staff Contact: J Paterson
UOC6 HPW6 S1

Students will take a series of selected lectures, integrated with practical classes, providing them with the theory and practice of food preservation. Topics to be covered include: an introduction to food preservation - control of safety and quality by tradtional and modern techniques; technology of preservation by heating, chilling, freezing, drying and dehydration; use of salt, sugar, acid and chemical preservatives, ionising radiations and modified atmospheres; chemical and microbial stability of foods; packaging requirements for preserved foods; water relationships in foods.

FOOD1360 Food Processing Principles
Department of Food Science and Technology
Staff Contact: J Paterson
UOC6 HPW6 S1

This course is presented as a series of lectures and some discussion groups that cover methods of preservation and processing used in the food industry. Preservation principles and technologies covered include heating, chilling, freezing, dehydration, salt, sugar, acids, chemical preservatives, ionising radiations and novel methods. Basic principles of processing covered are mass and energy balances, heat transfer, fluid flow. Methods of processing include refrigeration, evaporation, dehydration, fermentation, extrusion, chemical and physical separation, and particle size reduction. The course is run in conjunction with a laboratory course (FOOD 1370) designed to demonstrate key principles in a practical context.

FOOD1370 Food Processing Laboratory
Department of Food Science and Technology
Staff Contact: J Paterson
UOC6 HPW6 S1
Corequisite/s: FOOD1360

This course is presented as an integrated lecture-laboratory program that covers production principles of a number of primary food commodities including dairy, marine and meat products, fruit and vegetables, sugars and cereal products. The laboratory component demonstrates the effect of processing on aspects of food such as functionality and quality.

FOOD1380 Food Processing and Packaging
Department of Food Science and Technology
Staff Contact: R Driscoll
UOC6 HPW6 S2
Prerequisite/s: FOOD1360, FOOD1370

This course is presented as an integrated lecture-laboratory program that covers production principles of a number of primary food commodities including dairy, marine and meat products, fruits and vegetables, sugars and cereal products. The laboratory component demonstrates the effect of processing on foods such as functionality and quality. In addition aspects of plant design such as factory layout, hygienic design and operation, cleaning in-place and application and comparison of HACCP and HAZOP, and intoduction to new technologies such as high pressure processing and ohmic heating are covered. This course also covers the fundamental principles of packaging including properties of packaging materials, selection and evaluation of packaging materials and systems.

FOOD1390 Product Design and Development
Department of Food Science and Technology
Staff Contact: J Paton
UOC6 HPW6 S2
Prerequisite/s: 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
Department of Food Science and Technology
Staff Contact: J Paterson
UOC6 S1 S2
Prerequisite/s: CHEM3801, 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/s: Restricted to program 3060.

FOOD1470 Postharvest Technology of Foods
Department of Food Science and Technology
Staff Contact: J Paton
UOC6 HPW6 TBA
Prerequisite/s: FOOD1380

Pre-harvest considerations; postharvest physiology and biochemistry; postharvest factors affecting quality; methods of storage and handling; marketing strategies for selected food commodities.

FOOD1480 Minor Project
Department of Food Science and Technology
Staff Contact: J Paterson
UOC6 S1
Prerequisite/s: CHEM3801 , 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
Department of Food Science and Technology
Staff Contact: School Office
UOC6 HPW6 S1
Prerequisite/s: CHEM3801

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
Department of Food Science and Technology
Staff Contact: G Fleet
UOC6 HPW6 S1

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 microorganism associations; taxonomy and biochemistry of major spoilage species; chemical and physical changes to food properties; spoilage of specific commodities. Foodborne microbial disease: foods 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
Department of Food Science and Technology
Staff Contact: J Cox
UOC6 HPW6 S2

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. What are quality, QA, QC? ; organisation-wide 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
Department of Food Science and Technology
Staff Contact: K Buckle
UOC6 HPW6 S2

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 industry - TQM, HACCP, ISO; 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
Department of Food Science and Technology
Staff Contact: G Fleet
UOC6 HPW3 S1

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
Department of Food Science and Technology
Staff Contact: G Fleet
UOC6 HPW6 S2
Prerequisite/s: 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.

FOOD2490 Analytical Microbiology
Department of Food Science and Technology
Staff Contact: G Fleet
UOC6 HPW6 TBA
Prerequisite/s: FOOD2320

The aim of this course is to provide students with an understanding of the underlying principles of and practical exposure to modern and rapid methods for microbiological analysis, with specific reference to foods. The course begins with a history of the development of methods of analysis and criteria for the evaluation of methods. Methods considered include improved and advanced cultural methods, automated biochemical identification systems, ATP and lux bioluminescence, methods for assessing hygiene, ice nucleation, impedance technology, immunoassay, electrophoretic and chromatographic techniques for strain characterisation and identification, nucleic acid probes, PCR and genechip technology.

FOOD3220 Nutrition
Department of Food Science and Technology
Staff Contact: J Arcot
UOC6 HPW6 S1 S2
Corequisite/s: BIOC2101 or BIOC2181

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.

FOOD3440 Advanced Nutrition
Department of Food Science and Technology
Staff Contact: J Arcot
UOC6 HPW6 S2
Prerequisite/s: 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
Department of Food Science and Technology
Staff Contact: R Driscoll
UOC6 HPW6 S1

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
Department of Food Science and Technology
Staff Contact: K Buckle
UOC6 HPW6 S1
Prerequisite/s: 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
Department of Food Science and Technology
Staff Contact: K Buckle
UOC24 HPW24 S1
Prerequisite/s: 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
Department of Food Science and Technology
Staff Contact: J Cox
Enrolment requires school approval
UOC21 S1 S2

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 Head of Department.

Note/s: Restricted to program 3065.

FOOD9420 Food Science and Technology (Honours)
Department of Food Science and Technology
Staff Contact: J Cox
Enrolment requires school approval
UOC24 S1 S2

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 Department about selection of courses in earlier years.

FOOD9430 Food Science (Honours)
Department of Food Science and Technology
Staff Contact: K Buckle
Enrolment requires school approval
UOC24 S1 S2

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 Head of Department.

Note/s: Restricted to programs 3970, 3990. Enrolment requires co-requisites: 24 UOC of level 3/4 courses as approved by Head of Department.

FREN1001 French 1A Introductory French 1
Department of French
Staff Contact: C Sheaffer-Jones
UOC6 HPW6 S1

Designed for students who have little or no knowledge of French. The most recent methods are used to give students a sound basis in spoken and written French. The course also includes an introduction to contemporary French culture, and a graded reading program. All teaching is by tutorial groups. In addition to the 5 hours per week of scheduled classes, students must follow a program of work in the language laboratory (1 hpw).

Note/s: Excludes students qualified to enter FREN1011, FREN1021, FREN1023 or FREN1030.

FREN1002 French 1A Introductory French 2
Department of French
Staff Contact: C Sheaffer-Jones
UOC6 HPW6 S2
Prerequisite/s: FREN1001

A continuation of FREN1001. The most recent methods are used to give students a sound basis in spoken and written French. The course also includes an introduction to contemporary French culture, and a graded reading program. All teaching is by tutorial groups. In addition to the 5 hours per week of scheduled classes, students must follow a program of work in the language laboratory (1 hpw).

FREN1011 French 1B: Intermediate French 1
Department of French
Staff Contact: A Tabensky
UOC6 HPW5 S1

Designed for students who have acquired a reasonable knowledge of French but need to develop further their oral/aural and written skills. The course follows a communicative approach and focuses on both language and culture: four hours out of five are devoted to an intensive study of French language; the fifth hour is devoted to cultural studies.

Assumed Knowledge:Some knowledge of French (eg HSC 2 unit French or HSC 2 unit Z French).

Note/s: Excludes students qualified to enter FREN1001, FREN1021, FREN1023 or FREN1030.

FREN1012 French 1B Intermediate French 2
Department of French
Staff Contact: J Battestini-Newman
UOC6 HPW6 S2
Prerequisite/s: FREN1011

This course is a continuation of FREN1011. Designed for students who have acquired a reasonable knowledge of French but need to develop further their oral/aural and written skills. The course follows a communicative approach and focuses on both language and culture: four hours out of five are devoted to an intensive study of French language; the fifth hour is devoted to the study of selected literary texts.

FREN1021 French 1C Language and Culture 1
Department of French
Staff Contact: A Tabensky
UOC6 HPW5 S1

Core language course designed for students who have acquired a sound knowledge of spoken and written French. Consolidates aural, oral and writing skills, together with further study of French culture through selected texts and other materials. Introduction to close reading and analysis of literary texts.

Assumed Knowledge:A good knowledge of French (eg HSC 2 unit French at percentile range 81-100 or HSC 3 unit French 51-100).

Note/s: Excludes students qualified to enter FREN1001, FREN1011, FREN1023 or FREN1030.

FREN1022 French 1C Language & Culture 2
Department of French
Staff Contact: E Temple
UOC6 HPW5 S2
Prerequisite/s: FREN1021

A continuation of FREN1021. Core language course designed for students who have acquired a sound knowledge of spoken and written French. Consolidates aural, oral and writing skills, together with further study of French culture through selected texts and other materials. Introduction to close reading and analysis of literary texts.

Note/s: Excludes students qualified to enter FREN1012 or FREN1030.

FREN1023 French 1C Language Part 1
Department of French
Staff Contact: A Tabensky
UOC3 HPW3 S1

This course is designed for students who have acquired a sound knowledge of spoken and written French and who wish to further their knowledge without completing a major in French. Consolidates aural, oral and writing skills, together with further study of French culture through selected texts and other materials.

Assumed Knowledge:A good knowledge of French (eg HSC 2 unit French at percentile range 81-100 or HSC 3 unit French 51-100).

Note/s: Excludes students qualified to enter FREN1001, FREN1011, FREN1021 or FREN1030.

FREN1024 French 1C Language Part 2
Department of French
Staff Contact: E Temple
UOC3 HPW3 S2
Prerequisite/s: FREN1023

This course is designed for students who have acquired a sound knowledge of spoken and written French and who wish to further their knowledge without completing a major in French. A continuation of FREN1023, the course consolidates aural, oral and writing skills, together with further study of French culture through selected texts and other materials.

Note/s: Excludes students qualified to enter FREN1002, FREN1022 or FREN1030.

FREN1030 French 1D Language
Department of French
Staff Contact: M Royer
UOC6 HPW3 S1
Corequisite/s: FREN1221

Language studies for suitably qualified Francophone students, with special emphasis on advanced practice in writing skills and in the refining and mastery of grammatical subtleties and idiomatic usage, and on advanced study and practice of written and oral French discourse in academic and vocational contexts.

Note/s: For Francophone students with a Baccalaureat or equivalent qualifications. Excludes students qualified to enter FREN1001, FREN1011 or FREN1021.

FREN1221 French 1D Literature & Society A
Department of French
Staff Contact: C Sheaffer-Jones
UOC3 HPW2 S1
Corequisite/s: FREN1030

Study of aspects of modern French culture and society through selected texts and other materials. Introduction to close reading and analysis of literary texts.

Note/s: For Francophone students with a Baccalaureat or equivalent qualifications. Excludes students qualified to enter FREN1001, FREN1011, FREN1021 or FREN1023.

FREN1222 French 1D Literature and Society B
Department of French
Staff Contact: C Sheaffer-Jones
UOC3 HPW2 S2
Prerequisite/s: FREN1221

Study of aspects of modern French culture and society through selected texts and other materials. Introduction to close reading and analysis of literary texts.

Note/s: Excludes students qualified to enter FREN1002, FREN1012, FREN1022 and FREN1024.

FREN2003 French 2A Intermediate French 1
Department of French
Staff Contact: E Temple
UOC6 HPW4 S1
Prerequisite/s: FREN1000 or FREN1100 at 70% or better
Excluded: FREN2000

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.

FREN2004 French 2A Intermediate French 2
Department of French
Staff Contact: M Royer
UOC6 HPW4 S2
Prerequisite/s: FREN2003

Intensive study of French Language aimed at consolidating and extending the skills taught in FREN2003. Special emphasis on the study of syntax and an introduction to literary text analysis. Further study of French culture.

FREN2013 French 2B Language and Culture A
Department of French
Staff Contact: A Tabensky
UOC6 HPW4 S1
Prerequisite/s: FREN1010 or FREN1012

Intensive study of French language: the course focuses on forms of spoken and written discourse, such as oral discussions and short essays, together with a systematic study of morphosyntactic structures. Study of contemporary French culture is conducted through analysis of authentic documents. One hour is devoted to an introduction to the reading and analysis of short French literary texts.

FREN2014 French 2B Language and Culture B
Department of French
Staff Contact: M Blackman
UOC6 HPW4 S2
Prerequisite/s: FREN2013

Intensive study of French language: further exploration of spoken and written discourse is achieved by the analysis of authentic documents and by a variety of class exercises, such as oral presentations and debates. There is a systematic study of French syntax and an exploration of Francophone websites for the study of contemporary culture. One hour is devoted to the reading and analysis of short literary texts.

FREN2020 French 2C - Language and Culture
Department of French
Staff Contact: J Battestini-Newman
UOC6 HPW4 S1
Prerequisite/s: FREN1020, FREN1225 or FREN1022

Intensive study and practice of both oral and written French in order to enhance competence in all skills. Consolidation and extension of grammatical knowledge, together with further study of French culture.

Note/s: Excludes students qualified to enter FREN2030.

FREN2030 Advanced Core Language
Department of French
Staff Contact: E Temple
UOC6 HPW3 S2
Prerequisite/s: FREN1020 or FREN1022 at 70% and 65% in FREN1225 or FREN2020 or FREN3011

Language studies for suitably advanced students, with special emphasis on advanced practice in writing skills and in the refining and mastery of written and oral French discourse in academic and vocational contexts.

Note/s: Excludes students who have successfully completed FREN1030, FREN2021 or FREN2022.

FREN3003 French 3A Language and Culture A
Department of French
Staff Contact: A Tabensky
UOC6 HPW4 S1

Prerequisite/s: FREN2003, FREN2004
Excluded: FREN2010

Intensive study of French language: consolidation of aural/oral skills through a variety of interactive tasks and initiation to the study of forms of spoken and written discourse, such as oral discussions and short essays. There is a systematic study of morphosyntactic structures. Contemporary French culture is approached through analysis of authentic documents. One hour is devoted to an introduction to the reading and analysis of short French literary texts.

FREN3004 French 3A Language and Culture B
Department of French
Staff Contact: E Temple
UOC6 HPW4 S2
Prerequisite/s: FREN3003
Excluded: FREN2010

Intensive study of French language: exploration of spoken and written discourse is achieved by the analysis of authentic documents and by a variety of class exercises, such as oral presentations and debates. There is a systematic study of French syntax and an exploration of Francophone websites for the study of contemporary culture. One hour is devoted to the reading and analysis of short literary texts.

FREN3011 French 3B Language and Culture
Department of French
Staff Contact: J Battestini-Newman
UOC6 HPW4 S1
Prerequisite/s: (FREN2013 and FREN2014) or FREN2010

Extensive study and practice of oral and written French in order to enhance competence in all skills. Consolidation and extension of grammatical knowledge, together with further study of French culture.

FREN3120 Exploring the French Language
Department of French
Staff Contact: A Tabensky
UOC6 HPW3 S1
Corequisite/s: FREN1021, FREN1022 or FREN1030 or FREN3004 or FREN3011
Excluded: FREN3121

Students will examine key concepts such as the linguistic sign, sentence, utterance, and discourse, and explore practical applications in authentic documents. The course combines theoretical and practical study of form and meaning in the French language. Readings of French linguists will be included.

FREN3210 French Prose Fiction
Department of French
Staff Contact: M Blackman
UOC6 HPW3 S1
Corequisite/s: (FREN1021,FREN1022) or FREN1030 or FREN3011

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
Staff Contact: M Blackman
UOC6 HPW3 S1 S2
Prerequisite/s: FREN1030

Reading in selected French masterpieces. Students are required to submit an in-depth analysis of work studied.

FREN3216 France Today
Department of French
Staff Contact: A Tabensky
UOC6 HPW3 S2
Corequisite/s: FREN3004
Excluded: FREN2014, FREN2020, FREN2030, FREN3011

An option in the French major designed specifically for students from A Stream. Also available for any students who wish to inform themselves about contemporary France while they improve their French. Topics include: political developments in France and the EU; social issues; recent trends in literature, art and cinema; employment in France; popular culture; gastronomy.

FREN3410 French for Special Purposes
Department of French
Staff Contact: C Sheaffer-Jones
UOC6 HPW3 S2
Corequisite/s: (FREN1021, FREN1022) or FREN1030 or FREN3004 or FREN3011

A study of French as used in the world of business, tourism, leisure and restauration, particularly from the point of view of the professional in these fields. Particular emphasis will be placed on comparative cultural studies, e.g. expressing Australian cultural concepts in French.

FREN3901 Reading Program 1 (Advanced)
Department of French
Staff Contact: M Blackman
Enrolment requires school approval
UOC6 HPW3 S1 S2
Prerequisite/s: 36 units of credit including 12 units of French at credit level

Any approved Upper Level option from the following: FREN3120, FREN3210, FREN3310, FREN3410, FREN3110, FREN3121, FREN3215, FREN3220, FREN3510 to be taken second year, plus an intensive reading program.

Note/s: Typically done in the second year of C or D stream, this course is designed for students wishing to proceed to Honours in the Department of French.

FREN3910 Honours Preparatory Seminar
Department of French
Staff Contact: J Battestini-Newman
UOC6 HPW3 S2
Prerequisite/s: 36uc of French courses at Credit 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/s: Typically done in the third year of C or D stream, 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
Staff Contact: M Blackman
Enrolment requires school approval
UOC24 S1 S2
Prerequisite/s: 54 units of credit in FREN, including FREN3910 at 65% 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
Staff Contact: M Blackman
Enrolment requires school approval
UOC12 S1 S2
Prerequisite/s: 54 units of credit in FREN, including FREN3910 at 65% 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
Staff Contact: M Blackman
Enrolment requires school approval
UOC12 S1 S2
Prerequisite/s: 48 units of credit in FREN, including FREN3910 at 65% 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
Staff Contact: M Blackman
Enrolment requires school approval
UOC6 S1 S2
Prerequisite/s: 48 units of credit in FREN, including FREN3910 at 65% 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 Eng and Industrial Chemistry
Staff Contact: J Stubington
UOC3 HPW2 S1 S2

An introduction to combustion technology, combustion calculations, burner design, furnace, kiln and boiler thermal design.

GENB1001 The Consumers Guide to DNA
School of Biochemistry and Molecular Genetics
Staff Contact: H Shoory
UOC3 HPW2 S1
Excluded: BIOC2201, BIOC2291

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 is underway. 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 their products with the aim of creating a deeper understanding of their implications for individuals and society.

GENB1002 Diet-Food, Fact, Fiction and Fallacy
School of Biochemistry and Molecular Genetics
Staff Contact: M Edwards
UOC3 S1 X2
Excluded: BIOC1319, BIOC1320, BIOC2101, BIOC2181, BIOC2312, BIOC2372

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 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/s: S1 = HPW 2. X2 = web mode and tutorials. Dates to be advised.

GENB1003 Plants and People: Murder, Magic, Medicine
School of Biochemistry and Molecular Genetics
Staff Contact: I McFarlane
UOC3 HPW2 S2

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.

GENB1004 Genes and Society
School of Biochemistry and Molecular Genetics
Staff Contact: L Lai
UOC3 HPW2 S1 S2

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.

GENB2001 Australian Wildlife Biology
School of Biological Science
Staff Contact: G Hyde
UOC6 HPW3 S2
Excluded: BIOS1101, BIOS1201, BIOS1401, LAND1151

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. 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.

GENB3002 Great Epidemics in History
School of Microbiology and Immunology
Staff Contact: A Collins
UOC3 X1
Excluded: GENB3001

This course will introduce microbiology to non-biology students, and will specifically examine micro-organisms as agents which have shaped the course of human history. The lecture program will consider conditions as diverse as malaria, smallpox, influenza and TB. An important focus of the course will also be the nature of vaccines, their contributions to the decline or disappearance of some diseases, and the public debate regarding the safety, efficacy, and ethics of vaccination. For example, as well as the benefits an individual may gain from vaccination, mass vaccination recognises that public benefit flows from individual risks. Does the community have the right to insist that everyone be vaccinated? How serious are the risks, and how great are the individual and public benefits? The course will assume no prior knowledge of biology and will therefore include a brief introduction to micro-organisms. This introduction will include laboratory-based exercises in which students will learn how bacteria and viruses are cultured, and will examine microbiological preparations under the microscope. Tutorials will provide opportunities for students to explore many of the ethical issues surrounding disease and the public response to the diseased.

Note/s: X1 = Feb 18-22.

GENB3003 HIV and Other Unconquered Infections
School of Microbiology and Immunology
Staff Contact: M Cooley
UOC3 S2
Excluded: GENB3001

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 haemorraghic 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/s: Distance (web) mode

GENB4001 Psychology of the Individual and the Group
School of Psychology
Staff Contact: B Spehar
UOC6 HPW4 S1
Excluded: PSYC1001

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.

GENB4002 Psychology of the Body and the Mind
School of Psychology
Staff Contact: B Spehar
UOC6 HPW4 S2
Excluded: PSYC1011

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.

GENB4004 Psychology of Gender
School of Psychology
Staff Contact: G Huon
UOC3 HPW2 S2

The division of humans into females and males has assumed an importance that overshadows other divisions. This course will begin by examining the ways in which the male - female distinction has been assigned meanings and a significance that have specific implications for almost all aspects of social life, and especially for work, family life, ritual, and leisure. Issues of 'femininity' and 'masculinity' go far beyond individual identity and self concept. To appreciate the personal and political dimensions of gender, the course will examine what we know and do not know about the similarities and differences between women and men, the sources of that knowledge, theories or explanations to account for those differences (including the so-called, nature-nurture debate), and the way the knowledge might itself be limited by cultural perceptions of femininity and masculinity.

GENB4005 Psychology of Work
School of Psychology
Staff Contact: J Bright
UOC3 HPW2 S2
Excluded: PSYC3526

How does the psychologist approach the world of work? This course will involve an examination of the aims, methods and ethics of industrial and organisational psychology. How are the tools of this area used to further the aims of organisations in areas such as personnel selection, training, job analysis and design? What is the relation between job satisfaction and job performance?

GENB4007 The Psychobiology of Sex, Love and Attraction
School of Psychology
Staff Contact: R Richardson
UOC3 HPW2 S1 X1

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.

Note/s: X1 = Feb 18,19,20,25 and 26. S1 = HPW 2

GENB5001 The Marine Environment
Centre for Marine and Coastal Studies
Staff Contact: J Benzie
UOC6 HPW4 S1 S2
Excluded: GENS4625, MSCI2001

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.

GENB6001 Food in Society
Department of Food Science and Technology
Staff Contact: J Paton
UOC3 HPW2 X1
Excluded: FOOD1100, FOOD1110, GENA6201

Introduction to principles of food production and consumption. Food in history, society, economics and politics. Development of the food industry into one of the largest industry sectors in Australia; nutritional, physiological and psychological roles of food; role of microbiology, biotechnology and technology in safe, nutritious, innovative food processing. Topical issues discussed include: food irradiation - risk or benefit?; genetic engineering and biotechnology - 'new' food sources; food additives - necessity or evil?; environmental impact of food processing; food choices and prejudices and food marketing and education - who should the consumer believe?

Note/s: Interactive discussion sessions held during lectures.

GENB7001 Technological, Social and Business Aspects of Alcohol
Faculty of Science
Staff Contact: C Marquis
UOC3 X1

Consumption of alcoholic beverages has been part of human activity for thousands of years. This course aims to look at various aspects of alcoholic products, including an historical perspective, the current role these products play in society and the health impacts of consumption. The science, technology and commercial aspects of the manufacture of beer, wine and spirits will be considered. Case studies will be undertaken from a largely Australian perspective. Practical work will also be performed.

Note/s: Four full days of lectures/practicals in Summer Session (X1).

GENC1001 Accounting and Society
School of Accounting
Staff Contact: School Office
UOC3 HPW2 S1
Excluded: ACCT1501

The aim of the course is to develop students' understanding of the use of financial information in the allocation of scarce resources in the fields of private and public enterprise, and in the bargaining processes of stakeholders in competing for shares of the wealth generated or distributed by those enterprises. The stakeholders include equity and debt investors, employees and the community within which both private and public enterprises operate under a social contract. The course introduces students to the basic concepts of financial information recognition and measurement, the media through which financial information are communicated and briefly outlines the ethical and regulatory frameworks within which information is communicated. Students are introduced to the various financial and non-financial performance indicators used by stakeholders in the assessment of their interests in private and public enterprises through the analysis of an entity in the private sector and in a government agency.

GENC1003 •A Critical Guide to Financial Management and Analysis
School of Accounting
Staff Contact: School Office
UOC3 HPW2 S2
Excluded: ACCT1501, ACCT9001, ACCT9002

This course is focussed on providing students with skills to interpret and analyze financial information. This financial information is usually in the form of published annual financial reports or information that enables management to effectively manage an organization. These skills are essential today where students are required to have an appreciation of the social and ethical issues underlying corporate action, particularly with respect to performance management and disclosure. The subject provides students with skills to understand the financial position of a future employer, investment or business opportunity. The spate of recent corporate collapses have significant social consequences and in order for the investing public to invest more wisely, it is important that they are able to read annual reports critically.

GENC2001 An Introduction to the Australian Economy
School of Economics
Staff Contact: School Office
UOC3 HPW2 S1 S2
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.

GENC2005 Economic Philosophers
School of Economics
Staff Contact: School Office
UOC3 HPW2 TBA

The subject of study will be the thoughts and lives of great economists of the past. An examination of major traditions of economic thought illustrates the evolution of economic ideas and contemporary developments. There will be considerable emphasis on the intellectual and social background which influenced the more important contributions.

GENC2102 Black Death to Aids: Economic Impact of Epidemics on Society
School of Economics
Staff Contact: School Office
UOC3 HPW2 S1

The course explores the impact and responses to three major outbreaks of infectious disease: the Black Death in the mid-14th century, the cholera epidemic of the early 1830s and that of AIDS in our own time. This involves the contemporary epidemiology of the disease, suggested cures and behavioural responses. Some of the latter are remarkably similar, with differences reflecting those in the broader social context that is also explored.

GENC3001 Understanding Asian Banking and Finance
School of Banking and Finance
Staff Contact: Contact School
UOC3 HPW2 S2

The course is an introduction to the diverse banking and capital markets of Asia. It will explore how finance has contributed to economic development and how financial institutions, both formal and informal, have developed in the region. Comparative advantage theory in trade in financial services (including insurance) will be introduced in this course.The growth of Asian foreign exchange stock markets will be examined with emphasis on ethical issues and how regulators attempt to control market participants. The analysis of market efficiency will also be extended to include aspects of social efficiency in the less developed nations of the region. The course will also explore current issues and trends in Asian financial markets.

GENC3002 Use and Misuse of Financial Markets
School of Banking and Finance
Staff Contact: Contact School
UOC3 HPW2 S1

This is a preliminary introduction to financial markets. This course will deal with instruments and other products in the Australian financial markets. It will take a contemporary view of the markets and focus on current usage via a media and/or book review of current issues such as the use of the markets to fund public utilities and the misuse of the markets by a number of entrepreneurs in the 1990s. The linkage between financial markets and commodity markets will also be introduced to show that financial markets can increase the liquidity of commodity markets, thus improving efficiency in both markets.

GENC3003 User's Guide to Personal Financial Planning
School of Banking and Finance
Staff Contact: Contact School
UOC3 HPW2 S1

In recent years the rapidly changing economic environment has heavily influenced the wealth of individuals. This course aims to assist the individual in financial planning in the changing environment. This course will commence with overall money management strategy and include topics such as banking services of financial institutions, choosing a source of credit, an introduction to consumer credit, housing finance, personal and household insurance, superannuation, the fundamentals of investing and small business finance. Some general knowledge in the use of foreign exchange as a household asset will also be introduced.

GENC5001 Introduction to the Internet and Electronic Commerce
School of Info Systems, Technology & Management
Staff Contact: School Office
UOC3 X2

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
Staff Contact: School Office
UOC3 HPW2 S1 S2
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 the communities in which we live.This course is designed to provide students with an overview of these different aspects of marketing management. Insights are provided into the way in which business, government and not-for-profit organisations manage their marketing efforts. Topics include: the concept of marketing in different types of organisation; how to analyse the market and segment consumers within the market; buyer decision processes, organisational markets and organisational decision processes; the development of the marketing mix; products, brands and services; pricing, channels and promotion (personal selling, advertising, sales promotion and publicity); and marketing strategy within increasingly turbulent and challenging environments.

GENC6002 Marketing and the Consumer
School of Marketing
Staff Contact: School Office
UOC3 HPW2 S1 S2
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
Staff Contact: School Office
UOC3 HPW2 S1 S2

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 M.Com. in Tourism, Hospitality Management and Marketing on completion of their undergraduate degree.

GENC7002 Getting Into Business
School of Business Law and Tax
Staff Contact: School Office
UOC3 HPW2 S1 S2
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 by this course.School of Economics

GENC7003 Managing Your Business
School of Business Law and Tax
Staff Contact: School Office
UOC3 HPW2 S1 S2

Business management is the science of managing scarce resources, change, 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. Amongst the topics covered include: rights and obligations attached to property, dealing with suppliers, employees, subcontractors, developing legal financial models, business plans and undertaking legal and compliance audits and continuing governance reviews that provide focus to the business entities. The course will provide substantial range of analytical research and practical skills to empower students to undertake the responsibilities of the contemporary manager.

GENC9001 From Paper to the Web: Finding and Keeping Information
School of Info Systems, Technology & Management
Staff Contact: School Office
UOC3 HPW3 X1 X2

As information resources appear in increasingly diverse forms, researchers face increasing challenges. Students will be assisted to become critically aware of this diverging range of resources - books, journals, electronic and multimedia materials - inside and outside the walls of the University Library and throughout the World Wide Web. The context in which these materials are produced and distributed will be discussed.The issues of managing literature searches will be addressed, including search techniques, subject analysis and control, referencing styles and conventions, and the use of personal bibliographic software.

GENC9002 Web Information Resources
School of Info Systems, Technology & Management
Staff Contact: School Office
UOC3 HPW2 S1 S2

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.School of Marketing

GEND1202 Drawing the Body: Studies of Surface Anatomy
School of Art
Staff Contact: School Office
UOC3 X1 X2

This course provides 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 develops an understanding of the human figure. Emphasis is placed on direct observations of the nude. Students draw from the skeleton, casts, and prepared anatomical specimens. A range of approaches are covered that will encourage students to understand the basic anatomical constructs.

GEND1203 Drawing the World From Within/Without
School of Art
Staff Contact: School Office
UOC3 HPW2 S1 S2 X1 X2

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.

GEND1204 Studies in Painting
School of Art
Staff Contact: School Office
UOC3 S1 S2 X1 X2

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 supports, the mixing of tones and colours and experience in using a range of basic materials. The subject includes a supervised excursion to the AGNSW.

GEND1205 Making a Print
School of Art
Staff Contact: School Office
UOC3 X1 X2

This course covers theoretical and practical aspects of producing a fine art print. The theoretical component deals 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 enables 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 have the opportunity to produce a print using one of the above mediums and to mount and document it appropriately.

GEND1208 Studies in Sculpture
School of Art
Staff Contact: School Office
UOC3 X1 X2

This sculpture course provides practical experience in the appreciation of space and form. Theoretical and historical information is discussed relating 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.

GEND1209 Studies in the Camera - Analogue Photography
School of Art
Staff Contact: School Office
UOC3 S1 S2

This course provides an introduction to and overview of small to large camera formats and their application in the context of contemorary visual art practices. Demonstrations and workshops to enhance skill acquisition in the use of 35mm cameras provide the bases of the practical component of this couse. Topics covered and practical workshops include: 35mm camera operation; overview of medium and large format cameras; B/W film types and formats; basic natural lighting techniques; light metering; film and print processing; darkroom procedures; and print finishing/ presentation. An overview of electronic and digital cameras will be introduced in the latter half of the subject. Students will undertake a gallery visit to view contemporary photomedia work. Slide lecture topics will comprise the History of Photography, and The Photographic Image in Contemporary Visual Arts. The industrial/commercial uses of image capture devices and the impact of new imaging technologies are discussed and explored.

GEND1210 Studies in the Print - Analogue Photography
School of Art
Staff Contact: School Office
UOC3 S1 S2

This course provides an introduction to and overview of the analogue photographic print in the context of contemporary visual art practices. Demonstrations, workshops and darkroom procedures in fine printing of black & white and colour photographs are the basis of the practical component of this course. Topics covered and practical workshops include: B/W and colour film types and formats;B/W film processing and print procedures; basic colur print procedures; and print finishing/ presentation. An overview of various digital output methods and their relationship to analogue technologies will be introduced in the latter half of the subject. Students will undertake a gallery visit to view contemporary photomedia work. Slide lecture topics will comprise the History of Photography, and The Photographic Image in Contemporary Visual Arts. The industrial/commercial uses of image capture devices and the impact of new imaging technologies are discussed and explored.

GEND1211 The Artist's Studio
School of Art
Staff Contact: School Office
UOC3 X2

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 deskilling of the contemporary artist.

GEND1212 Analysing a Picture: Composition and Design in Art
School of Art
Staff Contact: School Office
UOC3 X1

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.

GEND2201 Art Therapy
School of Art Education
Staff Contact: School Office
UOC3 TBA

The aim of this subject 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 subject 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.

GEND2202 Multicultural Contexts
School of Art Education
Staff Contact: School Office
UOC3 HPW2 TBA

The main 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 multi culturalism for policies and practices as they are represented through the lens of art and art education.Through lectures and discussion groups, the subject will consider Australia's history of multiculturalism as it has been represented through art education and look at the issues and possibilities arising for the visual arts from multicultural education.

GEND2205 Dialogues and Communities
School of Art Education
Staff Contact: School Office
UOC3 X2

In 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 desigh 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.

GEND2206 The Art Museum and Art Education
School of Art Education
Staff Contact: School Office
UOC3 X1
Excluded: SAED2480, COFA4046

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 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.

GEND2208 Creativity Workshop
School of Art Education
Staff Contact: School Office
UOC3 TBA
Excluded: SAED2472, COFA4025

This course introduces students to a range of theoretical explanations of creativity as applied to art, design and education practice. Exploration of creative subjects, problem solving and outcomes include, amongst others, Vasarian and Kantian notions of genius and creative personality; theories of the creative process, divergent thinking and problem solving; aesthetic theories of the creative; creativity and information processing; revisionist critiques of creativity. Students investigate, apply and interpret theories of creativity across a number of disciplines through a series of lectures, seminars and workshops.

GEND3201 'All That is Solid Melts into Air': Modernism and the Experience of Modernity 1890-1950
School of Art History and Theory
Staff Contact: School Office
UOC3 HPW2 S1
Excluded: SAHT2607, COFA2140

The machine age facilitated new forms of mass production and undreamed of volumes and varieties of commodities, from cars to vacuum-cleaners, ready-made for consumption. It promised to bring a 'brave new world' emancipated from the drudgery of manual labour, the struggle for adequate nourishment, hygiene and education, as well as inequalities of race, nation, sexuality and gender. Yet, while many

artists were quick to celebrate, others perceived that the dizzying technological transformations of this new world had resulted in an environment closer to Aldous Huxley's novel, a nightmare of dehumanization, rather than the utopian ideal. This seemed only confirmed by totalitarianism and mass destruction on an unprecedented scale with two world wars and the holocaust.

GEND3218 Psychoanalysis and Art
School of Art History and Theory
Staff Contact: School Office
UOC3 TBA

The subject is designed to develop a critical understanding of the relationship between specific theories of psychology, psychonalysis 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/s: 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
Staff Contact: School Office
UOC3 HPW2 S1 X2

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.

GEND3231 Picturing Death: Art and the Human Predicament
School of Art History and Theory
Staff Contact: School Office
UOC3 X1

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 castrophes 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.

GEND3232 Pornography, Art and Politics
School of Art History and Theory
Staff Contact: School Office
UOC3 HPW2 S1
Excluded: SAHT2643, COFA2113

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.

GEND3233 Scandals of Modern Art
School of Art History and Theory
Staff Contact: School Office
UOC3 HPW2 S2 X1

From its inception, modern art attracted outrage, rejection and ridicule from some audiences and amazed approval and critical engagement from others. Many artworks now viewed with profound respect were greeted initially with disbelief and affront. 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.

GEND3238 Memory and Self
School of Art History and Theory
Staff Contact: School Office
UOC3 HPW2 S1
Excluded: SAHT2213, COFA6017

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 ideas. 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'.

GEND3239 Australian Contemporary Art
School of Art History and Theory
Staff Contact: School Office
UOC3 TBA

Sydney is the centre of the Australian art world, with major national and state art galleries and museums, a dynamic commercial galleries network, contemporary art galleries and public community art projects. This course offers an exploration of Australian art, with an emphasis on contemporary art and craft, through first-hand experience and on-site tuition. Students will examine artworks in the context of current exhibitions and collection. Through reading of current Australian art/craft journals, students will become familiar with the current debates and ideas that inform contemporary art production and response.

GEND4202 Design and Human Functioning
School of Design Studies
Staff Contact: School Office
UOC3 HPW2 S1
Excluded: COFA5114

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.

GEND4203 Design Management
School of Design Studies
Staff Contact: School Office
UOC3 HPW2 S1 S2

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 companies or institutions.

GEND4204 Designing: Practical Studies in Design
School of Design Studies
Staff Contact: School Office
UOC3 X2

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 environment design may be integrated to contribute to the development of richer appropriate design solutions.

GEND4205 Design Communications and Presentations
School of Design Studies
Staff Contact: School Office
UOC3 X1 X2

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 textural 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.

GEND4206 Integrated Design Studio
School of Design Studies
Staff Contact: School Office
UOC3 X2

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.

GEND4207 Designing: Models as a Tool for Design Communication
School of Design Studies
Staff Contact: School Office
UOC3 X1 X2

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.

GEND4208 Working with Ceramics
School of Design Studies
Staff Contact: School Office
UOC3 HPW2 S1 X1 X2 S2
Excluded: 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.

GEND4209 Working with Jewellery
School of Design Studies
Staff Contact: School Office
UOC3 HPW2 S1 X1 X2 S2
Excluded: 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.

GEND4210 Textiles and Fashion
School of Design Studies
Staff Contact: School Office
UOC3 S1 S2 X1 X2

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.

GEND4211 Design in Performance
School of Design Studies
Staff Contact: School Office
UOC3 HPW2 S1 S2 X1 X2
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.

GEND4212 Design in Adornment and Costume
School of Design Studies
Staff Contact: School Office
UOC3 HPW2 S1 S2 X1 X2

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.

GEND4213 The Arts of Aboriginal People and Torres Strait Islanders
School of Design Studies
Staff Contact: School Office
UOC3 X1

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.

GEND4214 Surface and Image in Tapestry Weaving
College of Fine Arts
Staff Contact: School Office
UOC3 HPW2 S1 S2

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 scaned or text base images will be developed and woven for miniture, shaped or larger scale tapestries.

GENE1011 From Catchment to Ocean
School of Civil and Environmental Engineering
Staff Contact: R Cox
UOC3 HPW2 S1 S2

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
Staff Contact: S Moore
UOC3 HPW2 X2

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 environmental risk assessment and 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 Analysis), to a regional and national 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.

GENE3050 The New Age of Solar Energy
Centre for Photovoltaic Engineering
Staff Contact: C Honsberg
UOC3 S2

Renewable energy technologies are poised to make significant contributions to energy and electricity requirements in a number of countries. Relevant technologies will be considered with particular reference to the most exciting new developments, some of which have originated in Australia. Residential photovoltaic roof-top systems will be considered in response to major international programs that have received extraordinary and unexpected levels of public support. The new 'Greenpower' scheme offered to consumers in NSW will be examined and its significance evaluated. The economics and likely impact of renewable energy technologies will be studied. No prior knowledge or experience is required.

GENE3051 Solar Cars - Speed of Light
Centre for Photovoltaic Engineering
Staff Contact: School Office
UOC3 S1

Solar car races have capitalised on state of the art developments in Photovoltaic technology, aerodynamic design, high efficiency motor design and electronics, battery technology, telemetry, rugged lightweight vehicle mechanics, satellite positioning systems, computer control systems, race strategies, etc. Case studies will reveal the consequences of university students taking on the world in this high-tech brain sport. Opportunities will exist for the hands-on development of miniature solar cars to be raced on the universities 'Sunsprint' racing track. No previous knowledge or experience in any of the above areas is assumed.School of Mining Engineering

GENE4001 Introduction to Biomedical Engineering
Graduate School of Biomedical Engineering
Staff Contact: School Office
UOC3 HPW2 S1

The main objective of this course is to introduce students from non-engineering backgrounds to the way engineering principles can be applied to solving problems in medicine and biology. Students will gain a broad understanding of the role of engineers in medical technologies and their development. They will be able to discuss general (non-technical) examples of engineering input into design, production and operation of medical devices. Lecture topics will include: Computers in biomedical engineering; Biomaterials - disasters and triumphs; The Arterial Pulse - Blood Pressure and other topics; and Medical Imaging - looking into the body.School of Chemical Engineering and Industrial Chemistry

GENE6002 Recent Environmental Disasters: Lessons for the Future
School of Chemical Eng and Industrial Chemistry
Staff Contact: P Crisp
UOC3 S2

A study of the science and social issues underlying recent environmental disasters. Each disaster is examined at three levels: What were the factors which led to the disaster? What lessons can be learnt? How may similar disasters be avoided in the future? The disasters to be studied include: the Esso Longford explosion and fire, release of sarin nerve gas in the Tokyo underground, toxic-chemical releases at Bhopal in India and Seveso in Italy, radioactive waste leakage at Hanford, toxic chemicals seeping from the soil at Love Canal, the near miss at Three Mile Island, radioactive releases at Chernobyl in Ukraine and Tokaimura in Japan, marine oil pollution from the Exxon Valdez in Alaska, environmental warfare in Kuwait, defoliation in Vietnam, the aftermath of nuclear bombing at Hiroshima and Nagasaki, Australia's own nuclear-bomb test site at Maralinga, the natural disaster of Lake Nyos and the continuing unnatural disasters of El Nino weather patterns.

GENE6003 The Environment 1: Air, Water and Land Pollution
School of Chemical Eng and Industrial Chemistry
Staff Contact: P Crisp
UOC3 S2

A study of the science which underlies the major environmental problems confronting society. Issues are discussed in terms of their local and global significance. Social issues underlying both the problems and their solutions are discussed. Topics covered include the following. Air Pollution: Sydney's air quality, types of smog, indoor air pollution, greenhouse gas emissions by Australia and the world, El Nino, the Arctic and Antarctic ozone holes, global climate change and its likely effects. Land Degradation: deforestation and salinity in the Murray Darling river system, Australian and international deforestation, erosion, effects on biodiversity and food supply, landmines and environmental warfare. Water: freshwater supplies in Australia and overseas, water pollution of rivers, lakes, seas and oceans. Population: biodiversity and extinction of species, genetic modification and biotechnology, emerging diseases, environmental terrorism and chemical/biological/radioactive warfare.

GENE6004 The Environment 2: Toxic and Radioactive Chemicals
School of Chemical Eng and Industrial Chemistry
Staff Contact: P Crisp
UOC3 S2

A study of the science which underlies the major environmental problems confronting society. Issues are discussed in terms of their local and global significance. Social issues underlying both the problems and their solutions are discussed. Topics covered include the following. Toxic Chemicals: how chemicals enter the human body, how chemicals harm tissues and organs, toxic metals (lead, mercury, arsenic), pesticides (DDT, Agent Orange), dioxins, sex-hormone imitators, cigarette smoke, food contaminants, how to avoid chemical injury. Chemical Wastes: chemical spills, soil contamination, migration of toxic chemicals. Radioactive Contamination: nuclear wastes, weapons production and use, accidental releases from aircraft and satellites, economics of nuclear power, food irradiation, disasters at Three Mile Island, Chernobyl and Tokaimura. Alternative Energy Sources: geothermal heat, tides, ocean currents, waves, ocean heat engines, air convection towers, solar thermal electricity, photovoltaic cells, fuel cells, alternative liquid fuels, muonic cold fusion, energy futures. Occupational Health and Safety: occupational diseases, asbestos, toxic chemicals in the workplace, workplace injuries in Australia and worldwide, toxicity and hazard. Responsible Care: public awareness, globalisation, poverty, military expenditure, current trends on environmental issues.

GENE6005 The Environment This Week
School of Chemical Eng and Industrial Chemistry
Staff Contact: P Crisp
UOC3 S2

An oil spill, an explosion at a nuclear reactor, the ozone hole over Australia... The current environmental issues of the week will be the subject of this course. Newspaper cuttings, magazine articles, radio and television reports will be discussed. The goal will be to penetrate the publicity hype to the real science and social issues involved. The tutor will provide background information and scientific explanations to guide discussion. Class members will prepare talks on topics of environmental interest and present them to the class for general discussion. A wide

range of local and global environmental issues will be examined, the choice of which will depend on the interests of the class and the 'hot' issues of the week. The class will examine not only the issues, but also the manner in which they are being promoted and the possible long-term solutions to environmental problems.School of Civil and Environmental Engineering

GENE7801 Energy and Mineral Resources - Use of Abuse?
School of Mining Engineering
Staff Contact: C Daly
UOC3 HPW2 S1 S2 X1 X2

This course examines Australia's importance as a vast source of mineral and energy resources. It concentrates on the impact the continued consumption of these non-renewable resources has on our physical, social and political environment. The issues of global warming, native title and the viability of alternative energy sources are dealt with in detail.All course material is delivered via the Internet. A number of workshops are scheduled throughout the duration of the course to promote discussion on relevant topics.Faculty of LawFor details of Current Timetable, please check our WebSite: http://www.law.unsw.edu.au

GENL0220 Effective Communication
Faculty of Law
Staff Contact: G Poole
UOC3 HPW2 S2
Excluded: GENP0220, PLAN1062

This course is designed to facilitate an understanding of the key aspect of effective communication, including negotiation and mediation skills. The strong practical emphasis will provide students with the opportunity to develop their interpersonal skills as well as their written, oral and non-verbal presentation techniques, in a variety of contexts. Students will work individually, in pairs and in groups; and will gain confidence in role-play situations.The course will enable students to become aware of contemporary interpersonal communication theory; analyse self more fully and assess personal goals and needs; apply key concepts of effective interpersonal skills; analyse the nature of conflict; further develop effective problem-solving, assertiveness strategies, and conflict resolution techniques. As well, gain an understanding of intercultural and cross-cultural communication in everyday, interview and legal contexts. Attention will be given to the features and benefits of Plain English in documents. Students will also gain experience in functional and written expression modes, eg writing media releases and report writing.Assessment: report 30%; oral presentation 25%; short answer test 20%; tutorial participation 25%.

GENL0230 Law in the Information Age
Faculty of Law
Staff Contact: School Office
UOC3 X1

This subject will give students an overview of the operation of new media and communications services under Australian law. It will cover four broad areas: how laws are made, changed, interpreted and enforced; electronic commerce and what it means for business, consumers and the community; media content, including how the laws of defamation, contempt and censorship work and how they are being challenged by the Internet; and 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.

GENL1020 World Religions: Customs and Laws
Faculty of Law
Staff Contact: P Gwynne
UOC3 HPW2 S1 S2

Religion continues to exert considerable influence on the way in which billions of human beings act out their lives. It therefore 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 laws and customs impact upon the behaviour of their adherents. The religions studied are Hinduism, Buddhism, Judaism, Christianity and Islam. In each case, we will begin with a brief exploration of the central tenets of the faith before turning our attention to 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. An objective, comparative approach will be taken and little prior knowledge of any religious tradition is required. 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.

GENL2000 Principles of International Environmental Law
Faculty of Law
Staff Contact: E Palassis
UOC3 X1

The course is divided into two broad parts. First, an examination of the most significant principles involved in the operation of the international legal system and how the international community, through the formulation of International Environmental Law responds to global and regional environmental issues. Second, after considering these basic principles, a sectoral approach will then be taken by examining the application of International Environmental Law in select areas. The focus will be international, examining the law which has been applied to deal with environmental problems in an international and transboundary context. The topics that will be addressed in the course include: The Sources and Development of International Environmental Law; the Role of the United Nations and its Specialised Agencies; Concepts and Principles of International Environmental Law; State Responsibility; the Law of the Sea and the Marine Environment ; the International Control of Marine Pollution; the International Control of Hazardous Waste; International Air and Atmospheric Pollution; Protection of the Polar Regions; and Protection of Biological Diversity.

GENL2020 An Introduction to the Australian Legal System
Faculty of Law
Staff Contact: J Krygier
UOC3 HPW2 S1 S2

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 - Regulation of Networked Transactions
Faculty of Law
Staff Contact: G Greenleaf
UOC3 HPW2 S1

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 development of international regulatory mechanisms. Responses to problems by technical controls will be compared with legal controls. As a survey course, the precise topics to be covered will change from year to year but may include topics such as:Theories of cyberspace regulationGovernance structures of the Internet - the ICANN exampleDomain names, identities and reputationsEncryption and public key infrastructure (PKI)Copyright - can copying be controlled by cyberspace?Content control through censorship and defamationComputer crime and investigationPrivacy and surveillanceE-commerce, contracts and consumer rightsJurisdictional problems and borderless transactionsThere will be a team teaching approach with a number of lecturers.

GENL3000 Selected Themes on Women in Ancient and Medieval Society
Faculty of Law
Staff Contact: School Office
UOC3 HPW2 S1

The transition from the World of Rome to the Middle Ages has been studied from numerous points of view - history, constitutional theory, politics, law, economics, sociology. The course examines the transition through a special lens, namely the role of women. The following themes are covered: family mobility and social mobility; political power (although excluded from formal leadership, women always exercised significant influence on the course of events and sometimes reached positions almost equivalent to actual leadership); crime and punishment (women were not always subjected to the same punishments as men but this was not always an advantage - some of the punishments inflicted on women were more horrendous than those inflicted on men); the changing face of legend (some well known legends about women, such

as Helen of Troy, the Amazons, Lucretia were reinterpreted by successive generations in the light of changing political and social patterns).

GENL3020 Women and Law in Ancient Rome and Medieval Europe
Faculty of Law
Staff Contact: R Bauman
UOC3 HPW2 S2

One of the most important keys to understanding any society is its law. This applies with particular force to the position of women. Some of the questions to which the law provides answers will make this clear. What was the woman's position in marriage over the period of the Roman Empire and the Middle Ages? Did she decide whom she wanted to marry, or was it decided for her? Was she her husband's equal, or was she always subordinated to him? What authority did she have in running the home, or in bringing up her children? Did she have custody of the children after her husband's death, or after divorce? Did she have control of her property? Was her status as a widow or divorced person better or worse than when she was married? On the whole the answers will show that women occupied a more favourable position in Roman society than in medieval society. There are also important questions in other areas of law. How were women placed in the punishment of crimes compared with men? What part were women able to play in political life? The themes will provide a jumping off points for comparison with the position of women in the modern world. All the themes are covered by works in English.

GENL3040 Human Rights in Ancient Rome
Faculty of Law
Staff Contact: R Bauman
UOC3 HPW2 S2

The modern conception of human rights is arguably a derivative of the Roman model. The course will include comparisons of selected aspects of the Roman and modern versions (which begin with the United Nations' Declaration of Human Rights of 1948). The Romans developed models of laws which emerged to meet the needs of developing societies and it is argued that not only the substance but also the mode of development of this area of jurisprudence has parallels in the ancient world. All necessary modern material is available, in English, in the library. The Roman material - legislation and the case law - is partly in the llibrary, in text and in translation; the rest will be supplied, in translation, in the materials.

GENL3052 Law on Film: representations of the law and legal process on film
Faculty of Law
Staff Contact: G Poole
UOC3 HPW2 S2

Law is both a co-producer and by-product of contemporary culture. Films that deal with the law shape and reflect public attitudes about legal culture. Legal films arise out of conflict and therefore are inherently dramatic. Films about law are frequently self-reflexive: stories about the process of storytelling. Films about law are narratives about narratives.Legal films are not confined to a single style. They are trans-generic and encompass the following film subjects: law school, historical events and true stories, gangster and prison cultures, biographies, westerns, the military, social and environmental causes and class distinctions. They frequently examine difficult and contentious social issues: abortion, the death penalty, environmental pollution. This course will seek to provide a foundation for understanding intersecting narrative strategies employed by both film and law, as well as the cultural implications of this convergence. The course will investigate the evolution of legal films; cinematic portrayals of legal processes and legal characters, positive and negative images of lawyers and judges and the legal profession, 'women lawyer films' as they chart debates over the politics of representation of professional women on film, issues of race and the law.Students will be encouraged to investigate how these films disclose the legal issues and debates, social concerns, anxieties and currents of the time in which they were produced and/or were set, eg. divorce laws in the 1930s, industrial pollution and environmental cases in the 1990s. Students will have the opportunity to study, compare and discuss films as varied as Adam's Rib, The Letter, Paths of Glory, A Man for All Seasons, Joh's Jury, Inherit the Wind, Body Heat, Evil Angels, A Question of Silence, Beyond Reasonable Doubt, Judgement at Nuremberg, 12 Angry Men, Music Box, Breaker Morant, The Return of Martin Guerre, In the Name of the Father, The Accused, A Civil Action and Erin Brokovich.

GENL5000 Environmental Law and Policy
Faculty of Law
Staff Contact: E Palassis
UOC3 X1

Concerns regarding the state of the environment have increased dramatically in recent times. This course aims to provide students with an introduction to the fundamental principles and concepts of environmental law and policy as well as an understanding of the legal techniques used to protect the environment. Students can certainly expect to gain a practical grounding in the basic legal concepts central to environmental law. The course examines the basic legal institutions, mechanisms and concepts that constitute the environmental legal system. The focus of the course is primarily domestic, concentrating on Environmental Law and Policy in New South Wales with perspectives being drawn from the Commonwealth?s environment jurisdiction and the international system, where appropriate. The topics that will be addressed in the course include: The Concept of Ecologically Sustainable Development and the Precautionary Principle; the Design of Environmental Laws and Institutions; Environmental Planning and Assessment; Pollution Control; Waste Management and Contaminated Sites; the Land and Environment Court; Alternative Dispute Resolution; Biological Diversity; Heritage Conservation; and Indigenous Peoples and the Environment. The course also includes a visit to the New South Wales Land and Environment Court.Assessment: Short research paper

GENL5020 Business Fundamentals
Faculty of Law
Staff Contact: J Braw
UOC3 HPW2 S1 S2 X1

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) 50%; class participation/project, team and individual problems 50%.

GENL5030 Tax for Professionals
Faculty of Law
Staff Contact: M Walpole
UOC3 HPW2 S1 S2

This course is taught by means of written materials, which are then discussed by the class (and the lecturer) in telephone conference. The course will introduce students to basic principles of tax and tax law. Students will have an opportunity to explore such questions as "Why do governments levy taxation?" "On what criteria should a tax be judged?" The course will provide an ideal non-technical introduction for students contemplating careers in their chosen fields, providing them with a general understanding of taxation and of their obligations as taxpayers. The material covered includes an analysis and critique of the rules the courts have used in identifying assessable income and allowable deductions in income tax. It also provides an understanding of the assessment process and the use of different taxable entities in a business.Students will gain insights into both the accounting and tax professions and develop the necessary skills to understand tax issues applicable to them and the wider community and will be equipped to participate in the ongoing taxation debate in Australia. Through critical examination, students will appreciate the basic language and concepts used in tax law.

GENM0123 Children - Growing Up in Society
Paediatrics, School of Women's and Children's Health
Staff Contact: School Office
UOC3 HPW2 S2

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 childhealth, exploitation of children, behaviour disorders, nutrition, adolescence. In short, how can we ensure that children have an optimal relationship with society?

GENM0201 Human Origins, Human Problems
Department of Anatomy
Staff Contact: K Ashwell
UOC3 X1 X2

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.

GENM0202 Frontiers in Brain Research
Department of Anatomy
Staff Contact: K Ashwell
UOC3 X2

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. 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.

GENM0510 Using the Media: Promotion Through Mass Media and Multi Media
School of Health Services Management
Staff Contact: D Thomas
UOC3 X1 X2

This is a course with practical skills applications in dealing with the media. Critical analysis of the role of the media in Australian society will follow from comparing students' major assignments in preparing and delivering promotional presentations for print or electronic media. These presentations can be done for community groups, musical groups, or commercial enterprises.

GENM0512 (Mis)representation of Health
School of Health Services Management
Staff Contact: R Iedema
UOC3 HPW2 X1

This course considers how health care is represented in the public domain. The course starts with a look at how health care issues tend to be over-simplified in areas like the mass media, new media, with specific attention paid to both fictional productions and factual reports. The focus will be on the ways in which these kinds of representations either sensationalise(in terms of moral outrage or gee-whiz awe) or trivialise aspects of health care. Time will be spent looking at news items, documentaries and web sites, as well as recent and not so recent soaps, dramas and fiction films in terms of how they portrait medicine, nursing, hospitals and related health aspects. The course also focuses on the assumptions which underpin these portrayals. The discussion touches on the institutional prerogatives of the mass and new media, and how these prerogatives lead to downplaying and ignoring what are mostly 'wicked' problems and tragic choices. 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.

GENM0515 Computers for Professionals
School of Health Services Management
Staff Contact: L Betbeder-Matibet
UOC3 HPW2 S1 S2

This is a subject that considers the impact of Information Technology in a variety of professional contexts. The rationale for the subject is that ongoing and rapid developments and innovations in Information Technology continue to have an impact in every profession. Keeping up with these changes is an important and challenging responsibility for the professional whose duties may include proposing or implementing an Information Technology solution. The use of computing hardware, software and communication networks have become an integral part of professional life. Assessment is both computer and essay-based.

GENM0518 Health and Power in an Internet Age
School of Health Services Management
Staff Contact: D Thomas
UOC3 HPW2 X1 X2

Australia spends $42 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 couse 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 fiels and explores controversies over childbirth. Assessment: Attendance/participation 20%; group discussion 30%; journal 50%; reading bonus 5%Taught: X1 and X2 Week before sessions start

Note/s: Out of session taught in the week prior to the start of session 1 or session 2. Students must attend all days to complete the course.

GENM0701 Contemporary Bioethics
School of Community Medicine
Staff Contact: C Berglund
UOC3 S1 S2 X1 X2

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.

Note/s: This course runs four times each year, out of session. X1 - Monday 25 February to Friday 1 March one week before S1 plus Friday of mid-session recess, Friday 5 April. X2 - Monday 22 July to Friday 26 July one week before S2 plus Friday of mid-session recess Friday 4 October. In S1 and S2 the course is only offered as an online subject. Students will need to log on for instructions. Online address is http://notes.med.unsw.edu.au/commed/ethicsforhealthcare/berglund.nsf

GENM0702Promoting Healthy Lifestyles and Healthy Environments
School of Medical Education
Staff Contact: S Nathan
UOC3 HPW2 X2

This subject focuses on those aspects of lifestyle and environment which have been shown to have a strong influence on the health status of individuals and communities. The class will critically review the range of current app roaches to promoting health which are seeking to bring about social, structural and individual change for the purpose of achieving better health in populations. Topics covered will include food and nutrition, mental health, drugs, sexuality, healthy housing, environmental issues, poverty and unemployment, and Aboriginal health.

GENM0703 Concepts of Physical Fitness and Health
School of Community Medicine
Staff Contact: M Lourey Bird
UOC3 HPW2 S1 S2 X1 X2

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. School of Medical Education

Note/s: Offered over 7 half day sessions in Summer Recess 18-22 and 28th Feb and 1st March or Winter Recess 15-19 July and 25-26th July. S1 & S2 are 2 hours Mondays only. Allocations for specified tutorial times will take place at the first lecture. Note: There will be no tutorials held on the first lecture day.

GENM0704 Hormones and Health
School of Community Medicine
Staff Contact: G Zingarelli
UOC3 HPW2 S1 S2

The human hormonal system is a subtle and fascinating aspect of our biology, in which "chemical messengers" in the body sustain our health and well-being. Formally it is known as the endocrine system, and the study of it is Endocrinology. By a wonderful set of effects and inter-relationships, hormones are involved in virtually every aspect of our health and normal functioning - physically, psychologically and socially.This course will introduce the student to the basic concepts of the hormonal system in human beings, and give an overview of the main hormones in the body. We will then focus on several important topics which affect us all in our everyday lives. These may include: growth; weight control; sexual development and sexuality; fertility and its control (male and female); pregnancy; menopause (male and female); stress, fear, aggression and other mood states; and exercise. Selected examples of important diseases or conditions related to hormone malfunctioning will be discussed, such as diabetes, obesity, sexual dysfunction, and infertility. Students will also learn about the common manipulations of certain hormonal systems, for example contraception, menopause management and performance enhancement.The course will assume no technical knowledge of biology.

GENM0706 Money, Morals and Mad Cows: Contemporary Health Issues and Consumer Rights
School of Medical Education
Staff Contact: S Nathan
UOC3 HPW2 S2 X1

This course will provide students with an opportunity to explore key health and related environment issues in the 21st century from the perspective of consumer rights. Issues covered by the lecturer and invited guest lecturers will include GM Foods, Mad Cow Disease and Genetic Testing. Through active participation in tutorials, students will also look at the way consumers can exercise power in the marketplace. Innovative approaches to involving consumers in decision making, such as Citizens Juries and Consensus Conferences will be covered and students will have an opportunity to be part of a lay panel.

GENM1000 Miracles and Misadventures of Modern Medicine
Department of Pathology
Staff Contact: G Velan
UOC3 X2

Modern medicine has worked miracles, with the result of increased life expectancy for Western populations. This has been achieved by cures for previously fatal infectious diseases, early detection and treatment of cancer and coronary artery disease (our two greatest killers), improved understanding and treatment for chronic disorders such as arthritis and asthma, replacement of worn out parts (joints, heart valves) by prosthetic implants and screening for genetic disorders. This course will assume no knowledge of biology, and will introduce students to a selection of advances in modern medicine, and the scientific principles on which they are based. Students will also be encouraged to think critically about the pitfalls (and misadventures) of modern medicine, examples of which will be given in each topic. Tutorials and seminars by experts in their respective fields will be used as a stimulus for discussion and further exploration of the beneficial and deleterious aspects of Western medicine.

GENM1101 Animal Welfare
Department of Physiology and Pharmacology
Staff Contact: School Office
UOC3 X1

The aim of this course is to enable students to explore the diverse ways in which human beings interact with other animals and to develop an understanding of the social and political influences which determine the way in which animals are treated. At the completion of the course the student should have an understanding of the depth and variety of ethical and social issues surrounding our interactions with animals and have considered ways in which we can reach a decision about our involvement with animals especially in circumstances where there are opposing and strongly held views.Students must attend each day of the course, satisfactorily complete a report and undertake a one hour final exam.Course Dates: Mon 18 Feb to Fri 1 March. The first week classes run 9.00am to 1.00pm; second week Mon - Wed from 9.00am to 5.00pm, Thurs - review, Fri - assessment.The first lecture will be in Biomed Theatre D.

GENR0003 Spirit, Myth and Sacredness in Architecture
Architecture Program
Staff Contact: School Office
UOC3 HPW2 S2

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
Staff Contact: J Weirick
UOC3 HPW2 S1

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
Architecture Program
Staff Contact: School Office
UOC3 TBA

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.

GENR0010 Architecture and Music
Architecture Program
Staff Contact: M Tawa
UOC3 HPW2 S1

Architecture and music are the arts of space and time. Architecture uses the science of geometry and proportion to construct space, while music uses the science of harmonics to construct sound. This course will explore some of the theoretical and compositional arrangements between architecture and music by studying selected buildings and musical compositions in terms of different ideological and cultural perspectives.Lectures and seminars will follow a thematic structure to examine the philosophical, compositional, aesthetic and emotional qualities of architecture and music, as well as the ethos of the cultures which produce them. Topics include Pythagorean and Platonic ideas of number, geometry, harmonics and music; the sacred architecture and music of India, the Western Middle Ages and the Renaissance; as well as current architectural and musical forms in their cultural and urban settings. The course will also broach significant philosophical issues associated with contemporary postmodern and post structural theory such as order and chaos, limit and freedom, technology and environment, meaning and representation, metaphor and symbolism, singularity and community.

GENR0015 City Planning Today
Planning and Urban Development
Staff Contact: S Thompson
UOC3 HPW2 S1
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
Staff Contact: H Stephens
UOC3 HPW2 S2

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 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
Architecture Program
Staff Contact: C De Lorenzo
UOC3 HPW2 S1

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, post modernism, 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.

GENR0021 Spectacles, Mardi Gras and Fascist Rallies: Use of Public Space
Architecture Program
Staff Contact: S Fung
UOC3 HPW2 S1

This course examines the history of public spectacles from the Renaissance to the late twentieth century. It analyses these as designed events and as political manipulations of cultural memories associated with public spaces. Some examples include the entry of Henry V into Paris, Louis' XIV use of the Gardens of Versailles, the 'Haussmann-isation' of Paris as boulevards for military parades, the World Exposition of 1851 at the Crystal Palace, 'E42' the Fascist plan of a Roman suburb for a World Fair, Leni Reifenstahl's documentation of the 1936 Berlin Olympics and the Nuremberg rallies, Las Vegas as a continuous spectacle of consumer excess, and the Sydney Mardi Gras.

GENR0022 Celtic Environments
Architecture Program
Staff Contact: School Office
UOC3 HPW2 S1

The Celts, one of the most vital and creative of the peoples of Europe, structured their environment in ways which echoed their unique social and administrative structures. This course examines the social and built environments of the Celts in history and prehistory, in both the Hallstat and La Tene cultures. Lectures explore the physical environment created by the Celts while seminars focus on examining the culture which produced that environment.

GENR0026 Gendered Spaces
Interior Architecture Program
Staff Contact: L Zamberlan
UOC3 HPW2 S1 S2

This course will examine the paradigms of and connections between sexuality and constructed spaces. Issues of sexuality and place will be considered through literature, architecture and cinema with emphasis on the convergent discourses that are revealed across these disciplines. Excerpts from film, literature and architecture will be used as illustrations for investigation and discussion into the representation of gender and space. Issues regarding the female and space, architectures of masculinity and the androgyne will be considered along with the mechanisms with which architecture perpetuates the social order of gender. Classes will provide a platform from which students are encouraged in the advancement of active speculation and critical discourse of current social ideologies. Material is presented as seminars and tutorials. Assessment will be based on active contribution in discussion together with individual and group projects.

GENS1001 Chemistry and the Environment
School of Chemistry
Staff Contact: N Duffy
UOC3 HPW2 S1 S2 X1

This course will expose students to a range of topics in which chemistry impacts on the natural environment. The background chemistry on each topic will be reviewed, and the issues involved will be discussed. Topics to be covered include: water pollution and water treatment, pesticides and fertilisers, environmental consequences of energy consumption, plastics, glass and recycling, atmospheric pollution, toxic waste, sewage treatment, uranium and the nuclear power issue.

GENS1002 Consumer Chemistry in the Marketplace
School of Chemistry
Staff Contact: N Duffy
UOC3 HPW2 S1 S2 X1
Excluded: GENS4625

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.School of Geography

GENS2002 Mathematics in Art and Architecture
School of Mathematics
Staff Contact: R James
UOC3 HPW2 X1 X2

There will be 7 Art and Architecture lectures and tutorials, followed in Session 1 and Session2, in alternating weeks, by 7 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.

GENS2005 History of Mathematics
School of Mathematics
Staff Contact: School Office
UOC3 HPW2 S2
Prerequisite/s: Any Level 1 Mathematics course or ECON1202 or ECON1203
Excluded: MATH3560

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 lunes: 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 Konigsberg; 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.

GENS3001 Coastal Environmental Problems: The Human Dimension
School of Geography
Staff Contact: School Office
UOC3 TBA

Modern development has caused massive changes in coastal environments over a very short time. This course examines the landscapes associated with different kinds of coastal development such as landscapes of production and landscapes of leisure. It will look at how these activities use and modify the natural environment and the conflicts that arise from these uses. The course will also examine aspects of coastal zone management and conservation in Australia and overseas. It includes a one day field trip in Sydney.

GENS3501 Metals, Ceramics, Plastics - Building the Twenty First Century
School of Material Science and Engineering
Staff Contact: O Standard
UOC3 HPW2 X1

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/s: 28hrs/week lecture/tutorials. Offered over 5 days on a full-time basis in the summer recess 18-22 February. Includes field trip to Powerhouse museum.

GENS4001 Astronomy
School of Physics
Staff Contact: School Office
UOC3 HPW2 S1 S2 X1
Excluded: PHYS2160, PHYS3160

The course provides a general overview of astronomy, issues important to this area of science and its role in understanding our place in the cosmos. The following areas will be covered: the solar system and its exploration; stars and their life histories; extragalactic astronomy. Two night time observing sessions are included in the full-session courses, to introduce students to the techniques of astronomical observation and measurement.

GENS4003 Cosmology
School of Physics
Staff Contact: School Office
UOC3 HPW2 S2
Excluded: PHYS2160, PHYS3160

The course examines the development of cosmology from early times to the present day, its influence on scientific thinking, and how advances in science and technology have furthered its understanding. The issues confronting cosmology as a modern science are also explored.

GENS4005 The Greenhouse Effect
School of Physics
Staff Contact: School Office
UOC3 HPW2 S2
Excluded: PHYS2810

This course will examine all aspects of the greenhouse effect and global warming issues: the basic science of the atmosphere and radiation (solar and terrestrial), ozone; climate models, their uncertainties and predictions; the greenhouse gases, their sources and sinks; energy use, technical, economic, social and political responses to the threat of climate change.

GENS4006 Illusion or Reality: Concepts in Twentieth Century Physics
School of Physics
Staff Contact: School Office
UOC3 HPW2 S1 S2
Excluded: GENS4002

Many of the discoveries that have been made in physics this century have been counter-intuitive and paradoxical and have led science back to fundamental questions about reality, materialism and causality. The course aims to provide an understanding of the key discoveries without a mathematical background. It provides sections on space, time, matter and the paradoxes of relativity, quantum mechanics and Bell's Theorem. The scientific discoveries are placed in historical context, documenting the vital importance of basic research, which is available to all, for mankind's philosophical and technical development. The impact of the new concepts on arts and humanities is explored.

GENS4007 Image and Icon
School of Physics
Staff Contact: School Office
UOC3 HPW2 S2

The desire to produce images is at least 40,000 years old. This course explores the history of the technology of image making from cave painting to virtual reality. It examines why people might wish to construct images, and the effects of these images upon society.

GENS4008 Nuclear Arms and the New World Order
School of Physics
Staff Contact: School Office
UOC3 HPW2 S2

Students are invited to study and discuss various questions concerning nuclear weapons. We look at the international political system, warfare and the arms race. We ask how a nuclear bomb actually works, and what are its effects. We study nuclear strategies, and review attempts to control nuclear arms. Finally, we discuss mechanisms of collective security which may eventually remove the threat of nuclear arms entirely: the European Union, the United Nations, and the 'New World Order'.

GENS4009 Nuclear Science and Technology
School of Physics
Staff Contact: School Office
UOC3 HPW2 S2

The course looks at the promise and problems of peaceful exploitation of the forces within the atomic nucleus. We start with an overview of the basic properties of nuclei and radioactivity. Nuclear fission, which powers both nuclear reactors and atomic bombs, is covered in some detail, including the environmental and safety aspects. Nuclear fusion, which powers the Sun, may one day also power the Earth. Applications of nuclear technology include nuclear medicine and the study of new materials. Social, environmental and political factors are covered in tutorial discussions.

GENS4010 Science and Religion
School of Physics
Staff Contact: School Office
UOC3 HPW2 S1 S2

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 Judaeo-Christian perspective will be used but references to other teachings (Buddhist, Taoist, Islamic etc.) will be included.

GENS4011 Science of Music
School of Physics
Staff Contact: School Office
UOC3 HPW2 S2

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.

GENS4013 The World of Light
School of Physics
Staff Contact: School Office
UOC3 HPW2 S2

Most of our knowledge of the external world is conveyed by light. The nature of light has always been a topic at the forefront of science, and this remains true today. Although light plays such an important role in our lives, many of its wonderful manifestations remain unnoticed by many. This course examines how light interacts with matter and how our increased understanding allows us to manipulate it.

GENS4014 Are We Alone? The Search for Life Elsewhere in the Universe
School of Physics
Staff Contact: School Office

UOC3 HPW2 S1 S2
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-terrestrials, 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.

GENS5001 Flight and Civilisation
Department of Aviation
Staff Contact: School Office
UOC3 HPW2 S1 S2

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.

GENS7601 Earth - the Dynamic Planet
School of Geology
Staff Contact: M Buck
UOC3 HPW2 S1 S2
Excluded: GEOL1111, GEOL1211, GENS4625

An exploration of the myth of a 'solid Earth'. With satellite imagery as a tool an examination is made of how the Earth is so different from the other members of the solar system. The fundamental driving forces operating, both within and outside the Earth, are considered in view of their role in the movement of continents, construction of mountain ranges, formation of ocean basins, generation of volcanoes, and circulation within the atmosphere and oceans. A view is given of our relationship with the Earth, including the exploitation of mineral and fuel resources, human-induced hazards such as the greenhouse-effect and the hole in the ozone layer, and the natural hazards that humans have no control over, including ice ages, volcanoes, earthquakes, landslides and tsunamis.

Note/s: Multiple choice assessment.

GENS7602 Viewing the Earth Through a Geological Window
School of Geology
Staff Contact: D Cohen
UOC3 X2
Excluded: GEOL1111, GEOL1211.

A practical introduction to the application of satellite and airborne imagery in viewing the Earth's surface, environmental assessments and resource discovery. The nature of resources and their genesis. Computer-based tutorial sessions on methods of processing satellite imagery. Field excursions examining the influence of geology on landscape and land use. Visits to modern and historical mine workings. Conduct of an environmental geochemical assessment of a site. Five-day short course delivered outside session.

Note/s: Students will occur some costs associated with field excursion.

GENS7603 Geophysics in the Urban Environment
School of Geology
Staff Contact: D Palmer
UOC3 X2

The use of geophysics to search below the Earth's surface for treasure, bodies, bombs and building foundations. In the urban environment geophysical methods that are usually associated with the exploration for earth resources offer an environmentally friendly approach to exploring the subsurface. Application of geophysics in archaeology, architecture, environmental studies and engineering will be examined. The course is delivered in alternate mode with morning tutorials and field-based studies in the afternoons, and includes two days field exercises in the vicinity of Kensington.

GENS7604 Energy Resources for the 21st Century
School of Geology
Staff Contact: C Ward
UOC3 X2

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.

GENS8001 Risk Perception and Reality
School of Safety Science
Staff Contact: A Green
UOC3 HPW2 S1 S2 X1

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.

GENS8002 Sports Performance and Injury Prevention
School of Safety Science
Staff Contact: A McIntosh
UOC3 HPW2 S1

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/s: Assignment and laboratory participation.

GENS8003 Work and Safety
School of Safety Science
Staff Contact: B Markovic
UOC3 S1 S2 X1 X2

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 'duty of care'. 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
Staff Contact: K Kothiyal
UOC3 S1 S2 X1 X2

Ergonomics, Productivity and Safety 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 workplaces. The course discusses the role of ergonomics with reference to the social context, especially in enhancing productivity and safety in the workplaces. It emphasises the social role of ergonomics in creating jobs and workplaces that increase workers safety and satisfaction. The course will discuss 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 will be 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
Staff Contact: B Markovic
UOC3 S1 S2 X1 X2

Environmental problems are seen by society as a failure of technology and industry to play their part in prevention. Environmental Management in the Workplace explores the full range of environmental problems that occur in industry. Students will develop skills to examine, as well as, to play an active role in solving these problems. Students will 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/

GENT0201 Communication Skills
School of English
Staff Contact: C Painter
UOC3 HPW2 S1
Excluded: 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.

GENT0206 Australian Popular Music in the Twentieth Century
School of English
Staff Contact: B Johnson
UOC3 HPW2 S1
Excluded: ENGL2700, ENGL2751, ENGL2703

Introduces students to major developments in Australian popular music, taking as the starting point the arrival and spread of its major medium, the sound recording. By looking at a succession of specific case studies, from silent film to Yothu Yindi clips, it considers the way in which the history of our popular music in the twentieth century has intersected with developments in technology, including the microphone, radio, film, television and the video clip. It also enquires into how our popular music has registered cultural shifts including feminism, a reorientation from the UK to the US, and more recently the rise of indigenous and multicultural issues. The approach is cultural rather than musicological, and no formal knowledge of music is required.

GENT0209 Great Books
School of English
Staff Contact: P Alexander
UOC3 HPW2 S2

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.

GENT0211 Seeing Australia
School of English
Staff Contact: W Ashcroft
UOC3 HPW2 S2

Taught completely in on-line mode. Explores the ways in which Australia has historically been depicted and understood. Investigates how Australia has come to exist in the consciousness of its own and other people: rather than a story of the nation moving forward from the moment of colonisation, Australia is seen as the subject of many culturally disparate 'ways of seeing'. The concept of 'seeing' itself is analysed in this process. 'Seeing' stands for many different ways of knowing and representing and these will be explored in a range of texts: written texts in poetic, narrative and dramatic form; popular culture texts such as advertising; visual texts, including painting, photography and films.

GENT0212 Creative Writing
School of English
Staff Contact: H Smith
UOC3 HPW2 S2
Excluded: GENT0205

Introduces students to a wide range of approaches to writing fiction, poetry and performance work. Students will be encouraged to experiment with unusual approaches and will be given advice on how to develop, structure and edit their work. Based on weekly lectures and writing workshops. Both beginners and more advanced writers are welcome.

GENT0307 Sport in the Western World
School of History
Staff Contact: R Cashman
UOC3 HPW2 S1

Explores why sport has become a dominant form of culture in many western societies and examines the varieties of sporting culture from ancient times to the present. Topics include: sport in Minoan, Greek and Roman societies; court traditions in medieval times; folk sports including blood sports; the civilising process and sport in recent centuries; sport and colonialism; issues relating to global sport.

GENT0309 The Three Phases of Modern War
School of History
Staff Contact: School Office
UOC3 HPW2 S2
Excluded: HIST2090

Examines three distinct phases in the emergence of modern warfare. Begins with the transformation from mercenary to citizen armies, followed by an investigation into the development and use of technology from before World War I through to World War II and Hiroshima. The final phase will include the new warfare with its use of high technology in combination with a strong local base. Ethical and social problems will be examined with focus on depersonalisation of the enemy and the increasing implication of women in war. Concludes with case studies of contemporary warfare in Africa, Asia and Europe.

GENT0310 Opiate of the People? Religion and Western Society, 1500-2000
School of History
Staff Contact: J Gascoigne
UOC3 HPW2 S2

Topics to be covered will 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.

GENT0404 Gods, Heroines and Heroes in Greek Myth and Modern Culture
School of Modern Language Studies
Staff Contact: O Reinhardt
UOC3 HPW2 S1 S2
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. This course gives 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
Staff Contact: School Office
UOC3 HPW2 X1

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.

GENT0410 Life in Russia: Yesterday and Today
School of Modern Language Studies
Staff Contact: School Office
UOC3 HPW2 S1
Excluded: EURO2500

Begins with an introduction to Russian life through culture (art, literature and film), history and politics. We will consider what it was like to live in Russia in the past, using literature, memoirs and historical works. Then we will attempt to understand what is happening today, examining politics, day-to-day life and culture.

GENT0411 What Word is That? A Brief History of Where English Words Come from
School of Modern Language Studies
Staff Contact: School Office
UOC3 HPW2 S2

Shows students how to trace the history of a word from its first recorded form to the present. An overview of the history of the English language in a social and political context will provide the basic framework of relationships between the different languages that have influenced English vocabulary. Explains the processes that bring about changes in languages: stress patterns, changes in sounds, forms and meanings, how words are added and how they drop out of use. Examples will be discussed in tutorials.

GENT0412 Contemporary Japan
Department of Japanese and Korean Studies
Staff Contact: School Office
UOC3 HPW2 S2
Excluded: IBUS2103, JAPN2500, GENC8001, JAPN3900

Since the Second World War, Japan has undergone massive social, political and economic transformations. Today, Japan is in a state of rapid ageing of its population. The Japanese economy also faced severe difficulties arising from the fallout from the 'bubble economy' of the 1980s, the continuation of a chronic current account surplus and yen volatility. Provides an overview of modern Japan, covering a broad range of issues including politics, economy, education, the role of women, minorities, science and technology and international relations.

GENT0413 Introduction to Modern Japan
Department of Japanese and Korean Studies
Staff Contact: School Office
UOC3 HPW2 S1
Excluded: IBUS2103, JAPN2500, GENC8003, 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 and Korean Studies
Staff Contact: G Evon
UOC3 HPW2 S2
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
Staff Contact: H Hendrischke
UOC3 HPW2 X2
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
Staff Contact: School Office
UOC3 HPW2 S1
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. This course 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.

GENT0422 Birth of a Nation - East Timor: Past, Present and Future
Department of Chinese & Indonesian
Staff Contact: D Reeve
UOC3 HPW2 X2

Provides an introduction to the peoples and history of East Timor, the land, economies, societies and languages. The long history of Portuguese, Japanese and Indonesian colonisations is a major theme, emphasising the moral, legal and political questions posed by Indonesian occupation. Themes include: East Timorese nationalism, political/religious forces involved in the independence struggle, Australia's role from the World War II military expedition, attitudes to Indonesian annexation, the 1999 crisis. East Timor's prospects for reconstruction and statehood are evaluated.

GENT0423 Seeing it the French way
Department of French
Staff Contact: M Royer
UOC3 HPW2 S2

Introduces students to some of the distinctive aspects of French cultural and daily life. Attitudes towards love, style, food, intellectual ideas, and other expressions of the French way of life, will be examined through films, media, art and songs. Encourages students to reflect on a culture other than their own and to discover their assumptions concerning self and the world.

GENT0501 Life-Giving Songs: Music in Australian Aboriginal Society
School of Music and Music Education
Staff Contact: G Stubington
UOC3 HPW2 S1

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.

GENT0502 Introduction to Music
School of Music and Music Education
Staff Contact: School Office
UOC3 HPW2 S2

An introduction to the role of music in our lives, loves, beliefs and how the nature of music has power in society, politics, war and peace, economics and religion.

GENT0503 Jazz and Popular Music Studies
School of Music and Music Education
Staff Contact: School Office
UOC3 HPW2 S1
Excluded: GENP0250

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
Staff Contact: School Office
UOC3 HPW2 S1 S2

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
Staff Contact: G McPherson
UOC3 HPW2 S1 S2

As for Performance and Practice of Music A, but with completely different repertoire.

GENT0604 Critical Thinking and Practical Reasoning
School of Philosophy
Staff Contact: K Lai
UOC3 HPW2 S1 S2
Excluded: PHIL1010

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 will 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
Staff Contact: P Staines
UOC3 HPW2 S1 S2
Excluded: GENS5180

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?

GENT0702 Military Strategy and Crisis Diplomacy
School of Politics and International Relations
Staff Contact: R Lucy
UOC3 HPW2 S2

Addresses military strategy in relation to work on the origin and termination of war in the period from 1792 to the present. It includes global wars and does not focus on a particular region or continent.

GENT0803 Introduction to Mass Media
School of Media and Communications
Staff Contact: S Shaner
UOC3 HPW2 S1 S2
Excluded: GENS4507

The media in all its diverse forms occupies a crucial place in our everyday lives. Sometimes its impact is obvious, at other times its influence is more insidious, but it's alway there. Provides students with a taste of the issues that arise in the study of mass media. Covers particular aspects of the media such as newspapers, advertising, women's magazines, action movies and the web. Investigates the media as a cultural 'industry' that does a lot more than merely 'reflect' or 'report' on society. Looks at the complex and quite specific role that media plays in our understanding of ourselves and society. Tutorials are task oriented and run as workshops. Students learn how newspapers construct news 'values', analyse the images of advertising, the mythologies inscribed in action movies and investigate how the media constructs ideas of an 'Australia' and Australian national identity.

GENT0902 Witches, Quacks and Lunatics: A Social History of Health and Illness
School of Science and Technology Studies
Staff Contact: P Hardy
UOC3 HPW4 S1 X1 X2
Excluded: GENS5522, HPST2108, HPST2128, HPST3119, HPST2138

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 The Politics of Sustainability
School of Science and Technology Studies
Staff Contact: P Brown
UOC3 HPW2 S1 X2
Excluded: GENS4529, SCTS1107, SCTS3106, SCTS3109, SCTS3115, SCTS3126

Explores the social, historical and political contexts of 'sustainable development'. These contexts 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'. At the local, national and international levels there are important implications of 'sustainable development', and these will be examined through specific areas of social, political and technological controversy; eg fossil fuels and the politics of energy; the politicisation of hazardous chemicals; sustainable urban design; and the politics of trees.

GENT0906 The Risks of Technology
School of Science and Technology Studies
Staff Contact: G Bindon
UOC3 HPW3 S1 S2
Excluded: SCTS1106, SCTS1107, SCTS2109, SCTS3109, SCTS3115

Analyses the social context for debates about the risks posed by modern technologies. It employs the methods of the social sciences to understand the social and political controversies which are frequently associated with industrial development. The history of environmental disputes demonstrates that technical solutions alone have not been successful in addressing the concerns of stakeholders, who bring their different cultural perspectives to bear on any controversy. Analyses the way such disputes unfold. Investigates questions of trust, credibility and fairness, the application of the precautionary principle, and the way decisions are made in the presence of scientific uncertainty and competing rationalities.

GENT1003 Computers and Communication into the Twenty First Century
School of Social Science and Policy
Staff Contact: School Office
UOC3 HPW2 S2
Excluded: GENS5525, GENT0603

Assesses the fusion between computers and communication technology. Looks ahead to glimpse at the direction this process may take in the 21st century. The syllabus content will explore issues such as: the reshaping of society and the economy, computer sex, artificial intelligence, virtual reality, networking and the Global Village, education, and privacy concerns.

GENT1004 Human Inequality
School of Social Science and Policy
Staff Contact: M Johnson
UOC3 HPW2 S1 S2
Excluded: GENS4530

Deals with the nature of inequality among individuals. Draws on the methods and theories of the social sciences as well as other disciplines. The following issues are addressed: the nature and extent of inequalities in wealth, income, status and power in advanced industrial countries and in less developed countries; whether these inequalities have always existed or whether they emerged at some point in time; why some countries (i.e. advanced industrial countries) are wealthier than other countries (i.e. less developed countries); whether these inequalities between and within nations are inevitable, i.e. whether they are in some way part of human nature; whether inequalities can be eliminated or only minimised; the extent to which the 'welfare state' in advanced industrial societies has reduced inequalities.

GENT1005 Making Policy
School of Social Science and Policy
Staff Contact: H Colebatch
UOC3 HPW2 S2

'Policy' dominates our understanding of the ways we are governed. Who can get to university and on what terms is a consequence of government policy. What happens to a late essay is governed by the policy of the School. At election time, political parties offer us alternative policy solutions to social problems. As citizens and students we want to know how and why things are the way they are and also whether this is the way things

ought to be. Analyses the policy process, exploring interests, actors and institutions involved in policy making. Examines the formal stages of the policy process from agenda setting to decision-making to implementation, and asks why do some policies succeed where others fail?

GENT1202 Social Aspects of Deviance
School of Sociology
Staff Contact: F Lovejoy
UOC3 HPW6 X1
Excluded: SOCA2208

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).

GENT1209 Migration and Australian Society
School of Sociology
Staff Contact: F Lovejoy
UOC3 HPW6 X1
Excluded: SOCA3407

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
School of Theatre, Film and Dance
Staff Contact: School Office
UOC3 HPW4 S2
Excluded: All FILM, GENS5180, all THFI

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

GENT1303 Critical Approaches to Film
School of Theatre, Film and Dance
Staff Contact: School Office
UOC3 HPW4 S1
Excluded: All FILM, GENS5180, all THFI

Introduces students to filmic literacy, looking at the history, analysis and basic theory of the cinema. It will show how films are textual systems that can be 'read' in many different ways. It will provide exercises in detailed analysis of and reference to a wide range of modern international films, and will investigate issues of genre (westerns, action, horror, etc.) and questions of stardom and the screen presence of the actor.

GENT1401 Biopsychosocial Study of Humour
School of Social Work
Staff Contact: C Moran
UOC3 HPW2 S1
Excluded: GENP0350

Examines humour from a biopsychosocial perspective. The large number of theories on humour from a variety of perspectives will be considered, but the course will focus mainly on theories relating humour to health, well-being and coping. The increasing use of humour in health care and related contexts will be critically examined. Students will 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 will also be considered. As part of their course participation, students will be required to collect and present humour material, and discuss this in tutorials.

GENT1403 Global Crisis: Transition to a Sustainable Society
School of Social Work
Staff Contact: F Trainer
UOC3 HPW2 X1 X2
Excluded: GENS4529

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 of the course 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 of the course 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. The course includes several videos and slide shows.

GENT1501 Gifted and Talented Students: Recognition and Response
School of Education
Staff Contact: K Hoekman
UOC3 HPW3 S1
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.

GENT1503 Introduction to Educational Psychology
School of Education
Staff Contact: P Chandler
UOC3 HPW3 S1
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/s: Runs for 9 weeks only

GENT1504 Ethics and Education
School of Education
Staff Contact: R Bibby
UOC3 HPW3 S1 S2
Excluded: EDST1302, EDST2020.

Discusses some of the following ethical issues in education: the aims of education and the justification of compulsion; social justice, equality and fairness; children's rights, democracy and multiculturalism; controversy and and values in schools.

Note/s: Runs for 9 weeks only

GENT1506 Social Foundations of Education
School of Education
Staff Contact: M Matthews
UOC3 HPW3 S2
Excluded: EDST1102

The sociological examination of aspects of Australian education such as: the different forms of school systems, the structure and evolution of NSW schooling, the role of government and pressure groups in the determination of curriculum and the distribution of resources, educational testing and inequalities in educational achievement, differing accounts of inequality, sexism in school systems, affirmative action programmes and their putative justifications, schools as organisations, families and their educational influence particularly that of school councils, and classroom processes. Philosophical matters arising from this sociological examination will be investigated: the nature and method of social investigation and explanation, the method of evaluation of rival sociological theories, the ethics of affirmative action proposals, the place of justice in the distribution of educational resources, the justification of curriculum decisions.

Note/s: Runs for 9 weeks only

GENT1507 Learning Process and Instructional Procedures
School of Education
Staff Contact: R Low
UOC3 HPW2 S1
Excluded: 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
Staff Contact: P Jin
UOC3 HPW2 S1
Excluded: EDST1304, EDST2041

Examines the concepts of emotion, stress and anxiety and their effects on 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 stress management procedures.

GENT1509 Moral Dilemmas of Life and Death
School of Education
Staff Contact: R Bibby
UOC3 HPW2 S2

Discusses issues of abortion, in vitro fertilisation, infanticide, surrogate motherhood, eugenics, suicide, euthanasia, sex selection and the distribution of scarce medical resources. Underlying themes are the value of human life, the relation between morality and religion, and the possibilities of resolving difficult moral issues through rational argument, and the role of moral theories in this.

GENT1512 Personality, Mood and Learning
School of Education
Staff Contact: R Low
UOC3 HPW3 S2
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.

GENT1513 Culture, Identity & Education
School of Education
Staff Contact: M Varvaressos
UOC3 HPW3 S1
Excluded: EDST1207, EDST2070

Examines how the processes of schooling have interacted with issues of identity and diversity. We look 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? We explore how multiculturalism has influenced educational perceptions at a policy level and examine the interpretations of that policy in the context of the public school classroom.

Note/s: Runs for 9 weeks only

GENX0101 Indigenous Australia - Travelling Through Time
Aboriginal Research and Resource Centre
Staff Contact: School Office
UOC3 HPW2 S1 S2
Excluded: AUST2004, AUST2005, GEND3214

Australia has a history that goes further back than two and a half centuries and for Indigenous Australians it can be traced back up to 20,000, 40,000 or 160,000 years. This course examines the relationships of Aboriginal and Torres Strait Islander people to this place we now call Australia. It moves through the history of Indigenous Australia 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 of this course.

GENX0102 Indigenous Australia - From the Present to the Future
Aboriginal Research and Resource Centre
Staff Contact: School Office
UOC3 HPW2 S1 S2
Excluded: AUST2004, AUST2005

This course 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
Aboriginal Research and Resource Centre
Staff Contact: School Office
UOC3 HPW2 S2

Offers a critical introduction to the heritage of both pre-contact and contact Australia. A critical appraisal of archaeology, anthropology, museums and Indigenous heritage is given. Archaeological materials are explained, the nature and history of anthropological research is examined, and particular attention is given to material culture and the politics of display in museums and keeping places.

GENX0104 Aboriginal Popular Culture - We Hear the Songs, See the Dance and Live the Culture
Aboriginal Research and Resource Centre
Staff Contact: School Office
UOC3 HPW2 S1 S2

Representations and misrepresentations of Aboriginality as part of the national identity are most often portrayed through the mass media, film and literature. Focuses on the participation of Indigenous people in these fields and how that involvement forges national identities. The iconography which sometimes surrounds Aboriginal people is also be addressed.

GEOG1601 Australian and Global Geographies: Integration and Divergence
School of Geography
Staff Contact: K Dunn
UOC6 HPW4 S2
Excluded: GEOG1621, GEOG1062, GEOG1064

The geography of contemporary Australian economy and society. Patterns and consequences of economic and cultural diffusion and change. Post-colonialism and indigenous land rights. Socio-economic impacts of industrial change. Emergence of global information economies and telecommunications networks. Landscapes of production and consumption. Transformations of gender roles and influences of the women's movement. Changing patterns and impacts of migration. Re-assessments of national identity, multiculturalism. The global diffusion of popular culture and the reaction in Australia. Impacts of globalisation on material well-being and cultural diversity. Introduction to spatial analysis with particular emphasis on economic and social patterns and change. Remote sensing and GIS. Workshops, field trips and skills development for understanding contemporary urbanisation.

GEOG1701 Environmental Systems and Process
School of Geography
Staff Contact: R Brander
UOC6 HPW5 S1
Excluded: GEOG1721, GEOG1031, GEOG1073, GEOG1711

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, arid, fluvial and coastal processes, land degradation, ecosystems, Australian biotic patterns and human impact on natural systems. Instruction is given on practical methods involved in applied geography and environmental sciences including an introduction to remote sensing and Geographic Information Systems (GIS) and practical techniques involving analyses of climatic patterns and climate change, coastal processes, soils and landform relationships, vegetation patterns, land degradation and human impacts on the environment. Students will be required to take part in a one day field trip. A major theme of the course involves the interaction of humans with their environment and the causes of environmental crises.

GEOG2001 Field Techniques
School of Geography
Staff Contact: K Dunn
UOC6 HPW4 S2
Prerequisite/s: 6 Units of Credit of Level I Geography Courses

An introduction to the field techniques used in geography. Usually composed of a five 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.

GEOG2101 Geographical Data Analysis,1
School of Geography
Staff Contact: I Burnley
UOC6 HPW4 S1
Prerequisite/s: 6 Geography courses Units of Credit

The exploration, description, understanding and presentation of data used in geography, with a specific focus on problem solving. Introduction to hypothesis testing and sampling in geography. Computing literacy for human and physical geographers. Emphasises the use of the SPSS software.

GEOG2611 The Australian City
School of Geography
Staff Contact: I Burnley
UOC6 HPW4 S1
Excluded: GEOG2092

Explanations for social and economic change in Australia's cities. Issues of planning and social policy in cities like Sydney. Outlines both traditional and contemporary perspectives on the city. A comparison of theories of urbanisation, urban-based conflict and social well-being in the city. Examines the origin of contemporary urban social theory.

GEOG2641 The Urban Environment and Economy
School of Geography
Staff Contact: C Gibson
UOC6 HPW4 S2
Prerequisite/s: 6 Geography courses Units of Credit
Excluded: ENVS2020

The interaction of urban economic and environmental systems. Theoretical frameworks include political ecology, economic and poststructuralist geography. Environmental dimensions of urbanisation and economy. Human populations and landscapes as components of the environment. Case studies of urban environmental management, coastal planning and industrial change are used to critically examine human-environment interactions. Field exercises and Geographical Information Systems (GIS) workshops, and practical skills in urban environmental management.

GEOG2711 Australian Climate and Vegetation
School of Geography
Staff Contact: S Mooney
UOC6 HPW4 S2
Prerequisite/s: GEOG1701 or GEOG1721 or GEOG1031 or GEOG1073
Excluded: GEOG2025, GEOG3062

Characteristics of the Australian climatic region. The nature of climate change with particular emphasis on the Quaternary. The development of a distinct Australian biogeography. Patterns and processes in the distribution of Australian vegetation types. Classification, ordination and mapping of vegetation.

GEOG2721 Australian Surface Environments and Landforms
School of Geography
Staff Contact: J Sammut
UOC6 HPW4 S1
Prerequisite/s: GEOG1701 or GEOG1721 or GEOG1711
Excluded: GEOG2051, GEOG3011, GEOG3025

The physical and chemical properties of soil, and the processes and factors of soil formation. The relationship between soils and the landforms on which they form. The evolution of landforms in fluvial, arid and coastal environments with an emphasis on current processes and Quaternary history within Australia. Includes a field trip to provide practical experience in physical landscape evaluation and land management techniques.

GEOG2811 Introduction to Remote Sensing
School of Geography
Staff Contact: R Merton
UOC6 HPW4 S1
Excluded: GEOG2021

An essential knowledge base for future work and study in remote sensing. Topics include electromagnetic theory, principles of remote sensing, field and laboratory measurement of energy, aerial photography and photogrammetry, past, present and future sensors, and practical remote sensing using course resolution optical sensors, hyperspectral and thermal sensors, altimeters and radar. Computer-based laboratories use a wide range of images and provide familiarity with ERDAS Imagine and IDL ENVI and experience in image pre-processing, analysis and interpretation techniques.

GEOG2821 Introduction to Geographic Information Systems
School of Geography
Staff Contact: B Parolin
UOC6 HPW4 S2
Excluded: GEOG3122, GEOG3123, GEOG3142, GEOG3831

An introduction to Geographic Information Systems (GIS). Emphasis on raster-based GIS for resource mapping and case study evaluation. Topics include cartographic output and mapping, spatial statistics and various raster analysis techniques such as overlay analysis.

GEOG3101 Geographical Data Analysis 2
School of Geography
Staff Contact: School Office
UOC6 HPW4 S2
Prerequisite/s: GEOG2101 or BIO2041

Intermediate topics in exploration, analysis and presentation of geographic data. Emphasis on applications based on Chi-square tests, correlation, regression, analysis of variance; and on research design including use of sampling methods in geography.

GEOG3311 Professional Geography
School of Geography
Staff Contact: B Parolin
UOC6 HPW4 S2
Prerequisite/s: 96 Units of Credit

Seminars with practitioners in the fields of urban, regional and environmental studies. Project management (consultancy work, government projects, preparation of proposals, grant capture, justification of budgets). Career planning and applying for positions. This course is intended for students who will be completing a degree with a major in Geography.

GEOG3411 Special Topic
School of Geography
Staff Contact: I Burnley
UOC6 HPW4 S1 S2
Excluded: GEOG3333

Individually supervised reading and assignments as an approved topic in Geography not otherwise offered.

Note/s: Admission by permission to suitable students with credit level and above passes in at least four courses at Upper Level.

GEOG3611 Surveys and Interviews in Geography
School of Geography
Staff Contact: K Dunn
UOC6 HPW4 S1

An introduction to sample surveys and interview techniques. Construction of questionnaires and interview guides. Census data collection. The collection, assembly, analysis (NUD.IST) and presentation of qualitative data.

GEOG3621 Place and Politics of Identity
School of Geography
Staff Contact: K Dunn
UOC6 HPW4 S2
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.

GEOG3631 Population Geography
School of Geography
Staff Contact: I Burnley
UOC6 HPW4 S2
Excluded: GEOG3172, ENVS2010.

The geographical aspects of population change in an economic, social and environmental context. Contemporary and future trends in World population growth and population trends in Australia. Attention to fertility, mortality, migration, ageing and inequalities in well being. Reference to investigations at different scales.

GEOG3671 Transport, Land Use and Environment
School of Geography
Staff Contact: B Parolin
UOC6 HPW4 S1
Prerequisite/s: 6 Units of Credit of Level 1 Geography courses or PLAN1011
Excluded: GEOG2071, GEOG3181

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.

GEOG3711 Biogeography
School of Geography
Staff Contact: S Mooney
UOC6 HPW4 S2
Prerequisite/s: GEOG1701 or GEOG1711 or GEOG1721 or BIOS1101 and BIOS1201
Excluded: GEOG2025

Flora of the Southern Hemisphere with particular reference to Australia. Distribution of taxa in space and time. Methods for the reconstruction of past vegetation. Human biogeography, prehistoric human impacts and European expansionism. Ecology of selected Australian vegetation types. Management of biodiversity.

GEOG3721 Pedology
School of Geography
Staff Contact: M Melville
UOC6 X1
Prerequisite/s: GEOG2711 or BIOS1101 and BIOS1201 or GEOL1111 and GEOL1211
Excluded: GEOG3011

Soil physical and chemical properties and their interrelationships. Clay mineral structure and behaviour, soil solution chemistry, soil water movement. Soil properties in natural, rural, urban landscapes. Assessment of soil fertility, swelling, dispersibility, erodibility and aggregate stability. Laboratory analysis with emphasis on properties associated with land capability assessment.

GEOG3731 Geomorphology
School of Geography
Staff Contact: R Brander
UOC6 HPW4 S2
Prerequisite/s: 6 Units of Credit of Geography courses;
Excluded: GEOG3025

The historical development and theoretical frameworks of geomorphology. Fundamental process-response relationships operating to shape and modify Australian landscapes and geomorphic systems. Slope evolution and weathering, fluid and sediment transport patterns, hydrological, fluvial, arid and coastal processes and systems. Application of geomorphic principles to environmental land management. Laboratory exercises involve field work.

GEOG3761 Environmental Change
School of Geography
Staff Contact: S Mooney
UOC6 HPW4 S1
Excluded: GEOG3062

The nature of environmental change on the land, oceans, biosphere and atmosphere. Evolution of the continents, oceans, life and atmosphere. Techniques for environmental reconstruction and chronology building. Quaternary climatic change and modelling. Human impact on the atmosphere and climatic consequences.

GEOG3811 Remote Sensing Applications & Digital Image Analysis
School of Geography
Staff Contact: A Milne
UOC6 HPW4 S2
Prerequisite/s: GEOG2811 or GEOG2021
Excluded: GEOG3032

Computer-based techniques for digital image interpretation and display. Focus on earth-resource imagery used for environmental and urban mapping. Laboratory work using practical techniques used for a wide range of applications. Topics include colour imagery, image enhancement, geomatic correction, mapping and classification and spectral data processing.

GEOG3821 Geographic Information Systems Applications
School of Geography
Staff Contact: W Hennecke
UOC6 HPW4 S2
Prerequisite/s: GEOG2821 or GEOG3122 or GEOG3123 or GEOG3831
Excluded: GEOG3142

Emphasis on vector-based GIS for resource and environmental management and urban and regional analysis. Topics include spatial data bases, data attributes, networks, spatial data analysis and modelling and data visualisation with application-orientated laboratories.

GEOG3831 Geographic Information Systems
School of Geography
Staff Contact: B Parolin
UOC6 HPW4 S1 S2
Prerequisite/s: 48 units of credit
Excluded: GEOG3122, GEOG2821, GEOG3123

An introduction to geographic information systems with special reference to computer-based systems for resource evaluation. Case studies evaluation, application of the MAP and other GIS software.

GEOG3861 Computer Mapping
School of Geography
Staff Contact: B Garner
UOC6 HPW4 S1
Prerequisite/s: 6 Units of Credit of Geography courses
Excluded: GEOG3161

Introduction to theoretical and practical problems in displaying data graphically and constructing thematic maps by computer using the MapInfo desktop mapping package. The emphasis is on developing skills in automated cartography through hands-on experience culminating in the preparation of a folio of maps of selected census data. No previous computing expertise is required.

GEOG3901 Australian Natural Resources
School of Geography
Staff Contact: I Burnley
UOC6 HPW4 S1
Prerequisite/s: 12 UOC of GEOG or ENVS courses
Excluded: GEOG3000

The problems of exploiting Australia s biological, water and land resources. A synthesis of human and physical geography. Land degradation. Habitat loss and fragmentation. Introduction to environmental auditing, state-of-the environment reporting, and policy changes. Field and analytical techniques applicable to resource management.

GEOG3911 Environmental Impact Assessment
School of Geography
Staff Contact: J Sammut
UOC6 HPW4 S1
Prerequisite/s: 6 Units of Credit of Geography courses
Excluded: GEOG3042

History and legislative framework. State and Commonwealth guidelines for environmental impact assessment (EIA). Impact evaluation in terms of environmental and socio-economic criteria. Case studies of environmental impact studies (EIS). Procedures, techniques and issues. Future directions in EIA.

GEOG3921 Coastal Resource Management
School of Geography
Staff Contact: J Sammut
UOC6 HPW4 S2
Prerequisite/s: 6 Units of Credit of Geography courses

This course focuses on coastal resource assessment and management. Rural and urban soil conservation. Water resources. Fisheries management. Rehabilitation of degraded environments. Wetland restoration. Aquaculture and Permaculture. Water quality monitoring programs. Australian and global perspectives. Guest lectures from practitioners and field-based activities.

GEOG4001 Field Work for Consultants
School of Geography
Staff Contact: R Brander
UOC6 HPW4 S2

Develop skills in problem formulation and team-based field work. Preparation and presentation of professional quality reports of applied geographical analysis. Problem definition and research strategy design. Five day field trip.

Note/s: Available only to BSc Applied Geography 3010 students.

GEOG4301 Professional Practice in Geography
School of Geography
Staff Contact: B Parolin
UOC6 HPW4 S2

Seminars with practitioners in the fields of urban, regional and environmental studies. Project management (consultancy work, government projects, preparation of proposals, grant capture, justification

of budgets). Career planning and applying for positions. Ethicla and political issues in research.

Note/s: Available only to BSc Applied Geography 3010 students.

GEOG4404 Thesis in Applied Geography
School of Geography
Staff Contact: B Parolin
Enrolment requires school approval
UOC12 S1 S2

Independent and original research project. Formulation under the direction of a supervisor; preparation of a project report.

Note/s: The deadline for submission of project reports is the end of Week 9 of Session 2.

GEOG4414 Honours Geography P/T
School of Geography
Staff Contact: B Parolin
Enrolment requires school approval
UOC12 S1 S2

Students are required: 1. To undertake an original piece of work extending throughout the year and to submit a thesis based upon it. 2. To participate in seminars and fieldwork as notified by the School of Geography. Seminars include workshops on professional practice in geography and ethical issues in research.

Note/s: Enrolment requires the completion of a three year program, including a major or minor in Geography.

GEOG4418 Honours Geography
School of Geography
Staff Contact: B Parolin
UOC24 S1 S2

Students are required: 1. To undertake an original piece of work extending throughout the year and to submit a thesis based upon it. 2. To participate in seminars and fieldwork as notified by the School of Geography. Seminars include workshops on professional practice in geography and ethical issues in research.

Note/s: Enrolment requires the completion of a three year program, including a major or minor in Geography.

GEOG4422 Combined Honours Geography P/T
School of Geography
Staff Contact: B Parolin
UOC6 S1 S2

GEOG4424 Combined Honours Geography
School of Geography
Staff Contact: B Parolin
UOC12 S1 S2

GEOG4631 Analyses in Medical Geography
School of Geography
Staff Contact: I Burnley
UOC6 HPW4 S1
Excluded: CMED9591.

Spatial and differential aspects of mortality and health variation. Reference to epidemiological and health transition theory. Percise targeting of populations at risk and where they are located. Identification of possible environmental factors in disease incidence. Role of social and economic inequalities in health variations.

GEOG4721 Soil Degradation & Conservation
School of Geography
Staff Contact: D Eldridge
UOC6 HPW4 S2
Excluded: GEOG4320

Identification, assessment and analysis of the main process of soil degradation, including the role of climate, vegetation, geomorphology and pedology in controlling the processes. Discussions of appropriate management strategies for reducing degradation for reclaiming degraded landscapes. Topics include: surface wash, gully erosion, wind erosion, soil acidification, soild structure decline, salinisation, accumulation of toxins and desertification.

GEOG4811 Advanced Techniques in Remote Sensing
School of Geography
Staff Contact: A Milne
UOC6 HPW4 TBA
Prerequisite/s: GEOG2021 or GEOG2811

Advanced image processing techniques and applications in remote sensing.

GEOG4871 Transport Applications of Geographical Information Systems
School of Geography
Staff Contact: B Parolin
UOC6 HPW4 S2
Prerequisite/s: 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.

GEOG4911 Vegetation Management
School of Geography
Staff Contact: S Mooney
UOC6 HPW4 S1
Prerequisite/s: GEOG3901or GEOG2711 or GEOG3711
Excluded: GEOG4300

Theory and practice in vegetation management. Description and measurement of vegetation. Vegetation dynamics and response to perturbation and human impacts. Modelling vegetation change. Case studies in forest management and urban bushland.

GEOL0000 Special Project in Geology
School of Geology
Staff Contact: A Dunlop
UOC3 S1 S2

GEOL0001 Special Project in Geology
School of Geology
Staff Contact: A Dunlop
UOC6 S1 S2

GEOL1111 Earth Systems and Dynamics
School of Geology
Staff Contact: D Cohen
UOC6 HPW5 S1

A holistic view of the Earth. Origin of the Universe, Solar System and Earth. Earth structure and internal forces. Plate tectonics dynamics and processes; including mountain building, seismicity, volcanism and the movement of continents. Minerals. Igneous, sedimentary and metamorphic rocks. Weathering and soils. The geological time scale and dating methods. Elements of structural geology; folds and faults. Origin and circulation of the Earth's atmosphere and oceans. Coastal geology.

Note/s: Up to two days of field work is a compulsory part of this course and students will incur personal costs. Details will be provided in the first week of the course.

GEOL1211 Earth Environments and Resources
School of Geology
Staff Contact: D Cohen
UOC6 HPW5 S2

A study of aspects of the Earth relevant to continued existence of humans on Earth. The evolution of life and extinction events. The major fossil groups, including dinosaurs, mammals and man. The preservation of fossils. Stratigraphic principles and their application. The geology of NSW. Surficial processes; groundwater. Deeply weathered and glaciated terrains. Climate and geological processes of the Quaternary in Australia. Geological mapping techniques including geophysical methods. Mineral and energy resources. Environmental geology; pollutants and contaminants. Geological hazards.

Note/s: Three days of field work is a compulsory part of this course and students will incur personal costs. Details will be provided during the first week of the course.

GEOL2101 Sedimentology and Sedimentary Environments
School of Geology
Staff Contact: C Ward
UOC6 HPW5 S1

Prerequisite/s: GEOL1111 or GEOL1211
Excluded: GEOL2100, GEOL2120

Mechanisms of sediment transport and deposition; nature and origin of depositional structures. Analysis of depositional environments; fluvial, deltaic and estuarine deposits; marine sediments including shoreline, shelf and deep sea, carbonate and reef deposits; lacustrine deposits; glacial and desert sediments; and volcaniclastic sediments. Sedimentary facies and successions; introduction to sequence stratigraphy. Fieldwork component will cover present-day sediments, fossils and sedimentary rock strata in selected coastal and inland locations; introduction to geological data gathering and field measurement techniques.

Note/s: Four days of fieldwork is a compulsory part of this course (included in the HPW but run outside session) and students will incur personal costs. Details will be provided during the first week of the course.

GEOL2131 Geomapping
School of Geology
Staff Contact: G Taylor
UOC6 HPW5 S1
Excluded: GEOL2062, GEOL8380

Techniques for geological mapping and geomorphic evaluation. Relationships between geology, structure, soil, drainage, vegetation and air photo signatures. Production of geological maps with desktop mapping technologies. Remote sensing techniques for geological materials. Geographic Information Systems for spatial geological data integration. Map projections and transformations: the Australian Map Grid; projection transformations. Global positioning and field surveying techniques.

GEOL2171 Earth Structures
School of Geology
Staff Contact: P Lennox
UOC6 HPW5 S2
Prerequisite/s: GEOL1111 or GEOL1211
Excluded: GEOL2170, GEOL3170

Analysis of brittle and ductile structures at outcrop scale. Structural geological evolution of areas. Application of various tools in the interpretation of geological structures, including stereographic projection, Mohr circles, Wilcox strain ellipsoid, strain studies and thin section analysis. Conceptual links between mesoscopic and macroscopic structures will be investigated both in the laboratory and during the field excursion.

Note/s: Up to five days of fieldwork is a compulsory part of this course (included in the HPW but run outside session) and students will incur personal costs. Details will be provided during the first week of the course.

GEOL2181 Earth Materials
School of Geology
Staff Contact: C Ward
UOC6 HPW4 S1
Prerequisite/s: GEOL1111 or GEOL1211
Excluded: GEOL2110, GEOL2220

Principles of optical crystallography and the use of the polarising microscope to identify minerals and rocks. Rock-forming minerals: physical properties in hand specimen and under the microscope, crystal chemistry, stability and occurrence. Structure, composition and properties of the clay minerals. Application of stable and unstable isotopes in the earth sciences. Radiometric dating. Mineral analytical techniques including X-ray diffraction. Clay-water systems and ion exchange.

GEOL2231 Environmental Geophysics
School of Geology
Staff Contact: D Palmer
UOC6 HPW5 S2
Excluded: GEOL2051, GEOL6221

An introduction to the theory of geophysical methods with an emphasis on the near surface applications to environmental and urban studies, as well as the related areas of groundwater and geotechnical investigations. The methods covered include gravity, magnetics, electrical, seismic and radar. The course content and presentation are also designed to accommodate those students with interests in environmental subjects but not necessarily with strong backgrounds in mathematics or physics.

Note/s: Field work up to 5 days is a compulsory part of this course, and it is usually carried out on and near the UNSW campus. Students may incur personal costs. Details are provided in the first week of the course.

GEOL2281 Petrology
School of Geology
Staff Contact: A Dunlop
UOC6 HPW5 S2
Prerequisite/s: GEOL2181
Excluded: GEOL2180, GEOL2200 and GEOL2220

Occurrence, classification and origin of igneous, metamorphic and sedimentary rocks. Igneous differentiation, fractional crystallisation and geochemical evolution of magmas. Magma types and their plate tectonic settings. Prograde and retrograde metamorphism. Types of metamorphic reactions; thermal and deformation histories of metamorphic belts. Textures and composition of common sedimentary rocks; chemical, physical and biological processes, before, during and after sediment deposition. Practical: Macroscopic and microscopic examination of rocks of igneous, metamorphic and sedimentary origin. Fieldwork will involve examination of volcanic rocks, I-type and S-type granitic batholiths of the Lachlan Fold Belt. Contact and regional metamorphism. Mapping exercises in igneous and metamorphic environments.

Note/s: Four days of fieldwork is a compulsory part of this course (included in the HPW but run outside session) and students will incur personal costs. Details will be provided during the first week of the course.

GEOL2291 Groundwater, Engineering and Enviromental Geology
School of Geology
Staff Contact: J Jankowski
UOC6 HPW4 S2
Excluded: GEOL2240, GEOL2290

The hydrologic cycle; saturated and unsaturated zones; porosity and permeability; water table; flow; unconfined and confined aquifers; geological activity of groundwater; thermal springs and geysers; drilling methods and well design; coastal aquifers; karst and carbonate terrain; salinity; types of aquifers; groundwater chemistry; contamination and water quality; environmental problems and remediation; development, exploration and management of groundwater resources in Australia. Rocks and soils as engineering and construction materials. Engineering consequences of weathering. Site investigation techniques for dams, tunnels and highways. Environmental impacts of extractive industries. Geohazards - subsidence, earthquakes and landslides. Field studies.

GEOL3101 Ore Deposits
School of Geology
Staff Contact: A Dunlop
UOC6 HPW5 S1
Prerequisite/s: GEOL2281

Ore forming processes. Geological setting, characteristics and genesis of the major categories of metallic and non-metallic ore deposits. Laboratory study of hand specimens, thin sections and polished sections from these deposit types.

GEOL3121 Stratigraphy and Palaeontology
School of Geology
Staff Contact: C Ward
UOC6 HPW4 S1
Prerequisite/s: GEOL1111 or GEOL1211 or BIOS1101
Excluded: GEOL3120

Classification of sedimentary basins; depositional systems; role of tectonics, sea-level and other changes in development of basin sequences; application of lithostratigraphic, biostratigraphic, chronostratigraphic and magnetostratigraphic principles; introduction ot sequence stratigraphy; provenance studies in sedimentary basins. Morphology, evolution and use of key invertebrate fossil groups. Geological development of Australian sedimentary basins and fold-belt sequences.

GEOL3131 Field Studies: Geological Mapping
School of Geology
Staff Contact: A Dunlop
UOC6 HPW4 S1

Field mapping in a selected area of mildly deformed sedimentary and volcanic rocks; practical use of geological mapping techniques; general field skills; integration of stratigraphic, lithological, structural and palaeontological concepts.

Note/s: Up to 6 days of fieldwork is a compulsory part of this course (included in the HPW but run outside session) and students will incur personal costs. Details will be provided during first session.

GEOL3201 Field Studies: Ore Deposits and Regolith
School of Geology
Staff Contact: A Dunlop
UOC6 HPW4 S2

Corequisite/s: GEOL3101 OR GEOL3281.

Geologic setting of different are deposit types in cetnral and western New South Wales; application of geological techniques and principles to mineral deposit mining; detailed geological tours of a number of mining operations. Mineral processing methods and environmental implications of mining activity. Regolith characteristics of arid to semi-arid regions; regolith mapping methods and field characterisation of surface materials. Quaternary processes and environmental geology in the arid zone. Exploration techniques in deeply weathered terrains.

Note/s: Up to 7 days of fieldwork is involved in this field-based course and students will incur personal costs. Details will be provided during first session.

GEOL3231 Exploration Geophysics
School of Geology
Staff Contact: D Palmer
UOC6 HPW5 S1
Prerequisite/s: GEOL2231

An intermediate course on geophysical methods with an emphasis on applications to mineral, petroleum and coal exploration. The subjects covered include data processing, gravity, magnetics, electrical, seismic reflection, DC electrical resistivity, induced polarisation, electromagnetics and geophysical well logging. Each method is described in terms of the fundamental principles, field techniques, processing and presentation of results and quantitative interpretation. Assignments include the use of industry standard software.

Note/s: Field work up to 3 days is a compulsory part of this course. Students may incur personal costs. Details are provided in the first week of the course.

GEOL3241 Sedimentary Basin Resources
School of Geology
Staff Contact: C Ward
UOC6 HPW5 S2
Prerequisite/s: GEOL1111 or GEOL1211

Coal Geology: Nature and properties of coal, including introduction to coal petrography; origin of coal seams and coal-bearing sequences; coalfield exploration and coal mining geology; geological factors in coal preparation and use. Petroleum Geology: Nature and properties of petroleum; petroleum generation, migration, entrapment and degradation processes; sedimentology of reservoir sequences; primary and secondary porosity; structural and stratigraphic traps, including diapirs and fractured-rock reservoirs; coal-bed methane, oil-shale and other non-conventional petroleum sources; exploration and evaluation of petroleum deposits.

Note/s: Field work of up to 2 days is a compulsory part of this course for which students will incur personal costs. Details are provided during the first week of the course.

GEOL3261 Field Studies: Geological Terrains
School of Geology
Staff Contact: D Cohen
Enrolment requires school approval
UOC6 HPW5 X1 X2
Prerequisite/s: GEOL1111 or GEOL1211

Examination of geological features of selected geological terrains, selected from regions within and outside Australia. 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 and companies.

Note/s: Involves geological fieldwork of up to 10 days duration. Students may incur substantial costs (mainly airfares). Details will be provided well in advance of the field excursion.

GEOL3281 Exploration and Environmental Geochemistry
School of Geology
Staff Contact: A Dunlop
Enrolment required school approval
UOC6 HPW4 S2
Prerequisite/s: GEOL1111 or GEOL1211 or GEOG1701
Excluded: GEOL4100, GEOL4140

Distribution of metals in natural and urban environments. Primary and secondary dispersion of elements. Weathering and regolith development. Principles and techniques of vapour, water, soil, drainage sediments, rocks and vegetation geochemistry as applied to mineral exploration and environmental assessments. Introduction to sampling, analytical techniques and design of exploration and environmental surveys. Principles of aqueous geochemistry and modelling. Contaminant dispersion. Case studies. Fieldwork will involve geochemical survey of a historical mine site and examination of commercial chemical laboratories.

Note/s: Two days fieldwork is a compulsory part of this course (included in the HPW) and students will incur personal costs. Details will be provided during the first week of the course.

GEOL4003 Geology Honours Full-Time (Combined)
School of Geology
Staff Contact: P Lennox
UOC24 S1 S2

GEOL4101 Professional Practice
School of Geology
Staff Contact: A Dunlop
Enrolment requires school approval
UOC6 HPW4 S1
Excluded: GEOL4100, GEOL4140

Construction and preparation of reports, theses and scientific papers; library and database search techniques; critical reviewing of literature; development of abstracts and conclusions; illustrations and report formatting; verbal presentation skills; preparation of resumes; meeting procedures and group dynamics. Organisation and costing of geological field programs; land tenure, exploration and mining titles, drilling programs, ore core logging; use of geological database and modelling systems; estimation of resources and reserves; liability and ethics in geological practice.

GEOL4131 Advanced Topics in Applied Geology - A
School of Geology
Staff Contact: P Lennox
UOC12 HPW8 S1 S2
Prerequisite/s: 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 Univerisities Consortium of Geology and Geophysics.

Note/s: Some fieldwork may be involved; students may need to meet personal costs.

GEOL4141 Advanced Topics in Applied Geology - B
School of Geology
Staff Contact: School Office
UOC6 HPW4 S1 S2
Prerequisite/s: 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 minerla 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 Univerisities Consortium of Geology and Geophysics.

Note/s: Some fieldwork may be involved; students may need to meet personal costs.

GEOL4204 Research Project
School of Geology
Staff Contact: P Lennox
Enrolment requires school approval
UOC24 HPW18 S1 S2

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 commonly receive external support from companies or government agencies.

Note/s: Geological field work of up to six weeks duration may be required. Students may incur personal costs.

GEOL4303 Geology 4 Honours Full-Time
School of Geology
Staff Contact: P Lennox
Enrolment requires school approval
UOC24 HPW20 S1 S2

Students with a double major in geology will follow the program set for Year 4 students in Course 3000 Applied Geology. Students with a single major will follow a course of advanced study that includes geological topics subject to approval of the Head of Department.

Note/s: An extensive field project is a compulsory part of this course. Students will incur personal costs. Details will be provided in the first week of the course.

GEOL4313 Earth and Environmental Science 4 Honours Full-Time
School of Geology
Staff Contact: P Lennox
Enrolment requires school approval
UOC24 HPW32 S1 S2

A combination of advanced coursework and a major field and laboratory project, which may include geological mapping and interpretation of geological and environmental data. The project may involve aspects of environmental geology, environmental geophysics, environmental geochemistryand/or groundwater studies. The course also includes a selection of advanced courses in a range of disciplines, usually undertaken in S1.

Note/s: Geological field work of up to six weeks duration may be required. Students may incur personal costs.

GEOL4333 Earth and Environmental Honours Part-Time
School of Geology
Staff Contact: P Lennox
Enrolment requires school approval
UOC12 HPW16 S1 S2

Students will follow a course of advanced study which extends over 4 sessions and includes geological courses that are approved by the Head of School.

Note/s: Extensive field work is a compulsory part of this course and students will incur personal expenses. Details will be provided in the first week of the course.

GEOL5200 Geology for Mining Engineers
School of Geology
Staff Contact: P Lennox
UOC6 HPW4 S1 S2

Basic principles of geology and its relevance to mining. Key mineral groups and common rock types. Geological mapping and structural analysis. Laboratories on identification of common minerals and rocks, interpretation of geological maps and structures.

Note/s: One day of field work is a compulsory part of this course. Details will be provided in the first week of the course.

GEOL5300 Mine Geology
School of Geology
Staff Contact: P Lennox
UOC3 HPW2 S1

The course provides an understanding of the principles of mine geology and their impact on mining engineering practice. Formation of coal and mineral deposits; exploration methodology - sampling methods, geophysics, geochemistry, drilling; models of mineral deposits; geological visualisation and mapping; engineering geology; structural geology; hydrology and the significance of groundwater in mining; the application and importance of geological information to mining operations.

GEOL5321 Fundamentals of Petroleum
School of Geology
Staff Contact: C Ward
UOC6 HPW6 S2
Excluded: GEOL5301, GEOL5302, GEOL5312

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; petroleumgeneration, 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 geophysicalmethods in petroleum exploration and development; regional geology of selected petroleum basins.

Note/s: Field work of up to I day is a compulsory part of this course. Students will incur personal costs.

GEOL5412 Special Topics in Petroleum Geoscience
School of Geology
Staff Contact: C Ward
UOC8 HPW6 S2
Prerequisite/s: GEOL5301

Instruction by lectures, tutorials and assignments in aspects of geoscience and their application to the petroleum industry. Individual students will select modules, in consultation with the Head, School of Geology, covering topics such as sedimentary rocks and clay minerals, groundwater hydrology, geophysics, coastal monitoring and environmental assessment, complemented by a relevant project task.

GEOL7403 Earth Environments Honours
School of Geology
Staff Contact: P Lennox
Enrolment requires school approval
UOC24 HPW20 S1 S2

Students will follow a course of advanced study that has to be approved by the Program advisor. It extends over 2 sessions and includes both geological courses and a project that involves the writing of a thesis.

Note/s: Field work is a compulsory part of this course and students will incur personal expenses. Details will be provided in the first week of the course.

GEOS1000 Advances in the Earth Sciences
School of Geology
Staff Contact: D Cohen
UOC3 S2

Study of recent ideas that have radically altered the earth sciences. Topics may include radiometric dating techniques; developments in geophysics, geochemistry, remote sensing and GIS; understanding the movement of crustal plates, lines of evidence and implications for biogeographical distributions; climate change and links to sea-level change, evidence of past changes and predictions of future change; geographical ecology and palaeoecology and evaluation of environmental impacts.

GERS1400 Introductory German A1
Department of German and Russian Studies
Staff Contact: B Boss
UOC6 HPW6 S1

An intensive practical language course which provides students who have no previous knowledge of German with basic communicative skills in spoken and written German. Assessment: Class tests and weekly assignments.

Note/s: Excludes students qualified to enter GERS1600 or GERS1700.

GERS1401 Introductory German A2
Department of German and Russian Studies
Staff Contact: B Boss
UOC6 HPW6 S2
Prerequisite/s: GERS1400

Sequel to GERS1400. An intensive, six hour per week practical language course which provides students who have the equivalent of 84 hours of German instruction with basic communicative skills in spoken and written German. Assessment: Class tests and weekly assignments.

Note/s: Excludes students qualified to enter GERS1600 or GERS1700. Students wishing to proceed to GERS2400 Intermediate German are strongly advised to undertake a vacation study program or to attend the German Summer School organised by the Goethe Institute.

GERS1600 Intermediate German B1
Department of German and Russian Studies
Staff Contact: B Boss
UOC6 HPW5 S1

A five-hour a week course consisting of four hours a week language work at an intermediate level and a one hour a week introduction to German Studies. Assessment: Class tests, weekly assignments, oral test.

Assumed Knowledge: HSC 2 or 3 unit German or equivalent.

Note/s: Excludes students qualified to enter GERS1700.

GERS1601 Intermediate German B2
Department of German and Russian Studies
Staff Contact: B Boss
UOC6 HPW5 S2
Prerequisite/s: GERS1600
Excluded: GERS1122, GERS1142, GERS1322

Sequel to GERS1600. A five-hour a week course consisting of four hours a week language work at an intermediate level and a one hour a week introduction to German Studies.

GERS1700 Advanced German C1
Department of German and Russian Studies
Staff Contact: G Fischer
UOC6 HPW5 S1
Prerequisite/s: Native speaker status, as determined by the Department
Excluded: GERS1121, GERS1141, GERS1341

A five hour a week course consisting of advanced practical language work for advanced speakers of German concentrating on aspects of stylistics, complex issues of grammar, techniques of translation, an introduction to German Studies, and a two hour a week seminar. Assessment: Class work and assignments.

GERS1701 Advanced German C2
Department of German and Russian Studies
Staff Contact: G Fischer
UOC6 HPW5 S2
Prerequisite/s: GERS1700
Excluded: GERS1122, GERS1142, GERS1342

A five hour a week course consisting of advanced practical language work for advanced speakers of German concentrating on aspects of stylistics, complex issues of grammar, techniques of translation, an introduction to German Studies, and a two hour a week seminar. Assessment: Class work and assignments.

GERS2400 Intermediate German A1
Department of German and Russian Studies
Staff Contact: B Boss
UOC6 HPW5 S1
Prerequisite/s: GERS1000 or GERS1022 or GERS1401
Excluded: GERS2021

A course involving four hours of language work at an intermediate level and a one hour a week course of studies of cultural aspects of German-speaking countries Assessment: Class tests, weekly assignments, oral test.

GERS2401 Intermediate German A2
Department of German and Russian Studies
Staff Contact: B Boss
UOC6 HPW5 S2
Prerequisite/s: GERS2400 or GERS2021
Excluded: GERS2022

Sequel to GERS2400. A course involving four hours of language work at an intermediate level and a one hour a week program of studies of cultural aspects of German-speaking countries.

GERS2605 Advanced German B1
Department of German and Russian Studies
Staff Contact: G Fischer
UOC6 HPW5 S1
Prerequisite/s: GERS1122 or GERS1601 or GERS2022
Excluded: GERS2001, GERS2142, GERS2600, GERS2601, GERS2603

A five-hour a week course consisting of three hours advanced language work and a two hour language-based seminar on exemplary aspects of literary and cultural studies of German-speaking countries with emphasis on modern or contemporary issues.

GERS2606 Advanced German B2
Department of German and Russian Studies
Staff Contact: G Fischer
UOC6 HPW5 S2
Prerequisite/s: GERS1122 or GERS2022 or GERS2605
Excluded: GERS2001, GERS2142, GERS2600, GERS2601, GERS2603

A five hour a week course consisting of three hours advanced language work and a two hour language-based seminar on exemplary aspects of literary and cultural studies of German-speaking countries with emphasis on modern or contemporary issues.

GERS2700 Advanced German C3
Department of German and Russian Studies
Staff Contact: G Fischer
UOC6 HPW5 S1
Prerequisite/s: GERS1322 or GERS1701
Excluded: GERS2141, GERS2142

A five hour a week course consisting of a two hour language-based seminar on exemplary aspects of literary and cultural studies of German-speaking countries with emphasis on modern or contemporary issues, and two seminars of one and a half hours each from the annual seminar program in German Studies. With permission from the Head of Department, students may substitute one or two seminars by choosing other courses dealing with Germany or German speaking countries or language-related courses offered in other Schools of the Faculty.

GERS2701 Advanced German C4
Department of German and Russian Studies
Staff Contact: G Fischer
UOC6 HPW5 S2
Prerequisite/s: GERS1322 or GERS1701 or GERS2700
Excluded: GERS2141, GERS2142

A five-hour a week course consisting of a two hour language-based seminar on exemplary aspects of literary and cultural studies of German-speaking countries with emphasis on modern or contemporary issues, and two seminars of one and a half hours each from the annual seminar program in German Studies. With permission from the Head of Department, students may substitute one or two seminars by choosing other courses dealing with Germany or German-speaking countries or language-related courses offered in other Schools of the Faculty.

GERS3405 German Studies Seminar 1
Department of German and Russian Studies
Staff Contact: O Reinhardt
UOC3 HPW1.5 S1
Prerequisite/s: GERS2401 or GERS2606 or GERS2701
Excluded: GERS2610

A language-based seminar on exemplary aspects of German linguistics or literary-cultural studies of German-speaking countries with emphasis on modern or contemporary issues.

GERS3406 German Studies Seminar 2
Department of German and Russian Studies
Staff Contact: O Reinhardt
UOC3 HPW1.5 S2
Prerequisite/s: GERS2401 or GERS2606 or GERS2701
Excluded: GERS2610

A language-based seminar on exemplary aspects of German linguistics or literary-cultural studies of German-speaking countries with emphasis on modern or contemporary issues.

GERS3410 Advanced German A1
Department of German and Russian Studies
Staff Contact: O Reinhardt
UOC6 HPW4 S1
Prerequisite/s: GERS2400 or GERS2042
Excluded: GERS2141, GERS2001, GERS3400, GERS3401, GERS3403

A four hour a week course consisting of two hours advanced language work and a two hour language based seminar on exemplary aspects of literary and cultural studies of German-speaking countries with emphasis on modern or contemporary issues.

GERS3411 Advanced German A2
Department of German and Russian Studies
Staff Contact: O Reinhardt
UOC6 HPW4 S2
Prerequisite/s: GERS2401 or GERS3410 or GERS2042
Excluded: GERS2142, GERS2001, GERS3400, GERS3401, GERS3403

A four hour a week course consisting of two hours advanced language work and a two hour language based seminar on exemplary aspects of literary and cultural studies of German-speaking countries with emphasis on modern or contemporary issues.

GERS3605 Advanced German B3
Department of German and Russian Studies
Staff Contact: O Reinhardt
UOC6 HPW4 S1
Prerequisite/s: GERS2001 or GERS2601
Excluded: GERS3600

A four hour a week course consisting of two hours advanced language work, including aspects of stylistics and philology, and a two hour language-based seminar on exemplary topics in modern literature, social history and contemporary culture/civilisation.

GERS3606 Advanced German B4
Department of German and Russian Studies
Staff Contact: O Reinhardt
UOC6 HPW4 S2
Prerequisite/s: GERS3605 and GERS2001
Excluded: GERS3601

A four hour a week course consisting of two hours advanced language work, including aspects of stylistics and philology, and a two hour language-based seminar on exemplary topics in modern literature, social history and contemporary culture/civilisation.

GERS3700 Advanced German C5
Department of German and Russian Studies
Staff Contact: G Fischer
UOC6 HPW3.5 S1
Prerequisite/s: GERS2701
Excluded: GERS3141, GERS3142

A three and a half hours a week course consisting of a two hour language-based seminar on exemplary aspects of literary and cultural studies of German-speaking countries with emphasis on modern or contemporary issues, and one seminar of one and a half hours from the annual seminar program in German Studies. With permission from the Head of School, students may substitute the latter seminar by choosing another course dealing with Germany or German speaking countries or a language-related course offered in other Schools of the Faculty.

GERS3701 Advanced German C6
Department of German and Russian Studies
Staff Contact: G Fischer
UOC6 HPW3.5 S2
Prerequisite/s: GERS2701 or GERS3700

A three and a half hours a week course consisting of a two hour language-based seminar on exemplary aspects of literary and cultural studies of German-speaking countries with emphasis on modern or contemporary issues, and one seminar of one and a half hours from the annual seminar program in German Studies. With permission from the Head of School, students may substitute the latter seminar by choosing another course dealing with Germany or German-speaking countries or a language-related course offered in other Schools of the Faculty.

GERS3900 German Option 1
Department of German and Russian Studies
Staff Contact: O Reinhardt
UOC6 HPW3 S1
Prerequisite/s: 36 units of credit including 12 units of credit of German at credit level

A three hour a week 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 Option 2
Department of German and Russian Studies
Staff Contact: O Reinhardt
UOC6 HPW3 S2
Prerequisite/s: 36 units of credit including 12 units of credit of German at credit level

A three hour a week 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
Department of German and Russian Studies
Staff Contact: O Reinhardt
Enrolment requires school approval
UOC24 S1 S2
Prerequisite/s: 54 units of credit in German Studies at an average of 65%, including GERS3900 and GERS3901.

Three seminars on literary, linguistic or historical topics; participation in the staff-student seminar; and practical language work as required. A thesis of approximately 15,000 - 20,000 words on a topic approved by the Department.

GERS4050 German Honours (Research) Part-Time
Department of German and Russian Studies
Staff Contact: O Reinhardt
Enrolment requires school approval
UOC12 S1 S2
Prerequisite/s: 54 units of credit in German Studies at an average of 65%, including GERS3900 and GERS3901

Three seminars on literary, linguistic or historical topics; participation in the staff-student seminar; 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 Department.

GERS4500 Combined German Honours (Research) Full-Time
Department of German and Russian Studies
Staff Contact: O Reinhardt
Enrolment requires school approval
UOC12 S1 S2
Prerequisite/s: 48 units of credit in German Studies, including GERS3900 at 65% or better

Two seminars on literary, linguistic or historical topics. Of these, one is shared with the other School or Department. Participation in the staff-student seminar and practical language work as required. A thesis on a topic approved by the two Schools/Departments concerned.

GERS4550 Combined German Honours (Research) Part-Time
Department of German and Russian Studies
Staff Contact: O Reinhardt
Enrolment requires school approval
UOC6 S1 S2
Prerequisite/s: 48 units of credit in German Studies, including GERS3900 at 65% or better

Two seminars on literary, linguistic or historical topics. Of these, one is shared with the other School or Department. Participation in the staff-student seminar and practical language work as required, taken part-time over two years. A thesis on a topic approved by the two Schools/Departments concerned.

GMAT0411 Surveying in Building and Construction
School of Surveying and Spatial Information Systems
Staff Contact: School Office
UOC3 HPW3 WKS14 S2

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 systems. Subdivision surveys.

GMAT0442 Surveying for Civil Engineers
School of Surveying and Spatial Information Systems
Staff Contact: School Office
UOC3 HPW3 S1

A servicing subject for civil engineering students to introduce them to surveying and principles of geomatic engineering. 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 Geomatic Engineers.

GMAT0443 Surveying for Mining Engineers
School of Surveying and Spatial Information Systems
Staff Contact: School Office
UOC3 HPW3 S1 S2

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 and Spatial Information Systems
Staff Contact: School Office
UOC3 HPW3 S1
Corequisite/s: GMAT0442

A one-week field camp (on campus, usually in mid-year recess) for students studying GMAT0441 Surveying for Civil Engineers.

GMAT0753 Introduction to Spatial Information Systems
School of Surveying and Spatial Information Systems
Staff Contact: School Office
UOC3 HPW3 S1 S2
Prerequisite/s: CVEN2710, MATH2869, MATH2019

To provide Environmental Engineers with an overview of the available sources of information and technologies of Spatial Information Systems and an introduction to analysis and modelling of data, particularly of environmental data. Provide an understanding of the role of other professions in SIS. 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 and Spatial Information Systems
Staff Contact: School Office
UOC6 HPW5 S1

Induction to Geomatic Engineering: a 2 day workshop will be held in week 3 of the course to discuss the range of topics covered in Geomatic Engineering, gain hands-on experience with the School's facilities and laboratories, and develop teamwork amongst the students. Horizontal reference frames and positions. Tubular bubbles, surveying telescopes. Theodolites; centring and levelling, 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 and Spatial Information Systems
Staff Contact: School Office
UOC6 HPW5 S2
Prerequisite/s: GMAT 1100

Principles of calculations. Intersection, resection, trilateration, traverse measurements and calculations. Missing data problems. Traversing, types of traverses, errors in traverses, errors detection and adjustment. Road intersections. Area calculations. Subdivision calculations. 2D similarity transformations and PO adjustments. Spherical trigonometry. Contour surveys. Detail surveys, radiations, use of theodolite and EDM, field procedures, electronic tacheometers and electronic fieldbooks/data recorders, field sketches, principle and computation of free stationing.

GMAT1200 Visualisation of Spatial Data
School of Surveying and Spatial Information Systems
Staff Contact: School Office
UOC6 HPW4 S2

Principles of visual communication. Drafting, plotting, contouring, field sketches. Computer painting, drawing and CAD. Cartographic design. Map use. Charts and graphs. 2D-3D visualisation. Engineering drawing: orthographic and pictorial. Descriptive geometry. Web page design. Interpreting technical drawings; cadastral and engineering. Powerpoint presentations. Sun direction calculations and shadow diagrams.

GMAT1300 Computing Applications in Geomatics
School of Surveying and Spatial Information Systems
Staff Contact: School Office
UOC6 HPW4 S1

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 and Spatial Information Systems
Staff Contact: School Office
UOC6 HPW5 S2

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 and Spatial Information Systems
Staff Contact: School Office
UOC6 HPW5 S1
Prerequisite/s: GMAT1100, GMAT1150
Corequisite/s: 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 alidade and horizontal circle. Vertical circle and level sensor errors; circle graduation errors. 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 and Spatial Information Systems
Staff Contact: School Office
UOC6 HPW5 S2
Prerequisite/s: GMAT1100, GMAT1150
Corequisite/s: GMAT2300

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; elctro-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.

GMAT2200 Geographic Information Systems & Cad
School of Surveying and Spatial Information Systems
Staff Contact: School Office
UOC6 HPW5 S2
Corequisite/s: 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 and Spatial Information Systems
Staff Contact: School Office
UOC3 HPW3 S2
Prerequisite/s: MATH 1231, MATH 2019, GMAT 1150

Least squares principles and reasons for applying least squares solutions. Modelling observations, observation equations, parametric method, condition method. Linearisation of equations. Derivation of least squares; methods of forming normal equations. Worked examples in various areas of geomatics. The derivation of variance-covariance matrices. Analysis of variance-covariance matrix, application of statistics and error analysis in geomatics; error ellipses. Determining input into least squares using typical adjustment software. Introduction to advanced least squares.

GMAT2350 Computing for Spatial Information Sciences
School of Surveying and Spatial Information Systems
Staff Contact: School Office
UOC3 HPW3 S1
Corequisite/s: GMAT1300

Principles of program design. Algorithm development and programming languages. Procedural programming and event driven programming. Constant and variables types, data elements, 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.

GMAT2700 Geometry of Coordinate Reference Systems
School of Surveying and Spatial Information Systems
Staff Contact: School Office
UOC6 HPW5 S1

Cartesian 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 and Spatial Information Systems
Staff Contact: School Office
UOC6 HPW5 S1

This subject 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 and Spatial Information Systems
Staff Contact: School Office
UOC6 S2

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/s: 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 Tech. & App.
School of Surveying and Spatial Information Systems
Staff Contact: School Office
UOC6 HPW5 S1

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, geo-spatial 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 and Spatial Information Systems
Staff Contact: School Office
UOC3 HPW3 S1

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 and Spatial Information Systems
Staff Contact: School Office
UOC3 HPW2 S2

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 and Spatial Information Systems
Staff Contact: School Office
UOC3 HPW3 S2

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 coodinates in cadastral surveying.

GMAT3500 Photogrammetry and Remote Sensing
School of Surveying and Spatial Information Systems
Staff Contact: School Office
UOC6 HPW5 S2

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 and Spatial Information Systems
Staff Contact: J Rüeger
UOC3 HPW2 S1

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 and Spatial Information Systems
Staff Contact: J Rüeger
UOC9 HPW8 S2

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 detailing at last 60 days of professional practice (industrial training).

GMAT4020 Project in Geomatic Engineering
School of Surveying and Spatial Information Systems
Staff Contact: School Office
UOC6 HPW5 S1

Projects will involve small groups of students working as a team to complete the execution of specially designed multi-faceted selected tasks in Geomatic Engineering. 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 a School Seminar.

GMAT4400 Land Management & Development Project 1
School of Surveying and Spatial Information Systems
Staff Contact: School Office
UOC6 HPW2 S1

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 and Spatial Information Systems
Staff Contact: School Office
UOC3 HPW3 S1

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 and Spatial Information Systems
Staff Contact: School Office
UOC6 HPW2 S2

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.

GMAT4700 Project Management 1
School of Surveying and Spatial Information Systems
Staff Contact: School Office
UOC3 HPW3 S1

Types of business, ethics. Organisational and management principles. Goals, strategies and actions. Phases of a project: feasibility study, pilot project, contract work, final report, and control. Principles of project management: organisation, management, planning responsibilities, information control. Communication: meeting, negotiation, conflict, dialectic for managers. Financial management reporting, accounting systems, cash flow, cash flow analysis. Budgeting (financial, personnel, equipment), personnel planning. Management of the project resources.

GMAT4750 Project Management 2
School of Surveying and Spatial Information Systems
Staff Contact: School Office
UOC3 HPW3 S2

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.

GMAT4850 Geomatic Engineering for Sustainability
School of Surveying and Spatial Information Systems
Staff Contact: School Office
UOC3 HPW3 S1

A brief introduction and relevance to geomatic engineering. Why are we concerned about sustainability? Principles of sustainability (inter- and intra-generational equity, conservation of biodiversity, the precautionary principle, internalisation of environmental costs). Conservation of biodiversity and ecological integrity. Why is maintenance of biodiversity and ecological processes (free goods!) important? Current trends in impacts on global biodiversity. Special features of Australian biodiversity and ecosystems and our special responsibilities. The precautionary principle in sustainability. A key issue in the move to sustainability: energy use - forms and conservation in transport and settlement and impact on climate change (Enhanced Greenhouse Effect). The influence of geomatic engineering. The Enhanced Greenhouse Effect. A systems approach in applying the sustainability principles in the practice of geomatic engineering. Implementing sustainability - how? Monitoring and reporting progress to 'sustainable futures'. State of the Environment reporting - roles and examples. The 'sustainable' organisation. Meeting community expectations. Transparency, trust and public participation. Putting the pieces together for environmental applications. Looking to the future.

GMAT4900 Principles of GNSS Positioning
School of Surveying and Spatial Information Systems
Staff Contact: School Office
UOC6 HPW5 S1

This subject 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 and Spatial Information Systems
Staff Contact: School Office
UOC6 HPW5 S2

This subject 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 analysed. 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.

GMAT9121 Network and Deformation Analysis
School of Surveying and Spatial Information Systems
Staff Contact: School Office
UOC6 HPW3 S1

Selected topics from: Geodetic datum and invariant quantities, measures of accuracy, testing of hypotheses, outlier detection, internal and external reliability and sensitivity criteria, variance component estimation, design and optimisation of deformation monitoring networks, two-epoch analysis, multi-epoch analysis, case studies of monitoring networks.

GREK1001 Introductory Modern Greek A1
Modern Greek Studies
Staff Contact: School Office
UOC6 HPW6 S1

Divided into two sections: Language (HPW5) and History and Culture (HPW1). The aim is to enable students by the end of the year to be able to communicate in a Greek-speaking environment, to discuss everyday topics, to write a simple composition and read a short story using a dictionary. The History and Culture component will familiarise the students with basic aspects of the Greek culture and society. Assessment: Classwork, tests, assignments and an essay.

Note/s: Excluded HSC Modern Greek or equivalent.

GREK1002 Introductory Modern Greek A2
Modern Greek Studies
Staff Contact: School Office
UOC6 HPW6 S2
Prerequisite/s: GREK1001

Divided into two sections: Language (HPW5) and History and Culture (HPW1). The aim is to enable students by the end of the year to be able to communicate in a Greek-speaking environment, to discuss everyday topics, to write a simple composition and read a short story using a dictionary. The History and Culture component will familiarise the students with basic aspects of the Greek culture and society.

GREK1101 Intermediate Modern Greek B1
Modern Greek Studies
Staff Contact: School Office
UOC6 HPW5 S1
Excluded: GREK1100

Divided into two sections: Language (HPW2); Modern Greek Writing (HPW2) and History and Culture (HPW1). The aim is to enable students to speak and write Greek accurately, to develop a structural understanding of Greek to the point where it can become a practical asset. The emphasis is on four basic skills: comprehension, speaking, reading and writing. The History and Culture component will familiarise the students with basic aspects of the Greek culture and society. Assessment: Class work, assignments and an essay.

GREK1102 Intermediate Modern Greek B2
Modern Greek Studies
Staff Contact: School Office
UOC6 HPW5 S2
Prerequisite/s: GREK1101

Divided into two sections: Language (HPW2); Modern Greek Writing (HPW2) and History and Culture (HPW1). The aim is to enable students to speak and write Greek accurately, to develop a structural understanding of Greek to the point where it can become a practical asset. The emphasis is on four basic skills: comprehension, speaking, reading and writing. The History and Culture component will familiarise the students with basic aspects of the Greek culture and society.

GREK1201 Advanced Modern Greek C1
Modern Greek Studies
Staff Contact: H Amvrazi
UOC6 HPW5 S1
Excluded: GREK1200

Divided into three sections: Language (HPW2); Modern Greek Literature and Theatre (HPW2) and History and Culture (HPW1). The language component aims at developing writing and aural/oral skills as well as expanding the students' vocabulary. The literature and modern Greek theatre component is studied partly to aid in the understanding of the language. The History and Culture aims at familiarising the students with basic aspects of the history and the culture of Greece. Assessment: Class work, assignments and essays.

GREK1202 Advanced Modern Greek C2
Modern Greek Studies
Staff Contact: H Amvrazi
UOC6 HPW5 S2
Prerequisite/s: GREK1201

Divided into three sections: Language (HPW2); Modern Greek Literature and Theatre (HPW2) and History and Culture (HPW1). The language component aims at developing writing and aural/oral skills as well as expanding the students' vocabulary. The literature and modern greek theatre component is studied partly to aid in the understanding of the language. The history and culture component aims at familiarising the students with basic aspects of the history and the culture of Greece. Assessment: Class work, assignments and essays.

GREK2003 Advanced Modern Greek B1
Modern Greek Studies
Staff Contact: School Office
UOC6 HPW3 S1
Prerequisite/s: GREK1100, GREK1102
Excluded: GREK1200, GREK1202, GREK2103

The course is taught in two components: language and oral/aural skills. The language component will further familiarise students with grammatical and syntactical structures and enable them to put them into practice. The oral/aural component will develop students listening, speaking and understanding skills in Greek, extending the skills taught in GREK1102. Assessment: Class work, assignments and essays.

GREK2004 Advanced Modern Greek B2
Modern Greek Studies
Staff Contact: School Office
UOC6 HPW3 S2
Prerequisite/s: GREK2003 or GREK2103
Excluded: GREK1200, GREK2104

The course is taught in two components: language and oral/aural skills. The language component will further familiarise students with grammatical and syntactical structures and enable them to put them into practice. The oral/aural component will develop students listening, speaking and understanding skills in Greek, extending the skills taught in GREK2003. Assessment: Class work, assignments and essays.

GREK2005 Literary Text Analysis 1
Modern Greek Studies
Staff Contact: School Office
UOC3 HPW1.5 S1
Prerequisite/s: GREK1100 or GREK1101 or GREK2000 or GREK2010
Excluded: GREK1200, GREK1201, GREK2103, GREK2105

This course is designed to enhance the language of students through a practical introduction to the techniques of reading and interpretation of literary texts. Assessment: Assignments and class presentations oral and written.

GREK2006 Literary Text Analysis 2
Modern Greek Studies
Staff Contact: School Office
UOC3 HPW1.5 S2
Prerequisite/s: GREK2005
Excluded: GREK2106, GREK2104

This course is designed to enhance the language of students through a practical introduction to the techniques or reading and interpretation of literary texts. Assessment: Assignments and class presentations oral and written.

GREK2010 Intermediate Modern Greek A1
Modern Greek Studies
Staff Contact: H Amvrazi
UOC6 HPW5 S1
Prerequisite/s: GREK1002
Excluded: GREK2000

Divided into two sections: Language (HPW3); Reading and Literature (HPW2). Aims to help students systemise and develop their knowledge of Modern Greek and bring it up to a standard where it can begin to be useful for professional activities. The reading and literature component will develop students' proficiency in reading, build vocabulary and introduce students to some aspects of modern Greek culture through the study of some simple Greek short stories. Assessment: Class work, assignments and essays.

GREK2020 Intermediate Modern Greek A2
Modern Greek Studies
Staff Contact: H Amvrazi
UOC6 HPW5 S2
Prerequisite/s: GREK2010

Divided into two sections: Language (HPW3); Reading and Literature (HPW2). Aims to help students systemise and develop their knowledge of Modern Greek and bring it up to a standard where it can begin to be useful for professional activities. The reading and literature component will develop students' proficiency in reading, build vocabulary and introduce students to some aspects of modern Greek culture through the study of some simple Greek short stories. Assessment: Class work, assignments and essays.

GREK2021 Advanced Modern Greek A1
Modern Greek Studies
Staff Contact: H Amvrazi
UOC6 HPW4 S1
Prerequisite/s: GREK2000 or GREK2020
Excluded: GREK1200, GREK1201, GREK2001, GREK2101, GREK2201

Taught in two components: language and oral/aural skills. The language component will further familiarise students with grammatical and syntactical structures and enable them to put them into practice. The oral/aural component will develop students listening, speaking and understanding skills in Greek, extending the skills taught in GREK2020. Assessment: Class work, assignments and essays.

GREK2022 Advanced Modern Greek A2
Modern Greek Studies
Staff Contact: H Amvrazi
UOC6 HPW4 S2
Prerequisite/s: GREK2001 or GREK2021 or GREK2101
Excluded: GREK1200, GREK1202, GREK2002, GREK2102, GREK2202

Taught in two components: language and oral/aural skills. The language component will further familiarise students with grammatical and syntactical structures and enable them to put them into practice. The oral/aural component will develop students' listening, speaking and understanding skills in Greek, extending the skills taught in GREK2021. Assessment: Class work, assignments and essays.

GREK2201 The Modern Greek Experience
Modern Greek Studies
Staff Contact: School Office
UOC6 HPW3 S1
Prerequisite/s: (GREK1200 or GREK1202 or GREK2002) and GREK2022 and GREK2004

The course provides a window into various aspects of the modern Greek experience. Students should emerge with a more complex and less stereotypically based understanding of that society. Assessment: Class tests and assignments.

GREK2202 Greek Traditional Culture
Modern Greek Studies
Staff Contact: H Amvrazi
UOC6 HPW3 S2
Prerequisite/s: (GREK1200 or GREK1202) and (GREK2002 or GREK2022) and GREK2004

Students will study a variety of folk songs, myths, legends and popular tales. The aim is to create an awareness and understanding of the forces that have shaped the development of modern Greek society. Assessment: Class tests and assignments.

GREK2203 Core Language 1
Modern Greek Studies
Staff Contact: H Amvrazi
UOC3 HPW2 S1
Prerequisite/s: (GREK1200 or GREK1202) and (GREK2002 or GREK2022) and GREK2006

Intensive study of the Greek language: The focus of this course is on broadening the scope of students language by improving discursive competence, in spoken as well as in written Greek. Assessment: Assignments and class presentations oral and written.

GREK2204 Core Language 2
Modern Greek Studies
Staff Contact: H Amvrazi
UOC3 HPW2 S2
Prerequisite/s: GREK2203

Advanced study and practise of written and oral Greek discourse in academic and vocational contexts. Assessment: Assignments and class presentations written and oral.

GREK3001 Advanced Modern Greek B3
Modern Greek Studies
Staff Contact: H Amvrazi
UOC3 HPW2 S1
Prerequisite/s: GREK2004 and GREK2006 or GREK2104 and GREK2106
Excluded: GREK3101

This is a language based course in which students write compositions, make summaries, and correct their own and co-students' errors. The oral/aural part of the course enriches students' vocabulary and provides the opportunity to exercise ear and tongue. Assessment: Class tests and assignments.

GREK3002 Advanced Modern Greek B4
Modern Greek Studies
Staff Contact: H Amvrazi
UOC3 HPW2 S2
Prerequisite/s: GREK3001
Excluded: GREK3102

This is a language based course in which students write compositions, make summaries, and correct their own and co-students' errors. The oral/aural part of the course enriches students' vocabulary and provides the opportunity to exercise ear and tongue. Assessment: Class tests and assignments.

GREK3201 Modern Greek for Special Purposes
Modern Greek Studies
Staff Contact: H Amvrazi
UOC6 HPW3 S1
Prerequisite/s: (GREK2201 and GREK2202) or GREK 1200 at distinction level or (GREK2001 and GREK2002 and GREK2021 and GREK2022 at distinction level)

Modern Greek for Special Purposes extends and consolidates translation and interpreting skills with special emphasis on practical application of these skills to professional settings.

GREK3202 Greek Women Writers
Modern Greek Studies
Staff Contact: H Amvrazi
UOC6 HPW3 S2
Prerequisite/s: (GREK2201 and GREK2202) or GREK 1200 at distinction level or (GREK2001 and GREK2002 and GREK2021 and GREK2022 at distinction level)

Examines a number of literary texts written by women within the framework of feminist literary criticism.

GREK3205 Pandora's Box: Gender Issues in Greek Mythology and ragedy
Modern Greek Studies
Staff Contact: H Amvrazi
UOC6 HPW3 S1
Prerequisite/s: 36 units of credit

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. This course 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.

GREK3900 Culture, Ethnicity & Identity in Greek Australian Literature
Modern Greek Studies
Staff Contact: H Amvrazi
UOC6 HPW3 S1
Prerequisite/s: 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/s: Option for Honours.

GREK3901 The History and Development of the Greek Language
Modern Greek Studies
Staff Contact: School Office
UOC6 HPW3 S2
Prerequisite/s: 36 units of credit including 12 units of Greek at credit level
Excluded: GREK3204

This course involves the study of the historical development of the modern Greek language and the socio-cultural significance and implications of 'diglossia' in the 19th and 20th century Greece. Students will be required to study selected literary texts in both Katharevousa (puristic Greek) and Demotic (spoken Greek).

Note/s: Option for Honours.

GREK4000 Modern Greek Studies Honours (Research) Full-Time
Modern Greek Studies
Staff Contact: H Amvrazi
Enrolment requires school approval
UOC24 S1 S2
Prerequisite/s: 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.

GREK4050 Modern Greek Studies Honours (Research) Part-Time
Modern Greek Studies
Staff Contact: H Amvrazi
Enrolment requires school approval
UOC12 S1 S2
Prerequisite/s: 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.

HIST1003 The Fatal Shore: Aborigines, Immigrants and Convict Society
School of History
Staff Contact: R Frances
UOC6 HPW3 S1

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: The Struggle for a Nation
School of History
Staff Contact: G Karskens
UOC6 HPW3 S2

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
Staff Contact: M Roces
UOC6 HPW3 S1

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 peasant rebellions against colonialism and capitalism. The Philippines, Indonesia, Cambodia, Burma and Thailand receive particular attention.

HIST1011 The Emergence of Modern Europe (A)
School of History
Staff Contact: J Tampke
UOC6 HPW3 S1

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
Staff Contact: H Graham
UOC6 HPW3 S2

The principal themes in the history of early modern Europe, between the 17th and 19th centuries. Topics may include the Age of Enlightenment, the emergence of a more literate and secular society and the lives and beliefs of 'ordinary people' in the period. They may also include the history of the French Revolution and the significance of the Napoleonic period both for France and for Europe as a whole. For details of topics covered in current year contact the School of History.

HIST1014 Enter the Dragons: Continuity & Change in East Asia
School of History
Staff Contact: H Bowen Raddeker
UOC6 HPW3 S2

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
Staff Contact: S Brawley
UOC6 HPW3 S2

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
Staff Contact: N Doumanis
UOC6 HPW3 S1
Excluded: ASIA1000, 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.

HIST1020 Women, Gender & World History
School of History
Staff Contact: H Bowen Raddeker
UOC6 HPW3 S1

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.

HIST2000 World History: The Twentieth Century
School of History
Staff Contact: M Berger
UOC6 HPW3 S2
Prerequisite/s: 36 units of credit
Excluded: INST2001

Focuses on the major forces and features of twentieth century history. The emphasis is on international history and the main themes which will be examined include colonialism, nationalism, decolonisation, and the rise and demise of the Cold War. The course will also put the post-Cold War era in historical perspective.

HIST2013 Prophets and Millenarian Movements in World History
School of History
Staff Contact: M Harcourt
UOC6 HPW3 S1
Prerequisite/s: 36 units of credit in Arts and Social Science courses

Analyses radical popular religious movements that envisage an apocalyptic end to the world and its transformation into a perfect new age or a revised golden age. It attempts to explain the causation of such movements in widely diverse human societies. The propensity of such millenarian movements to oscillate between extremes of 'rigorist' puritanism and anti-nomian permissiveness is also investigated. Finally, theories explaining millenarian phenomena and the relationship between millenarian and orthodox religion are reviewed.

Note/s: This course may be counted towards a major sequence in the School of Science and Technology Studies.

HIST2015 Women in the Modern World
School of History
Staff Contact: School Office
UOC6 HPW3 S1
Prerequisite/s: 36 units of credit in Arts and Social Science courses

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
Staff Contact: M Harcourt
UOC6 HPW3 S2
Prerequisite/s: 36 units of credit in Arts and Social Science courses

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.

HIST2021 Irish History from 1800
School of History
Staff Contact: P Edwards
UOC6 HPW3 S2
Prerequisite/s: 36 units of credit in Arts and Social Science courses

Major developments in Irish History 1800-1995. Emphasis on social and economic history and emigration in the 19th century, and on political problems in the 20th.

HIST2025 Slavery and Freedom: American History 1750-1890
School of History
Staff Contact: School Office
UOC6 HPW3 S1
Prerequisite/s: 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 A Commonwealth for a Continent: Australia 1901-1949
School of History
Staff Contact: F Farrell
UOC6 HPW3 S1
Prerequisite/s: 36 units of credit in Arts and Social Science courses

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.

HIST2028 Australia Since World War II
School of History
Staff Contact: F Farrell
UOC6 HPW3 S1 S2
Prerequisite/s: 36 units of credit in Arts and Social Science courses

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'.

HIST2030 History of the Arab/Israeli Conflict
School of History
Staff Contact: I Bickerton
UOC6 HPW3 S2
Prerequisite/s: 36 units of credit in Arts and Social Science courses
Excluded: HIST2023, JWST2102

Examines the historical background and present state of Arab-Israeli relations. Topics include: early Zionism, the Balfour Declaration, Jewish settlement before and after World War I; the Mandate period; the Holocaust; the creation of Israel; major issues in Arab-Israeli relations since 1948.

HIST2033 Australian Identity: Media Image and Society
School of History
Staff Contact: F Farrell
UOC6 HPW3 S1 S2
Prerequisite/s: 36 units of credit in Arts and Social Science courses

Explores and analyses concepts of Australian national identity and their bases in society, including relations between Aborigines and the wider European tradition, and the images of consensus and division in Australia, in such areas as politics, religion, gender and class, and ethnic or cultural origin. A variety of sources and perspectives are used and there is a consistent focus throughout on the origins and development of the media imagery of identity.

HIST2036 Documentary Film and History
School of History
Staff Contact: R Bell
UOC6 HPW4 S1
Prerequisite/s: 36 units of credit in Arts and Social Science courses

Documentary film texts raise important questions about representations and constructions of the past. Provides a critical introduction to these issues through an exploration of texts central to the history of documentary film across the twentieth century. Fields discussed include: photography and historical memory, ideology and practice, propaganda and the state, representations of war, ethnographic film, environmental and natural history, popular memory and gender, narrative forms, cinema verite, dramatised documentaries, and television and contemporary history.

HIST2039 Environmental History
School of History
Staff Contact: School Office
UOC6 HPW3 S2
Prerequisite/s: 36 units of credit in Arts and Social Science courses

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.

HIST2041 Australian Sport: History and Culture
School of History
Staff Contact: R Cashman
UOC6 HPW3 S1
Prerequisite/s: 36 units of credit in Arts and Social Science courses

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.

HIST2043 Modern China: Last Emperors and the Birth of Modern China
School of History
Staff Contact: School Office
UOC6 HPW3 S1
Prerequisite/s: 36 units of credit in Arts and Social Science courses

A historical survey of the social, economic, cultural, and especially political institutions of the last Chinese dynasty (Qing, 1644-1911). Emphasises the radical changes of the 19th century, domestic problems, Western imperialism, and the rise of revolutionism.

HIST2044 Modern China: War, Revolution and Reform in the Twentieth Century
School of History
Staff Contact: School Office
UOC6 HPW3 S2
Prerequisite/s: 36 units of credit in Arts and Social Science courses

A historical survey of the political, social, economic, and cultural flux of China during the twentieth century. Focuses on fundamental causes of disorder and revolutionary change during the so-called Republic, the war with Japan, and the Communist era (and Taiwan). Examines the rise of political parties and armies, nationalism, Marxism, and finally post-Mao reformism.

HIST2045 Modern America
School of History
Staff Contact: R Bell
UOC6 HPW3 S2
Prerequisite/s: 36 units of credit in Arts and Social Science courses

The history of the United States from 1890s to 1990s. Explores several major themes in modern America including African American histories; indigenous America; immigration and ethnicity; labour history; women in 20th-century US; US foreign relations; war and society; modernity and popular culture; and history, myths and memories.

HIST2047 Winners and Losers: Poverty, Welfare, Justice in Australia
School of History
Staff Contact: A O'Brien
UOC6 HPW3 S1
Prerequisite/s: 36 units of credit in Arts and Social Science courses

A historical examination of poverty, welfare and the quest for social justice in Australia. Traces the transition from charity to welfare; examines the historical relationships between poverty and social problems such as delinquency, domestic violence, insanity; analyses images of Australia from working man's paradise to 'clever country', and examines the cultural and economic context of the New Conservatism.

HIST2050 Women in Southeast Asian Societies
School of History
Staff Contact: M Roces
UOC6 HPW3 S2
Prerequisite/s: 36 units of credit in Arts and Social Science courses

Explores women's status and roles in politics, culture, economy, and the family, in several countries of the Southeast Asian region; examines women and unofficial power (eg wives of male politicians like First Lady Imelda Marcos), women in politics like President Corazon Aquino, and activists including militant nuns; addresses the controversial issues of women's victimisation such as prostitution, mail-order brides and domestic helpers; finally, cultural constructions of the feminine and national identity including women and the veil, beauty queens and revolutionaries.

HIST2053 Muslim Southeast Asia
School of History
Staff Contact: J Gelman Taylor
UOC6 HPW3 S2
Prerequisite/s: 36 units of credit in Arts and Social Science courses

Islam is an influential force in Indonesia, Malaysia and Brunei. Other Southeast Asian countries have significant Muslim minorities. Examines the history of Islam in Southeast Asia. Topics include: the controversy about Islam's arrival and spread in Southeast Asia; Islam under Western colonialism; Islam and nationalism; Islamic social attitudes and visions; state control of Islam.

HIST2054 Modern Japan: Political Culture, Popular Culture
School of History
Staff Contact: H Bowen Raddeker
UOC6 HPW3 S2
Prerequisite/s: 36 units of credit in Arts and Social Science courses
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.

HIST2055 Colonialism and Fundamentalism in India
School of History
Staff Contact: M Harcourt
UOC6 HPW3 S1
Prerequisite/s: 36 units of credit in Arts and Social Science courses
Excluded: HIST2008

Examines the colonial origins of contemporary social and religious conflicts in India, Pakistan and Sri Lanka. Topics include: the modern transformation of Hinduism and Islam, the rise of secular and fundamentalist discourses and the interaction of economic development and religious innovation.

HIST2056 From Elizabeth to the Republic: English History 1558-1660
School of History
Staff Contact: P Edwards
UOC6 HPW3 S2
Prerequisite/s: 36 units of credit in Arts and Social Science courses
Excluded: HIST2010

Examines a crucial period in the emergence of the English state, culture and language, from the splendour of the monarchy of Elizabeth I to the 'English Revolution' and the unprecedented experiment of the Puritan Republic under Oliver Cromwell. Topics include: the Elizabethan political world; the problems of James I and Charles I; Puritans and Papists; the first overseas colonies; the rise in witchcraft; the radical

sects of the 1650s; and the debate over the nature of the 'English Revolution' and its significance for English and world history.

HIST2061 Making/Unmaking the Third World: History & Global Development II
School of History
Staff Contact: J Levy
UOC6 HPW3 S1
Prerequisite/s: 36 units of credit;
Excluded: SPAN2429, COMD2020, INST2000

Investigates the course and causes of uneven and unequal development of capitalism since the end of the 18th century. Emphasises the manifestations of this development during the 20th century.

HIST2064 Values and Beliefs in Australian Culture
School of History
Staff Contact: A O'Brien
UOC6 HPW3 S2
Prerequisite/s: 36 units of credit in Arts and Social Science courses
Excluded: AUST2109

Provides an overview of how the beliefs and values systems which have underpinned Australian society over 200 years have contributed to the formation of Australian culture. Analyses the competing contributions of Christianity, secular humanism, liberalism, socialism, labourism, social Darwinism, and civil religions like 'Anzac' to Australian society and culture by focusing on four central themes - gender, class, race and politics. How did those belief and value systems influence the interplay between masculinity and femininity? How did they variously act to reinforce or bridge class difference, to fuel or quench race hatred? How did they shape political values? Examines the impact of non-Christian religions and cultures, the attraction of the 'New Age' and values in the works of key modern imaginative writers.

HIST2070 Exploration and Empire: The Pacific and Cultural Contact
School of History
Staff Contact: J Gascoigne
UOC6 HPW3 S1
Prerequisite/s: 36 units of credit in Arts and Social Science courses
Excluded: HIST1013

Focuses on the British and French exploration of the Pacific in the period from the Peace of Paris (1763) to the Treaty of Waitangi (1840). Its principal theme is the reciprocal interaction between European and Pacific cultures as a consequence of exploration and settlement. After an examination of the Polynesian and European background to Pacific exploration, the course analyses the motives for European exploration in the late eighteenth century. Using, as far as possible, the original written and pictorial sources the course examines the ways in which contact with the Pacific prompted a re-examination of European assumptions about the nature of society. Reciprocally, it also seeks to explore the impact of the West on traditional Pacific cultures.

HIST2074 Holocaust and Genocide in Historical Perspective
School of History
Staff Contact: G Levey
UOC6 HPW3 S2
Prerequisite/s: 36 units of credit in Arts and Social Science courses
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.

HIST2075 Media, Modernity and History: From Print to Internet
School of History
Staff Contact: School Office
UOC6 HPW3 S1
Prerequisite/s: 36 units of credit

Stresses the historical development of the media from the invention of the book to internet, the media's relationship with social change, the rise of industrial and post-industrial society, consumer culture, and theories of modernity and globalisation. Themes include the historical evolution of the printed media, the rise of literacy, cinema as a social institution, Americanisation and the movie industry and advertising.

HIST2076 Early Modern Japan: Age of the Sword
School of History
Staff Contact: H Bowen Raddeker
UOC6 HPW3 S1
Prerequisite/s: 36 units of credit in Arts and Social Science courses

A thematic treatment of Japanese history to just after the Meiji Restoration of 1868, this course covers a variety of cultural and political topics. We discuss the religions, values and ideologies of medieval and later ruling classes (civil aristocrats and samurai), and also look at folk religion, peasant protest, and aspects of popular culture. Students are encouraged to reflect upon issues of historiography such as: how the Japanese past has been constructed by scholars and to what ends; how our interpretations of the past are in large part the products of our present.

HIST2077 The Chinese in South East Asia
School of History
Staff Contact: J Gelman Taylor
UOC6 HPW3 S1
Prerequisite/s: 36 units of credit in Arts and Social Science courses

The countries of Southeast Asia are often characterised as plural societies because they have sizeable minorities of Chinese, Indian and European descent, as well as indigenous peoples. This course traces the origins of plural societies in the policies of Southeast Asian monarchies and continuity under European colonial rule. Topics include male and female migration patterns, intermarriage and the creation of new sub-groups, and issues of assimilation and citizenship in contemporary Southeast Asia.

HIST2080 Rights & Riots: Gender & Politics in 18th-century France
School of History
Staff Contact: H Graham
UOC6 HPW3 S1
Prerequisite/s: 36 units of credit in Arts and Social Science courses

To the guillotine! In popular representations of the French Revolution, women appear prominently: as its aristocratic and religious victims; as the allegorical symbols of Liberty and the Republic; and as the elderly knitters whose bloodthirsty cries encouraged the executioners. This Revolution's enduring legacy promoted universal human rights. Yet no republican franchise in 18th and 19th century France acknowledged women's rights to political participation. Why was that? Why did French women acquire the right to vote only in 1944? And why, nearly 60 years later, was a law passed requiring gender equality among France's elected representatives? Suggests ways in which these issues may be addressed, by considering a variety of approaches to the history of women, gender and politics in modern France.

HIST2081 Traditions, Colonialisms and Revolutions: Southeast Asian Histories
School of History
Staff Contact: J Gelman Taylor
UOC6 HPW3 S1
Prerequisite/s: 36 units of credit in Arts and Social Science courses

Explores Southeast Asian monarchies, European colonialism, rebellion and revolution. Nationalist leaders such as Jose Rizal of the Philippines, Sukarno of Indonesia and Ho Chi Minh of Vietnam tried to inspire revolution by inventing a golden past and modern identity. We examine peasant rebellion and millenarian cults including the role of gangsters, mercenaries and prophets in revolution and also look at ways of representing the past and its use of collective versus individual memory.

HIST2083 Writing Lives, Writing History
School of History
Staff Contact: A O'Brien
UOC6 HPW3 S2
Prerequisite/s: 36 units of credit in Arts and Social Science courses

How do individual life histories illuminate historical processes? What are the problems and pitfalls in using them? How are autobiographies, biographies and diaries constructed? What insights can psychohistory offer the biographer? To what extent is the historian justified in moving in the 'imaginative territory usually reserved for novelists'? We use key texts - biography, autobiography and the diary - to explore important themes in Australian history: Aboriginal experience, migration and displacement; late 19th century feminism; ordinary lives; war; male and female intellectuals; communism; romance, family and sexuality.

HIST2084 The Vietnam War/The American War
School of History
Staff Contact: S Brawley
UOC6 HPW3 S1
Prerequisite/s: 36 units of credit in Arts and Social Science courses

Examines the role of history in the modern nation state; demonstrates the wide variety of historical sources which are available to the historian and which offer us alternative means of viewing the past. After examining the place of history in Vietnamese and American national life and the place of the Second Indochinese War within this context, the course examines the different means by which the past can be conveyed and demonstrates how such forms as literature, memory and film can help construct historical narratives. Topics will include Vietnamese and American voices, women, masculinity, race, genocide and Cambodia.

HIST2085 Australia's Asian Context: Resistance and Engagement
School of History
Staff Contact: S Brawley
UOC6 HPW3 S1
Prerequisite/s: 36 units of credit in Arts and Social Science courses

Asia is deeply implicated in the history of Australia. Examines the conflicting perceptions and emotions that Australians have held towards their region and the various historical themes and events which have shaped them. Topics include; Aboriginal/Asian relations before 1788; 'Asia' and Australian colonisation; gold rushes and Asian labour; anti-Asianism and the origins of White Australia; regional diplomacy and the Pacific War; immigration reform; and the Blainey, Howard and Hanson debates.

HIST2090 The Transformations of Modern Warfare
School of History
Staff Contact: School Office
UOC6 HPW3 S2
Prerequisite/s: 36 units of credit
Excluded: GENT0309

Examines three distinct phases in the emergence of modern warfare. Begins with the transformation from mercenary to citizen armies, followed by an investigation into the development and use of technology from before World War I through to World War II and Hiroshima. The final phase includes the new warfare with its use of high technology in combination with a strong local base. Ethical and social problems are examined with focus on depersonalisation of the enemy and the increasing implication of women in war. Concludes with case studies of contemporary warfare in Africa, Asia and Europe.

HIST2095 Talking History: Oral History and the Interview
School of History
Staff Contact: M Roces
UOC6 HPW3 S1
Prerequisite/s: 36 units of credit

Focuses on the theory and practice of writing oral history and the use of interviews as a primary source. The most important aspect is an individual oral history project. Topics include: interview ethics, transcribing data, and the problems of interpreting data from interviews.

HIST2100 Urban Legends: The History of Sydney
School of History
Staff Contact: G Karskens
UOC6 HPW3 S1
Prerequisite/s: 36 units of credit

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.

HIST2102 The Australian-Jewish Experience
School of History
Staff Contact: G Levey
UOC6 HPW3 S2
Prerequisite/s: 36 units of credit
Excluded: JWST2202

Jewish settlement in Australia began with European colonisation; the Jews were the first ethnic minority to emerge in Australian society. Focuses on issues of acceptance and discrimination; the key periods of Jewish migration (the 1890s, the 1930s and the post-1945 period); the contribution of Jews to Australian society, and comparisons with other English-speaking countries.

HIST2300 Between Dictatorship and Democracy: Contemporary Southeast Asia
School of History
Staff Contact: M Roces
UOC6 HPW3 S2
Prerequisite/s: 36 units of credit in Arts and Social Science courses

Focuses on modern Southeast Asia since the end of the colonial period exploring the turbulent shifts between dictatorship and democracy which shape much of the political experiences of the region; surveys the rise of military regimes and the politicisation of the army, the pro-democracy movements, communist insurgencies and rebellion, and the civil wars which threatened to break up the new unions - from the centuries old Muslim separatist movement in southern Philippines to the current issue of East Timor. The regimes of Marcos, Sukarno and Suharto, Mahathir, Lee Kuan Yew, Goh Chok Tong, and Ne Win provide some case studies from which to analyse the problematics of corruption, nepotism, regime violence and torture.

HIST2400 Concepts of Europe
School of History
Staff Contact: G Minnerup
UOC6 HPW3 S2
Prerequisite/s: 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 diffferences 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 through the centuries and discusses their relevance to the contemporary difficulties of the European Union.

HIST2401 Modern Italy since Napoleon
School of History
Staff Contact: M Lyons
UOC6 HPW3 S1
Prerequisite/s: 36 units of credit
Excluded: EURO2401

Surveys Italian history from the creative legacy of Bonaparte to the collapse of the Christian Democrat hegemony and the anti-corruption campaigns of the 1990s. Special attention will be paid to the Risorgimento, as well as to Italy under Fascism. Discusses long term social problems such as the Mafia, migration, the Mezzogiorno, regionalsim and Italy's uneven development. Italy's relative poverty and the historic fragility of nationalist aspirations will be emphasised, but not at the expense of the 'economic miracle', or Italy's current role within the EU. Discussion material will include film and literary sources.

HIST2410 Nineteenth Century Europe 1815-1914: Bourgeois Culture, Peoples' Revolutions
School of History
Staff Contact: M Lyons
UOC6 HPW3 S1
Prerequisite/s: 36 units of credit in Arts and Social Science courses
Excluded: EURO2410.

Themes in the political, social and cultural history of 19th century Europe. One part of the course will deal with the great 19th century revolutions of 1830, 1848, 1871 and 1905. A second theme is the rise of the modern city, with special reference to the rebuilding of Paris. The course also discusses aspects of dominant bourgeois culture, including the new domestic ideology and the role of women within it. Students will be expected to discuss novels and the visual arts as well as works of historical analysis.

HIST2421 German Revolutions?
School of History
Staff Contact: G Minnerup
UOC6 HPW3 S1
Prerequisite/s: 36 units of credit in Arts and Social Science courses
Excluded: EURO2321

For a nation said to be docile followers of authority, the Germans have had rather more than their fair share of revolutions this century: the workers' revolution of 1918, Hitler's "national revolution" of 1933, the "antifascist- democratic revolution" in Eastern Germany in 1945, and most recently, the "Protestant revolution" of 1989 in the GDR which led to German reunification. Studies the events, personalities, ideas and forces involved in the four upheavals; the extent to which it is really justified to speak of them as "revolutions", and places them in the broader context of Germany's dramatic twentieth-century history as the points of transition from one regime to another.

HIST2433 The Russian Revolution
School of History
Staff Contact: J Tampke
UOC6 HPW3 S1
Prerequisite/s: 36 units of credit in Arts and Social Science courses
Excluded: RUSS2103

The Russian Revolution of 1917 was one of the major turning points of the last century and its reverberations continue to be felt in the 21st century. Analyses the principal causes of the Revolution - the economic and social specifics of 19th century Russian society, the decline of Tsarism and the crucial influence of Marxist/Leninist ideology. The Bolshevik seizure of power and the actions of its principal players, Lenin and Trotsky, are discussed in detail, as well as the aftermath of the Revolution - the catastrophic civil war of 1918-1920, the rise of the Stalinist dictatorship and the enduring impact of the Revolution on East-West relations and world history.

HIST2468 History from Crime: Interrogating the European Past
School of History
Staff Contact: H Graham
UOC6 HPW3 S2
Prerequisite/s: 36 units of credit

Investigates the historical use of sources drawn from criminal justice records. Through specific examples about Europe from the Middle Ages to the nineteenth century, this course explores narrative, numerical and textual approaches to the study of justice and criminality as well as broader issues: judicial records as sources for gender history and microhistory.

HIST2500 The Pacific War: World War II in the Asia-Pacific
School of History
Staff Contact: S Brawley
UOC6 HPW3 S2
Prerequisite/s: 36 units of credit

A trans-national study of one of the most significant events in the history of the Asia-Pacific region in the twentieth century. Deals with military, social, political and economic themes relating to the war. Topics include: origins and causes; military culture; macro and micro war strategy, the prosecution of the war; civilian life and the homefront; gender, race, labour and sex; propaganda and popular culture; legacies and representations.

HIST2650 Ancient Mediterranean: Egypt, Greece and Rome
School of History
Staff Contact: N Doumanis
UOC6 HPW3 S2
Prerequisite/s: 36 units of credit

An introduction to the ancient Mediterranean world, with special reference to the social, economic and cultural histories of Egypt, Greece and Rome. The course also covers political topics such as Athenian democracy, Greek inter-state relations, and Roman republic and imperial politics. Most subjects will involve close analysis of primary evidence, both written and archaeological.

HIST2750 From Dr Livingstone to President Mandela: Colonialism and Post-Colonialism in Southern Africa
School of History
Staff Contact: School Office
UOC6 HPW3 S1
Prerequisite/s: 36 units of credit in Arts and Social Science courses

Examines European colonial expansion across southern Africa and provides a developing historical analysis of decolonisation in post-1945 Africa; develops both thematically and geographically with a focus on the long-term impact on the entire region of the struggle against apartheid in South Africa; looks at the way in which the transition to national independence in southern Africa often resulted in civil war, military rule and/or ethnic cleansing; and attempts to unravel historical prejudices regarding southern Africa, demonstrating that although the problems of the region have deep historical roots they are by no means intractable.

HIST3900 Historiography of Southeast Asia
School of History
Staff Contact: J Gelman Taylor
UOC6 HPW3 S2
Prerequisite/s: 36 units of credit including 6 units of History at credit level
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 changes in topic, focus, perspective; and review fiction as a source for historians. Students should gain an understanding of the production of knowledge and practice writing and oral communication. No prior knowledge of Southeast Asia necessary.

HIST3901 History and Literature of the American South West 1865-1990
School of History
Staff Contact: I Bickerton
UOC6 HPW3 S2
Prerequisite/s: 36 units of credit including 6 units of History at credit level
Excluded: HIST3011

Explores the history of the American South West in the past century and a half and the literature the region has produced. The South West of the United States contains a rich and diverse amalgam of cultures, and each has recounted its experience in a stunning literature. Students will read examples of those literatures in their historical context. The course will explore a wide range of questions and issues relating to the nature and meaning of historical and poetic representations and truth.

HIST3902 Australian History and its Constructions
School of History
Staff Contact: F Farrell
UOC6 HPW3 S1 S2
Prerequisite/s: 36 units of credit including 6 units of History at credit level
Excluded: HIST3013

This course is taught by means of weekly seminars which deal 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. It 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
Staff Contact: G Karskens
UOC6 HPW3 S1
Prerequisite/s: 36 units of credit including 6 units of History at credit level

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, popular history and the use of film in history.

HIST3912 Researching and Writing History
School of History
Staff Contact: A O'Brien
UOC6 HPW3 S1
Prerequisite/s: 18 upper level units of credit in History with an average of at least 65%
Excluded: HIST3002

A weekly seminar in which students are introduced to a variety of research methods and styles of writing, eg biography, family history, use of land titles, newspapers, parliamentary papers. Students will receive hands-on experience in dealing with primary sources and visit major archives in the Sydney region.

HIST4000 History Honours (Research) Full-Time
School of History
Staff Contact: R Bell
Enrolment requires school approval
UOC24 S1 S2
Prerequisite/s: 54 units of credit in HIST at 65% including 6 units of credit from HIST3000 courses and permission of head of school

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.

HIST4050 History Honours (Research) Part-Time
School of History
Staff Contact: R Bell
Enrolment requires school approval
UOC12 S1 S2
Prerequisite/s: 54 units of credit in HIST at 65% including 6 units of credit from HIST3000 courses and permission of head of school

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.

HIST4500 Combined History Honours (Research) Full-Time
School of History
Staff Contact: R Bell
Enrolment requires school approval
UOC12 S1 S2
Prerequisite/s: 48 units of credit in HIST at 65% including 6 units of credit from HIST3000 courses and permission of head of school

This program is undertaken in two schools, eg History and Politics and International Relations, History and German Studies. Students are required to complete a research and seminar program acceptable to both schools.

HIST4550 Combined History Honours (Research) Part-Time
School of History
Staff Contact: R Bell
Enrolment requires school approval
UOC6 S1 S2
Prerequisite/s: 48 units of credit in HIST at 65% including 6 units of credit from HIST3000 courses and permission of head of school

This program is undertaken in two schools, eg History and Politics and International Relations, History and German Studies. Students are required to complete a research and seminar program acceptable to both schools.

HPST1108 Science Good, Bad and Bogus
School of Science and Technology Studies
Staff Contact: P Slezak
UOC6 HPW3 S2
Excluded: HPST1003

What is science? What are its distinctive characteristics as a form of inquiry? Why are astrology, 'creationism' or parapsychology widely considered to be pseudosciences? A critical consideration of such inquiries raises central questions concerning the nature of science, involving issues such as the nature of observation and evidence, theories and laws, explanation and prediction, etc. Issues to be considered include the 'Galileo Affair', 'science vs. religion' and relativism. These are placed in an historical context from the Ancient Greeks to twentieth-century philosophers. Also considered are the nature of scientific revolutions and 'postmodern' approaches to science.

HPST1109 Cosmos and Culture
School of Science and Technology Studies
Staff Contact: A Corones
UOC6 HPW3 S1
Excluded: HPST1107

Examines the development of science from antiquity to the seventeenth century. Covers the history of both physical and life sciences (including medicine) and places special emphasis on contextual factors. In particular, cosmological schemes are considered in the light of cultural contexts. Topics: Whig history; theory-loading and the construction of facts and theories; archaeoastronomy; Greek and Hellenistic natural philosophy; science in Late Antiquity; Medieval science; the Renaissance context; anatomy from Versalius to Harvey; the Copernican Revolution; the career and trial of Galileo.

HPST1110 Modern Science and its Discontents
School of Science and Technology Studies
Staff Contact: A Corones
UOC6 HPW3 S2
Excluded: HPST1107

Examines the development of modern science from the seventeenth century to the present. Emphasises the ways in which cultural images and ideals of 'modernity' formed around the developing sciences and their institutions. Attention is also paid to opponents and critics of these developments, from the Romantics of the 19th century, to the 'post-modernists' of the 20th century.Topics: The Scientific Revolution; Newtonianism and the Enlightenment; biomedical theory and natural history from Enlightenment mechanism through Romanticism to the new mechanism; the Darwinian Revolution; 20th century physics revolutions and their impact on philosophy of science; Big Science; the Science Wars.

HPST2106 Scientific Theory in Practice
School of Science and Technology Studies
Staff Contact: A Corones
UOC6 HPW3 S1
Prerequisite/s: 36 units of credit
Excluded: HPST2001

Focuses on theories in the practice of science, and examines not only the structure of theories, but also their life cycle from conception to crematorium: How are theories generated? How do they guide, and translate into, scientific practice? What are the dynamics of theoretical change? Under what conditions are theories discarded? Along the way, many of the classical problems of the philosophy of science get an airing: What are scientific laws? Can theories be proved true or falsified? Is there a logic of theory generation? Do theories describe the world?

HPST2107 The 'Darwinian Revolution' and the Order of Nature 1790-1890
School of Science and Technology Studies
Staff Contact: N Rasmussen
UOC6 HPW3 S1
Prerequisite/s: 36 units of credit

Examines the various theories of evolution from the early Romantic period to the later 19th century 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. At the same time looks at the major historical developments that set the stage for these scientific developments in an age of dramatic political and economic revolution.

HPST2108 Cheating Death: A History of Medicine
School of Science and Technology Studies
Staff Contact: P Hardy
UOC6 HPW3 S1
Prerequisite/s: 36 units of credit
Excluded: GENS5522, 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.

HPST2109 Computers, Brains and Minds
School of Science and Technology Studies
Staff Contact: P Slezak
UOC6 HPW3 S2
Prerequisite/s: 36 units of credit
Excluded: GENS5525, 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?

HPST2111 The Scientific Revolution
School of Science and Technology Studies
Staff Contact: J Schuster
UOC6 HPW3 S1
Prerequisite/s: 36 units of credit

Examines fundamental issues and techniques in the history and philosophy of science. Deals with the origins of modern European science, as exemplified in the work of Copernicus, Galileo, Newton and others. The social, religious, political and economic factors shaping the emergence and content of the new science are analysed. Emphasis is placed on critical historical thinking and use of tools from the sociology of scientific knowledge.

HPST2116 Defining Science: A History
School of Science and Technology Studies
Staff Contact: A Corones
UOC6 HPW3 S2
Prerequisite/s: 36 units of credit
Excluded: HPST2011

Examines the history of attempts to define and direct the scientific enterprise, from Plato and Aristotle in antiquity to the twentieth century. Questions about what scientific knowledge is, or should be, and how we should go about acquiring it, provide a focal point of discussion. The diversity of answers to these questions provides insight into not only the importance of methodological issues in the history of science, but also of the normative nature of foundational theories of science. Provides an overview of the history of the philosophy and methodology of science.

Note/s: Not recommended for students without some background in philosophy or HPST.

HPST2126 God, Life, the Universe and Everything: Science and Meaning
School of Science and Technology Studies
Staff Contact: P Slezak
UOC6 HPW3 S1
Prerequisite/s: 36 units of credit

'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? This course examines philosophical issues in epistemology, metaphysics and philosophy of science. Topics will include arguments for the existence of God and the underlying questions of evidence and explanation in science.

HPST2136 Agriculture and Civilisation in Historical Perspective
School of Science and Technology Studies
Staff Contact: N Rasmussen
UOC6 HPW3 S1
Prerequisite/s: 36 units of credit

Looks at some of the wide variety of ways civilisations have developed an agriculture to sustain them, and at how a people's way of embedding itself in the ecosystem can inform its culture. Also considers in some detail the ways in which the agriculture of Western civilisation has been transformed in the tiny span of time (evolutionarily and ecologically speaking) since the scientific revolution and the industrial revolution that followed it. An understanding of how our relations with nature came to their current state provides essential background for approaching ecological crises of the present and future.

HPST2138 Worrying Ourselves to Death? Health, Risk & Modern Medicine
School of Science and Technology Studies
Staff Contact: P Hardy
UOC6 HPW3 S2
Prerequisite/s: 36 units of credit

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?

HPST2139 Galileo, Science and Religion
School of Science and Technology Studies
Staff Contact: P Slezak
UOC6 HPW3 S1
Prerequisite/s: 36 units of credit

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.

HPST3113 Changing Images of Nature
School of Science and Technology Studies
Staff Contact: J Schuster
UOC6 HPW3 S2
Prerequisite/s: 36 units of credit

Surveys how images of nature, the environment and humankind's place in nature have been constructed and debated in the West. Begins by examining shifting images of nature between the Renaissance and the rise of Darwinism, emphasising how theories of nature have reflected, shaped and legitimated the material and cultural practices of the societies in which they appeared. Building on these historical insights, the latter portion of the course analyses and maps a range of contemporary environmental perspectives and philosophies. Particular attention is paid to students' ability to analyse contemporary environmental debates in political, philosophical and historical terms.

HPST3118 Reading Option in History and Philosophy of Science
School of Science and Technology Studies
Staff Contact: J Schuster
UOC6 HPW3 S1 S2
Prerequisite/s: 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/s: Permission for enrolment in the reading option must be obtained from the Head of School.

HPST3900 Revolution, Rationality and Progress
School of Science and Technology Studies
Staff Contact: J Schuster
UOC6 HPW3 S2
Prerequisite/s: 36 units of credit including 6 units of credit in HPST or SCTS at credit level or better
Excluded: HPST3111

Surveys central themes in the history and philosophy of science during the past three generations. Starts with the proposition, variously conceived by Popper, Kuhn and Bachelard, that the history of science is marked by periodic revolutions. It then examines debates about the progress and rationality of science triggered by these thinkers, before turning to new perspectives about discovery, experiment and scientific method which emerged in the aftermath of those debates during the 1970s and 1980s. Concludes by examining the recent return of grand narrative in the historiography of science during the past decade.

HPST4000 History and Philosophy of Science and Technology Honours (Research) Full-Time
School of Science and Technology Studies
Staff Contact: J Schuster
Enrolment requires school approval
UOC24 S1 S2
Prerequisite/s: 54 units of credit in HPST/SCTS at 65% including at least one of HPST3900 or SCTS3900

Candidates are required to present a thesis and complete coursework as approved by the Head of School.

Note/s: With the approval of the Head of School, courses outside the School carrying up to 12 units of credit may be substituted.

HPST4050 History and Philosophy of Science and Technology Honours (Research) Part-Time
School of Science and Technology Studies
Staff Contact: J Schuster

Enrolment requires school approval
UOC12 S1 S2
Prerequisite/s: 54 units of credit in HPST/SCTS at 65% including at least one of HPST3900 or SCTS3900

Candidates are required to present a thesis and complete coursework as approved by the Head of School.

Note/s: With the approval of the Head of School, courses outside the School carrying up to 12 units of credit may be substituted.

HPST4500 History and Philosophy of Science and Technology Combined Honours (Research) Full-Time
School of Science and Technology Studies
Staff Contact: J Schuster
Enrolment requires school approval
UOC12 S1 S2
Prerequisite/s: 48 units of credit in HPST/SCTS at 65% including at least one of HPST3900 or SCTS3900

For Combined Honours, candidates are required to present a thesis and complete coursework as approved by the Heads of the two participating Schools.

Note/s: With the approval of the Head of School, courses outside the School carrying up to 12 units of credit may be substituted.

HPST4550 History and Philosophy of Science and Technology Combined Honours (Research) Part-Time
School of Science and Technology Studies
Staff Contact: J Schuster
Enrolment requires school approval
UOC6 S1 S2
Prerequisite/s: 48 units of credit in HPST/SCTS at 65% including at least one of HPST3900 or SCTS3900

For Combined Honours, candidates are required to present a thesis and complete coursework as approved by the Heads of the two participating Schools.

Note/s: With the approval of the Head of School, courses outside the School carrying up to 12 units of credit may be substituted.

IBUS1001 Communicating in Business
School of International Business
Staff Contact: School Office
UOC6 HPW3 S1

This course aims at developing and extending students capacity for thinking ciritically and communicating effectively in business and professional contexts. It examines the different modes and principles of communicating, and through workshop participation, explores topics such as language and communication, interpersonal communication, group communication, intercultural communication, verbal and non-verbal communication, critical thinking, effective listening, and reasoning and argument in communication.

IBUS1101 Global Business Environment
School of International Business
Staff Contact: School Office
UOC6 HPW3 S1 & S2

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.

IBUS1102 Managing Across Cultures
School of International Business
Staff Contact: School Office
UOC6 HPW3 S2

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.

IBUS1107 Global Business Environment
School of International Business
Staff Contact: School Office
UOC6 HPW3 S1 & S2
Excluded: IBUS1101

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.

IBUS1108 Managing Across Cultures
School of International Business
Staff Contact: School Office
UOC6 HPW3 S2
Excluded: IBUS2102, IBUS1102

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.

IBUS2101 International Business and Multinational Operations
School of International Business
Staff Contact: School Office
UOC6 HPW3 S1
Prerequisite/s or Corequisite/s:IBUS1101

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.

IBUS2103 Japanese Business
School of International Business
Staff Contact: School Office
UOC6 HPW3 S2
Prerequisite/s: 48 units of credit in Arts & Social Sciences, Law, Science or Commerce & Economics.

An introduction to Japanese economy and business practice topics includes: recent Japanese business and economic performance; corporate strategy; organisational strategy and human resource management practices; impact of culture on management style and decision making; industrial organisation and business groups; corporate finance and governance; role of small and medium size enterprises quality control and just-in-time production; information structures in the Japanese firm; subcontracting and assembler-supplier relations; FDI and overseas

production; human resource management transfer; government-business relations.

IBUS2104 Korean Business
School of International Business
Staff Contact: School Office
UOC6 HPW3 S2
Prerequisite/s: 48 units of credit in Arts & Social Sciences, Law, Science or Commerce & Economics

An introduction to Korean Economy and Business practice. Topics include: Korea's economic development and growth; economic policies; government-business relations; corporate structure and enterprise groupings; Chaebol; industry system; workplace practices; decision-making procedures; business negotiations and; socio-cultural elements in business and management.

IBUS2105 Chinese Business Enterprise
School of International Business
Staff Contact: School Office
UOC6 HPW3 S1
Prerequisite/s: 48 units of credit in Arts & Social Sciences, Law, Science or Commerce & Economics

An introduction to business and management in the People's Republic of China. The nature of Chinese business enterprise and the macroeconomic, legal, cultural and operational environment. Chinese business and management practices including 'guangxi' and business negotiations. Enterprise reform, enterprise finance and stock markets, accounting and taxation, foreign trade and internationalisation, and the management of foreign investment enterprises. Australian-Chinese business relations including trade and investment links.

IBUS2107 International Business and Multinational Operations
School of International Business
Staff Contact: School Office
UOC6 HPW3 S1
Prerequisite/s or corequisite/s: IBUS1107

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.

IBUS3101 International Business Strategy
School of International Business
Staff Contact: School Office
UOC6 HPW3 S1
Prerequisite/s: IBUS1102, IBUS2101

This course covers the fundamentals of strategic management from the perspective of both large and small organisations operating internationally. It thus builds directly on prior studies in international business and focuses on corporate and business level strategies, rather than functional strategies. Particular emphasis is given to the dynamics of the competitive environment and emerging issues. Major topics include: theoretical perspectives on strategic management in the international business arena; the interface between the firm's internal and external environments; country selection; mergers and acquisitions; management of strategic alliances; the role of government in international strategy; emerging technologies and intellectual property; strategic use of international standards; and international entrepreneurship.

IBUS3102 Asia-Pacific Business
School of International Business
Staff Contact: School Office
UOC6 HPW3 S2
Prerequisite/s: IBUS1102, IBUS2101

This course focuses on competitive strategy and the comparative management of businesses across the Asia Pacific and South Asia. The course is designed to provide a strategic perspective on the macro-micro issues impacting on Asian business today. It examines the regional factors impinging upon the behaviour of Asian businesses and provides strategic insights into successful business models in the region. Critical attention is given to the external and internal environments of Asian business, the nature and sources of competitive advantage of domestic enterprises, and to the organisational aspects of developing and managing multinational and domestic enterprises across the region. The course is designed to provide students with the conceptual tools to understand: the dynamic interaction between markets and public policy guiding the behaviour of multinational and domestic enterprises within the Asia-Pacific; comparative management systems and innovation behaviour across a selection of countries namely Japan, Korea, China, India and Southeast Asia, including Taiwan, Hong Kong, Singapore and Malaysia; and perspectives in foreign direct investment in the Asia-Pacific region.

IBUS3105 International Business Strategy
School of International Business
Staff Contact: School Office
UOC6 HPW3 S1
Prerequisite/s or Corequisite/s:IBUS2107, IBUS1108; Exclusion: IBUS3101

This course covers the fundamentals of strategic management from the perspective of both large and small organisations operating internationally. It thus builds directly on prior studies in international business and focuses on corporate and business level strategies, rather than functional strategies. Particular emphasis is given to the dynamics of the competitive environment and emerging issues. Major topics include: theoretical perspectives on strategic management in the international business arena; the interface between the firm's internal and external environments; country selection; mergers and acquisitions; management of strategic alliances; the role of government in international strategy; emerging technologies and intellectual property; strategic use of international standards; and international entrepreneurship.

IBUS3106 Asia-Pacific Business
School of International Business
Staff Contact: School Office
UOC6 HPW3 S2
Prerequisite/s: IBUS2107; Exclusion IBUS3102

This course focuses on competitive strategy and the comparative management of business across the Asia Pacific and South Asia. The course is designed to provide a strategic perspective on the macro-micro issues impacting on Asian business today. It examines the regional factors impinging upon the behaviour of Asian business and provides strategic insights into successful business models in the region. Critical attention is given to the external and internal environments of Asian business, the nature and sources of competitive advantage of domestic enterprises, and to the organisational aspects of developing and managing multinational and domestic enterprises across the region. The course is designed to provide students with the conecptual tools to understand: the dynamic interaction between markets and public policy guiding the behaviour of multinational and domestic enterprises within the Asia-Pacific; comparative management systems and innovation behaviour across a selection of countries namely Japan, Korea, China, India and Southeast Asia, including Taiwan, Hong Kong, Singaport and Malaysia; and perspectives on foreign direct investment in the Asia Pacific region.

IDES1011 Workshop Technology
Industrial Design Program
Staff Contact: J Talbot
UOC4 HPW4 S1

Introduction to workshop techniques involved in the production of models and prototypes. Development of safe working practices using a range of hand tools and basic machining processes.

IDES1031 Design Studio 1
Industrial Design Program
Staff Contact: R Bernabei
UOC6 HPW4 S2
Prerequisite/s: BENV1101

To introduce students to 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.

IDES1051 Geometrical and Mechanical Drawing A
Industrial Design Program
Staff Contact: S Ward
UOC3 HPW2 S1

Introduction to orthographic drawing with particular reference to the Australian Engineering Drawing Standard. Using drawing to define forms and surfaces.

IDES1052 Geometrical and Mechanical Drawing B
Industrial Design Program
Staff Contact: School Office
UOC4 HPW2 S2
Prerequisite/s: IDES1051

Introduction to pictorial drawing including isometric projection and perspective drawing by manual drafting methods. The course also includes an introduction to Computer Aided Design (CAD) to provide students with an application of commands, orthogonal drawing, dimensioning, and handling text.

IDES1082 Engineering Design Mechanics
Industrial Design Program
Staff Contact: J Talbot
UOC4 HPW4 S2
Prerequisite/s: MATH1011

Equilibrium, Friction Systems of multiforce members, coplanar. Mass centre; centroid. Fluid statics. Plane particle kinematics; rectilinear, motion. Plane particle kinetics; equations motion; work, power, energy; impulse, momentum, impact.

IDES1121 History of Industrial Design
Industrial Design Program
Staff Contact: M Park
UOC3 HPW2 S1

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.

IDES2091 Design Methodology
Industrial Design Program
Staff Contact: L Green
UOC3 HPW2 S1
Prerequisite/s: IDES1031

Design methodology and its applications in the industrial situation, analysis of problems, strategy planning, the application of research methods. In addition the course describes the methodologies of Value Analysis, Quality Function Deployment, Design for X (manufacture, assembly, environment etc.).

IDES2101 Perspective and Rendering Techniques
Industrial Design Program
Staff Contact: J Talbot
UOC6 HPW4 S1
Prerequisite/s: BENV1101, IDES1052

Review of approaches to perspective drawing and development of rendering techniques with particular reference to their applications in product design. Project studies are undertaken within the range of systems and media.

IDES2161 Industrial Design Studio 2A
Industrial Design Program
Staff Contact: O Demirbilek
UOC6 HPW5 S1
Prerequisite/s: IDES1031

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
Staff Contact: O Demirbilek
UOC6 HPW5 S2
Prerequisite/s: 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.

IDES2171 Computer Aided Design
Industrial Design Program
Staff Contact: M Hort
UOC6 HPW4 S2
Prerequisite/s: BENV1141
Excluded: BENV2401

Computer aided design and drafting systems and their applications in product development. Students gain experience with 2 dimensional and 3 dimensional CAD systems.

IDES2182 Materials and Manufacturing Processes for Industrial Design A
Industrial Design Program
Staff Contact: J Talbot
UOC3 HPW3 S2

Description of processes for manufacturing engineering materials. Relationship between design and manufacturing processes.

IDES2201 Ergonomics
Industrial Design Program
Staff Contact: J Talbot
UOC6 HPW4 S1

Physiological and psychological aspects of ergonomics and their application to product use, work, environment effects and human/machine interface. Principles of ergonomics research methods. Analysis of ergonomic requirements within the context of product development. Ergonomic methodology and experimental methods and their application in the product research and development process.

IDES3202 Materials and Manufacturing Processes for Industrial Design B
Industrial Design Program
Staff Contact: L Green
UOC3 HPW2 S1
Prerequisite/s: IDES2182

Plastic materials and manufacturing processes are discussed together with the economics of production processes, design constraints alternate design and manufacturing strategies and test procedures.

IDES3221 Industrial Design Studio 3
Industrial Design Program
Staff Contact: M Park
UOC6 HPW5 S1
Prerequisite/s: IDES2162

The course Industrial Design Studio 3 is aimed at introducing students to more complex design problems in order to develop a thorough and responsible approach to the design of products. Projects are chosen that build up on the undertaken project work in Industrial Design Studio 2, and include projects of "real-life" complexity.

IDES3222 Industrial Design Studio 3 B
Industrial Design Program
Staff Contact: R Bernabei
UOC6 HPW5 S2
Prerequisite/s: IDES3221

This course develops the students 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 Computer Graphic Applications
Industrial Design Program
Staff Contact: J Talbot
UOC6 HPW4 S1
Prerequisite/s: IDES2171

3 dimensional modelling applications for Computer Aided Design and Manufacture including parametric modelling and 3D visualisation.

IDES3262 Production Design and Technology for Industrial Design
Industrial Design Program
Staff Contact: L Green
UOC3 HPW2 S2
Prerequisite/s: IDES3202

Basic metrology and tolerancing, introduction to plasticity theory and its application to theories for machining and forming, economics of production processes; interaction of machines and tools; principles of process selection; review of major processes, interaction of design, production quantity, materials and processes; value analysis, design constraints. Quality assurance.

IDES4291 Industrial Design Studio 4
Industrial Design Program
Staff Contact: J Talbot
UOC6 HPW4 S1
Prerequisite/s: 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 are 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
Staff Contact: J Talbot
UOC6 HPW4 S1
Prerequisite/s: IDES3222

Product research methodologies and their application to an individual project chosen in conjunction with the Program. This work provides the research basis for the Project.

IDES4311 Graphic Design
Industrial Design Program
Staff Contact: J Talbot
UOC3 HPW3 S2
Prerequisite/s: IDES1031

The major graphic production processes, and their application in graphic design. Type and typesetting systems. Graphic design projects.

IDES4321 Environmental and Interior Design for Industrial Designers
Industrial Design Program
Staff Contact: J Talbot
UOC3 HPW2 S2
Prerequisite/s: IDES2162

Understanding the nature of environmental space and spatial ambience, and the relationship of objects and products to the surrounding space. Environmental and interior design projects.

IDES4351 Project
Industrial Design Program
Staff Contact: J Talbot
UOC15 HPW12 S2
Prerequisite/s: IDES3222, IDES4301

A project within the practice areas of industrial design, chosen by the student in consultation with the program at the commencement of Project Research. The project is based upon the research base established in Project Research.

IDES4371 Design Management for Industrial Design
Industrial Design Program
Staff Contact: L Green
UOC3 HPW2 S2
Prerequisite/s: IDES2091

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.

IDES4391 Industrial Experience
Industrial Design Program
Staff Contact: J Talbot
UOC12 S1 S2
Prerequisite/s: IDES2162

Students obtain 3 months of approved practical experience in a design office. The course may be taken from the end of the second year but at least half of the requirement must be taken from the end of the third year. The course cannot be taken in units of less than 1 month. The experience is to be recorded in a logbook to be signed by the employer.

IMGT2701 Information Services and Resource Discovery
School of Info Systems, Technology & Management
Staff Contact: School Office
UOC6 HPW3 S1
Prerequisite/s: INFS1602 or in Program 3648 or 3651 or 3652

This course surveys the broad organisational, professional and personal contexts within which information needs occur and which shape the nature and format of the production of information. It examines the informational structure and content of domains, and the disciplines and fields which comprise them. The changes in communication practices that have occurred as a result of the creation of the Internet and the World Wide Web and the use of other electronic technologies, such as CD-ROM are discussed with particular attention being given to changes in the nature of, and the distribution mechanisms for, research, scholarly and business information. A survey of the range, functionality and limitations of different kinds of available information sources and services includes statistical and other research data. The determinants of the individual and institutional values placed on information are studied along with the implication of these values for search behaviour and decisions about the use of information providers or intermediaries as opposed to end-user searching. Issues associated with how retrieved information can be managed are raised and the systems in general use for this purpose are examined. Also discussed are concept of value-adding and re-packaging of information; the nature of competitive intelligence and issues of potential liability for information provided.

IMGT2702 Information, Knowledge and Society
School of Info Systems, Technology & Management
Staff Contact: School Office
UOC6 HPW3 S2

The problems of managing the enormous mass and variety of information are prominent features of the information society. The course canvasses the roles and functions of the various forms and formats of information, such as text, image and sound, in business, professional, academic and scientific practice, and in government administration. It examines how information in the form of social, legal and cultural products with economic, recreational and educative value is produced and consumed. It deals with the transformations that are occurring in the institutional arrangements society makes for managing access to information, through libraries, museums, archives and directly through the Web and the Internet. Issues related to the new technologies for communication and the relationship between knowledge, information and power are addressed.

IMGT2703 Electronic Records Systems
School of Info Systems, Technology & Management
Staff Contact: School Office
UOC6 HPW3 S2
Prerequisite/s: INFS1602 or in Program 3648 or 3651 or 3652

This course provides an introduction to best practice in the management of electronic records. Issues that impact on electronic records management are the focus of the course, which explores the creation and management of records within the organisational context. These include legal requirements, accountability and the role records systems play in managing documents as strategic resources. Current approaches are covered concerning electronic records management, the records lifecycle, and the inter relationship with strategic organisational planning for information systems infrastructure.

IMGT3702 Text Information Retrieval Systems
School of Info Systems, Technology & Management
Staff Contact: School Office
UOC6 HPW3 TBA

This course introduces students to text information retrieval (IR); develops an understanding of the structure of text IR systems and an appreciation of how they differ from other Information Systems; provides an opportunity to apply principles of textual information organization by designing and creating a text-based database using IR systems packages; examines the effects of textual file structure on IR capabilities; provides online searching opportunities on a range of text databases using general and advanced IR principles; and introduces the tools and principles used in the performance evaluation of text databases.

INDC2040 Physical Process Chemistry
School of Chemical Eng and Industrial Chemistry
Staff Contact: J Heuts
UOC6 HPW6 S1
Prerequisite/s: CHEM1021 or CHEM1041

Definitions of Classical thermodynamics. Pressure-Volume-temperature properties of industrially important fluids. Applications of thermochemistry in industry. Conversion of heat into work. Concept of lost work. Heat engines and refrigeration cycles. General properties of solutions. Maximum conversion of reactants in batch and flow reactors. Reactor design and chemical kinetics. Reaction rates in industrial batch and flow reactors. Electrochemical principles in the context of important industrial electrochemical processes. Properties and applications of electrolytes. Industrial electrochemical processes, electrodes and cells. Surface phenomena. An integrated laboratory incorporating experiments designed to demonstrate the basic principles covered in the lecture course.

INDC3051 Process Chemistry and Operation
School of Chemical Eng and Industrial Chemistry
Staff Contact: M Skyllas-Kazacos
UOC4 HPW4 S2
Prerequisite/s: CEIC2110, INDC2040

Chemical aspects of high temperature materials; thermodynamics and kinetics of reactions in the solid state; phase equilibria in condensed systems; gas-solid and liquid-solid reactions. Selection of materials for chemical plant. Strength and corrosion resistance of less common materials of fabrication. Chemical and electrical aspects of corrosion and their application to corrosion problems encountered in the chemical process industries. Electrochemical kinetics. Design factors for corrosion prevention. Methods of corrosion prevention.

INDC3070 Instrumentation and Process Control 1
School of Chemical Eng and Industrial Chemistry
Staff Contact: School Office
UOC3 TBA
Prerequisite/s: 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.

INDC3110 Industrial & Environmental Chemistry
School of Chemical Eng and Industrial Chemistry
Staff Contact: P Crisp
UOC6 HPW6 S1
Prerequisite/s: 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. Soil chemistry. Occupational diseases. Smogs and acid rain. Toxic elements and compounds. Toxic waste disposal. Industrial accidents. Atmospheric structure and chemistry. Greenhouse warming. The Ozone hole. Nuclear energy. Alternative energy sources. Water analysis. Air analysis. Occupational health.

INDC3120 Industrial Chemistry Practice
School of Chemical Eng and Industrial Chemistry
Staff Contact: J Heuts
UOC6 HPW6 S2
Prerequisite/s: 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 Eng and Industrial Chemistry
Staff Contact: T Tran
UOC4 HPW4 S1
Prerequisite/s: 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 Eng and Industrial Chemistry
Staff Contact: T Tran
UOC4 HPW4 S1
Prerequisite/s: 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.

INDC4080 Seminars
School of Chemical Eng and Industrial Chemistry
Staff Contact: School Office
UOC4 S1 S2

Students are required to deliver two lectures on selected topics, one related to some aspect of chemical technology, and the other to their research project. The intention is to develop skill in oral expression, as well as ability in critical evaluation and logical presentation. Opportunity is taken, where appropriate, to arrange for guest

INDC4091 Research Project Theory
School of Chemical Eng and Industrial Chemistry
Staff Contact: J Heuts
UOC12 HPW11 S1 S2
Prerequisite/s: 132 units of credit

The subject 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 Eng and Industrial Chemistry
Staff Contact: J Heuts
UOC12 S1 S2
Prerequisite/s: INDC4091

The experimental investigation of some aspect of an elected topic area in Industrial Chemistry.

INDC4094 Small Research Project Practice
School of Chemical Eng and Industrial Chemistry
Staff Contact: J Heuts
UOC8 S1 S2
Prerequisite/s: INDC4093

The subject 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 Eng and Industrial Chemistry
Staff Contact: P Crisp
UOC3 S1 S2

Prerequisite/s: CHEM1101, CHEM1201 or CHEM1011 and CHEM1021 or CHEM1031 and CHEM1041

Soil chemistry. Occupational diseases. Smogs and acid rain. Toxic elements and compounds. Toxic waste disposal. Industrial accidents. Atmospheric structure and chemistry. Greenhouse warming. The Ozone hole. Nuclear energy. Alternative energy sources. Water analysis. Air analysis. Occupational health.

INDC4805 Small Research Project Theory
Staff Contact: J Heuts
UOC8 HPW8 S1

The subject requires that the student elects a topic in Industrial Chemistry, undertake a literature survey on that topic and produce a report.

INDO1001 Introductory Indonesian A1
Department of Chinese & Indonesian
Staff Contact: R Machali
UOC6 HPW6 S1

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/s: Excluded 2 or 3 Unit HSC Indonesian or equvalent or native speakers of Indonesian and Malay.

INDO1002 Introductory Indonesian A2
Department of Chinese & Indonesian
Staff Contact: D Reeve
UOC6 HPW6 S2
Prerequisite/s: INDO1001

Further consolidation and development of language skills acquired in INDO1001.

Note/s: Excluded 2 or 3 Unit HSC Indonesian or equivalent or native speakers of Indonesian or Malay.

INDO1101 Intermediate Indonesian B1
Department of Chinese & Indonesian
Staff Contact: R Machali
UOC6 HPW5 S1

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.

INDO1102 Intermediate Indonesian B2
Department of Chinese & Indonesian
Staff Contact: R Machali
UOC6 HPW5 S2
Prerequisite/s: INDO1101

Further consolidation and development of language skills acquired in INDO1101.

INDO2001 Intermediate Indonesian A1
Department of Chinese & Indonesian
Staff Contact: R Fallick
UOC6 HPW5 S1
Prerequisite/s: 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/s: Excluded HSC Indonesian LBS or equivalent.

INDO2002 Intermediate Indonesian A2
Department of Chinese & Indonesian
Staff Contact: R Fallick
UOC6 HPW5 S2
Prerequisite/s: INDO2001

Further development and consolidation of communicative skills and broad knowledge of contemporary Indonesian society.

Note/s: Excluded HSC Indonesian LBS or equivalent.

INDO2101 Advanced Indonesian B1
Department of Chinese & Indonesian
Staff Contact: S Piper
UOC6 HPW4 S1
Prerequisite/s: INDO1102
Excluded: INDO3001

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.

INDO2102 Advanced Indonesian B2
Department of Chinese & Indonesian
Staff Contact: S Piper
UOC6 HPW4 S2
Prerequisite/s: INDO2101
Excluded: INDO3002

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.

INDO3001 Advanced Indonesian A1
Department of Chinese & Indonesian
Staff Contact: S Piper
UOC6 HPW4 S1
Prerequisite/s: 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/s: Excluded HSC Indonesian LBS or equivalent.

INDO3002 Advanced Indonesian A2
Department of Chinese & Indonesian
Staff Contact: S Piper
UOC6 HPW4 S2
Prerequisite/s: 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/s: Excluded HSC Indonesian LBS or equivalent.

INDO3025 Interpreting and Translation Studies
Department of Chinese & Indonesian
Staff Contact: R Machali
UOC6 HPW3 X1
Prerequisite/s: INDO1102 or INDO2002 at credit level

This course is designed for students who are competent in both Indonesian and English. It builds on students' general proficiency to develop linguistic and conceptual skills specific to interpreting and translating activities and contexts. Students develop an understanding of analytical, linguistic, and cross-cultural factors affecting interpreting and translating from Indonesian into English and vice versa.

Note/s: Open to native speakers.

INDO3101 Advanced Indonesian C
Department of Chinese & Indonesian
Staff Contact: R Fallick
UOC6 HPW4 S1
Prerequisite/s: INDO3101

Advanced learning in communication skills needed to function in a range of professional, formal and social settings. These include public debate and formal discussion on topics such as current affairs, literary criticism and Indonesian writings on Australia. Students may specialise if they wish.

Note/s: Open to native speakers.

INDO3102 Advanced Indonesian D
Department of Chinese & Indonesian
Staff Contact: D Reeve
UOC6 HPW4 S2
Prerequisite/s: INDO3101

An opportunity to pursue students areas of interest, with an emphasis on the specialised skills required.

Note/s: Open to native speakers.

INDO3500 Contemporary Indonesian Society A
Department of Chinese & Indonesian
Staff Contact: D Reeve
UOC6 HPW3 S2
Prerequisite/s: 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/s: Open to native speakers.

INDO4000 Indonesian Honours Research Full-Time
Department of Chinese & Indonesian
Staff Contact: R Machali
Enrolment requires school approval
UOC24 S1 S2
Prerequisite/s: 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
Staff Contact: R Machali
Enrolment requires school approval
UOC12 S1 S2
Prerequisite/s: 48 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
Staff Contact: R Machali
Enrolment requires school approval
UOC12 S1 S2
Prerequisite/s: 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
Staff Contact: R Machali
Enrolment requires school approval
UOC6 S1 S2
Prerequisite/s: 54 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.

INFS1602 Computer Information Systems
School of Info Systems, Technology & Management
Staff Contact: School Office
UOC6 HPW3 S1 S2

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 Info Systems, Technology & Management
Staff Contact: School Office
UOC6 HPW3 S1 S2

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 Info Systems, Technology & Management
Staff Contact: School Office
UOC3 HPW1.5 S2

This half subject 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 Info Systems, Technology & Management
Staff Contact: School Office
UOC6 HPW3 S1 S2
Prerequisite/s: INFS1602, 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 Info Systems, Technology & Management
Staff Contact: School Office
UOC6 HPW3 S2
Prerequisite/s: INFS1602
Excluded: INFS2617

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 Info Systems, Technology & Management
Staff Contact: School Office
UOC6 HPW3 S1
Prerequisite/s: INFS1602, INFS1603

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 Info Systems, Technology & Management
Staff Contact: School Office
UOC3 HPW1.5 S2
Prerequisite/s: INFS1602

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.

INFS2617 Global Data Networks
School of Info Systems, Technology & Management
Staff Contact: School Office
UOC6 HPW3 S2
Prerequisite/s: INFS1602
Excluded: INFS2607

Data communications concepts, computer networks, reference to international standards and common industry communications software packages; local/metropolitan/wide area networks; network management; tele-communications services and other options; data security.

INFS2691 Industrial Training 1
School of Info Systems, Technology & Management
Staff Contact: School Office
UOC6 HPW1 S1
Prerequisite/s: 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.

Note/s: Available only in Program 3971.

INFS2791 Industrial Training A
School of Info Systems, Technology & Management
Staff Contact: School Office
UOC6 HPW3 S1
Prerequisite/s: 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.

Note/s: Available only to BCom ISM Co-op students.

INFS3603 Business Intelligence Systems
School of Info Systems, Technology & Management
Staff Contact: School Office
UOC6 HPW3 S1
Prerequisite/s: INFS1602, 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 Info Systems, Technology & Management
Staff Contact: School Office
UOC6 HPW3 S2
Prerequisite/s: 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 Info Systems, Technology & Management
Staff Contact: School Office
UOC6 HPW3 S1
Prerequisite/s: INFS2603 and either INFS2609 or COMP1021

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.

INFS3606 Telecommunications for Electronics Commerce
School of Info Systems, Technology & Management
Staff Contact: School Office
UOC6 HPW3 S2
Prerequisite/s: INFS2607
Excluded: INFS3618

This course considers the strategic issues in telecommunications in business; current and emerging technologies for data networking; and the specification of corporate networks including local and wide area networks; a detailed understanding of the Internet protocol suite; TCP/IP - IP version 4, subnets, TCP, UDP, inter-router protocols, multicasting, IP version 6; security threats, Internet application security issues, firewalls, encryption, digital signatures, network management; and an understanding of non TCP/IP peer to peer networking protocols.

INFS3608 Advanced Database Systems
School of Info Systems, Technology & Management
Staff Contact: School Office
UOC6 HPW3 S1
Prerequisite/s: INFS1602, INFS1603

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 Info Systems, Technology & Management
Staff Contact: School Office
UOC6 HPW3 S1
Prerequisite/s: INFS2603

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.

INFS3616 Commercial Programming Principles
School of Info Systems, Technology & Management
Staff Contact: School Office
UOC6 HPW3 S2
Prerequisite/s: INFS3605
Corequisite/s: INFS3692

This course focuses on the advanced treatment of the practice of implementing commercial systems. Topics include: the use of library code; program design for performance; project control and reporting practice; programming standards; interactive interface; software testing; CASE tools; documentation; security and control and maintenance.

Note/s: Available only to BIT students.

INFS3618 Advanced Global Data Networks
School of Info Systems, Technology & Management
Staff Contact: School Office
UOC6 HPW3 S2
Prerequisite/s: INFS2607 or INFS2617
Excluded: INFS3606

Strategic issues in telecommunications in business. Current and emerging technologies in data networking. Specification of corporate networks including local and wide area networks.

INFS3621 Alternative System Design Methodologies
School of Info Systems, Technology & Management
Staff Contact: School Office
UOC3 HPW1.5 S1
Prerequisite/s: INFS2603

This course reviews current systems analysis methodologies, including the process-driven approach, data-driven approach, object-oriented approach and general approaches such as Soft Systems Methodology. It examines the foundations and philosophies, lifecycle stages and resource demands, applied modeling tools and beneficial applications of each approach.

INFS3622 Distributed Application Design and Implementation
School of Info Systems, Technology & Management
Staff Contact: School Office
UOC3 HPW1.5 S1
Prerequisite/s: INFS2603

This course considers the design and implementation of distributed and client/server applications. Specific topics include the design, coding, testing and implementation of distributed applications; middleware (eg. CORBA) and its impact on the application design; and distributed computing environments.

INFS3623 Multimedia Systems Design
School of Info Systems, Technology & Management
Staff Contact: School Office
UOC3 HPW1.5 S2
Prerequisite/s: INFS2603

This course teaches the cognitive principles, concepts and design techniques required in implementing multimedia information systems. Students also gain practical experience with the use of commercial multimedia design software.

INFS3685 Electronic Commerce Management
School of Info Systems, Technology & Management
Staff Contact: School Office
UOC6 HPW3 S1
Prerequisite/s: INFS2603

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 Info Systems, Technology & Management
Staff Contact: School Office
UOC9 HPW1 S2
Prerequisite/s: INFS3605, currently enrolled in program 3971

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/s: Available only in Program 3971.

INFS3792 Industrial Training B
School of Info Systems, Technology & Management
Staff Contact: School Office
UOC9 HPW4.5 S2
Prerequisite/s: 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/s: Available only to BCom ISM Co-Op Students.

INFS4693 Industrial Training 3
School of Info Systems, Technology & Management
Staff Contact: School Office
UOC9 HPW1 S1
Corequisite/s: INFS3611

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/s: Available only in Program 3971.

INFS4774 Information Systems Security
School of Info Systems, Technology & Management
Staff Contact: School Office
Enrolment requires school approval
UOC6 HPW3 S1
Prerequisite/s: Entry to Honours plan majoring in Information Systems in Commerce or Science, or program 3971

Reviews concepts, theory, methodologies and techniques discussed in IS security literature and practice. Includes: information systems security management, risk analysis and management, physical and logical security, database and telecommunications security, continuity planning, computer abuse, internet and electronic commerce, legal and social issues. Case studies will provide students with an understanding of computerised security techniques in practice.

INFS4793 Industrial Training C
School of Info Systems, Technology & Management
Staff Contact: School Office
UOC9 HPW1 S1
Prerequisite/s: 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/s: Available only to BCom ISM Co-Op Students.

INFS4795 Thesis Part A
School of Info Systems, Technology & Management
Staff Contact: School Office
Enrolment requires school approval
UOC6 S1 S2
Prerequisite/s: Entry to Honours plan majoring in Information Systems in Commerce or Science, or program 3971

The thesis is undertaken in the last two semesters 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/s: Available only to Year 4 Honours students.

INFS4796 Thesis Part B
School of Info Systems, Technology & Management
Staff Contact: School Office
Enrolment requires school approval
UOC18 S1 S2
Prerequisite/s: Entry to Honours plan majoring in Information Systems in Commerce or Science, or program 3971

The thesis is undertaken in the last two semesters 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/s: Available only to Year 4 Honours students.

INFS4805 Information Systems Auditing
School of Info Systems, Technology & Management
Staff Contact: School Office
UOC6 HPW3 S2
Prerequisite/s: Entry to Honours plan majoring in Information Systems in Commerce or Science, or program 3971

Management of information systems audit and the evaluation of IT management. Analysis and review of internal controls in contemporary comupter 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 Info Systems, Technology & Management
Staff Contact: School Office
UOC6 HPW3 S1
Prerequisite/s: Entry to Honours plan majoring in Information Systems in Commerce or Science, or program 3971

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 Info Systems, Technology & Management
Staff Contact: School Office
UOC6 HPW3 S2
Prerequisite/s: Entry to Honours plan majoring in Information Systems in Commerce or Science, or program 3971

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.

INFS4812 Software Engineering Management
School of Info Systems, Technology & Management
Staff Contact: School Office
UOC6 HPW3 S1
Prerequisite/s: Entry to Honours plan majoring in Information Systems in Commerce or Science, or program 3971

Software engineering management and measurement of complex systems, software development maturity, project planning and management, estimation models and techniques, project scheduling, software quality, reliability, assurance, software productivity models.

INFS4848 Information Systems Project Management
School of Info Systems, Technology & Management
Staff Contact: School Office
UOC6 HPW3 S2
Prerequisite/s: Entry to Honours plan majoring in Information Systems in Commerce or Science, or program 3971

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 skills, and negotiation skills. Case studies of and examples from software development projects wil be used as illustrations.

INFS4853 Information Systems Management
School of Info Systems, Technology & Management
Staff Contact: School Office
UOC6 HPW3 S2
Prerequisite/s: Entry to Honours plan majoring in Information Systems in Commerce or Science, or program 3971

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 take the subject INFS4848/INFS5848 before this course.

INFS4857 Information and Decision Technology
School of Info Systems, Technology & Management
Staff Contact: School Office
UOC6 HPW3 S1
Prerequisite/s: Entry to Honours plan majoring in Information Systems in Commerce or Science, or program 3971.

In a knowledge-based economy, organisational prosperity will largely depend on how successful knowledge workers are at creating and applying new ideas productively and efficiently. This course examines the role of information and models of managerial decision making and prediction; the role of information systems in decision making; assessing the value of information systems and the contribution of information in decision making under uncertainty; the role of information in managerial prediction and forecasting; the development of computer based models to support tactical management.

INFS4886 Research Topics in Information Systems 1
School of Info Systems, Technology & Management
Staff Contact: School Office
Enrolment requires school approval
UOC6 HPW3 S1
Prerequisite/s: Entry to Honours plan majoring in Information Systems in Commerce or Science, or program 3971

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 Info Systems, Technology & Management
Staff Contact: School Office
Enrolment requires school approval
UOC6 HPW3 S2
Prerequisite/s: Entry to Honours plan majoring in Information Systems in Commerce or Science, or program 3971

The objective of this course is to enable the students of information systems research to carry out data analysis using statistical tools for 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 Info Systems, Technology & Management
Staff Contact: School Office
UOC6 HPW3 S1
Prerequisite/s: Entry to Honours plan majoring in Information Systems in Commerce or Science, or program 3971

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 exisiting 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 Info Systems, Technology & Management
Staff Contact: School Office
Enrolment requires school approval
UOC6 HPW3 S1 S2
Prerequisite/s: Entry to Honours plan majoring in Information Systems in Commerce or Science, or program 3971

A specially assigned project, program or set of readings relating to information systems research.

INFS4898 Project Seminar
School of Info Systems, Technology & Management
Staff Contact: School Office
UOC6 HPW3 S1 S2

Note/s: Available to Science Hons only.

INOV2101 The Creative Enterprise
Faculty of Science
Staff Contact: W Bridge
UOC6 X2

The course gives students a fundamental and practical introduction to the innovation and commercialization processes of the bioscience industry. Material covered includes introductions to, the psychology and strategies for creativity and idea generation, action, strategic and business planning, technical evaluations, benchmarking, market research, intellectual property, and funding. The lectures, workshops and case studies are delivered by a team of university academics and expert industry professionals. Students gain a broad-picture of what is involved in the creation, development and management of a business with fulls-on immersion via workshops that lead into the Acclerated Young Achievement Program (assignment component). Students that successfully complete the YAA program requirements will be awarded a Certificate of Small Business Management from YAA.

Note/s: This course is only available to students enrolled in the Diploma in Innovation Management. Coursework comprises 35 hours during Winter Session and performance of the YAA assignment during Session 2.

INOV2121 Professional Skills of Innovators
Faculty of Science
Staff Contact: W Bridge
UOC6 X1
Prerequisite/s: INOV2101

The course material provides a theoretical and practical instruction in evaluating, communicating and marketing technical information and ideas. Workshops focus on the development of the student's interpersonal skills including persuasion, negotiation, networking, business ethics and leadership. The assignment component reinforces these skills through the preparation of written and oral presentations aimed at effective communication of technically complex research proposals to both lay and technical audiences.

Note/s: This course is only available to students enrolled in the Diploma in Innovation Management. Coursework comprises 35 hours during Summer Session and performance of the assignment during Session 1.

INOV3101 Practical Business Skills
Faculty of Science
Staff Contact: W Bridge
UOC6 X2
Prerequisite/s: INOV2101

The course covers an introduction of accounting and economic principles with a focus on the special considerations and parameters particular to the high technology industry sectors. Tutorials and workshops involve the interpretation and preparation of budgets, cost analyses, market projections and financial statements for models of both established and proposed businesses. For the assignment component, student teams prepare a Business Plan for the commercial exploitation of a real high technology opportunity.

Note/s: This course is only available to students enrolled in the Diploma in Innovation Management. Coursework comprises 35 hours during Winter Session and performance of the assignment during Session 2.

INOV3121 Protecting and Developing IP
Faculty of Science
Staff Contact: W Bridge
UOC6 S2
Excluded: BIOT3071

Course material focuses on the definition, procedures, preparation, role, value and management of protected intellectual property (IP) in the commercial exploitation of biotechnology based innovation. Business development options and strategies are discussed in terms of corporate structures, R&D funding and capital raising, joint ventures, strategic alliances, and public listings. Consideration is given to Australian and international regulatory and legislative aspects of genetically modified organisms (GMOs) with particular focus on environmental considerations regarding their use in the agricultural and food industries. Other aspects covered include, the concepts and role for good manufacturing practice (GMP) for therapeutics; regulatory procedures for biotechnology derived therapeutics, and procedures for process validation. Assignments involve detailed analyses of biotechnology companies for IP portfolios, funding, financials and product pipelines. Students develop an understanding of stock market procedures by competing in the NASDAQ Stock Exchange game.

INOV3131 Bio-business Workshop
Faculty of Science
Staff Contact: W Bridge
UOC6 X1
Prerequisite/s: INOV2101, INOV2121, INOV3101, INOV3121

The course is presented as an intensive workshop involving local and overseas bio-business representatives. Presenters will discuss examples of successful and unsuccessful business opportunities in the Life Sciences/ Biotechnology area. Workshops involve detailed risk analysis of various US/Australian start-up options and strategies. For the assignment component student teams are required to start-up virtual high technology companies based on the student business plans previously prepared in the course INOV3101.

Note/s: This course is only available to students enrolled in the Diploma in Innovation Management. Coursework comprises 35 hours during Summer Session and performance of the assignment during Session 1.

INOV4101 Innovation in Practice
Faculty of Science
Staff Contact: W Bridge
UOC6 S1 S2 X1 X2

The course will require 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/s: This course is only available to students enrolled in the Diploma in Innovation Management.

INOV4201 Innovation in Practice (12 Unitsof Credit)
Faculty of Science
Staff Contact: W Bridge
UOC12 S1 S2 X1 X2

The course will require 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/s: This course is only available to students enrolled in the Diploma in Innovation Management.

INST1000 World History: The Big Picture
School of History
Staff Contact: N Doumanis
UOC6 HPW3 S1
Prerequisite/s: Enrolment in program 3414, 3415 or 3416
Excluded: ASIA1000, HIST1016

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.

INST1001 International Relations in the 20th Century
School of Politics and International Relations
Staff Contact: M Wesley
UOC6 HPW3 S1
Prerequisite/s: Enrolment in program 3414, 3415 or 3416
Excluded: 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.

INST2000 Making/Unmaking the Third World: History & Global Development II
Department of Spanish and Latin American Studies
Staff Contact: J Levy
UOC6 HPW3 S1
Prerequisite/s: Enrolment in program 3413 or 3414 or 3415 or 3416 and 36 units of credit
Excluded: COMD2020, HIST2061, SPAN2429

This course (which is the second part of a two-part sequence, either part of which can be taken discretely) explores the history of global inequality in the twentieth century. Some of the themes considered include: colonialism and its legacies; the history of the idea of development; the state in economic development; the World Bank and the IMF; and the question of globalisation.

INST2001 World History: The Twentieth Century
School of History
Staff Contact: M Berger
UOC6 HPW3 S2
Prerequisite/s: Enrolment in program 3413 or 3414 or 3415 or 3416 and 36 units of credit
Excluded: HIST2000

Focuses on the major forces and features of twentieth century history. The emphasis is on international history and the main themes which will be examined include colonialism, nationalism, decolonisation, and the rise and demise of the Cold War. The course will also put the post-Cold War era in historical perspective.

INTA2101 Design Studio 1
Interior Architecture Program
Staff Contact: H Stephens
UOC6 HPW5 S1

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
Staff Contact: H Stephens
UOC6 HPW5 S2

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
Staff Contact: H Stephens
UOC3 HPW2 S1

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
Staff Contact: H Stephens
UOC3 HPW2 S2

An introduction to the process of designing by successive approximations of the whole. An inquiry into the appropriate relationship between the whole and the part in the natural order and in the designed artefact. The role of the central idea in design. An investigation of measure, number and geometry as a means of both quantifying and qualifying spatial arrangements for human habitation and participation.

INTA2114 Program Exhibition Design
Interior Architecture Program
Staff Contact: L Zamberlan
Enrolment requires school approval
UOC3 S1 S2
Prerequisite/s: INTA2101, INTA2102

This course will encompass the entirety of the creation, management, administration and organisation of the end of session student exhibition. A maximum of 10 students will be selected to liase with staff, industry and the student body to showcase excellence in the Interior Architecture program. This course serves as a precurser to the graduating student exhibition. Students need to submit expressions of interest to Lisa Zamberlan.

INTA2115 European Study Tour
Interior Architecture Program
Staff Contact: L Zamberlan
UOC6 S1 S2

An intensive two week tour in which students are required to participate in design based workshops/installations to be completed/exhibited on tour. A maximum of 15 students will be selected to participate in architectural tours, industry events and academic workshops. Students are required to submit expressions of interest to Lisa Zamberlan.

INTA2121 History 1
Interior Architecture Program
Staff Contact: School Office
UOC3 HPW1 S1

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
Staff Contact: School Office
UOC3 HPW1 S2

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
Staff Contact: H Stephens
UOC6 HPW4 S1 S2

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.

INTA2142 Communications 2
Interior Architecture Program
Staff Contact: H Stephens
UOC6 HPW4 S1 S2

An extension of fundamental presentation and communication skills established in Communications 1. Explorations of a variety of compositional modelling and media techniques will extend into discipline-specific drawing practices. A series of structured workshops will develop skills in freehand and technically constructed perspective, axonometric, isometric, skiagraphy and rendering techniques. Seminars on scholarly research and writing; report and letter writing; skills for working with and making oral presentations to large and small groups. Practical research project involving access issues.

INTA2171 Technology 1
Interior Architecture Program
Staff Contact: School Office
UOC6 HPW4 S1

Environmental Science and Structures:- Environmental Science: Introduction to architectural environmental sciences and structures with particular focus upon concepts of social responsibility, environmental accountability and ecological sustainability and their implications for the urban/built and natural environments. Examples of various constructional systems and their relationship to ESD will be examined. Structures: an introduction to basic structural behaviour and its relationship to construction technology. 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.

INTA2172 Technology 2
Interior Architecture Program
Staff Contact: School Office
UOC6 HPW4 S2

Construction/Drafting: 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 timber structures, small-scale masonry construction with a brief analysis of constructional principles. 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.

INTA2201 Design Studio 3
Interior Architecture Program
Staff Contact: L Zamberlan
UOC6 HPW5 S1
Prerequisite/s: 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; number, geometry and 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; the physics and poetics of natural and artificial lighting; construction detailing as a design activity.

INTA2202 Design Studio 4
Interior Architecture Program
Staff Contact: L Zamberlan
UOC6 HPW5 S2
Prerequisite/s: 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; responsible energy use; passive energy systems; construction detailing as a design activity.

INTA2211 Theory 3
Interior Architecture Program
Staff Contact: H Stephens
UOC3 HPW2 S1
Prerequisite/s: 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
Staff Contact: H Stephens
UOC3 HPW2 S2
Prerequisite/s: INTA2111, INTA2112

Meaning in architecture. The role of cosmology, anthropology and morphology in the development of sound theory. Instinct, emotion, memory, perception, conception, imagination, intuition and intellect as the means whereby we 'read' our world. The role of semiology, metaphor, analogy, allegory and symbolism in architecture. The spiritual dimension of humankind and the world and its reflection in the great works of art and architecture.

INTA2221 History 3
Interior Architecture Program
Staff Contact: School Office
UOC3 HPW1 S1
Prerequisite/s: INTA2111, 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
Staff Contact: School Office
UOC3 HPW1 S2

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
Staff Contact: L Zamberlan
UOC3 HPW3 S1 S2
Prerequisite/s: 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
Staff Contact: School Office
UOC3 HPW2 S1
Prerequisite/s: INTA2171, INTA2172

Materials and Detailing:- Materials: Materials used within the built environment may be understood with reference to their 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.

INTA2272 Technology 4
Interior Architecture Program
Staff Contact: School Office
UOC3 HPW2 S2
Prerequisite/s: INTA2171, INTA2172

Structures and Construction:- Structures: The structures component should include the introduction to an outline of structural systems and their resolution into safe and rigid structures. The mathematical description of structures shall be included in this course including the basic structural analysis techniques and problem solving tools; physical, graphical, numerical and computer assisted. An introduction to basic statics and the properties and strengths of materials including constructional and environmental issues in design. Construction: Advanced documentation using AutoCAD to produce a series of drawings.

INTA2301 Design Studio 5
Interior Architecture Program
Staff Contact: W MacMahon
UOC6 HPW5 S1

Design projects dealing with small to medium scale commercial, retail or public facilities. Emphasis on the use of the computer in the design process. Core Considerations: materials and meaning in architecture; furniture and fitments; 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
Staff Contact: W MacMahon
UOC6 HPW5 S2

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; estimating, cost planning and budgeting.

INTA2371 Technology 5
Interior Architecture Program
Staff Contact: School Office
UOC3 HPW2 S1
Prerequisite/s: INTA2271, INTA2272

Lighting and Acoustics:- Lighting: Environment. Natural and artificial lighting. Quantitative and qualitative aspects of lighting design. Electric light sources, light control and prediction methods. Skills for carrying out a sun analysis and the design of a small lighting design. Acoustics: Acoustics and noise control, design of a room's basic shape and volume, acceptable ambient sound levels. Acoustic performance: properties and behaviour of sound, sound transmission loss, external noises level, structure-borne and impact sound. Reverberation times, selection of building envelope elements, selection of interior building materials and elements.

INTA2372 Technology 6
Interior Architecture Program
Staff Contact: School Office
UOC3 HPW2 S2
Prerequisite/s: INTA2271, INTA2272

Thermal Design and Building Services:- Thermal Design: Integration of passive design strategies into buildings. There will be an introduction to thermal evaluation and design tools, correlation and simulation models. Building Services: Building services, regulations and standards: air-conditioning, plumbing, telecommunications, 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
Staff Contact: M Lester
UOC3 HPW2 S2
Prerequisite/s: 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. It will comprise an introduction to all legal aspects that surround Interior Architecture practice and will cover the law of contract, torts, agency, trade practices, and property. It will also introduce the various types of companies, partnerships and sole practices and discuss issues of copyright, intellectual property, patents and trademarks. Allowance has been made for students to undertake a period 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. See the course description of INTA2482 for more information.

INTA2401 Design Studio 7
Interior Architecture Program
Staff Contact: S Serle
UOC6 HPW5 S1
Prerequisite/s: 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
Staff Contact: H Stephens
UOC15 HPW4 S1 S2
Prerequisite/s: 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 pricis of which is to form part of the final submission in this course.

INTA2411 Dissertation
Interior Architecture Program
Staff Contact: H Stephens
UOC6 HPW3 S1

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 pricis of the dissertation will be submitted as part of the final presentation of the Graduation Project.

INTA2441 Project Research
Interior Architecture Program
Staff Contact: H Stephens
UOC6 HPW3 S1
Prerequisite/s: INTA2302
Corequisite/s: INTA2411

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
Staff Contact: M Lester
UOC3 HPW2 S1
Prerequisite/s: INTA2382

The course will examine practical and legal aspects of design practice including issues of professional indemnity, professional liability, professional ethics and code of conduct; methods of fee structure, advanced issues in the conditions of engagement, contract variations and general project administration systems; costing and estimating principles, bills of quantities and general budgeting for project control. 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 Course 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.

IROB1701 Industrial Relations
School of Industrial Relations and Org Behaviour
Staff Contact: B Dabscheck
UOC6 HPW3 S1 S2

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 arbitration tribunals and government instrumentalities with respect to industrial relations.

IROB1702 Labour Organisation
School of Industrial Relations and Org Behaviour
Staff Contact: D Fieldes
UOC6 HPW3 S2

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.

IROB1712 Management of Organisations
School of Industrial Relations and Org Behaviour
Staff Contact: L Taksa
UOC6 HPW3 S1

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 and attitudes to work; social and political influences on group behaviour; teamwork and other managerial interventions; leadership and motivation; gender, EEO and human resource management.

IROB2702 Industrial Law
School of Industrial Relations and Org Behaviour
Staff Contact: S Hammond
UOC6 HPW3 S1
Prerequisite/s: IROB1701 or IROB1702 or IROB1712

Looks at the nature and purposes of the legal system and industrial law; the law concerning the contract of employment; trade unions; industrial law; powers of Government; and the Commonwealth Conciliation and Arbitration System, awards, penal sanctions for industrial law, industrial torts, topics and issues of importance in the industrial law field.

IROB2703 International Employment Relations
School of Industrial Relations and Org Behaviour
Staff Contact: I Hampson
UOC6 HPW3 S1
Prerequisite/s: IROB1701 or IROB1702 or IROB1712 or IBUS2102

This course explores recent changes in the theory and practice of employment relations in light of the changes captured in the concept of globalisation, in particular concerns that increased international competition can erode conditions of work. The course examines employment relations models in an increasingly globalised context, and explores the transfer of best practice work organisation. Possible mechanisms for the defence of labour standards are considered, including making their maintenance a part of trade liberalisation and investment treaties through the enforcement mechanisms of such institutions as the World Trade Organisation. Topics covered include: globalisation, model employment relations systems, the International Labour Organisation and the defence of labour standards, international unionism and the future of unions, diverse national management systems, the relations between employment relations systems, economic performance and social protection.

IROB2704 Social Organisation of Work
School of Industrial Relations and Org Behaviour
Staff Contact: D Fieldes
UOC6 HPW3 S2
Prerequisite/s: IROB1701 or IROB1702 or IROB1712

Covers the conceptual foundations of industrial sociology, and their application to work practices and institutions. The course will look at the rise of industrial capitalism and trade unionism, work and non-work (including the question of domestic labour), the labour process and work organisation, conflict and control, occupations and the division of labour, divisions in the workforce, technology, skill formation, productivity and flexibility, and the changing nature of work in the late 20th century.

IROB2715 Labour History
School of Industrial Relations and Org Behaviour
Staff Contact: School Office
UOC6 HPW3 TBA
Prerequisite/s: IROB1701 or IROB1702 or IROB1712

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 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; and the impact of radical ideologies; immigrant and Aboriginal workers and the role of women in paid employment.

IROB2718 Human Resource Management
School of Industrial Relations and Org Behaviour
Staff Contact: J O'Brien
UOC6 HPW3 S1
Prerequisite/s: IROB1701 or IROB1702 or IROB1712

Looks at management of paid employment in Australia. It covers contemporary management thinking; issues in managing people - problem solving, leadership, power, communications and managing in an organisation - group dynamics and supervision, setting goals and performance appraisal, developing individual and organisational resources, career planning.

IROB2721 Managing People
School of Industrial Relations and Org Behaviour
Staff Contact: D Fieldes
Enrolment requires school approval
UOC6 HPW3 S1

Focuses on managing in a rapidly changing environment. Topics include: leadership, decision-making and innovation; power, legitimacy, and the socialisation process; the structure and design of organisations, organisation and domination, the evolution of ethical awareness; intergroup conflict and conflict resolution; skills of managing - communication, negotiation, coaching and objectives setting; organisational culture and transformation.

IROB2724 Health and Safety at Work
School of Industrial Relations and Org Behaviour
Staff Contact: M Quinlan
UOC6 HPW3 S1
Prerequisite/s: IROB1701 or IROB1702 or IROB1712

Examines the incidence, origins and management of occupational health and safety problems. It assesses the contribution of technical and social science disciplines to understanding and addressing occupational injury and disease. The role of management, government and trade unions in addressing health and safety will also be critically assessed. Topics covered include the incidence and nature of occupational illness; theories of injury causation; explaining occupational disease; occupation stress; shiftwork; repetition strain injury; the regulation of occupational illness; workers compensation and rehabilitation; management and union approaches; safety engineering; noise; hazardous substances; and case study.

IROB3702 International Human Resource Management Practice
School of Industrial Relations and Org Behaviour
Staff Contact: J Holt
UOC6 HPW3 S1
Prerequisite/s: IROB1701 or IROB1702 or IROB1712 or IBUS2102

Examines from both applied and theoretical perspectives the effect of national culture on the processes and systems associated with managing human resources across cultural boundaries, as in the case of multinational corporations. The opening topics look at the conceptual and methodological difficulties and challenges facing the practice and research of International HRM. Other topics include: the role of culture in configuring the perceptions and actions of managers and subordinates; HRM systems as cultural artefacts; the clash between culturally diverse indigenous HRM frameworks; and the problems associated with transferring HR management systems across cultural boundaries. Also examines practical issues such as: the selection, preparation, training and management of expatriates, host-country nationals and third-country nationals for international assignments, developing intercultural competence, managing cultural adaptation at the individual and system levels, and the HR processes involved in staffing joint venture partnerships. Case study material used throughout the course is drawn from both Asia-Pacific and European regions.

IROB3705 Management and Employment Relations
School of Industrial Relations and Org Behaviour
Staff Contact: C Wright
UOC6 HPW3 S1
Prerequisite/s: IROB1701 or IROB1702 or IROB1712

Covers: organisations of employers; employer organisation structure and strategy; employer associations relations with firms; multi-employer and single employer bargaining; corporate strategy; the structure of private and public sector organisations in relation to their environments; management values and ideology regarding employee motivation and regulation; management strategy and practice regarding employees and unions; the personnel and industrial relations function; line management and employee relations; management effectiveness in employee relations.

IROB3706 Industrial Relations Policies and Processes
School of Industrial Relations and Org Behaviour
Staff Contact: M Quinlan
UOC6 HPW3 S2
Prerequisite/s: IROB1701 or IROB1702 or IROB1712

Focuses on institutional structures, policies and procedures in industrial relations conflict resolution under arbitration and bargaining. Topics include: theoretical aspects; problems and issues in arbitration and bargaining; models of bargaining and arbitration; compulsory arbitration in the context of collective bargaining and the relative merits of the two methods under varying standards for evaluation; new work patterns, flexibility and award restructuring.

IROB3707 Industrial Relations Research Methods and Thesis Workshop
School of Industrial Relations and Org Behaviour
Staff Contact: School Office
Enrolment requires school approval
UOC6 HPW3 S2

This course is designed as an advanced level course for students intending to complete the fourth year Honours program in industrial relations. It will examine the history and philosophy of industrial relations theory and research methods. It consists of two parts: (i) an overview of competing disciplines and paradigms employed to understand industrial relations phenomena, and their epistemological and ontological foundations; and (ii) a more practical treatment of research methodology and thesis writing. Topics include disciplinary perspectives on industrial relations, the foundations of social science and competing paradigms, identifying a research topic, research design, and research methods including case study and field research, legal scholarship, historical method, and survey design and analysis.

IROB3708 History and Philosophy of Human Resource Management
School of Industrial Relations and Org Behaviour
Staff Contact: School Office
Enrolment requires school approval
UOC6 HPW3 S2

This course is designed as an advanced level course for students intending to complete the fourth year Honours program in human resource management. It examines the philosophical foundations of various approaches and the contribution of the various social science disciplines to the study of HRM. The course will also provide students with research design and execution skills. Topics include disciplinary perspectives on HRM, the foundations of social science and competing paradigms used in HRM, identifying a research topic, research design, and research methods including case study and field research, legal scholarship, historical methods, and survey design and analysis.

IROB3721 Negotiation, Bargaining and Advocacy
School of Industrial Relations and Org Behaviour
Staff Contact: D Chin
UOC6 HPW3 S2
Prerequisite/s: IROB1701 or IROB1702 or IROB1712

Aims to give students studying industrial relations and/or human resource management practical skills in the areas of industrial and workplace negotiation, bargaining and advocacy. The subject examines the content, character and making of industrial awards and agreements, with special emphasis on industrial tribunal processes and negotiation and advocacy in relation to paid employment. Students also receive a practical grounding in the requirements of particular policies and regulations governing employment relations, including Enterprise Bargaining, Equal Opportunity and Affirmative Action, Occupational Health and Safety, and Termination of Employment. In addition, the subject provides appropriate theoretical perspectives on these and related employment issues.

IROB3724 Strategic Human Resource Management
School of Industrial Relations and Org Behaviour
Staff Contact: T Wilcox
UOC6 HPW3 S2
Prerequisite/s: IROB2718

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.

IROB3728 Managing Pay and Performance
School of Industrial Relations and Org Behaviour
Staff Contact: A Junor
UOC6 HPW3 S2
Prerequisite/s: IROB1701 or IROB1702 or IROB1712

Examines contemporary remuneration and performance management from both applied and theoretical perspectives, emphasising theories, practices and forces associated with the current trend away from traditional fixed, job-based pay to variable, person-based and performance-based remuneration. Topics covered include: HRM and the New Pay, motivation theory, fair pay, job evaluation, pay for skill and competencies, merit pay, recognition awards, performance appraisal vs performance management, broadbanding, team-based pay, gainsharing, employee share ownership, and executive pay. Also examines strategies for achieving an efficient and equitable mix of pay methods appropriate to particular levels of the workforce, from senior executives to non-managerial workers. Case study material is used throughout.

IROB3729 Managing Workplace Training
School of Industrial Relations and Org Behaviour
Staff Contact: I Hampson
UOC6 HPW3 S2
Prerequisite/s: IROB1701 or IROB1702 or IROB1712

Skill formation and training have become central features of public policy and human resource management. 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.

IROB4731 Case Studies A
School of Industrial Relations and Org Behaviour
Staff Contact: School Office
Enrolment requires school approval
UOC6 HPW3 S1 S2
Prerequisite/s: IROB3706

Case studies highlight a range of employment issues at the plant or local level. Students also prepare their own case study for seminar presentation.

IROB4732 Case Studies B
School of Industrial Relations and Org Behaviour
Staff Contact: School Office
Enrolment requires school approval
UOC6 HPW3 S1 S2
Prerequisite/s: IROB3706

Case studies highlight a range of employment issues at the industry and national level. Students also prepare their own case study for seminar presentation.

IROB4733 Honours Seminar
School of Industrial Relations and Org Behaviour
Staff Contact: School Office
Enrolment requires school approval
UOC12 HPW3 S1
Prerequisite/s: Admission to Honours program in Industrial Relations

IROB4734 Thesis (Industrial Relations)
School of Industrial Relations and Org Behaviour
Staff Contact: School Office
UOC12 HPW3 S2
Prerequisite/s: IROB3707 and admission to Honours in Industrial Relations

IROB4736 Industrial Relations Honours
School of Industrial Relations and Org Behaviour
Staff Contact: School Office
Enrolment requires school approval
UOC24 S1 S2

A thesis of 20,000 words, Industrial Relations seminar (both Sessions), and two approved IROB courses (one per Session). Details of approved courses may be obtained from the Head of School. Students undertaking this honours year program should enrol only in IROB4736.

IROB4737 Industrial Relations 4 (Honours) P/T
School of Industrial Relations and Org Behaviour
Staff Contact: School Office
Enrolment requires school approval
UOC12 S1 S2

A thesis of 20,000 words, Industrial Relations seminar and two approved IROB courses. Details of approved courses may be obtained from the Head of School. Students undertaking this honours program part time should enrol only in IROB4737.

IROB4738 Thesis (Human Resource Management)
School of Industrial Relations and Org Behaviour
Staff Contact: School Office
Enrolment requires school approval
UOC12 HPW3 S1 S2
Prerequisite/s: IROB3708 and admission to Honours in Industrial Relations

IROB4740 Human Resource Management 4 (Honours)F
School of Industrial Relations and Org Behaviour
Staff Contact: School Office
Enrolment requires school approval
UOC24 S1 S2

A thesis of 20,000 words, Human Resource Management seminar (both Sessions), two approved IROB courses (one per Session). Details of approved courses may be obtained from the Head of School. Students undertaking this honours year program should enrol only in IROB4740.

IROB4741 Human Resource Management 4 (Honours) P/T
School of Industrial Relations and Org Behaviour
Staff Contact: School Office
Enrolment requires school approval
UOC12 S1 S2

A thesis of 20,000 words, Human Resource Management seminar, two approved IROB courses. Details of approved courses may be obtained from the Head of School. Students undertaking this honours program part time should enrol only in IROB4731.

JAPN1000 Japanese Communication 1A
Department of Japanese and Korean Studies
Staff Contact: W Armour
UOC6 HPW6 S1 X1

Introduction to modern Japanese interactive skills, ie. listening, speaking, reading, writing, rules of communication, and socio-cultural knowledge of present-day Japan and local Japanese community, essential to basic survival interaction with Japanese. Emphasis on conversational skills. Hiragana, katakana and approximately 50 kanji are introduced.

JAPN1001 Japanese Communication 1B
Department of Japanese and Korean Studies
Staff Contact: W Armour
UOC6 HPW6 S2 X1
Prerequisite/s: JAPN1000

Further development of interactive skills in basic Japanese, regarding everyday non-technical topics. Introduction of approximately 150 new kanji.

JAPN2000 Japanese Communication 2A
Department of Japanese and Korean Studies
Staff Contact: Y Hashimoto
UOC6 HPW5 S1 X1
Prerequisite/s: 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 and Korean Studies
Staff Contact: Y Hashimoto
UOC6 HPW5 S2 X1
Prerequisite/s: JAPN2000

Consolidation of oral-aural skills up to intermediate level. Development of reading and writing skills, with another 150 kanji introduced.

JAPN2300 Professional Japanese Communication
Department of Japanese and Korean Studies
Staff Contact: School Office
UOC6 HPW3 S1
Prerequisite/s: JAPN1001
Excluded: JAPN3001

Students develop communicative competence in spoken and written professional Japanese at early intermediate level, relevant to a variety of business and commercial situations. The course emphasises professional language use including both linguistic and para-linguistic politeness.

JAPN2500 Japanese Society, Culture and Economy
Department of Japanese and Korean Studies
Staff Contact: School Office
UOC6 HPW3 S1
Prerequisite/s: 36 units of credit
Excluded: JAPN3900

An introduction to Japanese society, history, culture, politics and economy. Topics include social stratification, the role of women, demographic change, the education system, electoral politics, interest-group representation, Japan's economic growth, agriculture and industrial development, the role of the state, Japan's underworld Yakuza and traditional Kabuki theatre.

JAPN2501 Minorities in Japan: Ethnic and Cultural Diversity
Department of Japanese and Korean Studies
Staff Contact: School Office
UOC6 HPW3 S2
Prerequisite/s: 36 units of credit

Examines the traditional cultures and histories and the contemporary conditions and experiences of "old-timer" minorities such as the Ainu, Burakumin, Koreans and Okinawans as well as of various "new-comer" minorities such as the increasing "Asian" and Brazilian-Japanese communities in Japan.

JAPN2600 Hospitality Japanese
Department of Japanese and Korean Studies
Staff Contact: School Office
UOC6 HPW3 S2
Prerequisite/s: JAPN2000
Excluded: JAPN4000

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.

JAPN2700 Japanese Contemporary Culture
Department of Japanese and Korean Studies
Staff Contact: School Office
UOC6 HPW3 S2
Prerequisite/s: JAPN1001

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.

JAPN3000 Japanese Communication 3ADepartment of Japanese and Korean Studies
Staff Contact: School Office
UOC6 HPW5 S1
Prerequisite/s: 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 150 new Kanji are introduced.

JAPN3001 Japanese Communication 3B
Department of Japanese and Korean Studies
Staff Contact: C Thomson
UOC6 HPW5 S2
Prerequisite/s: 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 150 Kanji are introduced.

JAPN3500 Business Japanese
Department of Japanese and Korean Studies
Staff Contact: K Okamoto
UOC6 HPW3 S2

Prerequisite/s: JAPN3000
Excluded: JAPN4100

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.

JAPN3900 Introduction to Japanese Studies (Advanced)
Department of Japanese and Korean Studies
Staff Contact: School Office
UOC6 HPW3 S1
Prerequisite/s: 36 units of credit including 6 units of Japanese at credit level
Excluded: JAPN2500

Introduces a wide range of areas in Japanese Studies, such as society, history, politics, economy, law, culture, and language. Explores topics such as ageing society, gender roles, the education system, and Japan's current economic restructuring, with an emphasis on critical examination of research in these fields.

JAPN3901 Special Topics in Japanese (Advanced)
Department of Japanese and Korean Studies
Staff Contact: H Masumi-So
Enrolment requires school approval
UOC6 HPW3 S1
Prerequisite/s: JAPN2001 or equivalent plus credit average in JAPN courses
Excluded: JAPN4400.

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 (Pre-Honours)
Department of Japanese and Korean Studies
Staff Contact: School Office
Enrolment requires school approval
UOC6 HPW3 S2
Prerequisite/s: JAPN3000 or equivalent plus credit average in JAPN courses
Excluded: JAPN4401

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.

JAPN4000 Japanese Communication 4A
Department of Japanese and Korean Studies
Staff Contact: H Masumi-So
UOC6 HPW5 S1
Prerequisite/s: JAPN3001

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.

JAPN4001 Japanese Communication 4B
Department of Japanese and Korean Studies
Staff Contact: School Office
UOC6 HPW5 S2
Prerequisite/s: JAPN4000

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.

JAPN4100 Japanese Communication 5A
Department of Japanese and Korean Studies
Staff Contact: School Office
UOC6 HPW5 S1
Prerequisite/s: JAPN4001

Focuses on mid-advanced Japanese interactive skills. Increasing emphasis is placed upon further development of reading and writing abilities. Autonomous learning is encouraged and assisted in acquisition of more advanced interactive skills. Students are given opportunities to improve on competence in professional and business settings. Approximately 250 new Kanji are introduced.

JAPN4101 Japanese Communication 5B
Department of Japanese and Korean Studies
Staff Contact: School Office
UOC6 HPW5 S2
Prerequisite/s: JAPN4100

Honing of reading and writing skills attained in JAPN4100. Continued instruction in more advanced conversational and grammatical structures and useful vocabulary for the purpose of business /professional and related areas of communication. A further 250 Kanji are introduced.

JAPN4200 Japanese Communication 6A
Department of Japanese and Korean Studies
Staff Contact: School Office
UOC6 HPW4 S1
Prerequisite/s: JAPN4101

Concentrates on further acquisition of interactive skills required in a wider variety of Australia-Japan contact situations. Continued emphasis on autonomous learning and self-monitoring of problem areas in interactive skills. Approximately 250 new Kanji are introduced.

JAPN4201 Japanese Communication 6B
Department of Japanese and Korean Studies
Staff Contact: School Office
UOC6 HPW4 S2
Prerequisite/s: JAPN4200

Refining of linguistic and communicative skills acquired in JAPN4200. Another 250 Kanji are introduced, ie. the remaining Jooyoo Kanji.

JAPN4300 Advanced Reading in Japanese A
Department of Japanese and Korean Studies
Staff Contact: School Office
UOC6 HPW3 S1
Prerequisite/s: JAPN4201

Provides opportunity for advanced learners of Japanese with intensive and extensive reading in the language on selected topic(s). Accumulation of Kanji, vocabulary and idiomatic expressions is emphasised.

JAPN4301 Advanced Reading in Japanese B
Department of Japanese and Korean Studies
Staff Contact: School Office
UOC6 HPW3 S2
Prerequisite/s: JAPN4300

Learners are required to continue reading on the selected topic(s) from JAPN4300, prepare a paper and give a formal oral presentation to a group of native Japanese speakers.

JAPN4500 Japanese Honours (Research) Full-Time
Department of Japanese and Korean Studies
Staff Contact: School Office
Enrolment requires school approval
UOC24 S1 S2
Prerequisite/s: 54 units of credit including JAPN3900, JAPN3901 AND JAPN3902 at an average of at least 65% and permission of Head of Department

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/s: Students who complete the honours program with JAPN4101 or higher will be recognised as having completed the Japanese Studies Advanced Program.

JAPN4550 Combined Japanese Honours (Research) Full Time
Department of Japanese and Korean Studies
Staff Contact: School Office
Enrolment requires school approval
UOC12 S1 S2
Prerequisite/s: 48 units of credit including JAPN3900 and JAPN3901 or JAPN3902 at an average of at least 65% and permission of Head of Department.

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/s: Students who complete the honours program with JAPN4101 or higher will be regarded as having completed the Japanese Studies Advanced Program.

JWST1000 The Modern Jewish Experience: Emancipation to the Holocaust
School of Politics and International Relations
Staff Contact: K Kwiet
UOC6 HPW3 S1

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
Staff Contact: I Bickerton
UOC6 HPW3 S2

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.

JWST2000 Jews in Modern Society
School of Politics and International Relations
Staff Contact: G Levey
UOC6 HPW3 S1
Prerequisite/s: 36 units of credit
Excluded: POLS2033

Introduces students to the social scientific study of the Jews and their communities in the modern period. Focus is on the different paths of Jewish emancipation in Western societies, the impact of modernisation on Jewish life, and the significance of the Holocaust and the establishment of the State of Israel for contemporary Jewish identity. Themes include: occupational, educational, and social class transformations; religious, ethnic, and communal forms of Jewish identification; Jews and others; political allegiances; Israel-Diaspora relations; and assimilation and intermarriage.

JWST2001 Jews, States and Citizenship
School of Politics and International Relations
Staff Contact: G Levey
UOC6 HPW3 S2
Prerequisite/s: 36 units of credit
Excluded: POLS2034

Examines tensions in the relationship of Jews to the governing principles of liberal states. Focuses on cases and controversies in France, Britain, Australia, Canada, the United States and Israel about the political recognition of Jewish religious practices and group interests. Topics include: church-state separation; affirmative action; free speech; state recognition and support of Jewish practices; multiculturalism as a new public policy and a challenge to Jews; Israel as a liberal and a Jewish state.

JWST2101 Holocaust and Genocide in Historical Perspective
School of Politics and International Relations
Staff Contact: G Levey
UOC6 HPW3 S2
Prerequisite/s: 36 units of credit
Excluded: HIST2074

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.

JWST2102 History of the Arab-Israeli Conflict
School of History
Staff Contact: I Bickerton
UOC6 HPW3 S2
Prerequisite/s: 36 units of credit
Excluded: HIST2023, HIST2030

Examines the Historical Background and present state of Arab-Israeli relations. Topics include: early Zionism, the Balfour Declaration, Jewish settlement before and after World War I; the Mandate period; the Holocaust; the creation of Israel; major issues in Arab-Israeli relations since 1948.

JWST2103 The German-Jewish Experience
School of Modern Language Studies
Staff Contact: J Milfull
UOC6 HPW3 S1
Prerequisite/s: 36 units of credit
Excluded: EURO2300, 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.

JWST2202 The Australian-Jewish Experience
School of Politics and International Relations
Staff Contact: G Levey
UOC6 HPW3 S2
Prerequisite/s: 36 units of credit
Excluded: HIST2102

Jewish settlement in Australia began with European colonisation; the Jews were the first ethnic minority to emerge in Australian society. Focuses on issues of acceptance and discrimination; the key periods of Jewish migration (the 1890s, the 1930s and the post-1945 period); the contribution of Jews to Australian society, and comparisons with other English-speaking countries.

JWST2203 Women in Contemporary Judaism, Islam and Christianity
School of Politics and International Relations
Staff Contact: G Levey
UOC6 HPW3 S1
Prerequisite/s: 36 units of credit

Examines the role and significance of women in Judaism, Christianity and Islam. The focus is on feminist discourse both within and outside of these three traditions, and on the diversity of voices ranging from women who endeavour to overturn established paradigms to others who find new meanings in the rereading of ancient texts and the renewal of almost forgotten rituals. Special attention is paid to women's writings from developing countries. Topics include sexual politics, bio-ethics and the impact of religious fundamentalism on the lives of women.

KORE1000 Korean Communication 1A
Department of Japanese and Korean Studies
Staff Contact: G Evon
UOC6 HPW6 S1

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-gul, is taught progressively.

KORE1001 Korean Communication 1B
Department of Japanese and Korean Studies
Staff Contact: G Evon
UOC6 HPW6 S2
Prerequisite/s: 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.

KORE1100 Structures of Korean Language A
Department of Japanese and Korean Studies
Staff Contact: S Koh
UOC6 HPW5 S1

Intensive study of Korean grammatical structures for students with some knowledge of spoken Korean who need to refine their written skills. Focuses on accuracy of spelling Korean words. Comprehensive grammar reviews are provided, along with reading and listening exercises. Uses authentic texts containing basic aspects of Korean culture and society.

Assumed Knowledge:Some background knowledge of the Korean language.

KORE1101 Structures of Korean Language B
Department of Japanese and Korean Studies
Staff Contact: S Koh
UOC6 HPW5 S2
Prerequisite/s: KORE1100.

Continuation of KORE1100 and includes further study of grammatical structures. Reviews Korean grammar with a special focus on complete sentence structures. Enables students to comprehend complex texts by using grammatical knowledge.

KORE2000 Korean Communication 2A
Department of Japanese and Korean Studies
Staff Contact: School Office
UOC6 HPW5 S1
Prerequisite/s: 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 and Korean Studies
Staff Contact: S Shin
UOC6 HPW5 S2
Prerequisite/s: 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 and Korean Studies
Staff Contact: G Evon
UOC6 HPW3 S1
Prerequisite/s: 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 and Korean Studies
Staff Contact: G Evon
UOC6 HPW3 S2
Prerequisite/s: 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 and Korean Studies
Staff Contact: School Office
UOC6 HPW5 S1
Prerequisite/s: 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 and Korean Studies
Staff Contact: S Shin
UOC6 HPW5 S2
Prerequisite/s: 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 Intermediate Korean A
Department of Japanese and Korean Studies
Staff Contact: S Koh
UOC6 HPW4 S1
Prerequisite/s: KORE3001
Excluded: KORE2100

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 Intermediate Korean B
Department of Japanese and Korean Studies
Staff Contact: S Koh
UOC6 HPW4 S2
Prerequisite/s: 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 Advanced Korean A
Department of Japanese and Korean Studies
Staff Contact: S Koh
UOC6 HPW4 S1
Prerequisite/s: KORE3401
Excluded: KORE3100

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 Advanced Korean B
Department of Japanese and Korean Studies
Staff Contact: S Koh
UOC6 HPW4 S2
Prerequisite/s: KORE3500
Excluded: KORE3101

Continuation of 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 for Special Purposes A
Department of Japanese and Korean Studies
Staff Contact: School Office
UOC6 HPW3 S1
Prerequisite/s: KORE3401 or KORE3501 or KORE3101

Special topics in Korean language study. Extends and consolidates advanced language skills with a special emphasis on practical application of these skills to professional settings, such as translation, Business Korean, Korean language in institutional settings and other socio-cultural language studies.

KORE3601 Korean for Special Purposes B
Department of Japanese and Korean Studies
Staff Contact: S Shin
UOC6 HPW3 S2
Prerequisite/s: KORE3600

Continuation of KORE3600. Extends and consolidates advanced language skills with special emphasis on the practical application of these skills to professional settings, such as translation, discourse analysis, literary text analysis and language education.

KORE3900 Introduction to Korean Studies (Advanced)
Department of Japanese and Korean Studies
Staff Contact: G Evon
UOC6 HPW3 S1
Prerequisite/s: 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 Special Topics in Korean Studies (Advanced)
Department of Japanese and Korean Studies
Staff Contact: School Office
UOC6 HPW3 S1
Prerequisite/s: 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 and Korean Studies
Staff Contact: School Office
Enrolment requires school approval
UOC24 S1 S2
Prerequisite/s: 54 units of credit, including KORE3900, KORE2600 and KORE3901 at 65% and permission of Head of Department

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.

LAND1102 Landscape Design 2: Design Process
Landscape Architecture Program
Staff Contact: L Corkery
UOC4 HPW3 S2
Prerequisite/s: LAND1101
Corequisite/s: 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
Staff Contact: J Weirick
UOC3 HPW2 S1

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
Staff Contact: J Weirick
UOC4 HPW2 S2

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
Staff Contact: L Corkery
UOC4 HPW3 S2

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
Staff Contact: L Corkery
UOC4 HPW3 S1

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
Staff Contact: L Corkery
UOC8 HPW6 S2
Prerequisite/s: GEOG1701

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
Staff Contact: L Corkery
UOC4 HPW3 S2

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
Staff Contact: C Evans
UOC8 HPW6 S1
Prerequisite/s: 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
Staff Contact: L Corkery
UOC8 HPW6 S2
Prerequisite/s: 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
Staff Contact: L Corkery
UOC3 HPW2 S1

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
Staff Contact: J Weirick
UOC3 HPW6 S2

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/s: LAND1222 is not a course and should not appear on your enrolment.

LAND1251 Advanced Horticulture
Landscape Architecture Program
Staff Contact: L Corkery
UOC4 HPW2 S1
Prerequisite/s: 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
Staff Contact: L Corkery
UOC4 HPW3 S1

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
Staff Contact: L Corkery
UOC3 HPW3 S2

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.

LAND1281 Professional Practice 1
Landscape Architecture Program
Staff Contact: L Corkery
UOC3 HPW2 TBA

An introduction to the practice of landscape architecture, its scope and potential. The framework of commercial and environmental law. Project stages and procedures. Contracts, consultancy and client relationships. Current issues in landscape practice.

LAND1301 Landscape Design 5: Design with a Complex Program
Landscape Design 5
Landscape Architecture Program
Staff Contact: L Corkery
UOC9 HPW6 S1
Prerequisite/s: LAND1202

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.

LAND1302 Landscape Design 6: Design Resolution and Documentation
Landscape Architecture Program
Staff Contact: L Corkery
UOC9 HPW6 S2
Prerequisite/s: LAND1301

This studio will focus on design resolution and documentation of one project. Students will develop skills in detailing, use of materials and CADD.

LAND1321 Research Methods
Landscape Architecture Program
Staff Contact: C Evans
UOC3 HPW2 S2

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
Staff Contact: C Evans
UOC4 HPW2 S2

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
Staff Contact: L Corkery
UOC3 HPW3 S1

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
Staff Contact: L Corkery
UOC12 S1 S2

Students are required to obtain 45 days of practical industry experience during enrolment in the program. This requirement for practical experience is a prerequisite for entry into the fourth year course LAND1402 Landscape Design 8.

LAND1382 Professional Practice 2
Landscape Architecture Program
Staff Contact: L Corkery
UOC3 HPW2 TBA

Understanding of legal and professional responsibilities with specific reference to negligence and risk. Understanding of contract law and tender procedures. Application of specific statutes such as tree law, copyright, trademarks and patents.

LAND1401 Landscape Design 7: Urban Landscape Design
Landscape Architecture Program
Staff Contact: J Weirick
UOC12 HPW8 S2
Prerequisite/s: LAND1302

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
Staff Contact: J Weirick
UOC12 HPW8 S2
Prerequisite/s: LAND1481
Corequisite/s: LAND1401

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
Staff Contact: C Evans
UOC15 S1
Prerequisite/s: LAND1321

A specialised individual study, enabling each student to gain or extend knowledge and understanding in some aspect of landscape architecture. 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 in week 14. 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.

Note/s: The proposed topic area must be approved by the Course Authority and the Program Head.

LAND1481 Landscape Practice 2
Landscape Architecture Program
Staff Contact: School Office
UOC12 S1 S2

Students are required to obtain 45 days of landscape design office experience during enrolment in the program. This requirement for

practical experience is a prerequisite for entry into the fourth year course LAND1402 Landscape Design 8.

LATN1000 Introductory Latin A
School of Modern Language Studies
Staff Contact: R Pitcher
UOC6 HPW5 S1

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, 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/s: Excluded HSC Latin or equivalent.

LATN1001 Introductory Latin B
School of Modern Language Studies
Staff Contact: R Pitcher
UOC6 HPW5 S2
Prerequisite/s: 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/s: Excluded HSC Latin or equivalent.

LATN2001 Reinventing the Past: Roman Mythological Epic
School of Modern Language Studies
Staff Contact: R Pitcher
UOC6 HPW3 S1
Prerequisite/s: 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
Staff Contact: R Pitcher
UOC6 HPW2 S2
Prerequisite/s: 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
Staff Contact: School Office
UOC6 HPW4 S1

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, homicide and criminal defences.

LAWS1002 Advanced Criminal Law
Faculty of Law
Staff Contact: D Brown
UOC8 HPW4 S2
Prerequisite/s: LAWS1001, LAWS1011; or LAWS1610
Corequisite/s: 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, criminal responsibility, defences and criminal process.

LAWS1011 Criminal Law 2
Faculty of Law
Staff Contact: School Office
UOC6 HPW4 S2
Prerequisite/s: 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 public order offences, drug offences, offences against the person, offences of dishonest acquisition, attempts, complicity, conspiracy, sentencing and penal practices.

LAWS1031 Information Technology Law
Faculty of Law
Staff Contact: G Greenleaf
UOC8 HPW4 X1

This computer law course - known informally as Cyberspace Law - examines the law governing the use of computing and data communications technologies, with a strong emphasis on the law of 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. A range of electronic commerce issues are touched on. No prior computing knowledge is required, and no computer use is required during the course. Computing and data communications concepts are explained where necessary. Please note that this course is usually taught via the internet rather than by face-to-face classes. Further details are on the subject web pages (http://www2.austlii.edu.au/itlaw/).

LAWS1032 Computer Applications to Law
Faculty of Law
Staff Contact: G Greenleaf
UOC8 HPW4 S1

A hands-on introduction to the uses lawyers can make of computer technology, including expert systems (systems that give legal advice), hypertext, free-text retrieval and automated document generation. There is a strong emphasis on the use of these technologies over the Internet. Topics may include: principles and performance measurement of hypertext and free-text retrieval; special problems of legal applications; global systems over the Internet; litigation support and court technologies; computerised representation of legal knowledge; different types of legal expert systems; principles of automated document generators; policy implications for access to law, the delivery of legal services and the rule of law. Examples of the practical uses of each technology are demonstrated and considered critically. Students will design and create their own internet legal resources incuding databases, hypertext, document generators and expert systems using programs provided, and with the world-wide-web as the main development platform. Prior computer knowledge is not required, but some experience in the use of microcomputers, and particularly word processing, is an advantage. Experience in computerised legal research, particularly internet legal research, is desirable. Classes take place in the Faculty Microcomputer Lab and enrolment is therefore limited. The course will be taught by a combination of seminars, internet delivery and computer lab instruction.

LAWS1033 Communications Law
Faculty of Law
Staff Contact: School Office
UOC8 HPW4 S2

This course provides an overview of the main laws that regulate the structure and content of the media and communications industries in Australia. These include rules about who can establish, own and control media and communications businesses, the regulation of media content (censorship, defamation, contempt, laws affecting journalists, advertising 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, the Microsoft anti-trust case and the commercial radio "cash-for-comment" inquiry. The course provides an excellent

introduction to areas of media and communications law which can be studied in more detail in the LLM program.

LAWS1051 Legal System
Faculty of Law
Staff Contact: School Office
UOC3 HPW4 S1

This course considers the legal significance of the arrival of the British in Australia, the principal institutions of the legal system and their historical roles, interrelationships, operation and techniques. The course considers the State Constitutions development up to Federalism, and the move to independence from British institutions such as the Imperial Parliament and the Privy Council. The course emphasises the doctrine of precedent and statutory interpretation in theory and practice in relation to these institutions. A number of torts are then studied, notably the intentional torts, nuisance and the rise of the tort of negligence.

LAWS1061 Torts
Faculty of Law
Staff Contact: School Office
UOC6 HPW4 S2
Prerequisite/s: LAWS1051

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 nervous shock, for pure economic loss and the liability of statutory authorities and occupiers. Vicarious liability, defences and the law relating to the assessment of damages are covered as well as breach of statutory duty and aspects of product liability and compensation under statutory schemes. The course is studied through extensive discussion of a relatively limited number of leading cases and statutes so that students are able to build up their understanding through their own analysis of case law and statutes. 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 (eg corrective justice) 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
Staff Contact: School Office
UOC3 HPW2 X1

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 distinguishes these from obligations incurred under other branches of the legal system. It then notes briefly the historical development of contract law and some contemporary social and economic influences upon it. After dealing with these aspects, the course examines systematically the legal principles governing the formation of contracts. Finally, it gives special attention to the manner in which developments in the law of estoppel can result in a non-contractual statement attracting significant legal enforceability.

LAWS1072 Contracts 2
Faculty of Law
Staff Contact: School Office
UOC6 HPW4 S2
Prerequisite/s: 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 performatory 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
Staff Contact: School Office
UOC6 HPW4 S1
Prerequisite/s: LAWS1051, LAWS1061, LAWS2140, LAWS1071, LAWS1072

Property, Equity and Trusts 1 is one of the compulsory "core" courses of the law program. One objective of the course is to ensure that students gain a sound understanding of basic principles of the law of property, including an introduction to equitable concepts. 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 tenure; fragmentation of proprietary interests and the doctrine of estates; future interests; creation and assignment of proprietary interests in land at law and in equity; the history of equity and the nature of equitable interests in land; the express, implied and constructive trust; express trusts and powers and duties of trustees; estoppel as founding interests in land; priority between competing legal and equitable interests in land.

LAWS1082 Property and Equity 2
Faculty of Law
Staff Contact: School Office
UOC6 HPW4 S2
Prerequisite/s: LAWS1051, LAWS1061, LAWS1071, LAWS1072, LAWS1081, LAWS2140, or LAWS1120, or LAWS1420

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 I. 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 doctrines of accretion and erosion; 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
Staff Contact: School Office
Enrolment requires school approval
UOC8 HPW4 S1 S2

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/s: If taken as a compulsory course, it is LAWS4010 UOC6.

LAWS1092 Business Associations 2
Faculty of Law
Staff Contact: A Corbett
UOC8 HPW4 S2
Prerequisite/s: LAWS4010 or LAWS1091

Areas of company law and securities regulation not covered in LAWS1091 Business Associations 1, 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.

LAWS2021 Industrial and Intellectual Property
Faculty of Law
Staff Contact: J McKeough
UOC8 HPW4 S1 S2
Prerequisite/s: 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
Staff Contact: School Office
UOC8 HPW3 S2

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
Staff Contact: K Sin
UOC8 HPW4 S1

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
Staff Contact: P Redmond
UOC8 HPW4 S2

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.

LAWS2025 Advanced Contract Law

Faculty of Law
Staff Contact: D Harley
UOC8 HPW4 S1 S2
Prerequisite/s: 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
Staff Contact: G Pearson
UOC8 HPW4 S1

An introduction to principal areas of commercial law of relevance to legal practice. This course deals 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. Students wishing to continue with an introductory study of commercial law are advised to take LAWS2024 Commercial Finance. More advanced study of consumer protection is available in LAWS2037 Consumer Protection Law. Other areas of commercial law are dealt with in LAWS2084 International Trade and LAWS2033 The Law of Banking.

LAWS2027 Industrial Law
Faculty of Law
Staff Contact: A Brooks
UOC8 HPW4 S2

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.

LAWS2028 The Law of Employment
Faculty of Law
Staff Contact: A Brooks
UOC8 HPW4 S1

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; AntiDiscrimination; programs for Equal Employment Opportunity and Affirmative Action.

LAWS2031 Occupational Health and Safety Law
Faculty of Law
Staff Contact: A Brooks
UOC8 HPW4 S1

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
Staff Contact: A Brooks
UOC8 HPW4 S2

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
Staff Contact: School Office
UOC8 HPW4 S1

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/s: 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.

LAWS2034 Commercial Equity
Faculty of Law
Staff Contact: C Rossiter
UOC8 HPW4 S1

Explores in detail important equitable principles governing the creation, transfer and priority of interests in property, both real and personal. Topics include: the nature of fraud in equity; fiduciary relationships; undue influence; penalties and forfeiture. The course also considers equity's characteristic response to problems of injustice and unfairness as exemplified by the development, (as institutions and/or remedial devices,) of constructive trusts and proprietary estoppel. The distinction between notions of property and contract is studied, particularly in relation to recent developments estoppel and relief against forfeiture of proprietary interests. Covenants governing the use of land at common law and in equity are studied in relation to general law and Torrens Title land.

LAWS2035 Land Dealings: Residential and Commercial Contracts
Faculty of Law
Staff Contact: C Rossiter
UOC8 HPW4 S1

The law of vendor and purchaser with special emphasis on the standard form contract of sale of land in use in New South Wales. Aims to benefit those intending to practise at the bar in the property and equity area as well as those who will be involved with conveyancing work as solicitors. 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.

LAWS2051 Elements of Income Tax Law
Faculty of Law
Staff Contact: P Burgess
UOC8 HPW4 S1

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.

LAWS2052 Advanced Revenue Law
Faculty of Law
Staff Contact: P Burgess
UOC8 HPW4 S2
Prerequisite/s: 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, antiavoidance 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/s: Students should have completed LAWS4010 Business Associations 1 6UOC or LAWS1091 Business Associations 1 6UOC or be taking that course concurrently with LAWS2052.

LAWS2081 Public International Law
Faculty of Law
Staff Contact: S Hall
UOC8 HPW4 S1 S2

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 (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.

LAWS2082 Conflict of Laws
Faculty of Law
Staff Contact: School Office
UOC8 HPW4 S1 X2

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 solution 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.

LAWS2085 Comparative Law
Faculty of Law
Staff Contact: A Marfording
Enrolment requires school approval
UOC8 S1 X1

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 Jessup International Law Moot Court
Faculty of Law
Staff Contact: S Hall
Enrolment requires school approval
UOC8 S2

The Jessup Moot is an international competition held each year from October to February. It is the most famous and prestigious mooting competition in the world, with over 300 law schools participating. Team members (maximum of five) are selected by the Dean and Faculty Advisor/s upon the basis of mooting skills, academic merit and research abilities. All team members will engage in two phases of the competition. From early October until mid-to-late January, the focus will be on the preparation of the written memorials. This phase requires a concentrated effort in researching and writing. From the deadline for submitting memorials until the Australian national rounds in Canberra some time in February, the team will concentrate on honing their oral mooting skills in preparation for what is Australia's most competitive mooting contest. At the national round, the team will compete against other Jessup moot teams from law schools around Australia. The teams placed first and second in Canberra will go on to represent Australia at the international rounds in the United States in April. Applications will close

in June each year and, because the course straddles the summer break, students may enroll in it as either a first or second session subject. Students may also join the team without formally enrolling in the course.

LAWS2121 Asian Legal Systems and Business Law
Faculty of Law
Staff Contact: A Marfording
UOC8 HPW4 S2

In this course students will be introduced to some major Asian legal systems and their business laws as well as to the historical, political, economic and cultural context of each of the legal systems studied. By the end of the course, students should be able to explain and discuss the basic legal structures and the practical operation of the Asian legal systems studied, critically analyse the opportunities and barriers to doing business in the countries whose legal systems are studied, and at a basic level advise on business transactions, foreign investment and dispute resolution with regard to the systems studied. Major issues discussed include sources of law, the court system, the legal profession and the judiciary, the role of the government in the respective economies, foreign investment, joint ventures, corporate laws, contract law and negotiation, and dispute resolution. The countries covered may vary from time to time depending on the availability of guest lecturers, but usually include China, Japan, Indonesia and Malaysia.

LAWS2123 Chinese Legal System
Faculty of Law
Staff Contact: School Office
UOC8 X1

The course 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
Staff Contact: School Office
UOC3 HPW2 S1 X1

This course introduces the students to the concept of public law, its methods of reasoning, history and fundamental principles. It deals with the fundamental principles of constitutional and administrative law, with the ethical precepts underlying our constitutional system; with the essential features of our system of government, and with the increasing role of public international law. The course also introduces students to comparative law, especially the public law assumptions of the Civil Law system. Topics include the concept of public law; theories and history of constitutionalism; comparative methods of enforcing constitutional precepts; Australia's constitutional development; the separation of powers, responsible government and constitutional conventions; and the republicanism debate.

Note/s: Taken concurrently with LAWS1071 Contracts 1 as a composite course.

LAWS2150 Federal Constitutional Law
Faculty of Law
Staff Contact: School Office
UOC6 HPW4 S1 S2

Federal constitutional law, stressing the legislative and judicial powers of the Commonwealth and the judicial interpretation by the High Court of the extent of those powers, in particular: trade and commerce, external affairs, corporations, appropriation, grants and taxation powers, inconsistency of Commonwealth and State laws, freedom of interstate trade and commerce, excise and implied limitations on Commonwealth and State powers, including implied rights. Techniques and approaches adopted by the High Court in interpreting the Australian Constitution. Further study of constitutional law may be undertaken in LAWS2292 The High Court of Australia and LAWS 429 Comparative Constitutional Law.

LAWS2151 Roman Law: A Guide to Legal Thinking
Faculty of Law
Staff Contact: R Bauman
UOC8 HPW4 S1

There are no prerequisites and no special knowledge of Latin is required other than the usual legal tags. The law of Ancient Rome presented so as to illustrate the following: (a) how laws emerged to meet the needs of a developing society, (b) how law reform in the more developed stages of that society adapted to changing social, political and economic conditions, (c) aspects of Roman Law which are especially meaningful to students who are being trained in a Common Law system, (d) Roman law concepts which form the basis of modern Civil Law systems and today play a key role in the European Economic Community. Historical topics: Equity as an instrument of law reform; the opinions of those learned in the law; legislation; codification; Justinian. Substantive topics: Family law with special reference to marriage and divorce; property with special reference to possession, ownership and servitudes (easements); testamentary succession; trusts; contract with special reference to stipulation, sale, lease, partnership (including corporate personality); delict (torts); criminal law with special reference to jury-courts.

LAWS2154 Human Rights in Ancient Rome
Faculty of Law
Staff Contact: R Bauman
UOC4 HPW2 S2

An in-depth examination of a proposition enunciated in Richard A. Bauman, Human Rights in Ancient Rome. The argument will be that human rights are, at best, a derivative of the Roman model. The course will include comparisons of selected aspects of the Roman and modern versions. The base line for the latter is the United Nations? Declaration of Human Rights in 1948.

LAWS2160 Administrative Law
Faculty of Law
Staff Contact: School Office
UOC6 HPW4 S1 S2

This course considers the law concerning the accountability and control of government officials. Topics covered include: delegated legislation; official corruption; 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).

LAWS2181 International Humanitarian Law
Faculty of Law
Staff Contact: R Rayfuse
UOC8 HPW4 S2

Strictly speaking, humanitarian law 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. However, broadly speaking, humanitarian law 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; and the role of NGOs, the Red Cross, and the UN. It will also examine the principles of international law relating to the protection of refugees including problems of definition and eligibility, status; admission and asylum; expulsion and non-refoulement; and the role of the UNHCR.

LAWS2182 Human Rights Law
Faculty of Law
Staff Contact: R Nettheim
UOC8 HPW4 S2

Study of the measures developed for the protection of human rights in international law, of the ways in which these standards and processes are operated, and of their influence on Australian law and government. Topics include: the development of the international system; the human rights provisions in the UN Charter; the Universal Declaration of Human Rights; the International Covenants on Civil and Political Rights, and on Economic, Social and Cultural Rights; other international human rights instruments; regional arrangements for protection of human rights; the cultural relativism debate; the influence of international standards on Australian law and government; human rights and foreign policy; the treaty based system; the Charter based system; human rights and

development; self-determination, proposals to strengthen the international system.

LAWS2183 Australian Journal of Human Rights
Faculty of Law
Staff Contact: School Office
Enrolment requires school approval
UOC8 S1 S2

LAWS2211 Indigenous People and the Law
Faculty of Law
Staff Contact: R Nettheim
UOC8 HPW4 S1

A study of laws relating to Australia's indigenous peoples and of the impact of general law on Aborigines and Torres Strait Islanders. Topics include: elements of pre-contact and post-contact history; questions of definition and identity; the nature of Indigenous law, and Australian responses to Indigenous laws; issues of sovereignty and autonomy; native title and statutory land rights, issues of racial discrimination, criminal justice and child welfare; proposals for Reconciliation . Reference is made to developments in international law and to comparative materials from countries such as Canada, USA and New Zealand.

LAWS2212 Australian Indigenous Law Reporter
Faculty of Law
Staff Contact: R Nettheim
Enrolment requires school approval
UOC8 S1 S2

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.

LAWS2232 Law After Communism
Faculty of Law
Staff Contact: M Krygier
UOC8 HPW4 S2
Excluded: EURO2700

When European communist states collapsed like a pack 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. 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. The course will discuss some of the major successes of post-communist countries and some of their major failures, and students will be encouraged to reflect on similarities and differences among post-communist societies themselves and between post-communist realities and those of the society/ies which they know. 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.

LAWS2241 Jewish Law
Faculty of Law
Staff Contact: School Office
UOC8 HPW4 S1

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.

LAWS2272 Australian Immigration Law and Practice
Faculty of Law
Staff Contact: A Glass
UOC8 HPW4 S2

Examines Australian immigration law and practice. Focus is on the role of law in immigration selection and control, and the notions of citizen and alien. The course considers different models of selection and control. It examines in detail the present law in relation to the main visa classes granting permanent and temporary residence. Topics include: freedom of movement, residence and citizenship, entry for migrants, and temporary residents, admission and stay under international obligations, illegal entry, the function of compliance, the detention and removal of illegal immigrants and the immigration appeal system.

LAWS2273 Local Government Law
Faculty of Law
Staff Contact: School Office
UOC8 HPW4 TBA

Local government as a particular example of the role of government in general in providing public goods; policy questions such as the optimal size of local jurisdictions in terms of efficiency and political responsibility, and legal and administrative comparisons with specialist statutory authorities such as county councils and central government departments and corporations; the law governing formal structure of local authorities, elections, servants, meetings, control of corruption; the range of council powers and duties in providing local public goods and the rules which govern their provision by compulsory acquisition, revenue raising by rating (including land valuation), and the management of public property, introduction to councils' role in land use and environmental control through subdivision, zoning, building and public health regulation and the licensing system in this area; aspects of remedial law special to local government, actions by and against councils, with some emphasis on council liability in tort.

LAWS2282 Advanced Administrative Law: Adapting to Regulatory change
Faculty of Law
Staff Contact: M Aronson
UOC8 HPW4 S2

Builds upon the administrative law topics covered in the compulsory part of the curriculum. The core of the course is concerned with the public/private distinctions, issues of regulatory design, and with the administrative law consequences of deregulation, outsourcing, corporatisation, self-regulation and privatisation. Other topics included are judicial and tribunal review of administrative action, freedom of information; contracts and torts of the Crown, and other public authorities; ombudsmen; delegated legislation; and public corporations.

LAWS2292 The High Court of Australia
Faculty of Law
Staff Contact: G Winterton
UOC8 HPW4 S1

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 distinctively Australian law in selected areas and the place of its individual members in the Australian judicial tradition. The course is divided broadly into five 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.

LAWS2301 Remedies
Faculty of Law
Staff Contact: A Cossins
UOC8 HPW4 S1

A study of the principal private law remedies evolved by the common law and by equity through an examination of relevant historical, economic and political perspectives and the use of appropriate case studies. 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.

LAWS2303 Clinical Legal Experience (Intensive)
Faculty of Law
Staff Contact: F Gibson F Gibson
Enrolment requires school approval
UOC16 HPW16 S1 S2 X1
Prerequisite/s: LAWS6210

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 midsession holidays and study breaks.

LAWS2304 Clinical Legal Experience
Faculty of Law
Staff Contact: F Gibson F Gibson
Enrolment requires school approval
UOC8 HPW8 S1 S2
Prerequisite/s: LAWS6210

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 midsession holidays and study breaks.

LAWS2305 Clinical Program - Employment Law
Faculty of Law
Staff Contact: F Gibson F Gibson
Enrolment requires school approval
UOC16 HPW16 S1 S2
Prerequisite/s: LAWS6210

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 midsession holidays and study breaks.

LAWS2311 •Litigation 1
Faculty of Law
Staff Contact: School Office
UOC6 HPW4 S1

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.

LAWS2314 Dispute Resolution
Faculty of Law
Staff Contact: R Howell
UOC8 S1 S2 X1
Prerequisite/s: LAWS2311 or LAWS1010

Most legal education in common law systems revolves around the interpretation and development of the law by decisions made by courts in the process of litigation. In doing so it tends to foster the assumption that litigation, or legal advice predicting the outcome of litigation, is the normal method of resolving disputes, and both substantive and skills training is largely geared to this assumption. In fact only a small proportion of disputes are resolved by litigation and there is a growing dissatisfaction with the costs, slowness and adversarial character of litigation, and a corresponding interest in alternative forms of dispute resolution. The courts themselves are introducing court annexed mediation. This course will critically examine the growth of alternative methods, analyse their comparative advantages and disadvantages, introduce students to the skills involved (particularly in negotiation and mediation) and examine the implications for the future of the law and of legal practice and for individual and social justice.

LAWS2321 Litigation 2
Faculty of Law
Staff Contact: School Office
UOC6 HPW4 S2
Prerequisite/s: 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 (Clth) and (NSW) form the backbone to the course.

LAWS2331 Legal Theory
Faculty of Law
Staff Contact: M Krygier
UOC8 HPW4 S1 S2

For details, see LAWS8320 Legal Theory earlier in the compulsory course section.

LAWS2332 Law and Social Theory
Faculty of Law
Staff Contact: M Krygier
UOC8 HPW4 S1 S2

For details, see LAWS8820 Law and Social Theory earlier in the compulsory course section.

LAWS2334 Legal "Isms"
Faculty of Law
Staff Contact: School Office
UOC8 HPW4 TBA

This course is concerned with the views of the world that lie behind and shape, often unconsciously, our views of life and, within life, of law. These views are the isms of the title. In western societies conventional isms include liberalism, conservatism, legalism, literalism, positivism, constitutionalism, moralism, modernism, and, some would say, racism, colonialism, sexism. Critical isms have included radicalism, marxism, anarchism, post-modernism, feminism, interpretativism. The class will select several isms for close analysis, with a particular focus on political isms and with a view to uncovering their assumptions and implications for our understanding of law and life. The particular isms chosen will vary with the individual choices made by particular classes.

LAWS2341 Feminist Legal Theory
Faculty of Law
Staff Contact: C Forster
UOC8 HPW4 S1

This course considers the role of the law in creating and perpetuating inequality and explores a variety of strategies to breakdown that inequality. In particular the course explores the potential of theory to effect social transformation by creating new knowledge and understandings. Another important aim of the course is to encourage and develop critical thinking and therefore a significant portion of each class will be used to critically evaluate the methods and explanatory frameworks used in the articles we study. The course is intended to challenge participants to explore different understandings of law and its relationship to inequalities with a particular focus on gender and race.This course begins by examining a selection of feminist legal theory tracing its development into a significant body of thought challenging the practice and theory of law. To consider the usefulness of feminist legal theory as an explanatory and transformative tool we will explore a range of substantive issues of particular relevance to Australian society. There will be an emphasis on the impact of those issues on indigenous society. The course is interdisciplinary to the extent that some feminist work in sociology, philosophy and psychology will be incorporated to enhance understanding of law and legal theory.

LAWS2361 Environmental Law
Faculty of Law
Staff Contact: School Office
UOC8 HPW4 X1

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 consents 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
Staff Contact: O Jessep
UOC8 HPW4 S1

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.

LAWS2393 Succession
Faculty of Law
Staff Contact: P Vines
UOC8 HPW4 S1
Prerequisite/s: LAWS1081, LAWS1082; or LAWS3010

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, ademption, and donationes mortis causa 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.

LAWS2401 Health and Medical Law
Faculty of Law
Staff Contact: C Forster
UOC8 HPW4 S2

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.

LAWS2421 Research Project
Faculty of Law
Staff Contact: B Edgeworth
Enrolment requires school approval
UOC2 S1 S2 X2

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.

LAWS2422 Research Thesis: 16 uoc
Faculty of Law
Staff Contact: A Corbett
Enrolment requires school approval
UOC16 S1 S2

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 by 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 (LAWS2423). A student who has received approval for the 8UOC enrolment may be given subsequent approval to transfer to a 16UOC enrolment (LAWS2422). 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.

LAWS2423 Research Thesis: 8 uoc
Faculty of Law
Staff Contact: A Corbett
Enrolment requires school approval
UOC8 S1 S2

LAWS2441 Law Journal
Faculty of Law
Staff Contact: G Winterton
Enrolment requires school approval
UOC8 S1 S2

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.

LAWS4010 Business Associations 1
Faculty of Law
Staff Contact: School Office
Enrolment requires school approval
UOC6 HPW4 S1 S2
Prerequisite/s: LAWS1081, LAWS1082, or LAWS3010.

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/s: If taken as an elective, it is LAWS1091 UOC8.

LAWS6210 Law, Lawyers and Society
Faculty of Law
Staff Contact: School Office
UOC6 HPW4 S1 S2 X1

This course is a course in applied legal ethics. It examines the different values, rules and regulation that affect legal practice. What values and ideals should apply to legal practice? Do the existing rules and regulation achieve those ideals in practice? How can we best achieve ethical practice as individuals and as a matter of institutional design? In Law, Lawyers and Society 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 including skills for deliberating and negotiating with colleagues about ethical and social issues, effective client communication and other client care skills, and negotiation skills. The first segment considers the lawyer-client relationship including issues of communication, representation, control and counselling. The second segment considers the regulatory framework governing legal practice including the role of self-regulation, the NSW Professional Conduct and Practice Rules, the admission and discipline procedures for NSW lawyers under the Legal Profession Act, and the role of the general law of negligence, fiduciary duties (conflicts of interest and confidentiality) in regulating lawyers' conduct. The third segment considers the role of lawyers as advocates in negotiation and litigation including the responsibility of lawyers for access to justice, the duties of fairness and candour, and the special duties and roles of the criminal defence lawyer, the prosecutor, and the public interest lawyer.

LAWS7410 Legal Research and Writing
Faculty of Law
Staff Contact: School Office
UOC3 HPW2 S1

This subject introduces students to the literature relevant to the law in Australia. It introduces students to primary and secondary legal materials, and to both traditional and electronic research methods used in law. This subject also covers principles of legal writing including plain legal language, citation practice, and logical argument.

LAWS7420 Advanced Legal Research
Faculty of Law
Staff Contact: School Office
UOC2 HPW2 S2 X2

This subject revises and expands upon the legal research skills acquired in LAWS 7410 Legal Research and Writing. Further, the subject introduces students to more specialised legal research tools including digests, loose leaf services and encyclopaedias. This subject also introduces students to some of the tools used in researching foreign and international law, and teaches students to update law. There is considerable emphasis in this subject on the use of electronic research tools.

LAWS8320 Legal Theory
Faculty of Law
Staff Contact: School Office
Enrolment requires school approval
UOC6 HPW4 S1 S2

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.

LAWS8820 Law and Social Theory
Faculty of Law
Staff Contact: School Office
Enrolment requires school approval
UOC6 HPW4 S1 S2

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 societiese, 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 LAWS8820 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 fulfil compulsory requirements and are permitted to take the other as an elective.

LEGT1711 Legal Environment of Commerce
School of Business Law and Tax
Staff Contact: School Office
UOC6 HPW3 S1 S2

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.

LEGT1715 International Business Law
School of Business Law and Tax
Staff Contact: School Office
UOC6 HPW3 S1 S2

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.

LEGT1730 Business, Ethics and the Law
School of Business Law and Tax
Staff Contact: School Office
UOC6 HPW3 S1 S2

Society increasingly demands ethical and social responsibilty. This course provides an ethical dimension to the conduct of contemporary commerce in Australia. Although ethics exists 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.

LEGT1731 Marketing and Distribution Law
School of Business Law and Tax
Staff Contact: School Office
UOC6 HPW3 S1 S2

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.

LEGT1733 Franchising
School of Business Law and Tax
Staff Contact: School Office
UOC6 HPW3 S1

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.

LEGT1761 Law of Banking and Finance
School of Business Law and Tax
Staff Contact: School Office
UOC6 HPW3 S1

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.

LEGT7721 Business Transactions
School of Business Law and Tax
Staff Contact: School Office
UOC6 HPW3 S1 S2
Prerequisite/s: LEGT1711 OR LEGT7711

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.

LEGT7741 Business Entities
School of Business Law and Tax
Staff Contact: School Office
UOC6 HPW4 S1
Prerequisite/s: LEGT7721

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 Law. 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.

LEGT7751 Business Taxation
School of Business Law and Tax
Staff Contact: School Office
UOC6 HPW4 S1
Prerequisite/s: LEGT7721

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.

LEGT7752 Taxation of Business Entities
School of Business Law and Tax
Staff Contact: School Office
UOC6 HPW3 S1
Prerequisite/s: LEGT7751

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.

LEGT7753 Capital Gains Tax
School of Business Law and Tax
Staff Contact: School Office
UOC6 HPW3 S2
Prerequisite/s: LEGT7751

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.

LEGT7754 Goods and Services Tax
School of Business Law and Tax
Staff Contact: School Office
UOC6 HPW3 S1
Prerequisite/s: LEGT7751

The 1999 tax reforms introduced Goods and Services Tax as an integral component of the tax base. This subject examines all aspects of GST law. Emphasis is placed 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, reverse charges, and anti-avoidance provisions.

LEGT7771 Information Technology Law
School of Business Law and Tax
Staff Contact: School Office
UOC6 HPW3 S1 S2
Prerequisite/s: 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.

LEGT7781 Regulation of Government Agencies
School of Business Law and Tax
Staff Contact: School Office
UOC6 HPW3 S2
Prerequisite/s: LEGT1711 OR LEGT7711

The executive arm of government possesses wide regulatory and administrative powers. This course examines the law controlling the bureaucracy in the exercise of these powers. It covers delegated legislation, the control and review of administrative action and discretionary powers, and freedom of information. The roles, powers and functions of major regulatory agencies with particular reference to the Australian Competition and Consumer Commission, the Australian Securities and Investment Commission and the Australian Taxation Office are also examined.

LEGT7791 International Business Taxation
School of Business Law and Tax
Staff Contact: School Office
Enrolment requires school approval
UOC6 HPW3 S1
Prerequisite/s: LEGT1711 OR LEGT7711

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.

LEGT7811 Corporate Law, Tax and Strategy
School of Business Law and Tax
Staff Contact: School Office
UOC6 HPW3 S2
Prerequisite/s: LEGT7741, LEGT7751

What are the legal and tax implications of the different financing alternatives available to corporations? Are all the different methods of profit distribution from a company equally tax effective? What are the different strategies available to a takeover bidder and when should they be used? How should a corporate reorganisation be structured? This course will examine these and similar questions, relating to the interaction between legal and tax questions in corporate governance, through a series of case studies and simulation games.

LEGT7812 Corporate Fraud and Crime
School of Business Law and Tax
Staff Contact: School Office
UOC6 HPW3 S2
Prerequisite/s: LEGT7721
Corequisite/s: LEGT7741

Corporate fraud costs Australian business tens of billions of dollars every year. This subject 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.

LEGT7821 Special Topic in Business Law
School of Business Law and Tax
Staff Contact: School Office
Enrolment requires school approval
UOC6 HPW3 S1 S2
Prerequisite/s: LEGT1711 OR LEGT7711

A specially assigned project, program or set of readings relating to research in business law.

LEGT7822 Special Topic in Taxation
School of Business Law and Tax
Staff Contact: School Office
Enrolment requires school approval
UOC6 HPW3 S1 S2
Prerequisite/s: LEGT1711 OR LEGT7711

A specially assigned project, program or set of readings relating to research in taxation.

LIFE1001 Life Science Advanced Seminar 1
Faculty of Science
Staff Contact: L Lutze-Mann
UOC3 HPW2 S2

An introduction to key advances that have taken place in research across the broad range of Life Sciences, and their impacts on their fields. Examples of the latest research and future directions from a broad range of disciplines will be examined critically, with fields covered including biomedical science, environmental science, biotechnology and psychology. Library and WWW searches will consolidate material, which will focus on research activities and facilities within the University, including laboratory visits, and discussions with laboratory staff.

Note/s: Restricted to Advanced Science students.

LIFE2001 Life Science Advanced Seminar 2
Faculty of Science
Staff Contact: P March
UOC3 HPW2 S1

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 and written communication of science are introduced. Critical evaluation of scientific data and its presentation is dicussed. Small group analysis of a specialised and innovative aspect of research.

Note/s: Restricted to Advanced Science Students

LING1000 The Structure of Language
Linguistics
Staff Contact: P Collins
UOC6 HPW3 S1

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
Staff Contact: P Collins
UOC6 HPW3 S2

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.

LING2510 Analysing Talk
Linguistics
Staff Contact: R Gardner
UOC6 HPW3 S1
Prerequisite/s: 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 record and 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.

LING2540 Semantics and Pragmatics
Linguistics
Staff Contact: P Collins
UOC6 HPW3 S2
Prerequisite/s: 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: are meaning and cognition the same; can meanings be defined independently of language use? Particular attention is paid to the different theoretical approaches to lexical semantics, the relationship between semantics and grammar, semantic typology and semantic change. Considers 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 deixis, speech act theory, conversational maxims, politeness theory, and notions of context and culture.

LING2550 Introducing Grammar
Linguistics
Staff Contact: P Collins
UOC6 HPW3 S1
Prerequisite/s: 36 units of credit

A basic introduction to the concepts, categories and terminology of grammar, beginning with the parts-of-speech and progressing - through phrases and clauses - to the sentence and beyond. The approach will be quite traditional, but informed by the work of contemporary descriptive grammarians. Designed both for those interested in the workings of English and for those interested in foreign languages, especially students of Linguistics, Modern languages, and English language and literature. Also relevant to the needs of those seeking to develop their writing skills.

Note/s: LING2550 may be taken before, but not after, LING2200 or LING2800.

LING2590 The English Language: Its first Millenium
Linguistics
Staff Contact: C Hollo
UOC6 HPW3 S2
Prerequisite/s: LING1000 or LING1500

Examines early English from the first written texts to the development of Standard English. Studies a variety of texts from the Old English & Middle English periods and considers how these differ from Modern English in sounds, sentence formation and vocabulary. Particular attention will be paid to exploring the reasons for the seeming illogicality of Modern English spelling.

LING2601 Sociolinguistics in Australia
Linguistics
Staff Contact: P Collins
UOC3 HPW1.5 S1
Prerequisite/s: LING1000 or LING1500
Excluded: ENGL2553

An examination of language in relation to society, with particular reference to the linguistic situation in Australia. Topics include regional and social variation, male-female differences, multilingualism, and social attitudes to language.

LING2680 Language Universals and Linguistic Typology
Linguistics
Staff Contact: M Amberber
UOC6 HPW3 S1
Prerequisite/s: LING1000 or LING1500;
Excluded: LING2612

Examines language universals and linguistic typology. Explores linguistic categories across a wide range of languages, including word classes, case, transitivity, negation, complex predicates and complement clauses, among others. Also examines language-internal and language-external explanations for language universals.

LING2700 Language Learning and Teaching
Linguistics
Staff Contact: B Mullock
UOC6 HPW3 S2
Prerequisite/s: LING1000 or LING1500
Excluded: LING2000, LING2300, LING3901

This course studies the application of linguistics and applied linguistics in a variety of educational contexts, including literacy education, English as a second language, bilingual education and languages other than English. On particular, the course will consider the contributions from Second Language Acquisition research and from linguistics to teaching practices.

LING2800 Current Issues in English Grammar
Linguistics
Staff Contact: P Collins
UOC6 HPW3 S2
Prerequisite/s: LING1000 or LING1500
Excluded: ENGL2654

Explores current issues in descriptive grammar, including the distinction between structure and function, the nature of constituency, the language particular - language general distinction, the relationship between grammar and information packaging, the definition of word classes, and the description of subordination and coordination.

LING3901 Language Teaching and Learning (Advanced)
Linguistics
Staff Contact: B Mullock
UOC6 HPW3 S2
Prerequisite/s: 36 units of credit including 6 units of credit in Linguistics at credit level
Excluded: LING2700

Studies the application of linguistics and applied linguistics in a variety of educational contexts, including literacy education, English as a second language, bilingual education and languages other than English. In particular the course will consider the contributions from Second Language Acquisition research and from linguistics to teaching practices. Involves an advanced level tutorial and assessment tasks.

LING4000 Linguistics Honours (Research) Full-Time
Linguistics
Staff Contact: P Collins
Enrolment requires school approval
UOC24 S1 S2
Prerequisite/s: 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
Staff Contact: P Collins
Enrolment requires school approval
UOC12 S1 S2
Prerequisite/s: 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) Linguistics (Applied).

LING4500 Combined Linguistics Honours Full-Time
Linguistics
Staff Contact: P Collins
Enrolment requires school approval
UOC12 S1 S2
Prerequisite/s: 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
Staff Contact: P Collins
Enrolment requires school approval
UOC6 S1 S2
Prerequisite/s: 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.

MANF0420 Production Management
School of Mechanical and Manufacturing Engineering
Staff Contact: A Kayis
UOC6 HPW6 S1
Excluded: MANF4420, MANF4430

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".

MANF1130 Introduction to Manufacturing
School of Mechanical and Manufacturing Engineering
Staff Contact: P Mathew
UOC6 HPW7 S2
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/s: Protective items eg 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
Staff Contact: P Mathew
UOC6 HPW6 S1
Prerequisite/s: MANF1120 or MANF1130
Corequisite/s: 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
Staff Contact: A Kayis
UOC6 HPW4 S2
Corequisite/s: 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 operator and robots, workplace and methods design, measurement of workplace element characteristics.

MANF3420 Industrial Experimentation
School of Mechanical and Manufacturing Engineering
Staff Contact: K Chan
UOC3 HPW2 S2
Prerequisite/s: MATH2839

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
Staff Contact: H Kaebernick
UOC3 HPW3 S2
Prerequisite/s: ELEC0807, MANF1120 or 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
Staff Contact: M Hasan
UOC3 HPW3 S1
Prerequisite/s: 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
Staff Contact: R Kerr
UOC3 HPW3 S2
Prerequisite/s: 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
Staff Contact: H Kaebernick
UOC3 HPW2 S1

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.

MANF4012 Analysis of Manufacturing Systems B
School of Mechanical and Manufacturing Engineering
Staff Contact: H Kaebernick
UOC3 HPW2 S2
Prerequisite/s: MANF4011

Further project work, continuing from activities in MANF4011 Manufacturing Systems A.

MANF4300 Design of Manufacturing Facilities 2
School of Mechanical and Manufacturing Engineering
Staff Contact: K Chan
UOC6 HPW4 S2

Corequisite/s: MANF3300

Introduction to plant layout design and materials handling system. 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
Staff Contact: A Kayis
UOC6 HPW6 S1
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
Staff Contact: R Kerr
UOC3 HPW3 S1
Prerequisite/s: 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
Staff Contact: H Kaebernick
UOC3 HPW3 S1
Prerequisite/s: 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 manufaturing, computer aided process planning.

MANF4601 Computer Aided Production Management A
School of Mechanical and Manufacturing Engineering
Staff Contact: R Kerr
UOC3 HPW3 S1
Prerequisite/s: MANF3601

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
Staff Contact: M Hasan
UOC3 HPW3 S2
Prerequisite/s: MANF3602

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
Staff Contact: School Office
UOC6 HPW4 S1 S2

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
Staff Contact: School Office
UOC6 HPW3 S2

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 interatice 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
Staff Contact: School Office
UOC6 HPW4 S1
Prerequisite/s: MARK1012
Corequisite/s: MARK2052
Excluded: MARK2032, MARK2042

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
Staff Contact: School Office
UOC6 HPW4 S1
Prerequisite/s: MARK1012
Corequisite/s: 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
Staff Contact: School Office
UOC6 HPW4 S2
Prerequisite/s: MARK2051
Corequisite/s: MARK2054
Excluded: MARK2042, MARK3063

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
Staff Contact: School Office
UOC6 HPW4 S2
Prerequisite/s: MARK2052
Corequisite/s: MARK2053
Excluded: MARK3022

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 subject is practical and data driven, with students exposed to specific tools and techniques using computer-based software. The importance to contemporary business of numeracy, problem-solving, measurement and analysis is a central theme, and is explored through exercises and tutorials.

MARK3071 International and Global Marketing
School of Marketing
Staff Contact: School Office
UOC6 HPW3 S1
Prerequisite/s: MARK1012
Excluded: MARK3043

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
Staff Contact: School Office
UOC6 HPW3 S2
Prerequisite/s: 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 and Service Management
School of Marketing
Staff Contact: School Office
UOC6 HPW4 S1
Prerequisite/s: MARK2053, MARK2054
Excluded: MARK3053

A two-part course where the focus is on the delivery of goods and services to customers. Distribution themes include: the importance of product and service availability; the creation and management of appropriate service, retail and wholesale assortments; the management of stock levels; the design, coordination and assessment of direct, indirect, independent and integrated distribution channels and channel networks. Service management themes include: relationship marketing with key customers; the measurement and management of customer satisfaction and service quality; handling customer complaints and service recovery; managing fluctuating demand and physical capacity in services and channels of distribution.

MARK3082 Strategic Marketing Management
School of Marketing
Staff Contact: School Office
UOC6 HPW4 S2
Prerequisite/s: MARK2054, MARK3081
Excluded: MARK3083, MARK3093

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
Staff Contact: School Office
UOC6 HPW3 S1
Prerequisite/s: 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
Staff Contact: School Office
UOC6 HPW3 S1
Prerequisite/s: MARK2053, MARK2054
Excluded: MARK3073

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 brand equity; how these dimensions are tested, measured and valued; strategies and tactics for maintaining and reviving brands; multi-brand portfolios, extensions, and brand architectures; brands as a driving force for standardisation and globalisation. Detailed case analysis is an integral part of th subject and this may require flexibility with the timing of classes.

MARK3094 Marketing Implementation
School of Marketing
Staff Contact: School Office
UOC6 HPW3 S2
Prerequisite/s: MARK2054, MARK3081

A course designed to help make the transition into the workplace. Problem-based learning is used to explore a range of complex situations where students are required to apply existing marketing knowledge and skills in an integrated manner. Typical themes include: marketing orientation, and market-led internal change, action planning and project management; working and negotiating with suppliers, buyers, agents and clients; managing the interface with other key functional areas such as finance, human resources, sales and production; organisational culture, teamwork and interpersonal relationships in the workplace. A workshop format is adopted and this may require flexibility with the timing of classes.

MARK7204 Thesis (Marketing) Part A
School of Marketing
Staff Contact: School Office
Enrolment requires school approval
UOC6 S1
Prerequisite/s: Admission to BCom Honours in Marketing.

MARK7205 Thesis (Marketing) Part B
School of Marketing
Staff Contact: School Office
Enrolment requires school approval
UOC18 S2
Prerequisite/s: admission to Bcom Honours in Marketing

MARK7210 Business Research Methods in Marketing
School of Marketing
Staff Contact: School Office
Enrolment requires school approval

UOC6 HPW2 S1
Prerequisite/s: Admission to BCom Honours in Marketing

The research process - project management and research planning. The role of academic research and published material in the process of advancing marketing thought and knowledge. How to read, critique and prepare research proposals. Asking meaningful research questions: inductive and deductive approaches. Conjectures, propositions and hypotheses. Questions of proof, validity, reliability, robustness, representativeness, generalisability, scope, meta-analysis and marketing knowledge. The role of mediating and moderator variables. Preparing research designs to minimise error and bias. Formal research processes in specific analytical areas (such as Marketing Science, Economics Theory, and Consumer Psychology). The art of the solvable. Using this knowledge to write viable research plans.

MARK7211 Research Seminar in Marketing
School of Marketing
Staff Contact: School Office
Enrolment requires school approval
UOC6 HPW2 S1
Prerequisite/s: Admission to BCom Honours in Marketing

A study and critique of seminal published papers in selected marketing topics relevant to the interests of research students. Emphasis will be on appreciating the present state of knowlege, and considering future opportunities. Special attention will be given to the knowledge base in various substantive areas (for instance, international marketing, services marketing and service quality, brand management, and relationship marketing). The focus will be on understanding the empirical significance of each article, and its positioning, methodology and analytical approach. Also studied will be the writing and communication style - including the uses and abuses of narratives, tables, graphs and equations. Preparation of a conceptual journal article of a refereed standard will enable these ideas and concepts to be implemented.

MARK7212 Advanced Quantitative Methods in Marketing
School of Marketing
Staff Contact: School Office
Enrolment requires school approval
UOC6 HPW2 S1
Prerequisite/s: Admission to BCom Honours in Marketing

Extention of the knowledge of elementary statistics into the area of multivariate statistics, with special attention to the underlying theory and assumptions of the methods used. Discussion of multiple regression and multiple correlation, multivariate analysis of variance, discriminant and logit analysis, conjoint analysis, factor and correspondence analysis, and structural equation modelling. Hands-on practical sessions will enable participants to implement these tools, techniques and methods in the context of specific Marketing applications.

MARK7213 Contemporary Research Methods in Marketing
School of Marketing
Staff Contact: School Office
Enrolment requires school approval
UOC6 HPW2 S2
Prerequisite/s: Admission to BCom Honours in Marketing

The Marketing discipline - its origin, development and future direction. The use of different methods to examine research questions - quantitative, experimental, qualitative, and ethnographic approaches. Advanced survey-based methods. Experimental approaches to research in marketing, including experimental designs and analysis of variance. Consideration of non-quantitative methods - notably qualitative methods, in-depth interviews, case-study analysis, anthropological and ethnographic approaches, cross-cultural studies and phenomenological work. Post-modernist methods of enquiry.

MATH1000 Modelling Real World Phenomena
School of Mathematics
Staff Contact: School Office
UOC3 HPW2 S2

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.

Note/s: Restricted to students in Advanced Science.

MATH1011 General Mathematics 1B
School of Mathematics
Staff Contact: School Office
UOC6 HPW6 S1 S2
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/s: This course is intended for students who do not propose to study any Mathematics beyond first year level. Almost all 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.

MATH1021 General Mathematics 1C
School of Mathematics
Staff Contact: School Office
UOC6 HPW6 S2
Prerequisite/s: MATH1011 or MATH1131 or MATH1141
Excluded: MATH1031, MATH1231, MATH1241, MATH1251, ECON1202, ECON2291

Techniques for integration, improper integrals; Taylor's theorem; first order differential equations and applications; introduction to multivariable calculus; conics; finite sets; probability; vectors, matrices and linear equations.

Note/s: This course is intended for students who do not propose to study any Mathematics beyond first year level. Almost all later year courses in Mathematics have completion of MATH1231, MATH1241 or MATH1251 as a prerequisite.

MATH1031 Mathematics for Life Sciences
School of Mathematics
Staff Contact: School Office
UOC6 HPW6 S1 S2
Excluded: MATH1011, MATH1021, MATH1131, MATH1141, MATH1151, MATH1231, MATH1241, MATH1251, ECON1202, ECON2291

Matrices and systems of linear equations. Functions and modelling. Differentiation. Exponentials and logarithms. Analysis of functions (limiting behaviour, maxima and minima, locating zeros). Functions of several variables. Interpolation and approximation. Discrete time dynamical systems. Complex numbers . Integration. Differential equations.

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/s: This course is intended for students who do not propose to study any Mathematics beyond first year level. Almost all 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
Staff Contact: School Office
UOC6 HPW6 S2
Excluded: MATH1049, MATH1059, MATH2829, MATH2839, MATH2859, MATH2899, ECON1203, ECON2292

Probability, random variables, independence. Discrete distributions, Poisson and binomial distributions. Data analysis, Descriptive statistics. Sampling, Continuous distributions, the normal distribution. Estimation of mean and variance. Tests of hypotheses. Linear regression and correlation. Analysis of variance. Tests for goodness of fit. Bayesian statistics.

Assumed Knowledge:As for MATH1031

Note/s: This course is intended for students who do not propose to study any Mathematics beyond first year level. Almost all later year courses in

Mathematics have completion of MATH1231, MATH1241 or MATH1251 as a prerequisite.

MATH1049 Statistics for Aviation A
School of Mathematics
Staff Contact: School Office
UOC3 HPW6 S2
Excluded: MATH1041, MATH2829, MATH2839, MATH2859, MATH2899, ECON1203, ECON2292
Assumed Knowledge:As for MATH1041

Note/s: Available only to students in the Aviation program. Its content is the first half of MATH1041 and it runs in Weeks 1 to 7 of S2.

MATH1059 Statistics for Aviation B
School of Mathematics
Staff Contact: School Office
UOC3 HPW6 S2
Prerequisite/s: MATH1049
Excluded: MATH1041, MATH2829, MATH2839, MATH2859, MATH2899, ECON1203, ECON2292

Note/s: Available only to students in the Aviation program. Its content is the second half of MATH1041 and it runs in Weeks 8 to 14 of S2.

MATH1081 Discrete Mathematics
School of Mathematics
Staff Contact: School Office
UOC6 HPW6 S1 S2
Corequisite/s: MATH1131 or MATH1141
Excluded: MATH1090

Role of proof in mathematics, logical reasoning and implication, different types of proofs. Sets, algebra of sets, operations on sets. Mathematical logic, truth tables, syntax, induction. Graphs and directed graphs, basic graph algorithms. Counting, combinatorial identities, binomial and multinomial theorems. Binary operations and their properties, ordered structures. Recursion relations.

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.

MATH1090 Discrete Mathematics for Electrical Engineers
School of Mathematics
Staff Contact: School Office
UOC3 HPW3 S1
Corequisite/s: MATH1131 or MATH1141
Excluded: MATH1081

The role of proof in mathematics, logical reasoning and implication, different types of proofs. Sets, algebra of sets, operations on sets, mathematical logic, truth tables, syntax, induction. Recursion, recursive logic, recurrence relations.

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.

Note/s: Available only to students for whom it is specifically required as part of their program.

MATH1131 Mathematics 1A
School of Mathematics
Staff Contact: School Office
UOC6 HPW6 S1 S2
Excluded: MATH1011, MATH1031, MATH1141, MATH1151, ECON1202, ECON2291

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
Staff Contact: School Office
UOC6 HPW6 S1
Excluded: MATH1011, MATH1031, MATH1131, MATH1151, ECON1202, ECON2291

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.

MATH1151 Mathematics for Actuarial Studies and Finance 1A
School of Mathematics
Staff Contact: School Office
UOC6 HPW6 S1
Excluded: MATH1011, MATH1031, MATH1131, MATH1141, ECON1202, ECON2291

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
Staff Contact: School Office
UOC6 HPW6 S2 X1
Prerequisite/s: MATH1131 or MATH1141
Excluded: MATH1021, MATH1031, MATH1241, MATH1251, ECON1202, ECON2291

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
Staff Contact: School Office
UOC6 HPW6 S2
Prerequisite/s: MATH1131 CR or MATH1141CR
Excluded: MATH1021, MATH1031, MATH1231, MATH1251, ECON1202, ECON2291

As for MATH1231 but in greater depth.

MATH1251 Mathematics for Actuarial Studies and Finance 1B
School of Mathematics
Staff Contact: School Office
UOC6 HPW6 S2
Prerequisite/s: MATH1151
Excluded: MATH1021, MATH1031, MATH1231, MATH1241, ECON1202, ECON2291

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
Staff Contact: School Office
UOC6 HPW5 S1 S2
Prerequisite/s: 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
Staff Contact: School Office
UOC6 HPW5 S2
Prerequisite/s: MATH1231 or MATH1241
Excluded: MATH2011, MATH2111, MATH2510, MATH2610, MATH2120, MATH2130

Partial differentiation and applications, vector algebra, double integrals, ordinary differential equations, introduction to vector field theory, extrema of functions of 2 variables, matrices and their applications, Laplace transforms, Fourier series, partial differential equations and their solution for selected physical problems.

Note/s: Available only to students for whom it is specifically required as part of their program.

MATH2020 Mathematics 2A
School of Mathematics
Staff Contact: School Office
UOC3 HPW2 S1
Prerequisite/s: MATH1021(CR) or MATH1231 or MATH1241

Revision of integration. Differential equations, use of Laplace transforms, solutions by series.

Note/s: 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. Taught by the Keller self-paced learning method.

MATH2029 Engineering Mathematics 2A
School of Mathematics
Staff Contact: School Office
UOC6 HPW6 S1
Prerequisite/s: MATH1231 or MATH1241
Excluded: MATH2120, MATH2130

Partial differentiation, ordinary differential equations, matrices, Laplace transforms, Fourier series, partial differential equations.

Note/s: Available only to students for whom it is specifically required as part of their program.

MATH2030 Mathematics 2B
School of Mathematics
Staff Contact: School Office
UOC3 HPW2 S2
Prerequisite/s: 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/s: 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. Taught by the Keller self-paced learning method.

MATH2039 Engineering Mathematics 2B
School of Mathematics
Staff Contact: School Office
UOC3 HPW3 S2
Prerequisite/s: MATH1231 or MATH1241
Excluded: MATH2011, MATH2111, MATH2510, MATH2610

Multiple integrals, vector calculus, extrema of functions of several variables.

Note/s: 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
Staff Contact: School Office
UOC3 HPW3 S1
Prerequisite/s: MATH1231 or MATH1241
Excluded: MATH2011, MATH2111, MATH2510, MATH2610, MATH2841

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/s: Available only to students for whom it is specifically required as part of their program.

MATH2059 Mathematics for Materials Science B
School of Mathematics
Staff Contact: School Office
UOC3 HPW3 S2
Prerequisite/s: MATH1231 or MATH1241
Excluded: MATH2120, MATH2130

Ordinary differential equations. Partial differential equations. Fourier series.

Note/s: 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
Staff Contact: School Office
UOC3 HPW2 S2
Prerequisite/s: 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
Staff Contact: School Office
UOC6 HPW5 S1
Prerequisite/s: MATH1231 or MATH1241 or MATH1251 each with a mark of at least 70
Excluded: MATH2019, MATH2039, MATH2049, MATH2011, MATH2100, MATH2110, MATH2510, MATH2610

As for MATH2011 but in greater depth.

MATH2120 Mathematical Methods for Differential Equations
School of Mathematics
Staff Contact: School Office
UOC3 HPW2.5 S1 S2
Prerequisite/s: MATH1231 or MATH1241 or MATH1251
Excluded: MATH2019, MATH2029, MATH2059, MATH2130

Introduction to qualitative and quantitative methods for ordinary and partial differential equations. The following topics are treated by example. Ordinary differential equations: linear with constant coefficients, first-order systems, singularities, boundary-value problems, eigenfunctions, Fourier series. Bessel's equation and Legendre's equation. Partial differential equations: characteristics, classification, wave equation, heat equation, Laplace's equation, separation of variables methods, applications of Bessel functions and Legendre polynomials.

MATH2130 Higher Mathematical Methods for Differential Equations
School of Mathematics
Staff Contact: School Office
UOC3 HPW2.5 S2
Prerequisite/s: MATH1231 or MATH1241 or MATH1251 each with a mark of 70
Excluded: MATH2019, MATH2029, MATH2059, MATH2120

As for MATH2120 but in greater depth.

MATH2160 Linear Programming
School of Mathematics
Staff Contact: School Office
UOC3 HPW2 S1
Prerequisite/s: MATH1231 or MATH1241 or MATH1251
Corequisite/s: MATH2501 or MATH2601

A first course in mathematical modelling and solution techniques for linear problems. The revised simplex and dual simplex methods, theory and application of sensitivity analysis, duality theory. Networks, transportation and assignment problems. Examples, applications and computing methods are prominent features.

MATH2180 Operations Research
School of Mathematics
Staff Contact: School Office
UOC3 HPW2 S2
Prerequisite/s: MATH2160

Modelling and solution techniques for optimization problems of interest to business and industry. Topics are selected from linear programming, integer programming, (discrete) dynamic programming, project scheduling, game theory, queueing theory, inventory theory and simulation. Software packages are used to solve realistic problems.

MATH2200 Discrete Dynamical Systems
School of Mathematics
Staff Contact: School Office
UOC3 HPW2 S2
Prerequisite/s: MATH1231 or MATH1241 or MATH1251
Corequisite/s: MATH2501 or MATH2601

The study of dynamical systems whose states change at discrete points in time. Difference equations, general properties. Linear systems, stability, oscillations, Z-transforms. Nonlinear systems, critical points, periodic cycles, chaotic behaviour. Applications selected from engineering, biological, social and economic contexts.

MATH2220 Continuous Dynamical Systems
School of Mathematics
Staff Contact: School Office
UOC3 HPW2 S2
Prerequisite/s: MATH1231 or MATH1241 or MATH1251

The study of continuous dynamical systems. One-dimensional systems, kinematic waves, applications include traffic flow and waves in fluids. An introduction to the modelling of physical, biological and ecological systems, stability, oscillations and resonance.

MATH2240 Introduction to Oceanography and Meteorology
School of Mathematics
Staff Contact: School Office
UOC3 HPW2 S1
Prerequisite/s: 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.

MATH2301 Mathematical Computing A
School of Mathematics
Staff Contact: School Office
UOC6 HPW4 S1
Prerequisite/s: 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.

MATH2400 Finite Mathematics
School of Mathematics
Staff Contact: School Office
UOC3 HPW2 S1 S2
Prerequisite/s: 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/s: MATH1081 Discrete Mathematics is recommended.

MATH2430 Symbolic Computing
School of Mathematics
Staff Contact: School Office
UOC3 HPW2 S2
Prerequisite/s: MATH1231 or MATH1241 or MATH1251

This course considers various topics in how computers represent and manipulate symbolic and exact data. We consider the mathematics and algorithms behind the methods used by computer algebra systems to represent and treat exact numbers with unlimited precision. We also consider the algorithms they use to manipulate polynomials and to perform calculus. Most of the course is based on MAPLE, but other computer algebra systems will be discussed.

Note/s: MATH1081 is recommended.

MATH2501 Linear Algebra
School of Mathematics
Staff Contact: School Office
UOC6 HPW5 S1 S2
Prerequisite/s: MATH1231 or MATH1241 or MATH1251
Excluded: MATH2509, MATH2601

Vector spaces, linear transformations, change of basis. Inner products, orthogonalization, reflections and QR factorizations. Eigenvalues and eigenvectors, diagonalization. Jordan forms and functions of matrices. Applications to linear systems of differential equations, quadratics, rotations.

MATH2509 Linear Algebra for Engineers
School of Mathematics
Staff Contact: School Office
UOC3 HPW3 S2
Prerequisite/s: MATH1231 or MATH1241
Excluded: MATH2501, MATH2601

Vector spaces, linear transformations, change of basis. Orthogonalization, least squares approximation, QR factorization. Determinants. Eigenvalues and eigenvectors, diagonalization. Singular value decompositions. Jordan forms. Matrix exponentials and applications to systems of differential equations.

Note/s: Available only to students for whom it is specifically required as part of their program.

MATH2510 Real Analysis
School of Mathematics
Staff Contact: School Office
UOC3 HPW2.5 S1
Prerequisite/s: MATH1231 or MATH1241 or MATH1251
Excluded: MATH2019, MATH2039, MATH2049, MATH2011, MATH2111, MATH2610

Multiple integrals, partial differentiation. Analysis of real valued functions of one and several variables. Fourier series.

MATH2520 Complex Analysis
School of Mathematics
Staff Contact: School Office
UOC3 HPW2.5 S1 S2
Prerequisite/s: MATH1231 or MATH1241 or MATH1251
Excluded: MATH2620

Analytic functions, Taylor and Laurent series, integrals. Cauchy's theorem, residues, evaluation of certain real integrals.

MATH2601 Higher Linear Algebra
School of Mathematics
Staff Contact: School Office
UOC6 HPW5 S2
Prerequisite/s: 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.

MATH2610 Higher Real Analysis
School of Mathematics
Staff Contact: School Office
UOC3 HPW2.5 S1
Prerequisite/s: MATH1231 or MATH1241 or MATH1251 each with a mark of at least 70
Excluded: MATH2019, MATH2039, MATH2049, MATH2011, MATH2111, MATH2510

As for MATH2510 but in greater depth.

MATH2620 Higher Complex Analysis
School of Mathematics
Staff Contact: School Office
UOC3 HPW2.5 S2
Prerequisite/s: MATH1231 or MATH1241 or MATH1251 each with a mark of at least 70
Excluded: MATH2520

As for MATH2520 but in greater depth.

MATH2801 Theory of Statistics
School of Mathematics
Staff Contact: School Office
UOC6 HPW4 S1
Prerequisite/s: MATH1021 CR or MATH1231 or MATH1241 or MATH1251
Excluded: MATH2829, MATH2839, MATH2841, MATH2859, MATH2899, MATH2901, BIOS2041

Probability, random variables, standard distributions, bivariate distributions, transformations, central limit theorem, sampling distributions, point estimation, interval estimation, hypothesis testing.

MATH2810 Statistical Computing for Categorical Data
School of Mathematics
Staff Contact: School Office
UOC3 HPW2 S2
Prerequisite/s: MATH2801 or MATH2901
Excluded: MATH2910

This course will focus on the statistical computing tools appropriate for discrete-valued data. Exploratory and graphical analysis of data using modern statistical packages. Data visualisation. Analysis of cross-tabulated data. Logistic and Poisson regression for analysis of binary and count data. Log-linear models for contingency tables.

MATH2829 Statistics SU
School of Mathematics
Staff Contact: School Office
UOC3 HPW3 S1
Prerequisite/s: MATH1231 or MATH1241
Excluded: MATH1041, MATH2841, MATH2801, MATH2901, BIOS2041

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/s: Available only to students for whom it is specifically required as part of their program.

MATH2831 Linear Models
School of Mathematics
Staff Contact: School Office
UOC6 HPW4 S2
Prerequisite/s: MATH2801 or MATH2901
Excluded: MATH2931, BIOS2041

Multiple linear regression models and examples. Graphical methods for regression analysis. Multi-variate normal distribution. Quadratic forms (distributions and independence), Gauss-Markov theorem. Hypothesis testing. Model selection. Analysis of residuals. Influence diagnostics. Analysis of variance.

MATH2839 Statistics SM
School of Mathematics
Staff Contact: School Office
UOC3 HPW3 S2
Prerequisite/s: MATH1231 or MATH1241
Excluded: MATH1041, MATH2841, MATH2801, MATH2901, BIOS2041

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/s: Available only to students for whom it is specifically required as part of their program.

MATH2841 Statistics SS
School of Mathematics
Staff Contact: School Office
UOC6 HPW4 S2
Prerequisite/s: MATH1021 or MATH1231 or MATH1241 or MATH1251
Excluded: MATH2049, MATH2801, MATH2829, MATH2839, MATH2841, MATH2859, MATH2899, MATH2901, BIOS2041

An introduction to the theory of probability, with finite, discrete and continuous sample spaces. The standard univariate distributions: binomial, Poisson and normal, an introduction to multivariate distributions. Standard sampling distributions, including those of chi-square, t and F. Estimation by moments and maximum likelihood (including sampling variance formulae, and regression); confidence interval estimation. The standard tests of significance based on the above distributions, with a discussion of power where appropriate. An introduction to experimental design: fixed, random effect models.

Note/s: 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
Staff Contact: School Office
UOC3 HPW3 S1 S2
Prerequisite/s: MATH1231 or MATH1241
Excluded: MATH1041, MATH2841, MATH2801, MATH2901, BIOS2041

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. On-line and off-line estimation. Statistical quality control. Models, applications and statistical algorithms relevant to the fields of computer, electrical, software and telecommunications engineering.

Note/s: Available only to students for whom it is specifically required as part of their program.

MATH2899 Applied Statistics for Chemical Engineers
School of Mathematics
Staff Contact: School Office
UOC3 HPW3 S2
Prerequisite/s: MATH1231 or MATH1241
Excluded: MATH1041, MATH2841, MATH2801, MATH2901, BIOS2041

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/s: Available only to students for whom it is specifically required as part of their program.

MATH2901 Higher Theory of Statistics
School of Mathematics
Staff Contact: School Office
UOC6 HPW4 S1
Prerequisite/s: MATH1231 or MATH1241 or MATH1251
Excluded: MATH2801, MATH2829, MATH2839, MATH2841, MATH2859, MATH2899, BIOS2041

As for MATH2801 but in greater depth.

MATH2910 Higher Statistical Computing for Categorical Data
School of Mathematics
Staff Contact: School Office
UOC3 HPW2 S2
Prerequisite/s: MATH2901
Excluded: MATH2810

As for MATH2810 but in greater depth.

MATH2931 Higher Linear Models
School of Mathematics
Staff Contact: School Office
UOC6 HPW4 S2
Prerequisite/s: MATH2901
Excluded: MATH2831, BIOS2041

As for MATH2831 but in greater depth

MATH3000 Mathematics/Statistics Project
School of Mathematics
Staff Contact: School Office
Enrolment requires school approval
UOC3 HPW2 S1 S2
Prerequisite/s: 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
Staff Contact: School Office
Enrolment requires school approval
UOC6 HPW4 S1 S2
Prerequisite/s: 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
Staff Contact: School Office
Enrolment requires school approval
UOC12 HPW8 S1 S2
Prerequisite/s: 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 of approximately 12,000 words summarising the results of their project.

MATH3041 Mathematical Modelling for Real World Systems
School of Mathematics
Staff Contact: School Office
UOC6 HPW4 S1
Prerequisite/s: 12 units of credit in Level 2 Maths courses

Why are no two snowfakes 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.

MATH3101 Computer Methods for Differential Equations
School of Mathematics
Staff Contact: School Office
UOC6 HPW4 S1
Prerequisite/s: 12 units of credit in Level 2 Math courses
Excluded: MATH3141

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/s: This course includes a substantial computing component, and assumes some familiarity with Matlab.

MATH3121 Mathematical Methods
School of Mathematics
Staff Contact: School Office
UOC6 HPW4 S1
Prerequisite/s: 12 units of credit in Level 2 Math courses including MATH2120 or MATH2130
Excluded: MATH3141, MATH3150

Fundamental methods for solution of ordinary and partial differential equations in applied mathematics, physics and engineering. Revision of separation of variables. Sturm-Liouville theory, eigenfunction expansions and generalised Fourier series, orthogonal polynomials. Bessel functions. Fourier and Laplace transforms. The method of characteristics. Introduction to Green's functions.

Note/s: MATH2520 or MATH2620 is recommended.

MATH3141 Mathematical Methods EE
School of Mathematics
Staff Contact: School Office
UOC6 HPW4 S2
Prerequisite/s: MATH2501 or MATH2601 or MATH2509 and MATH2011or MATH2100 or MATH2110 or MATH2111 or MATH2510 or MATH2610
Excluded: MATH2120, MATH2130, MATH3101

Numerical methods: numerical errors, interpolation and approximation, numerical integration, ordinary differential equations, nonlinear equations, linear systems, matrix factorizations, orthogonalization, iterative methods for linear systems and eigenvalue problems, optimization. Differential equations: linear differential equations, series solution of differential equations, Bessel functions, orthogonal polynomials, eigenvalue problems, generalized Fourier series, partial differential equations and boundary value problems.

Note/s: Not available in the Science program unless specified as part of a combined degree program.

MATH3161 Optimization Methods
School of Mathematics
Staff Contact: School Office
UOC6 HPW4 S1
Prerequisite/s: 12 units of credit in Level 2 Math courses including MATH2501 or MATH2601 and MATH2011 or MATH2100 or MATH2110 or MATH2111 or MATH2510 or MATH2610

Development, analysis and application of methods for optimization problems. Theory of multivariable optimization; including necessary and sufficient optimality conditions, stationary points, Lagrange multipliers, Kuhn-Tucker conditions, convexity and duality. Numerical methods for one dimensional minimization, unconstrained multivariable minimization (including steepest descent, Newton, quasi-Newton and conjugate gradient methods) and constrained multi-variable minimization (including linear programming and quadratic programming).

MATH3181 Optimal Control
School of Mathematics
Staff Contact: School Office
UOC6 HPW4 S2
Prerequisite/s: 12 units of credit in Level 2 Math courses including MATH2011 or MATH2100 or MATH2110 or MATH2111 or MATH2510 or MATH2610

An introduction to the optimal control of dynamical systems. Mathematical descriptions of dynamical systems. Stability, controllability, and observability. Optimal control. Calculus of variations. Dynamic programming. Examples and applications are selected from biological, economical and physical systems.

MATH3201 Dynamical Systems and Chaos
School of Mathematics
Staff Contact: School Office
UOC6 HPW4 S2
Prerequisite/s: 12 units of credit in Level 2 Math courses including MATH2120 or MATH2130 or MATH3541 or MATH3641

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.

MATH3241 Fluid Dynamics
School of Mathematics
Staff Contact: School Office
UOC6 HPW4 S1
Prerequisite/s: 12 units of credit in Level 2 Math courses including MATH2011 or MATH2100 or MATH2110 or MATH2111 and MATH2120 or MATH2130

The mathematical modelling and theory of problems arising in the flow of fluids. Cartesian tensors, kinematics, mass conservation, vorticity, Navier-Stokes equation. Topics from inviscid and viscous fluid flow, gas dynamics, sound waves, water waves.

MATH3261 Atmosphere-Ocean Dynamics
School of Mathematics
Staff Contact: School Office
UOC6 HPW4 S2
Prerequisite/s: 12 units of credit in Level 2 Math courses including MATH2011 or MATH2100 or MATH2110 or MATH2111 and MATH2120 or MATH2130
Excluded: MATH3270

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 variablity is examined using models for buoyant forcing, quasi-geostrophy and baroclinic instability.

MATH3301 Mathematical Computing B
School of Mathematics
Staff Contact: School Office
UOC6 HPW4 S2
Prerequisite/s: 12 units of credit in Level 2 Math courses including MATH2120 or MATH2130 and MATH2301

The design and use of computer programs to solve practical mathematical problems. Introduction to Fortran90, partial differential equations, heat equation, iterative methods for linear systems, sparse matrix techniques, mathematical software libraries, code optimization and high performance computing.

MATH3311 Mathematical Computing for Finance
School of Mathematics
Staff Contact: School Office
UOC6 HPW4 S2
Prerequisite/s: MATH2120 or MATH2130 and MATH2501 or MATH2601 and 6 units of credit in Level 2 Statistics
Excluded: MATH3301

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.

MATH3411 Information, Codes and Ciphers
School of Mathematics
Staff Contact: School Office
UOC6 HPW4 S2
Prerequisite/s: MATH1081 or MATH1090

Discrete communication channels: information theory, compresssion and error control coding, cryptography.

MATH3421 Logic and Computability
School of Mathematics
Staff Contact: School Office
UOC6 HPW4 S1
Prerequisite/s: MATH1081 or MATH1090

Software is written in the language of logic, and logic is the science on which computing is based. This course develops the classical mathematics of propositional and predicate logic and automata, which inspired the founders of computing such as Turing and von Neumann. Topics include Propositional calculus: formal proofs and the Deduction theorem; consistency, completeness, compactness, independence of axioms. Predicate calculus: interpretations; axiomatisations; soundness, completeness and compactness theorems; nonstandard analysis; Peano arithmetic and Godel's incompleteness theorems. Automata: deterministic and non-deterministic finite automata, regular languages. Computability: algorithms; Turing machines, computable and uncomputable functions; Church's thesis, different formalisations of computation; unsolvable problems; recursive functions:

MATH3511 Transformations, Groups and Geometry
School of Mathematics
Staff Contact: School Office
UOC6 HPW4 S2
Prerequisite/s: 12 units of credit in Level 2 Math courses
Excluded: MATH3710, MATH3780

Euclidean geometry, geometry of triangles, transformations, groups, symmetries, projective geometry.

MATH3521 Algebraic Techniques in Number Theory
School of Mathematics
Staff Contact: School Office
UOC6 HPW4 S1
Prerequisite/s: 12 units of credit in Level 2 Math courses
Excluded: MATH3710, MATH3740

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.

MATH3531 Topology and Differential Geometry
School of Mathematics
Staff Contact: School Office
UOC6 HPW4 TBA
Prerequisite/s: 12 units of credit in Level 2 Math courses including MATH2011 or MATH2111or MATH2510 or MATH2610
Excluded: MATH3760

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/s: Not offered in 2002.

MATH3541 Differential Equations
School of Mathematics
Staff Contact: School Office
UOC6 HPW4 S1
Prerequisite/s: 12 units of credit in Level 2 Math courses including MATH2501 or MATH2601and MATH2520 or MATH2620
Excluded: MATH3641

Initial value problems, linear systems, variation of parameters, applications to physical and biological systems, autonomous nonlinear systems, Lyapunov's method, linear approximations, plane autonomous systems, cycles and bifurcations, the Poincare-Bendixson theorem, introduction to first order PDEs, classification and normal forms for second order equations, the Cauchy-Kowalewski Theorem, Dirichlet and Neumann problems associated with the Laplace operator in two variables.

MATH3560 History of Mathematics
School of Mathematics
Staff Contact: School Office
UOC3 HPW2 S2
Prerequisite/s: 12 units of credit in Level 2 Math 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 pot-pourri 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.

MATH3570 Foundations of Calculus
School of Mathematics
Staff Contact: School Office
UOC3 HPW2 S1
Prerequisite/s: 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.

MATH3610 Higher Real Analysis
School of Mathematics
Staff Contact: School Office
UOC3 HPW2 S1
Prerequisite/s: 12 units of credit in Level 2 Math courses including MATH2111 or MATH2610 or MATH2011(CR) or MATH2510(CR), with an average mark of at least 75 or permission from the Head of Department
Excluded: MATH3570

The limit processes of analysis, metric spaces, uniform convergence, Arzela-Ascoli theorem, Stone-Weierstrass theorem, Riemann integral.

Note/s: Students wishing to enrol in Level III Higher Pure Mathematics courses should consult with the Pure Mathematics Department before enrolling.

MATH3620 Higher Functional Analysis
School of Mathematics
Staff Contact: School Office
UOC3 HPW2 S2
Prerequisite/s: MATH3610 and MATH2601 or MATH2501(CR)

Functional analysis is the discipline which has arisen out of the attempt to extract from diverse problems of analysis their common underlying features and to develop an abstract theory which is applicable to these diverse problems as particular cases. The purpose of the course is to introduce students to part of the vast field of functional anlysis in such a manner that they will see that the theory was stimulated by concrete problems. The course should also be helpful to students of disciplines other than mathematics who must make effective use of a somewhat limited mathematical training. The course covers Hilbert spaces, the theory of compact operators, Banach spaces, the closed graph theorem, the Hahn-Banach theorem, Fourier series and Plancherel's theorem.

Note/s: Students wishing to enrol in Level III Higher Pure Mathematics courses should consult with the Pure Mathematics Department before enrolling.

MATH3630 Higher Integration and Mathematical Probability
School of Mathematics
Staff Contact: School Office
UOC3 HPW2 TBA
Prerequisite/s: MATH3610

Rings and algebras of sets, Lebesgue integration, dominated convergence theorem, Lp-spaces, Borel-Cantelli theorem, Riesz representation theorem, Fubini's theorem, stochastic processes, random variables, martingales.

Note/s: Offered in odd numbered years only. Students wishing to enrol in Level III Higher Pure Mathematics courses should consult with the Pure Mathematics Department before enrolling.

MATH3641 Higher Differential Equations
School of Mathematics
Staff Contact: School Office
UOC6 HPW4 S1
Prerequisite/s: 12 units of credit in Level 2 Math courses including MATH2601 or MATH2501(CR) and MATH2620 or MATH2520(CR), with an average mark of at least 75 or permission from the Head of Department
Excluded: MATH3541

As for MATH3541 but in greater depth.

Note/s: Students wishing to enrol in Level III Higher Pure Mathematics courses should consult with the Pure Mathematics Department before enrolling.

MATH3670 Higher Set Theory and Topology
School of Mathematics
Staff Contact: School Office
UOC3 HPW2 TBA
Corequisite/s: MATH3610

The course begins with an introduction to the Zermelo-Fraenkel axioms of set theory which many mathematicians take as the starting point for mathematics. The Axiom of Choice. Cantor's theory of cardinality which gives a way of distinguishing different sizes of infinite sets. The majority of the course looks at point set topology, which allows the extension of the ideas of limit and continuity to very general settings. The topics covered are topological spaces, generalized sequences, metric spaces, compactness, quotient and product topologies.

Note/s: Offered in odd numbered years only. Students wishing to enrol in Level III Higher Pure Mathematics courses should consult with the Pure Mathematics Department before enrolling.

MATH3680 Higher Complex Analysis
School of Mathematics
Staff Contact: School Office
UOC3 HPW2 S1
Prerequisite/s: 12 units of credit in Level 2 Math courses including MATH2620 or MATH2520(CR), with an average mark of at least 75 or permission from the Head of Department.

Topics in advanced complex function theory from: conformal mappings, analytic continuation, entire and meromorphic functions, elliptic functions, asymptotic methods, integral formulae, harmonic functions, Riemann surfaces.

Note/s: MATH3610 is recommended. Offered in even numbered years only. Students wishing to enrol in Level III Higher Pure Mathematics courses should consult with the Pure Mathematics Department before enrolling.

MATH3710 Higher Algebra 1
School of Mathematics
Staff Contact: School Office
UOC3 HPW2 S1
Prerequisite/s: 12 units of credit in Level 2 Math courses including MATH2601 or MATH2501(CR), with an average mark of at least 75 or permission from the Head of Department
Excluded: MATH3511, MATH3521

Groups, sub-groups, factor groups, matrix groups, Sylow theorems, isomorphism theorems, rings, ideals, factor rings, fields, algebraic and transcendental extensions, constructability, finite fields.

Note/s: Students wishing to enrol in Level III Higher Pure Mathematics courses should consult with the Pure Mathematics Department before enrolling.

MATH3720 Higher Algebra 2
School of Mathematics
Staff Contact: School Office
UOC3 HPW2 S2
Prerequisite/s: MATH3710

Galois theory, additional group theory, representations and characters of finite groups.

Note/s: Students wishing to enrol in Level III Higher Pure Mathematics courses should consult with the Pure Mathematics Department before enrolling.

MATH3730 Higher Advanced Algebra
School of Mathematics
Staff Contact: School Office
UOC3 HPW2 TBA
Prerequisite/s: MATH3710

Topics from: rings, commutative rings, factorisation theory, modules, associative and Lie algebras, Wedderburn theory, category theory.

Note/s: Offered in odd numbered years only. Students wishing to enrol in Level III Higher Pure Mathematics courses should consult with the Pure Mathematics Department before enrolling.

MATH3740 Higher Number Theory
School of Mathematics
Staff Contact: School Office
UOC3 HPW2 S2
Prerequisite/s: 12 units of credit in Level 2 Math courses with an average mark of at least 75 or permission from the Head of Department
Excluded: MATH3521

Topics from: elementary number theory, prime numbers, number theoretic functions, Dirichlet series, prime number theorem, continued fractions, Diophantine approximation, quadratic reciprocity, algebraic number theory, class number theorem.

Note/s: Offered in even numbered years only. Students wishing to enrol in Level III Higher Pure Mathematics courses should consult with the Pure Mathematics Department before enrolling.

MATH3760 Higher Topology and Differential Geometry of Surfaces
School of Mathematics
Staff Contact: School Office
UOC3 HPW2 S1
Prerequisite/s: 12 units of credit in Level 2 Math courses including MATH2111 or MATH2610 or MATH2011(CR) or MATH2510(CR) and MATH2601 or MATH2501(CR), with an average mark of at least 75 or permission from the Head of Department
Excluded: MATH3531

The study of surfaces in three dimensional space is a natural extension of the investigation of curves in the plane. Curvature plays a fundamental role, and Einstein's theory of relativity was a spectacular application. In this course we study the classical Frenet formulae for curves in space, develop elementary differential geometry on surfaces including the first and second fundamental forms of Gauss, and derive the Gauss Bonnet Theorem. We show that the total curvature of a surface is a topological invariant and discuss homotopy, homology and the classification of topological surfaces. So this course is an introduction to both differential geometry and algebraic topology.

Note/s: Students wishing to enrol in Level III Higher Pure Mathematics courses should consult with the Pure Mathematics Department before enrolling.

MATH3770 Higher Calculus on Manifolds
School of Mathematics
Staff Contact: School Office
UOC3 HPW2 TBA
Prerequisite/s: MATH3760

Manifolds, vector fields, flows, introduction to Morse theory, differential forms, Stokes theorem, de Rham cohomology.

Note/s: Offered in odd numbered years only. Students wishing to enrol in Level III Higher Pure Mathematics courses should consult with the Pure Mathematics Department before enrolling.

MATH3780 Higher Geometry
School of Mathematics
Staff Contact: School Office
UOC3 HPW2 S2
Prerequisite/s: MATH3710
Excluded: MATH3511

Axiomatic geometry, affine geometry, Desargues theorem, projective geometry, spherical and hyperbolic geometry.

Note/s: Offered in even numbered years only. 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
Staff Contact: School Office
UOC6 HPW4 S1
Prerequisite/s: 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
Staff Contact: School Office
UOC6 HPW4 S1
Prerequisite/s: MATH2831 or MATH2931
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
Staff Contact: School Office
UOC6 HPW4 S2
Prerequisite/s: 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.

MATH3830 Design and Analysis of Experiments
School of Mathematics
Staff Contact: School Office
UOC3 HPW2 S2
Prerequisite/s: MATH2831 or MATH2931
Excluded: MATH3930

Principles of good experimental design with a focus on industrial quality improvement. Factorial designs and their analysis. Response surface designs for product and process optimisation. Random effects models and components of variance.

Note/s: Offered in even numbered years only.

MATH3831 Statistical Methods in Social and Market Research
School of Mathematics
Staff Contact: School Office
UOC6 HPW4 TBA
Prerequisite/s: MATH2801 or MATH2901
Excluded: MATH2840, MATH2940, MATH3931

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.

Note/s: Offered in odd numbered years only.

MATH3841 Statistical Analysis of Dependent Data
School of Mathematics
Staff Contact: School Office
UOC6 HPW4 S2
Prerequisite/s: 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.

MATH3880 Advanced Probability
School of Mathematics
Staff Contact: School Office
UOC3 HPW2 S2
Prerequisite/s: MATH3801 or MATH3901
Excluded: MATH3980

Measure spaces. Probability spaces. Random variables. Independence. Expectation. Conditional expectation. Martingales.

MATH3890 Special Topics in Statistics
School of Mathematics
Staff Contact: School Office
UOC3 HPW2 S2
Prerequisite/s: MATH2831 or MATH2931

New developments in statistical science theory and methods.

MATH3901 Higher Probability and Stochastic Processes
School of Mathematics
Staff Contact: School Office
UOC6 HPW4 S1
Prerequisite/s: MATH2501 or MATH2601 and MATH2011 or MATH2111 or MATH2510 or MATH2610 and MATH2901
Excluded: MATH3801

As for MATH3801 but in greater depth.

MATH3911 Higher Statistical Inference
School of Mathematics
Staff Contact: School Office
UOC6 HPW4 S1
Prerequisite/s: MATH2931
Excluded: MATH3811, MATH3840, MATH3850, MATH3940, MATH3950

As for MATH3811 but in greater depth.

MATH3930 Higher Design and Analysis of Experiments
School of Mathematics
Staff Contact: School Office
UOC3 HPW2 S2
Prerequisite/s: MATH2901
Excluded: MATH3830

As for MATH3830 but in greater depth.

Note/s: Offered in even numbered years only.

MATH3931 Higher Statistical Methods in Social and Market Research
School of Mathematics
Staff Contact: School Office
UOC6 HPW4 TBA
Prerequisite/s: MATH2901
Excluded: MATH2840, MATH2940, MATH3831

As for MATH3831 but in greater depth.

Note/s: Offered in odd numbered years only.

MATH3941 Higher Statistical Analysis of Dependent Data
School of Mathematics
Staff Contact: School Office
UOC6 HPW4 S2
Prerequisite/s: MATH3911
Excluded: MATH3820, MATH3870, MATH3841, MATH3920, MATH3970

As for MATH3841 but in greater depth.

MATH3980 Higher Advanced Probability
School of Mathematics
Staff Contact: School Office
UOC3 HPW2 S2
Prerequisite/s: MATH3901
Excluded: MATH3880

As for MATH3880 but in greater depth.

MATH4003 Mathematics and Computer Science Honours (Full Time)
School of Mathematics
Staff Contact: School Office
Enrolment requires school approval
UOC24 HPW24 S1 S2

Undergraduate thesis in Applied Mathematics or Pure Mathematics together with advanced lectures on topics chosen half from MATH4103 or MATH4603, and half from Computer Science.

Note/s: To enter Mathematics Level IV, students must be 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.

MATH4004 Mathematics and Computer Science Honours (Part Time)
School of Mathematics
Staff Contact: School Office
Enrolment requires school approval
UOC12 HPW12 S1 S2

Undergraduate thesis in Applied Mathematics or Pure Mathematics together with advanced lectures on topics chosen half from MATH4103 or MATH4603, and half from Computer Science.

Note/s: See notes for MATH4003.

MATH4012 Mathematics and Finance Thesis Project
School of Mathematics
Staff Contact: School Office
Enrolment requires school approval
UOC12 HPW5 S1 S2

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/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
Staff Contact: School Office
Enrolment requires school approval
UOC24 HPW24 S1 S2

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/s: See notes for MATH4003.

MATH4104 Applied Mathematics Honours (Part Time)
School of Mathematics
Staff Contact: School Office
Enrolment requires school approval
UOC12 HPW12 S1 S2

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/s: See notes for MATH4003.

MATH4603 Pure Mathematics Honours(Full Time)
School of Mathematics
Staff Contact: School Office
Enrolment requires school approval
UOC24 HPW24 S1 S2

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/s: 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
Staff Contact: School Office
Enrolment requires school approval
UOC12 HPW12 S1 S2

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/s: 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
Staff Contact: School Office
Enrolment requires school approval
UOC24 HPW24 S1 S2

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/s: See notes for MATH4003.

MATH4904 Statistics Honours (Part Time)
School of Mathematics
Staff Contact: School Office
Enrolment requires school approval
UOC12 HPW12 S1 S2

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/s: See notes for MATH4003.

MATS1002 Microstructure Analysis
School of Material Science and Engineering
Staff Contact: School Office
Enrolment requires school approval
UOC3 HPW3 S2

Specimen preparation techniques. Principles of optical microscopy. Quantitative microscopy and stereology. Electron microscopy. Microchemical analysis.

Note/s: Restricted to Combined degree course 3681.

MATS1013 Diffusion and Kinetics
School of Material Science and Engineering
Staff Contact: School Office
UOC3 HPW2 S1

Unit 1 DiffusiionStaff Contact: Professor David YoungFick'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 KineticsStaff Contact: Professor Oleg OstrovskiElementary 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 Material Science and Engineering
Staff Contact: M Hoffman
UOC3 HPW3 S1

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 involving heat transfer and stress analysis.

MATS1072 Physics of Materials
School of Material Science and Engineering
Staff Contact: M Ferry
Enrolment requires school approval
UOC4 HPW3 S1 S2
Prerequisite/s: PHYS1002 or PHYS1221 or PHYS1231

Interatomic bonding in solid materials. Types of interatomic bonds, metallic, covalent, ionic. Introductory quantum mechanics in one dimension, free electron theory, effects of periodic potential, density of states curves. Effect of electron to atom ratio on conductivity and crystal structure; semiconductors; intrinsic, extrinsic. Exchange energy; ferromagnetism, antiferromagnetism. Elementary perturbation theory, covalent bond; crystal structures, properties. Ionic bond, force models, properties.

MATS1082 Thermodynamics of Materials 1
School of Material Science and Engineering
Staff Contact: O Ostrovski
Enrolment requires school approval
UOC4 HPW3 S2

Fundamental principles of the thermodynamics of closed and open systems. Phase equilibria, the stability and composition of coexisting phases. Chemical potential, fugacities and activities of gases and gas mixtures. The thermodynamics of nucleation and growth of precipitates and spinodal decomposition. Order-disorder in phases. Tabular, analytical and diagrammatic representation of thermodynamic properties. Mass and energy balances. Application of thermodynamics to materials properties and preparation.

MATS1092 Materials and Design 1
School of Material Science and Engineering
Staff Contact: A Crosky
UOC3 HPW2 S1

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.

MATS1093 Thermodynamics of Materials 2
School of Material Science and Engineering
Staff Contact: O Ostrovski
UOC3 HPW2 S1
Prerequisite/s: MATS1082 or MATS1182

Thermodynamics of solutions. Partial and integral thermodynamic functions, excess functions. Thermo-dynamic activity and activity coefficient. Standard states for solute components. Models of solutions. Thermo-dynamic stability. Calculation of phase diagrams. Perfect and regular ionic solutions. Calculation of chemical equilibria in complex systems.

MATS1111 Materials Science 1
School of Material Science and Engineering
Staff Contact: School Office
UOC3 HPW3 S2

Metals, ceramics, polymers and composites, their structure, chemical, physical and mechanical properties, engineering applications and production with particular reference to Australian industries. Role of materials science and engineering in materials industry. Information retrieval. Communication skills. Plant visits. Introductory materials laboratories.

MATS1112 Phase Equilibrium
School of Material Science and Engineering
Staff Contact: School Office
Enrolment requires school approval
UOC3 HPW2 S2

Phase rule. Two-component systems: free energy- composition and temperature composition diagrams, solubility limits, compound formation, invariants. Three-component systems: isothermal sections and liquidus projections. Solidification and crystallization; cooling curves, crystallization paths.

MATS1142 Crystallography and X-Ray Diffraction
School of Material Science and Engineering
Staff Contact: School Office
Enrolment requires school approval
UOC3 HPW3 S2

Introduction to crystallography, crystal structure, Bravais lattices, Miller indices, Miller-Bravais indices. Production, adsorption and diffraction of X-rays. Powder and single crystal X-ray methods. Stereographic projection.

Application of diffraction methods to solid solutions, thermal analysis, stress measurement, X-ray fluorescence spectroscopy chemical analysis.

MATS1152 Materials Engineering 1B
School of Material Science and Engineering
Staff Contact: A Yu
UOC6 HPW4 S2

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.

MATS1162 Mechanical Properties of Materials
School of Material Science and Engineering
Staff Contact: School Office
Enrolment requires school approval
UOC4 HPW3 S1

Nature and significance of mechanical properties. Stress-strain-time relationships for organic and inorganic solids; effects of stress state, temperature and strain rate. Mechanical testing: tension, compression, hardness and impact tests. Analysis of stress and strain: stress and strain transformation, Mohr's circle, elastic stress-strain relationships, failure criteria, application to metalworking processes.

MATS1163 Chemistry of the Solid State
School of Material Science and Engineering
Staff Contact: C Sorrell
Enrolment requires school approval
UOC3 HPW2 S2

Crystal chemistry; nature of bonding in solids, silicate structures; and structure-composition relationships. Glass and glass-ceramics. Reaction with solids, grain boundary and interfacial effects, ceramic reactions, and polymorphic transformations (oxides, non-oxides, alumino-silicates).

MATS1172 Physical Properties of Materials
School of Material Science and Engineering
Staff Contact: M Ferry
UOC3 HPW3 S2

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.

MATS1182 Thermodynamics of Materials and Phase Equilibria
School of Material Science and Engineering
Staff Contact: School Office
UOC6 HPW4 S2
Prerequisite/s: CHEM2817

Unit 1Thermodynamics of Materials Staff Contact: Professor Oleg Ostrovski. Thermodynamic functions and systems. The first thermodynamic law and its applications. Heat of formation and reaction. The second thermodynamic law and its applications. Heat capacity and entropy of gases, solids and liquids. Direction and extent of chemical reaction. Ellingham and Pourbaix diagrams. Thermodynamics of solutions. Gibbs-Duhem equation. Thermodynamic activity. Perfect solution. Unit 2 Phase Equilibria Staff Contact: Dr Michael Ferry. Phase rule. Two component systems: free energy-composition and temperature-composition diagrams, solubility limits, compound formation. Three-component systems: isothermal sections and liquidus projections. Solidification and crystallization; cooling curves, crystallization paths.

MATS1183 Non-Ferrous Physical Metallurgy
School of Material Science and Engineering
Staff Contact: School Office
Enrolment requires school approval
UOC3 HPW2 S2

Constitution, microstructure, processing and properties of non-ferrous alloys. Cast and wrought alloys based on aluminium, copper, magnesium, lead, tin and zinc.

MATS1213 Design for Corrosion Control
School of Material Science and Engineering
Staff Contact: D Young
Enrolment requires school approval
UOC3 HPW2 S2

Electrochemical corrosion, types of corrosion, influence of alloying and heat treatment, influence of stress. Corrosion prevention, cathodic protection, passivation and inhibitors, selection of materials, designing against corrosion.

MATS1214 Welding and Other Joining Processes
School of Material Science and Engineering
Staff Contact: A Crosky
UOC3 HPW2 S2

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.

MATS1232 Materials Engineering 1A
School of Material Science and Engineering
Staff Contact: V Sahajwalla
UOC3 HPW3 S1

Fluid flow 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.

MATS1242 Crystallographic and Microstructural Characteristics
School of Material Science and Engineering
Staff Contact: P Munroe
UOC6 HPW6 S2

Introduction to crystallography, crystal structure, Bravais lattices, Miller indices, Miller-Bravais indices. Production, adsorption and diffraction of X-rays. Powder and single crystal X-ray methods. Stereographic projection. Application of diffraction methods to solid solutions, thermal analysis, stress measurement, X-ray fluorescence spectroscopy chemical analysis. Specimen preparation techniques. Principles of optical microscopy. Quantitative microscopy and sterology. Electron microscopy. Microchemical analysis.

MATS1243 Management 1
School of Material Science and Engineering
Staff Contact: School Office
Enrolment requires school approval
UOC4 HPW3 S2

Micro-economic principles. Supply and demand analysis. Comparison of benefits and costs. Macro-economic principles. Fiscal policy. Investment and monetary policy. Inflation and unemployment. Basic accounting concepts. Interpreting financial statements. Management accounting. The legal environment of business. Contracts. Products and services liability. Industrial relations. Industrial conflict. Wage determination. Operations management: systems, strategies and benefits. Quality assurance, and quality management systems. The elements of total quality management, TQM.

MATS1244 Materials Industry Management A
School of Material Science and Engineering
Staff Contact: School Office
UOC6 HPW4 S1

Unit 1 Industrial management in the materials industry. Major issues, research findings and strategies relating to management of people in organisations. Topics include management and power, leadership, managerial decision-making, stress at work, group dynamics and inter-group conflict, organisational design, goal setting and performance appraisal, personal and organisational development, occupational health and safety, risk management. Marketing: principles of marketing and selling; marketing research, pricing strategies and marketing programs. Project management: project definition, planning and scheduling, esimating cost, project control, modification and closure. Unit 2 Industrial Training. Students are required to complete a minimum of twelve weeks of approved industrial training prior to the commencement of the final year of the program.

MATS1262 Mechanical Properties of Materials
School of Material Science and Engineering
Staff Contact: S Bandyopadhyay
UOC6 HPW5 S1

Nature and significance of mechanical properties. Stress-strain relationships of metals, ceramics and polymers; oriented materials, textiles. Elasticity, anelasticity, plasticity, superplasticity. Young's modulus, Shear modulus, bulk modulus, Poisson's ratio. Creep, fatigue and visco-elasticity. Mechanical testing : tension, compression, hardness and impact tests. Stress and strain transformation. Mohr's circle. Fundamentals of stress analysis. Failure criteria. Application to materials' working processes.

MATS1283 Ferrous Physical Metallurgy
School of Material Science and Engineering
Staff Contact: School Office
Enrolment requires school approval
UOC3 HPW3 S1

Binary and ternary iron-carbon equilibria. Carbon steel, phase transformation, microstructures, heat treatment and mechanical properties. Microstructure and properties of grey, white, malleable, ductile and alloy cast irons.

MATS1343 Materials Industry Management B
School of Material Science and Engineering
Staff Contact: School Office
Enrolment requires school approval
UOC3 HPW3 S2

Application of micro-economic principles in industrial organisations: supply and demand analysis, comparison of benefits and costs. Macro-economic principles: fiscal policy, investment and monetary policy, Inflation and unemployment. Basic accounting concepts, interpreting financial statements. Management accounting. The legal environment of business: contracts, products and services liability. Industrial relations: industrial conflict, wage determination. Operations management: systems, strategies and benefits. Quality assurance, and quality management systems, elements of total quality management, TQM.

MATS1354 Design Project
School of Material Science and Engineering
Staff Contact: A Crosky
UOC3 HPW3 S1

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 Material Science and Engineering
Staff Contact: School Office
UOC3 HPW2 S2

Coatings for corrosion prevention, engineering and decorative purposes. Adhesion. Surface modification. Specifications for coating systems. Selection, testing and evaluation of coatings. Classification of wear modes. Mechanisms of adhesive and abrasive wear. Selection, testing and evaluation of matrials for wear mitigation. Wear-resistant materials.

MATS1464 Professional Communication and Presentation
School of Material Science and Engineering
Staff Contact: C Sorrell
UOC3 HPW2 S1

Presentation skills: public speaking, presentation techniques, visual aids, library usage. Honours thesis: guidelines for thesis preparation, two oral presentations. Job search skills: curriculum vitae, cover letter, interviews.

MATS1901 Industrial Training
School of Material Science and Engineering
Staff Contact: School Office
UOC24 S1

MATS1902 Industrial Training A
School of Material Science and Engineering
Staff Contact: School Office
UOC24 S1

Industrial Training (Co-op IT. 2)

MATS1903 Industrial Training B
School of Material Science and Engineering
Staff Contact: School Office
UOC24 S2

Industrial Training (Co-op IT. 3)

MATS2013 Ceramic Materials
School of Material Science and Engineering
Staff Contact: C Sorrell
UOC3 HPW3 S1
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.

MATS2153 Ceramic Processing Laboratory 3
School of Material Science and Engineering
Staff Contact: O Standard
Enrolment requires school approval
UOC3 HPW3 S2

Laboratory program illustrating processing and engineering aspects of ceramic technology. Students are required to take part in a series of factory inspections.

MATS2183 Refractories
School of Material Science and Engineering
Staff Contact: C Sorrell
Enrolment requires school approval
UOC3 HPW2 S2

Classification of refractories. Chemical and physical properties of refractories. Introduction to raw materials and manufacturing technology. A detailed study of chemical reactions occurring between refractories and solid, liquid and gas phases in ferrous and nonferrous metal industries. Review of phase equilibria.

MATS2203 Physico-Chemical Ceramics Laboratory
School of Material Science and Engineering
Staff Contact: C Sorrell
Enrolment requires school approval
UOC3 HPW3 S2

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.

MATS2213 Diffusion
School of Material Science and Engineering
Staff Contact: D Young
Enrolment requires school approval
UOC3 HPW2 S1

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.

MATS2223 Phase Transformation
School of Material Science and Engineering
Staff Contact: M Ferry
Enrolment requires school approval
UOC4 HPW3 S2

Solidification: single phase, eutectic and neareutectic, peritectic. Diffusional transformation: percipitation, ripening, cooperative transformations, TTT and CCT curves. Diffusionless transformations: crystallography, nucleation and growth modes.

MATS2263 Sintering of Ceramics
School of Material Science and Engineering
Staff Contact: O Standard
Enrolment requires school approval
UOC3 HPW2 S2

Introduction to sintering: definitions of sintering, brief history of sintering, driving forces for sintering, mass transport mechanisms, and atomic mobility. Solid-state sintering: mass transport mechanisms, stages of sintering, microstructure and processing considerations. Liquid-phase sintering: thermodynamic and microstructural considerations, liquid-phase sintering models. Reactive sintering processes: reactive sintering, reaction

bonding, and transient-liquid phase sintering and reactive hot compaction. Pressure-assisted sintering: effect of pressure in sintering, deformation mechanisms, densification maps, and pressure-assisted sintering processes. Secondary phenomena: phase transformation, chemical reactions, and firing shrinkage and warpage. Introduction to sintering technology.

MATS2294 Thermal and Mechanical Properties of Ceramics
School of Material Science and Engineering
Staff Contact: School Office
UOC3 HPW3 S2

Heat capacity, measurement of heat capacity and factors affecting heat capacity. Thermal expansion, measurment 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 for ceramics, and case studies.

MATS2313 Chemistry of Ceramics
School of Material Science and Engineering
Staff Contact: C Sorrell
Enrolment requires school approval
UOC3 HPW2 S2

Geological origin and classification of ceramic raw materials. Composition, crystal structures, physical properties, chemical reactions, and physical aspects of production of: clay minerals and commercial clays, silicates, porcelain, whitewares, cements and plaster, advanced high purity ceramics, refractory oxides, and cermets.

MATS2314 Glass-Based Ceramics
School of Material Science and Engineering
Staff Contact: School Office
UOC3 HPW2 S2

Raw materials, glass compositions and types of glasses. Glass composition calculations. Glass forming processes. Design and construction of glass tanks. Electric melting. Fusion casting, crystal growth from melts. Relationship between composition and properties of glasses. Glass ceramics: compositions, melt forming, nucleation and crystallisation, and properties. Glazes and enamels: preparation of glazes, glaze calculations, design of glazes for bodies, chemical reactions, glaze body stress and defects, and porcelain enamels.

MATS2363 Ceramic Processing and Design
School of Material Science and Engineering
Staff Contact: O Standard
UOC3 HPW3 S2
Prerequisite/s: MATS5013
Excluded: MATS2353

Forming of ceramics: forming processes and equipment used in traditional and technical ceramics, advanced forming processes, and forming problems. Drying of ceramics: review of the drying process, statics of drying (psychrometry), kinetics of drying, principles of dryer design, drying problems, and drying case studies. Firing of ceramics: review of chemical and physical processes, statics of firing (mass and energy balances on kilns), dynamics of firing and design of firing cycles, advanced kiln design, fast firing processes, and firing case studies.

MATS3064 Composite Materials
School of Material Science and Engineering
Staff Contact: A Crosky
UOC3 HPW2 S2

Philosophy of a composite. Fibre and matrix materials. Role of the interface. Polymer matrix, metal matrix and ceramic matrix composites. Physico-chemical characteristion. Strengthening and toughening mechanisms. Effect of reinforcement volume fraction. Size and size distribution. Properties of composites. Fabrication techniques. Design with composites. Applications.

MATS3443 Polymer Science and Engineering
School of Material Science and Engineering
Staff Contact: S Bandyopadhyay
UOC3 HPW3 S1

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 Material Science and Engineering
Staff Contact: V Sahajwalla
UOC6 S1 S2

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 Material Science and Engineering
Staff Contact: S Bandyopadhyay
Enrolment requires school approval
UOC3 HPW3 S2

Critical effects of temperature on behaviour of thermoplastics under load; Comparisons with thermosets; Factors contributing to strength and toughness; Yield, deformation and fracture; Crazing; Effects of environment.

MATS3574 Polymer Engineering 2
School of Material Science and Engineering
Staff Contact: S Bandyopadhyay
UOC3 HPW3 S2

Strategies to reduce stress and increase toughness. Creep, recovery and stress relaxation. Time-temperature superposition, fatigue, selection of commodity plastics, engineering plastics and elastomers for particular applications. Degradation. Processing of polymers.

MATS3733 Structural Analysis
School of Material Science and Engineering
Staff Contact: C Sorrell
Enrolment requires school approval
UOC6 HPW6 S2
Excluded: MATS1163

Bonding in solids. Silicate structures. Glass and glass-ceramics. Reactions with solids; grain boundary and interfacial effects. Ceramic reactions and polymorphic transformations. Spectroscopic techniques for characterisation of solids. FTIR and Raman techniques and applications. NMR spectroscopy of inorganic solids.

MATS4013 Physical Metallurgy
School of Material Science and Engineering
Staff Contact: M Ferry
UOC3 HPW3 S1

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 Material Science and Engineering
Staff Contact: M Ferry
Enrolment requires school approval
UOC3 HPW2 S2

Theory of nucleation and growth of a new phase. Interface behaviour during solidification of single component systems. Alloy solidification - Interface stability and constitutional supercooling. Solidification by invariant transformation. Solidification of ingots and castings - Inoculation effects. Single crystal growth. Rapid solidification processing. Nucleation and growth of precipitates - age hardening. Spinodal decomposition and ordering reactions. Diffusional and diffusionless transformations - characteristics; nucleation and growth; crystallographic aspects. Case studies.

MATS4064 Thermomechanical Processing
School of Material Science and Engineering
Staff Contact: M Ferry
UOC3 HPW2 S2

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 Material Science and Engineering
Staff Contact: M Ferry
Enrolment requires school approval
UOC3 HPW3 S2

Relationship between composition, thermal processing, phase equilibrium, microstructure and properties in ferrous and non-ferrous alloys. Carbon steels: heat treatment, including annealing, normalising, spheroidising, quenching and tempering, austempering and martempering. Cast irons: grey, white mottled malleable and ductile irons. Wrought and cast aluminium alloys, heat treatable and non-heat treatable aluminium alloys. Copper, low-alloy coppers, and copper alloys. Magnesium alloys. Lead, zinc and tin alloys.

MATS4084 Specialty Alloys
School of Material Science and Engineering
Staff Contact: M Ferry
UOC3 HPW3 S2
Prerequisite/s: MATS4013

Unit 1 Heat resisting alloys. Microstructure and properties of high temperature alloys based on iron, nickel-iron, nickel and chromium. Strengthening mechanisms. Creep, oxidation and hot corrosion. Coatings and protection. Process metallurgy and applications of high temperature alloys. Unit 2 Light alloys. Production, processing, properties and development of titanium alloys. Advanced aluminium alloys. Rapid solidification of titanium and aluminium alloys. Powder processing of titanium and aluminium alloys. Advanced magnesium alloys. 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 Material Science and Engineering
Staff Contact: P Munroe
Enrolment requires school approval
UOC3 HPW2 S2
Prerequisite/s: 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 Material Science and Engineering
Staff Contact: A Crosky
Enrolment requires school approval
UOC3 HPW3 S2
Prerequisite/s: MATS4013

Classification of macroscopic and microscopic fracture mechanisms. Initiation and propagation of ductile, brittle, fatigue, stress corrosion, corrosion fatigue and hydrogen induced fractures. Effect of material defects, design deficiencies and incorrect processing on the origin and cause of fracture. Analysis of various modes of fracture using fractographic techniques involving optical microscopy and scanning and transmission electron microscopy. Non destructive testing techniques. Surface analysis techniques. Analysis of service failures.

MATS4333 Fracture Mechanics
School of Material Science and Engineering
Staff Contact: M Hoffman
Enrolment requires school approval
UOC3 HPW2 S2

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.

MATS4613 Deformation of Metals and Strengthening Mechanisms
School of Material Science and Engineering
Staff Contact: P Munroe
Enrolment requires school approval
UOC3 HPW2 S2

Unit 1 Deformation of Metals Atomic and molecular description of deformation. Introduction to dislocation theory and its application to mechanical properties. Unit 2 Strengthening Mechanisms in MetalsStrengthening mechanisms, creep, fracture, grain size dependence of strength. Introduction to generation of deformation and recrystallisation textures. Measurements of age-hardening, activiation energy of strain ageing.

MATS4714 Electrochemistry and Corrosion
School of Material Science and Engineering
Staff Contact: D Young
Enrolment requires school approval
UOC6 HPW6 S2
Prerequisite/s: CHEM2011:
Excluded: MATS1213

The nature of interfaces, double layers, potential, ions, and electrolytes. Nernst and Butler-Volmer equations. Electrochemical experiments; voltammetry; organic electrochemistry. Electrochemical corrosion, types of corrosion. Factors affecting corrosion. Corrosion prevention; cathodic protection; passivation. Designing against corrosion.

MATS5013 Materials Processing
School of Material Science and Engineering
Staff Contact: School Office
UOC6 HPW6 S1

Unit 1: Pyrometallurgical ProcessesStaff Contact: Professor Oleg OstrovskiRoasting processes. Blast furnace and alternative ironmaking. BOF and EAF steelmaking. Steel refining. Aluminium smelting. Non-ferrous pyrometallurgical processes. Unit 2: Metal Forming Processes Staff Contact: A/Professor Alan CroskyDeformation and workability. Hot working, cold working , recrystallisation. Casting, forging, rolling, extrusion, wire drawing. Processing defects and their avoidance. Unit 3: Ceramic Processing TechnologiesStaff Contact: Dr Owen StandardOverview of unit operations in ceramic industries. Processing of ceramic raw materials. Ceramic forming processes. Ceramic drying and firing technologies.

MATS5033 Extractive Metallurgy
School of Material Science and Engineering
Staff Contact: School Office
Enrolment requires school approval
UOC3 HPW2 S2
Prerequisite/s: MATS5013
Excluded: MATS5273

Unit 1 Hydrometallurgical Processes- Staff Contact: A/Professor Tam Tran, School of Chemical Engineering and Industrial Chemistry. Application of principles of aqueous thermodynamics, electrochemistry, chemical and electrochemica kinetics to hydrometallurgial processes: leaching of minerals and concentrates, solution purification precipitation, and other separation processes, ion-exchange and liquid-liquid extraction, electrowinning and electrorefining. Unit 2 Aluminium Production- Staff Contact: Professor Oleg Ostrovski Bayer process. Thermodynamics and kinetics of electrochemical reactions. Aluminium smelting and refining. Hall-Heroult process and alternative technologies. Economics and environmental issues.

MATS5043 Heat, Fluid and Mass Flow in Materials Processing
School of Material Science and Engineering
Staff Contact: V Sahajwalla
Enrolment requires school approval
UOC3 HPW2 S2
Prerequisite/s: 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.

MATS5253 Metallurgical Reaction Engineering
School of Material Science and Engineering
Staff Contact: School Office
UOC3 HPW2 S2

Metallurgical reactor design: batch and continuous reactors. Gas-solid reactions. Limiting laws for gas-liquid reactions in steelmaking processes. Liquid-liquid reactions, design of extractive and refining operations.

MATS5323 Modelling in Materials Engineering 1
School of Material Science and Engineering
Staff Contact: M Hoffman
UOC3 HPW2 S1
Prerequisite/s: MATH1131 or MATH1141 or MATH1231 or MATH1241, MATS1021, MATH2021, MATS1092, MATS1132, MATS1163

The course introduces a range of numerical and analytical modelling techniques and then applies them to situations faced in materials science and engineering. Initially the pre-requisite knowledge is reviewed. Topics then covered are finite difference modelling and finite element modelling. These techniques are then applied to stress analysis, fluid flow 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 Material Science and Engineering
Staff Contact: School Office
UOC3 HPW2 S2

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 Material Science and Engineering
Staff Contact: O Ostrovski
Enrolment requires school approval
UOC3 HPW2 S2
Prerequisite/s: MATS1013

Application of kinetics of heterogeneous reactions to metallurgical processes. Roasting and solid state reduction processes. Calcination. Coal Gasification. Interfacial reactions, Ideal Langmuir isotherm and surface active elements. Reduction of iron oxides from molten slag. Steel decarburisation in BOF. Desulphurisation process. Nucleation and growth. Kinetics of solidification processes. Experimental techniques.

MATS5423 Pyrometallurgy 1
School of Material Science and Engineering
Staff Contact: O Ostrovski
Enrolment requires school approval
UOC3 HPW4 S2
Prerequisite/s: MATS5013
Excluded: MATS1323

The course includes two units: Unit 1: Extractive Metallurgy Laboratory, and Unit 2: Metallurgical Plant Practice.

MATS5424 Modelling in Materials Engineering 2
School of Material Science and Engineering
Staff Contact: A Yu
UOC3 HPW2 TBA
Prerequisite/s: MATH1131 or MATH1141 or MATH1232 or MATH1241, MATH2021, MATS1021, MATS1092, MATS1132, MATS1163, MATS5323

The course introduces a range of numerical and analytical modelling techniques and then applies them to situations faced in materials science and engineering. Initially the pre-requisite knowledge is reviewed. Topics then covered are dimensional analysis and surface response methodology. These techniques are then applied to fluid flow, process modelling and heat transfer. Commercial software packages are also introduced.

MATS5524 Pyrometallurgy 2
School of Material Science and Engineering
Staff Contact: O Ostrovski
UOC3 HPW2 S2
Prerequisite/s: MATS5013
Excluded: MATS1334

Selected topics in ironmaking, steelmaking and nonferrous metallurgy. Electrometallurgy of steel. Ferroalloy making. Casting and solidification.

MATS9410 Materials for Mining Engineers
School of Material Science and Engineering
Staff Contact: School Office
UOC3 HPW3 S2

Microstructures and properties of the main types of engineering materials including metals, ceramics, polymers and composites. Micro-mechanisms of elastic and plastic deformation. Fracture mechanisms for ductile, brittle, creep and fatigue modes of failure in service; corrosion; microstructural control by thermo-mechanical processing and its application to the behaviour of engineering materials. Adhesive and abrasive wear: gouging, high stress and low stress abrasion. Factors affecting abrasive wear, mitigation of abrasion and selection of materials against abrasion.

MATS9520 Engineering Materials
School of Material Science and Engineering
Staff Contact: A Crosky
UOC3 HPW3 S1 S2

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 Engineering
School of Material Science and Engineering
Staff Contact: C Sorrell
Enrolment requires school approval
UOC3 HPW3 S2
Prerequisite/s: MATS9520

Materials used in Mechanical Engineering and related fields (Manufacturing Engineering Management, Aerospace Engineering, Naval Architecture) are discussed with emphasis on the dependence 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.

MATS9550 Materials in Architecture
School of Material Science and Engineering
Staff Contact: A Crosky
UOC6 HPW3 S1

Choosing materials for visual and aesthetic effects. Steel, aluminium, and other materials; ceramics, cement and concrete; plastics paints sealants and adhesives. Produce range, shaping, performance in service, specifications. Preventing degradation of materials in service. Rusting, staining and efflorescence; concrete cancer; paint degradation; adhesive failure. Avoidance, remediation and restoration.

MATS9712 Materials and Techniques in Design Craft 1
School of Material Science and Engineering
Staff Contact: C Sorrell
Enrolment requires school approval
UOC4 HPW3 S1

An introduction to the science and technology of materials, emphasizing relationships between structure, composition and properties. Introduction to processing of metallic, ceramic and fibrous materials. Materials recognition and design possibilities are discussed.

MATS9722 Materials and Techniques in Design Craft 2B
School of Material Science and Engineering
Staff Contact: C Sorrell
Enrolment requires school approval
UOC4 HPW3 S2

Metals: Casting, working, and surface finishing of metals and alloys; soldering, brazing, and welding. Gemstones: survey of gem materials (crystalline, massive, organic) and identification methods. Enamels: practical considerations and skills.

MATS9732 Materials and Techniques in Design Craft 2C
School of Material Science and Engineering
Staff Contact: C Sorrell
Enrolment requires school approval
UOC4 HPW3 S2

Structure and properties of clays, non-clays, cements, porcelains, glazes, glasses and other ceramics. Optical properties and colours of glasses. Glazes and gemstones. Forming and firing of ceramic bodies, reactions during firing. Kilns and oxidation/reduction effects.

MDCM1000 New Media Technologies A
School of Media and Communications
Staff Contact: S Shaner
UOC6 HPW3 S1
Prerequisite/s: Enrolment in program 3402 or 3994

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: newspapers and magazines, cinema, TV, and new computer-based media.

MDCM1001 New Media Technologies B
School of Media and Communications
Staff Contact: S Shaner
UOC6 HPW3 S2
Prerequisite/s: MDCM1000

Introduces students to multimedia production - text and image based. Students complete a series of short exercises using the resources of the multimedia laboratory and examine the cultural and social context of multimedia.

MDCM2000 Media, Technology and Creativity
School of Media and Communications
Staff Contact: G Fuller
UOC6 HPW3 S1
Prerequisite/s: MDCM1000

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 media production specialisation. Script writing conventions, genres and presentation formats will be studied, and creative works developed ready for production.

MDCM2002 Media Production
School of Media and Communications
Staff Contact: R Harley
UOC6 HPW3 S1
Prerequisite/s: MDCM1001
Excluded: MDCM2001

Builds on the skills in multimedia production developed in MDCM1000/1001 by adding workshops in developing content from various audio-visual sources. Workshops cover the capture of video and photographic images, sound, illustration and techniques of interactivity.

MDCM2003 Multimedia Production
School of Media and Communications
Staff Contact: R Harley
UOC6 HPW3 S2
Prerequisite/s: MDCM2002

Students learn video/audio postproduction and develop simple ideas into multimedia works suitable for public exhibition. CD Roms, web-sites and video are produced in small groups, under supervision.

MDCM2101 Media Tastes and Values
School of Media and Communications
Staff Contact: G Hawkins
UOC6 HPW4 S1
Prerequisite/s: 36 units of credit
Excluded: SOCA3105, SOCA3705, SOCA3704

How do we become enchanted by media and what is the nature of this enchantment? What is happening to the self when we swoon, drift into the story, recoil, laugh, jump out of our skins, weep? Investigates valuing as a dynamic relation, as exchange and communication, rather than intrinsic quality. Explores how our tastes for particular media are formed and the various economic, institutional and discursive contingencies that shape these tastes. Also considers how our media tastes and values mark us, how they generate particular styles of life, identities and ethical systems.

MDCM3000 Media Forms
School of Media and Communications
Staff Contact: A Murphie
UOC6 HPW3 S1
Prerequisite/s: MDCM2000

The relationship between changing media forms and their techno-cultural contexts is studied. Various social and theoretical explanations are given for these relationships. Students are encouraged to develop a critical perspective on the issues together with an appreciation of the way in which forms develop and function in society.

MDCM3002 Advanced Media Production
School of Media and Communications
Staff Contact: C Chesher
UOC6 HPW3 S1
Prerequisite/s: MDCM2001 or MDCM2003
Excluded: MDCM3001

Focuses on writing for and pre-production techniques in multimedia for various genres - narrative, interactive and expository. Students work in small groups under supervision and study in depth various aspects of multimedia production in laboratory workshops.

MDCM3003 Advanced Multimedia Production
School of Media and Communications
Staff Contact: C Chesher
UOC6 HPW3 S2
Prerequisite/s: MDCM3002

Focuses on multimedia production work in genres studied in MDCM3002 and 3000. Students produce, individually or in pairs, short works in time-based media or in multimedia, suitable for publication or exhibition.

MDCM3101 Media, Culture, Policy
School of Media and Communications
Staff Contact: G Hawkins
UOC6 HPW3 S2
Prerequisite/s: 36 units of credit
Excluded: SOCA3714, SOCA3902

How have media and culture become objects of government? How are media and cultural institutions implicated in the management and reform of populations? How have culture and policy come to be connected and how can this connection be understood? Using the work of Michel Foucault these questions will be explored with a particular emphasis on his concepts of power, governmentality, discourse and technologies of the self. Case studies in media and cultural policy will be drawn from the arts, broadcasting, museums and new media technologies.

MDCM3102 Digital Aesthetics
School of Media and Communications
Staff Contact: A Murphie
UOC6 HPW4 S2
Prerequisite/s: 36 units of credit

Investigates the realm of art as it now occurs at the intersection of new media and virtual culture. First it looks at the new arts made possible by new media technologies and at the kinds of technical, cultural and conceptual shifts involved. It considers the relation of aesthetics to culture in general and asks how it might be changing as the result of new media technologies. General theoretical approaches to virtual or digital aesthetics will be studied as well as the numerous examples given in the course.

MDCM4000 Media and Communications Honours (Research) Full-Time
School of Media and Communications
Staff Contact: A Murphie
Enrolment requires school approval
UOC24 S1 S2
Prerequisite/s: 54 units of credit in MDCM at an average of 65% and permission from head of school

Consists of two seminars: Media Theory and Research Methodology S1 and New Media: Cultural and Social Change S2, and a 15,000 word research-based thesis or a creative, research based media/multimedia project including a theoretical commentary of 5,000-6,000 words to complement the production.

MDCM4050 Media and Communications Honours (Research)Part-Time
School of Media and Communications
Staff Contact: A Murphie
Enrolment requires school approval
UOC12 S1 S2
Prerequisite/s: 54 units of credit in MDCM at an average of 65% and permission from head of school

Consists of two seminars: Media Theory and Research Methodology S1 and New Media: Cultural and Social Change S2, and a 15,000 word research-based thesis or a creative, research based media/multimedia project including a theoretical commentary of 5,000-6,000 words to complement the production.

MDCM4500 Combined Media and Communications Honours (Research) F/T
School of Media and Communications
Staff Contact: A Murphie
UOC12 S1 S2

Coursework and seminars and preparation of a combined thesis. In the first session students are required to take one coursework course in Media and Communications and one coursework 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.

MDCM4550 Combined Media and Comunications Honours (Research) P/T
School of Media and Communications
Staff Contact: A Murphie
Enrolment requires school approval
UOC6 S1 S2

Coursework and seminars and preparation of a combined thesis. In the first session students are required to take one coursework course in Media and Communications and one coursework 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.

MDCN8001 Principles of Medicine for Optometry Students
Clinical School - St. Vincents
Staff Contact: L Simons
UOC2 HPW3 S1

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.

Note/s: Students normally take the course in Year 4 of course 3950. Restricted to program 3950.

MDSG2001 Clinical Studies 2
Faculty of Medicine
Staff Contact: J Dwyer
UOC2 HPW2 S1 S2
Prerequisite/s: MFAC1001

Objectives: To extend knowledge and understanding of normal structure and function by demonstrating the disturbances which occur in disease. These studies are closely integrated with Anatomy, Physiology and Biochemistry so that the application of basic medical science to the clinical situation can be clearly seen. Students will attend a teaching hospital for half a day each week to see patients from whom they will take histories. To demonstrate how symptoms and signs can be interpreted as disorders of function and how this knowledge aids in the process of diagnosis. By the end of the year it is important that students are familiar with the basic requirements of a medical history and have seen a number of examples of disordered anatomy and physiology. Assessment: Examination of two written clinical histories per session and examination of a student s ability to present these histories orally. In Session 2, students are required to submit a case study.

MDSG3001 Clinical Studies 3
Faculty of Medicine
Staff Contact: J Dwyer
UOC4 HPW4 S1 S2
Prerequisite/s: MDSG2001

Objectives: To acquire and practice the skills of history taking and physical examination in order to elicit the features of common diseases. Interpretation of the mechanisms of production of the presenting signs and symptoms requires the integration of clinical skills with basic sciences, a concept introduced in Year 2. Clinical Studies in Year 3 builds on this experience and introduces the student to clinically relevant pathophysiology, with particular emphasis on the mechanisms associated with the development of symptoms and physical signs which indicate disease. The components of the course are:

1. Lectures in medicine and surgery which introduce the student to the more common diseases and clinical problems, with emphasis on material relevant to history taking and to physical examination. The teaching builds on and compliments related discussions in physiology, pathology, pharmacology and microbiology and where possible is integrated with these disciplines.

2. One surgical and one medical tutorial at a teaching hospital each week. Tutors will be building on the communication skills learnt in the first and second years of the program. By the end of third year, students must be able to obtain a full history from patients in a disciplined and prescribed manner and present that history both orally and in writing.

Physical examination skills will be taught during the third year. Students are expected to master the routine associated with conducting an examination of the major body systems and be able to recognise and understand the significance of those major signs which indicate the presence of pathophysiology.

Assessment: Continuous assessment of written case histories and clinical skills is carried out by surgical and medical tutors. The end of year examinations will include a multiple choice question paper (MCQ) and an objective structured clinical examination (OSCE).

MDSG4001 Integrated Clinical and Community Studies
Faculty of Medicine
Staff Contact: J Dwyer
UOC24 S1 S2
Prerequisite/s: MDSG3001, PATH3101, PHPH3055

Objectives: 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 Year 4 or 6 of the course and the acquisition of such skills will be noted in the student s logbook after an appropriate examination. By the end of year 4 students are expected to understand the health issues for populations especially disadvantaged groups and local communities. The social, environmental, economic and behavioural factors associated with illness, how the health system functions in the community, and how to assess the evidence for preventive care and population health interventions are also to be understood. For the 6 week population health term students will be attached to a clinical service which is community based or oriented for about 3 days per week. During this term they will also attend tutorials and workshops in evidence based preventive care and population health, critically appraise evidence, and work in a supervised group on a project about a community health issue. Systematic Pathology will be taught at all hospitals throughout 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, or 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 term. 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.

MDSG6001 Integrated Clinical Studies 6
Faculty of Medicine
Staff Contact: J Dwyer
UOC22 S1 S2
Prerequisite/s: MFAC5001, OBST5001, PAED5101, PSCY5001

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 week terms, 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 terms assigned to students will complement 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.

MECH0130 Engineering Drawing and Solid Modelling
School of Mechanical and Manufacturing Engineering
Staff Contact: A Barratt
UOC3 HPW3 S1

Communication of form and layout of real world objects, solid modelling of objects. Engineering drawing layouts, orthogonal projections, dimensioning, tolerancing and standard drawing symbols, principles of detail design drawings and assembly drawings. Use of computer graphics and production of drawings.

MECH0330 Engineering Mechanics
School of Mechanical and Manufacturing Engineering
Staff Contact: S Leong
UOC4 HPW4 S2
Excluded: MECH1300, MECH0440

Composition and resolution of forces, laws of equilibrium. Friction. Statics of rigid bars, pin-jointed frames and beams. Simple states of stress. Statics of fluids. Rectilinear motion, curvilinear motion using rectangular and natural coordinates. Simple rotation. Equations of motion. Work, energy and power. Impulse and momentum.

MECH0440 Engineering Statics
School of Mechanical and Manufacturing Engineering
Staff Contact: S Leong
UOC3 HPW3 S2
Excluded: MECH0330, MECH1300

Composition and resolution of forces, laws of equilibrium. Friction. Statics of rigid bars, pin-jointed frames and beams. Simple states of stress. Statics of fluids.

MECH1120 Design and the Engineering Profession
School of Mechanical and Manufacturing Engineering
Staff Contact: T Barber
UOC3 HPW3 S1

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, nontechnical considerations in design, decision techniques, detail.

MECH1300 Engineering Mechanics 1
School of Mechanical and Manufacturing Engineering
Staff Contact: R Ford
UOC6 HPW4 S1 S2

Corequisite/s: MATH1131 or MATH1141
Excluded: MECH0330.

Vectors, resultants, equilibrium. Systems of co-planar multiforce members. Mass centre, centroids, distributed forces. Friction. Applications to cables, screw threads, clutches etc. Plane particle kinematics: rectilinear, curvilinear and relative motion. Plane particle kinetics: equations of motion, work, energy, power, impulse, momentum, impact.

MECH1400 Mechanics of Solids 1
School of Mechanical and Manufacturing Engineering
Staff Contact: E Hahn
UOC6 HPW4 S1 S2
Corequisite/s: MECH1300 or MECH0330 or MECH0440

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
Staff Contact: M Tordon
UOC3 HPW3 S1

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
Staff Contact: N Feng
UOC3 HPW3 S1
Prerequisite/s: MANF1130, MECH1400
Corequisite/s: 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
Staff Contact: N Feng
UOC3 HPW3 S2
Prerequisite/s: MECH1120, MECH2101
Corequisite/s: 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
Staff Contact: K Byrne
UOC3 HPW3 S1 S2
Prerequisite/s: MATH1231 or MATH1241, MECH1300
Excluded: MECH2320

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
Staff Contact: H Stark
UOC3 HPW3 S1 S2
Prerequisite/s: MATH1231 or MATH11241
Corequisite/s: 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
Staff Contact: H Stark
UOC3 HPW3 S2
Prerequisite/s: MECH2411

Simple bending and unsymmetrical bending of beams. Second moments of area. Bending of composite beams, reinforced concrete beams. Transverse shear stresses in beams. Shear centre. Combined stresses in beams. Column buckling. Membrane stresses.

MECH2601 Fluid Mechanics and Thermodynamics A
School of Mechanical and Manufacturing Engineering
Staff Contact: G Morrison
UOC6 HPW4 S1
Prerequisite/s: MATH1131 or MATH1141, PHYS1169

Fluid properties. Fluids in static equilibrium. Buoyancy. Pressures in accelerating fluid systems. Steady flow energy equations. Flow measurement. Momentum analysis. Dimensional analysis and similarity. Pipe flow. Thermodynamic concepts, systems, property, state, path, process. Work and heat. Properties of pure substances, tables of properties and equations of state. First law of thermodynamics. Analysis of closed and open systems.

MECH2602 Fluid Mechanics and Thermodynamics B
School of Mechanical and Manufacturing Engineering
Staff Contact: G Morrison
UOC6 HPW4 S2
Prerequisite/s: 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 pipe-line system characteristics. Second law of thermodynamics, Carnot cycle, Clausius inequality, entropy, irreversibility, isentropic efficiencies. Air-standard cycles. Vapour compression cycles.

MECH3000 Professional Responsibilities
School of Mechanical and Manufacturing Engineering
Staff Contact: R Willgoss
UOC3 HPW3 S2

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
Staff Contact: E Hahn
UOC24 S1
Prerequisite/s: 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
Staff Contact: E Hahn
UOC24 S2
Prerequisite/s: 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
Staff Contact: A Barratt
UOC3 HPW3 S1
Prerequisite/s: MECH2102 or MECH2300, MECH2412
Corequisite/s: 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
Staff Contact: A Barratt
UOC3 HPW3 S2
Prerequisite/s: MECH2102, MECH2300, MECH2412
Corequisite/s: 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
Staff Contact: M Tordon
UOC3 HPW2 S1
Prerequisite/s: ELEC0807, MECH2411, MECH2602

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
Staff Contact: M Tordon
UOC3 HPW2 S2
Prerequisite/s: ELEC0807, MECH2411, MECH2602

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
Staff Contact: Z Vulovic
UOC3 HPW3 S1
Prerequisite/s: 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
Staff Contact: J Baker
UOC3 HPW3 S2
Prerequisite/s: MATH2029, MECH2300

Satellite motion. Gyroscopic torque. Geometry of gear tooth profiles; standard and non-standard gear proportions. Gear trains; epicyclic gears. Static and dynamic balancing of rotating and reciprocating mass systems. Kinematics and kinetics of mechanisms.

MECH3330 Vibration Analysis
School of Mechanical and Manufacturing Engineering
Staff Contact: R Ford
UOC3 HPW3 S2
Prerequisite/s: MATH2029, MECH2300
Excluded: MECH2310, MECH3310, MECH9311

Single-degree of freedom vibrating systems: free/forced, undamped/damped response, transmissibility. Whirling of shafts. Harmonic analysis. Vibration measuring instruments. Linear vibrations of multi-degree-of-freedom systems: normal modes. Introduction to the analysis of continuous systems.

MECH3400 Mechanics of Solids 3
School of Mechanical and Manufacturing Engineering
Staff Contact: E Hahn
UOC3 HPW3 S1
Prerequisite/s: MECH 2411 or both MATH2029, MATH2039

Deflections of beams and structures. Introduction to theory of elasticity; stress, strain, torsion. Membrane analogy. Finite element stress analysis. Basic concepts; statically indeterminate beams and structures stiffness method; bar, triangular and rectangular finite elements.

MECH3520 Programming and Numerical Methods
School of Mechanical and Manufacturing Engineering
Staff Contact: I MacLaine Cross
UOC3 HPW3 S1
Prerequisite/s: MECH1500
Excluded: MANF3800, 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
Staff Contact: G Morrison
UOC3 HPW3 S1
Prerequisite/s: MECH2602

Basic concepts of heat transfer, units, dimensions, exchange mechanism. Steady state conduction, multi dimensional conduction. Structure of boundary layers. Internal and external laminar and turbulent forced convection. Heat exchanger design. Radiative heat transfer. Dimensional analysis. Modelling of turbomachines and thermal systems. Experiments and heat transfer measurements.

MECH3602 Advanced Thermodynamics
School of Mechanical and Manufacturing Engineering
Staff Contact: C Madhusudana
UOC3 HPW3 S2
Prerequisite/s: MECH2602 or both MECH2600, MECH2700

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
Staff Contact: T Barber
UOC3 HPW3 S2
Prerequisite/s: MECH3000
Corequisite/s: MECH4003

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/s: Corequisites may be adjusted for some mid-course entry plans.

MECH4003 Thesis A
School of Mechanical and Manufacturing Engineering
Staff Contact: M Chowdhury
UOC6 S1 S2
Prerequisite/s: 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
Staff Contact: M Chowdhury
UOC9 S1 S2
Prerequisite/s: MECH4003
Corequisite/s: 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.

MFAC1001 Introductory Clinical and Behavioural Studies
School of Community Medicine
Staff Contact: P McNeill
UOC8 HPW4 S3

Objectives: To enable students to gain a better understanding of themselves and other people as a basis for the respectful and considerate treatment of patients; to stress the importance of seeing patients as people; to develop basic interviewing skills; to heighten cultural awareness; to develop understanding of the experience of loss; to gain experience in and understanding of the group process in preparation for working in teams; to impart to students an understanding of illness in terms of a biopsychosocial model; to provide an introduction to human development through the life cycle, and health problems of people at different stages; to develop in the student an awareness of the different family, socioeconomic, and ethnic backgrounds of people in Australian society and of the relevance of these backgrounds to the physical and emotional states of patients.Brief Description: Students attend a three hour small group tutorial each week in Sessions 1 and 2 and 21 two hour lectures spread throughout Session 1 and Session 2. In the tutorial groups, students learn interpersonal communication skills, group dynamics, self awareness and cultural sensitivity through participatory exercises. Students take the initiative in preparing and presenting group projects. Lecture themes include: the individual experience of health and illness in terms of a biopsychosocial model; introductory human development through the life cycle (childhood, adolescence, adulthood and old age); the particular problems of disadvantaged cultural groups (e.g. Aborigines, recent migrants) and communication theory; theory of groups; history of medical science; and alternative medicine. The lectures are supported by relevant films and by community visits, activities and discussions in the tutorial groups. Assessment: Two major assignments, the first assessing basic interpersonal communication skills, and the second the ability to take a broad social-psychological history. Participation in tutorials and a group project is assessed. There is an examination at the end of Session 2 on the material covered in the lectures. Students must pass the examination and the communication skills assignment as well as the whole subject to progress to Year 2.

MFAC5001 Geriatrics/General Practice/Subspecialities
School of Community Medicine
Staff Contact: M Harris
UOC12 S1 S2
Prerequisite/s: MDSG4001

This nine week term will start with an introductory week of tutorials in Geriatrics, Dermatology, Otorhinolaryngology and General Practice. The remainder of the term will consist of four two week teaching blocks in specialty outpatient clinics, geriatrics, rural general practice and urban general practice.Geriatrics - Objectives: To gain an understanding of diagnosis and assessment in getriatic medicine; to address the management of certain specific disorders in the elderly such as dementia, falls, incontinence, stroke, mobility disorders, dying and terminal care; to gain information on appropriate drug therapy; 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; to become familiar with the broad spectrum of getriatic services including the day hospital, the acute hospital, the rehabilitation centre, the nursing home, community nursing and hospital care; to stimulate thought concerning future directions for an ageing Australia. The course consists of tutorials and practice experience in a range of health care facilities. Assessment: Students are assessed on a viva voce, written assessments and log book completion.General Practice - By the end of the course the students should have acquired:1. An understanding of the knowledge, attitudes and skills required by a competent general practitioner.2. Skills in communicating with patients especially in history taking and explaining.3. Skills in identifying common problems in general practice.4. Knowledge of the principles of management in general practice.5. An understanding of rural general practice.During the teaching sessions on campus, at Fairfield Hospital and during the attachments, students are introduced to: a frame of reference for general practice and the GP consultation; a problem solving approach including the ability to cope with uncertainty; responsiveness to the total patient and the patient's life; knowledge of community health resources; self assessment of communication and self directed learning; knowledge of rural practice and issues in rural health.The teaching will consist of introductory tutorials, a two week attachment in urban general practice, a day general practice skills workshop at Fairfield Hospital and a two week attachment in rural general practice.Assessment: Students will complete two assignments for the Fairfield tutorials at the end of their first (city) GP attachment, a written assignment on a rural health issue during their second (rural) GP attachment, and a final role play consultation viva assessment.SubspecialtiesOtorhinolaryngology - Objectives: To learn the basic skills of the assessment of diseases and conditions affecting the ears, nose and throat. To expose the student to the common diseases of the ear and upper respiratory system and the management of these conditions. The teaching will be organised in tutorial classes. Students will also attend specialist clinics.Dermatology - Objectives: To learn the clinical symptoms and signs of the major conditions affecting the skin. To learn the diagnosis of common skin diseases and conditions and their management.The teaching will be organised in tutorial classes. Arrangements will be made for students to attend special dermatology clinics. Assessment: Students will be assessed through completion of a log attendance at subspecialty clinics and final written objective structured clinical examination.

MFAC6001 Final Year Elective Term
Faculty of Medicine
Staff Contact: C Hewitt
UOC4 S1
Prerequisite/s: MFAC5001, OBST5001, PAED5101, PSCY5001

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 Industrial Relations and Org Behaviour
Staff Contact: School Office
UOC6 HPW3 S1

This course provides an introduction to the fundamental principles, practices, issues and debates associated with the managementof 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 outline 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, fashion 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 Industrial Relations and Org Behaviour
Staff Contact: School Office
UOC6 HPW3 S2
Prerequisite/s: 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 the theory and practice of 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 strucutres, 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.

MGMT2001 Managing Innovation and Organisational Change
School of Industrial Relations and Org Behaviour
Staff Contact: School Office
UOC6 HPW3 S1
Prerequisite/s: MGMT1001, MGMT1002

This course examines the role of the innovation process in the management of organisations and managing change. It explores the role of creativity in innovation 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 for predictable and efficient operations and personnel, employment, 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 enterpreneurship, creativity, leadership and managerialism; and change agency. Case studies and exercises are used to explore central issues.

MGMT2002 Managing Business Communication
School of Industrial Relations and Org Behaviour
Staff Contact: School Office
UOC6 HPW3 S2
Prerequisite/s: MGMT1001; Exclusion: IBUS1001

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 communication skills development and enhancement. Topics include the theories and principles of communication management; the dynamics of interpersonal communication; the significance of intercultural 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.

MGMT3001 Managing Business Strategy
School of Industrial Relations and Org Behaviour
Staff Contact: School Office
UOC6 HPW3 S2
Prerequisite/s: MGMT1001, MGMT1002, MGMT2001, MGMT2002
Corequisite/s: MGMT2002

This course provides a detailed analysis of the latest developments in the theory and practice of strategic management. The course covers concepts of strategy; goals, values and performance including shareholder value and balanced scorecard approaches; analysis of the industry environment; analysis of resources and capabilities; organisational structure and managament systems; analysis of competitive advantage; industry evolution; technology-based industries; vertical integration strategies; game theory and competitive behaviour; global strategies and multinational enterprises; diversification strategy; managing the multibusiness corporation. Case studies are used to illustrate strategy making in practice by corporations from around the world.

MICR2011 Microbiology 1
School of Microbiology and Immunology
Staff Contact: P March
UOC6 HPW6 S2
Prerequisite/s: MICR2201
Corequisite/s: BIOC2201, BIOS2021 or BIOS2621

This course is for students majoring in microbiology and who wish to enlarge their knowledge and skills in microbiology beyond those obtained 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 nutrition 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.

MICR2201 Fundamentals of Microbiology and Immunology
School of Microbiology and Immunology
Staff Contact: I Couperwhite
UOC6 HPW6 S1
Prerequisite/s: BIOS1201 (Except for Postgraduate Students).

This course is designed to give undergraduate and post graduate 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. Eubacteria, Archaea and Eucarya. Most of the course will consider bacteria, fungi, yeasts and viruses in our every day 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 food intoxication, infection, spoilage and food fermentation. The immune system & the study of immunology will also be introduced in this course. This introduction will encourage the student to question controversial areas of microbiology and immunology such as AIDS. Immunization, environmental pollution, food hygiene, food spoilage causes and prevention etc.

Note/s: BIOS1101 is recommended. No prerequisites/corequisites are required for Postgraduate students.It is essential for all students to register for practical classes during week February 25 to February 27th. The registration centre is located in Room 329 of the Biological Sciences Building. Students should appreciate that places in each time slot are limited and that it may not be possible to offer all students places in their preferred time slot.

MICR3011 Microbial Physiology: A Molecular Approach
School of Microbiology and Immunology
Staff Contact: R Cavicchioli
UOC6 HPW6 S2
Prerequisite/s: MICR3021 or MICR3621

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 dicoveries. 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.

MICR3021 Microbial Genetics
School of Microbiology and Immunology
Staff Contact: R Cavicchioli
UOC6 HPW6 S1
Prerequisite/s: 12 Units of Credit from MICR2011 or MICR2611 or BIOS2021 or BIOS2621 or BIOC2201
Excluded: BIOT3031, MICR3621

This course provides a broad coverage of material describing the fundamentals of microbial genetics. The course differs from MICR3621 Microbial Genetics (Advanced) by requiring less contact time in terms of laboratory practicals and tutorials, and laboratory and lecture assessment. The course in intended for students interested in gaining a background in molecular biology/genetics and those considering Molecular Biology, Microbiolgy, Medical Microbiology and Immunology and Genetics 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 transpon 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/s: Replaces BIOT3031

MICR3031 Eukaryotic Microbiology (UTS)
School of Microbiology and Immunology
Staff Contact: H Mitchell
UOC6 HPW6 S2
Prerequisite/s: MICR2011

This course provides an opportunity for students interested in a broad education in medical microbiology to undertake studies in the areas of parasitology and mycology. The unit is offered by agreement with the University of Technology, Sydney, and is taught at the Gore Hill Campus of UTS. The course offers students training in the principals and practices of medical laboratory parasitology and mycology. The parasitology component covers the identification of parasitic worms, insects and protozoa. Mechanisms of disease is also covered. The mycology component examines pathogenic yeasts and fungi, their identification and mechanisms of disease. The course is supported by a comprehensive laboratory program.

Note/s: Enrolment limited to 20 students. If oversubscribed, placements awarded according to achievements in Level 1, 2 and 3 courses. To avoid complications with HECS/ fees payments, students should enrol in this course through UTS, not UNSW, and have the units of credit transferred towards the UNSW degree.

MICR3041 Immunology 1
School of Microbiology and Immunology
Staff Contact: M Cooley
UOC6 HPW6 S1
Prerequisite/s: BIOC2101 or BIOC2181
Excluded: MICR3641, MICR3042

This course provides a broad coverage of material describing the principles of immunology. There is a significant component of self-directed learning, including internet-based tutorials and assignments. The course is intended for students majoring in any area of Life Science or Medical Science interested in gaining a background in Immunology, and for those undertaking Microbiology or Medical Microbiology and Immunology 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, including allergy, transplantation and immunodeficiency. An element of choice in assessment tasks enables students to pursue in some depth an area of immunology which particularly interests them.

MICR3042 Principles and Applications of Immunology
School of Microbiology and Immunology
Staff Contact: M Cooley
UOC6 HPW4 S1
Prerequisite/s: BIOC2101 or BIOC2181
Excluded: MICR3041, MICR3641

This course provides a broad coverage of material describing the principles of immunology. 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, including allergy, transplantation and immunodeficiency. An element of choice in assessment tasks enables students to pursue in some depth an area of immunology which particularly interests them. The course differs from Immunology 1 (MICR3041), by the replacing laboratory-based practical program with a tutorial-based program discussing the principles and applications of immunological techniques. There is also a significant component of self-directed learning, including internet-based tutorials and assignments. The course is intended for students majoring in any area of Medical or Life Science interested in gaining a background in Immunology without undertaking the laboratory component, and for those undertaking combined degrees involving a Life Science component. Students wishing to major in Medical Microbiology and Immunology should take MICR3041 or MICR3641, and may undertake this course only in exceptional circumstances and only with approval of the Course convenor.

MICR3051 Immunology 2
School of Microbiology and Immunology
Staff Contact: A Collins
UOC6 HPW6 S2
Prerequisite/s: MICR3041 or MICR3641

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 Microbiology and Immunology
Staff Contact: K Takayama
UOC6 HPW6 S2
Prerequisite/s: MICR2011

The course covers 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 and animal diseases is discussed in the context of virus-host interactions, as well as the persistance, 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, practice exams, electron micrograph identification, group discussions and research for the final consultancy brief project. Students are expected to utilise the WebCT curriculum as part of the grade assessment. The final "consultancy brief" project provides students with an oppotunity to gain experience in working in consultancy teams, utilise the WebCT platform to facilitate research and discussions, and produce a professional report as well as a short seminar.

Note/s: Highly recommended: BIOC2201

MICR3071 Environmental Microbiology
School of Microbiology and Immunology
Staff Contact: S James
UOC6 HPW6 S1
Prerequisite/s: 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 cover key themes in contemporary environmental microbiolgy including sensing and adaptive responses of bacteria, biogeochemical cycling and microbial communities and interactions. Laboratory sessions allow students to observe, first hand, the signalling and responses of marine biofilm isolates and to gain theoretical and practical experience in modern molecular techniques for the detection, phylogeny and tracking of microbial communities.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/s: Highly recommended: MICR2011, BIOC2201, BIOS2021 or BIOS2621.

MICR3081 Bacteria and Disease
School of Microbiology and Immunology
Staff Contact: H Mitchell
UOC6 HPW6 S1
Prerequisite/s: MICR2011

Bacteria and Disease aims to develop a high level understanding of bacterial pathogenesis, disease control and prevention. We examine in depth a select number of pathogens that portray the diverse characteristics seen in different pathogenic bacterial species. In conjunction with the lecture program, contemporary medical laboratory training is given through a simulated diagnostic unit. Development of communication skills constitutes part of this course.

Note/s: Highly recommended: MICR3041 or MICR3641.Half of the compulsory practical component of this course consists of seven practical classes run over four days during the mid-session break. In-session time practical classes will be run only in weeks 1 and 2, and weeks 10 through 14.

MICR3228 Microbiology for Medical Students
School of Microbiology and Immunology
Staff Contact: H Mitchell
UOC8 HPW4 S3

Objectives: The overall objective is for students to understand the nature of the interactions between parasites and their human hosts, and the fundamentals of human immunology. Early lectures and tutorials are concerned with the basics of the scientific discipline of immunology. In order to achieve the microbiology requirement, students will know the causative agents of common microbial diseases and how they produce their effects, comprehend host defence processes, understand the epidemiology of infectious diseases, understand the basis of prevention and treatment of microbial diseases, appreciate the role of the microbiologist in the diagnosis and management of microbial disease and where appropriate, integrate these objectives with a knowledge of pathology and immunology. Emphasis is given to the nature of the response of pathogens to various physical, chemical and antibiotic agents which can be used to interrupt their normal function. An analytical approach is taken to the means by which microorganisms exist in association with humans and their environment and how they gain access to tissues and produce disease. Attention is given to the mechanisms of host defence against microbial infection. Emphasis throughout the course is placed on diseases of body systems. Laboratory based classes emphasise the role of the laboratory in diagnosis and include the use of problem solving approaches to the study of microbial diseases.Assessment: This is based on mid-year and end of year examinations as well as a major assignment and practical examination.

MICR3621 Microbial Genetics (Advanced)
School of Microbiology and Immunology
Staff Contact: R Cavicchioli
UOC6 HPW6 S1

Prerequisite/s: 12 Units of Credit from MICR2011 or MICR2611 or BIOS2021 or BIOS2621 or BIOC2201
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 transpon 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/s: Replaces BIOT3031

MICR3641 Immunology 1 (Advanced)
School of Microbiology and Immunology
Staff Contact: School Office
UOC6 HPW6 S1
Prerequisite/s: BIOC2101 or BIOC2181
Excluded: MICR3041, MICR3042

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/s: Maximum enrolment limited to 25 students.

MICR4013 Microbiology Honours Full-Time
School of Microbiology and Immunology
Staff Contact: School Office
Enrolment requires school approval
UOC24 S1 S2

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
Staff Contact: J Galvin
UOC6 HPW4 S1

This course provides students with:an appreciation of the role of a mining engineer and career path options.an overview of mining systems.an opportunity to apply their studies in fundamental engineering and physical principles to mining engineeringan introduction to engineering risk managementAt the completion of this course, the student should have a basic knowledge of mining operations and an introductory appreciation of the importance and relevance of the science and engineering principles to mining engineers and an awareness of the broad range of career paths available to a mining engineer.The course aims to make students familiar with operations they may encounter in their first industrial training and to shape their attitudes towards safety and risk management.The course covers the role of the mining engineer and career path options; history and current status of mining in Australia; the significance of geology in mining; basic rock types and structures; basic mining operations; mining equipment; and an introduction to risk management, mine ventilation, explosives and blasting.

Note/s: 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
Staff Contact: C Daly
UOC6 HPW4 S2

Assumed Knowledge: MINE1010The 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 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 - MISHC Component 1: Introduction to risk management.

Notes/: Site visits and industry lectures are a requirement of this course and may involve additional personal expense.

MINE1300 Applied Mechanics
School of Mining Engineering
Staff Contact: J Watson
UOC6 HPW4 S1

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.

MINE2010 Mining Project Development
School of Mining Engineering
Staff Contact: P Hagan
UOC6 HPW4 S2

Exploration. 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. Engineering hydrology, sources of mine water, forecasting water inflows, drainage.

Note: Visits to mines and related undertakings are a requirement of this course.

MINE2310 Structural Mecahnics
School of Mining Engineering
Staff Contact: J Watson
UOC6 HPW4 S1

Assumed Knowledge: MINE1300To 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.

MINE2320 Mining Stress Analysis
School of Mining Engineering
Staff Contact: J Watson
UOC3 HPW3 S2

Assumed Knowledge: MINE2310To 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.

MINE2500 Fluids & Thermodynamics
School of Mining Engineering
Staff Contact: J Watson
UOC6 HPW4 S1

Assumed Knowledge: MINE1300To 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, Reynold'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.

MINE2700 Mining Data Analysis
School of Mining Engineering
Staff Contact: C Daly
UOC3 HPW2 S1

Assumed Knowledge: MATH1231Mining 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.

MINE3300 Mining Geomechanics
School of Mining Engineering
Staff Contact: B Hebblewhite
UOC6 HPW4 S1

Assumed Knowledge: MINE2320This 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.

MINE3400 Mining Systems
School of Mining Engineering
Staff Contact: D Laurence
UOC6 HPW5 S2

This course provides a comprehensive understanding of mining systems that are used in coal mines, metal mines and extractive industries. History, significance and characteristics of global and Australian mining industry; location of mines; political and environmental constraints to mining; Australia's mineral potential; advanced ore reserve estimation; geostatistics and orebody modelling. Mining systems and selection criteria for various mining methods including thick seam coal mining, heap leach, solution mining, undersea mining, and placer mining. Mining sequence; production planning and scheduling; equipment selection: systems approach; ancillary operations; productivity; capital and operating costs. Environment, health and safety and risk management techniques applied to mining systems. Case studies and scope will include coal, metalliferous and extractive industries.

Note/s: Site visits and industry lectures are a requirement of this course and may involve additional personal expense.

MINE3500 Mine Workplace Environment
School of Mining Engineering
Staff Contact: D Chalmers
UOC6 HPW5 S2

This course provides an understanding of the materials handling systems used in mining as well as the various infrastructure needs of a mining operation including power reticulation and control systems.This course provides knowledge underpinning:the supply and control of air for underground mines and the removal of contaminants the supply, control and removal of water in mining operationsother potential high consequence hazards in a mine including outbursts, explosions, fires, spontaneous combustion, inrush hazards, radiation, windblasts, noise, miners' diseases and illumination in mines.Mine ventilation: practice in mines, airflow, resistance of workings and distribution of mine air, network analysis, fans and their operation, auxiliary ventilation, economic size of airways; ventilation surveys. Mine gases and dust: hazards, occurrence, detection, monitoring and control, physiological effects. Mine climate: physiological effects, air cooling power and control. Ventilation planning: airflow requirements based on pollutant gas, airborne dust, heat and humidity. Outbursts in coal mines. Mine explosions. Mine fires. Spontaneous combustion. Inrush hazards in mines. radiation hazards in mines. Noise, Miners' diseases, illumination, windblasts and ventilation risk management. Mining engineering hydrology, sources of mine water, forecasting water inflows, water balance and reticulation; pump types, pumping and drainage. Hydrology risk analysis.

Note/s: Site visits and industry lectures are a requirement of this course and may involve additional personal expense.

MINE3610 Excavation Engineering
School of Mining Engineering
Staff Contact: P Hagan
UOC6 HPW5 S1

This course provides an understanding of the various technologies used in rock excavation and the systems associated with mining and tunnelling for access, development and mine operations.Rock drilling techniques (percussive, rotary and hydraulic), drilling equipment & drill pattern design for headings, stopes and benches in surface and underground 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 paddock 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. Methods to access and develop mineral deposits. Tunnelling methods. Conventional and mechanical excavation systems including drilling and blasting, roadheader, tunnel boring machines, pipe-jacking. Materials handling systems. Lining and support of tunnels. Tunnelling in difficult ground. Tunnel services; ventilation, lighting and drainage. Hazards in tunnelling.Shaft sinking methods (both vertical and inclined shafts); conventional and mechanical boring. Ground treatment by chemical injection and freezing methods. Tunnel services and fitout.

Note/s: 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
Staff Contact: P Hagan
UOC3 HPW3 S1

This course provides an understanding of the materials handling systems used in mining as well as the various infrastructure needs of a mining operation including power reticulation and control systems.Transport systems for minerals, waste rock, people and materials. Design of conveyor systems. Trackless methods of haulage; shovels, loaders and trucks. Track mounted methods. Design of hydraulic and pneumatic transport systems.Mechanics of hoisting and design of winding systems. Winding cycle diagrams and power requirements for hoisting. Winding ropes. Safety aspects, maintenance of haulage and winding systems.Mine power. 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.

Note/s: 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
Staff Contact: D Laurence
UOC6 HPW4 S1

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.Topics covered in the Mine Economics component will include: 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.

MINE3720 Mining Management 1
School of Mining Engineering
Staff Contact: D Chalmers
UOC6 HPW4 S2

The course deals with techniques to manage projects, processes, contracts, contractors and people; Change hazards and risks - MISHC Component 3: Minerals Industry Risk Analysis Methodology, Introduction to Major Hazards; Loss control. The course is underpinned with a range of case studies.

MINE3800 Mineral Processing
School of Mining Engineering
Staff Contact: A Partridge
UOC3 HPW3 S2

Assumed Knowledge: PHYS1169, CHEM1817, MINE2500 (or equivalents)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. Topics include: Rocks, minerals and ores. Grades, recoveries. Materials balances. Liberation. Comminution (crushing and grinding). Screening. Size classification. Dry and water-based separation processes. Dense media separation. Surface properties of liquids and solids. Froth flotation. Leaching processes. Screens and centrifuges. Flocculation and thickening. Filtration. Tailings disposal.A series of laboratory investigations forms part of the course.

MINE4210 Mine Planning
School of Mining Engineering
Staff Contact: P Hagan
UOC6 HPW5 S1

The course provides an understanding of the fundamentals of the mine planning process including design and scheduling, and the tools available to assist in the planning process. Mine planning parameters. Mine design and scheduling. Equipment selection. Review of feasibility studies. Maximising productivity. Capital and operating costs. Resource optimisation. Computer simulation and its applicability to mining operations. Design and evaluation of mining systems using simulation and associated techniques. Introduction to mine planning tools and processes.

MINE4220 Coal Mine Design and Evaluation Project
School of Mining Engineering
Staff Contact: D Chalmers
UOC9 HPW7 S2

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 subject. 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. A minimum of 80 days of approved industrial training is required for successful completion of this course.

MINE4230 Metal Mine Design and Evaluation Project
School of Mining Engineering
Staff Contact: D Laurence
UOC9 HPW7 S2

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 metalliferous 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. A minimum of 80 days of approved industrial training is required for successful completion of this course.

MINE4300 Geotechnical Engineering
School of Mining Engineering
Staff Contact: B Hebblewhite
UOC6 HPW4 S1

Assumed Knowledge: MINE3300This course provides an expanded understanding of the principles of mining geomechanics and identifies the practical applications and methodologies within mining engineering. Hazard and condition mapping; mine shaft geomechanics; mining excavation design; stope design; geotechnical instrumentation; data interpretation; application of numerical modelling; surface mining geomechanics; diggability/rippability; pillar and roadway design; bolting mechanics; reinforcement systems; subsidence engineering; rockburst/outburst mechanics; regional mine stability; longwall support mechanics; caving mechanics and windblasts; ground control management. Case studies will be used to highlight the above topics.

Note/s: Site visits and Industry lectures are a requirement of this course and may involve additional personal expense.

MINE4410 Industry Applications
School of Mining Engineering
Staff Contact: P Hagan
UOC6 HPW4 S1

The course provides the student with an awareness of current issues in the mining industry. The course also covers the processes associated with initiating a research project. 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. Candidates are required to select a topic for a research project 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.

MINE4420 Thesis A
School of Mining Engineering
Staff Contact: P Hagan
UOC9 HPW4 S1 S2

Assumed Knowledge: MINE4410The course provides the opportunity of demonstrating the student's capabilities in undertaking a major research project in an area associated with the mining industry. Candidates are required to submit a dissertation or thesis and make a presentation on a mining, minerals engineering or other topic approved by the Head of School. The work may take the form of an engineering analysis, experimental investigation, theoretical study or design project.

MINE4430 Thesis B
School of Mining Engineering
Staff Contact: P Hagan
UOC6 HPW4 S1 S2

The course provides the opportunity of demonstrating the student's capabilities in undertaking a minor research project in an area associated with the mining industry. Candidates are required to submit a dissertation or thesis and make a presentation on a mining, minerals engineering or other topic approved by the Head of School. The work may take the form of an engineering analysis, experimental investigation, theoretical study or design project. This course is only available to students undertaking the BE(Mining)/MCom or the BE/MEM combined program or in programs where the 9 unit of credit MINE4420 is inappropriate due to workload.

MINE4500 Environmental and Social Impacts of Mining
School of Mining Engineering
Staff Contact: D Laurence
UOC3 HPW2 S2

The course provides an understanding of the impacts both positive and negative that mining may have on society. International perspective and treaties; sustainability; corporate responsibility; legislative and regulatory framework; environmental impact assessment; environmental management systems, ISO 14000 series; Corporate reporting; Code for environmental management; environmental economics; environmental auditing; risk management Best practice environmental management techniques in exploration; air quality; waste rock; tailings; quarries; acid mine drainage; cyanide; rehabilitation; mine closure; monitoring; social impact; open pit voids; case studies.Ethics and professional codes of conduct.

MINE4700 Mining Management 2
School of Mining Engineering
Staff Contact: D Laurence
UOC6 HPW5 S1

This course provides an understanding of certain critical management issues of fundamental importance to the mining industry. The subject material includes:risk management - MISHC Component 4application of risk analysis to mine planning and mineral processingrisk management models and systemsrisk management in thesisprinciples and practice of emergency preparednessmodern mining, safety and environmental legislation

MINE4800 Mine Simulation and Modelling
School of Mining Engineering
Staff Contact: C Daly
UOC3 HPW3 S2

The course aims to provide students with knowledge and skills in the use of various computer software tools that are used in industry. Computer simulation and its applicability to mining planning and mine operations. Evaluation of a number of commercial software programs. Design and evaluation of mining systems using simulation and associated techniques. Data visualisation and its role in ore deposit modelling.

MINE4805 Mineral Process Technology
School of Mining Engineering
Staff Contact: A Partridge
UOC3 HPW3 S2

Assumed Knowledge: MINE3800(may be taken as a co-requisite with approval of Head of School)Descriptions of principal unit processes are given in MINE3800. This course extends that work by a closer examination of the underlying basis of those unit processes; and aspects of circuit design, equipment selection and process optimisation. On completion, you will be able to carry out advanced calculations relating to the characterisation of mined materials and process performance, and will be able to use such information for process simulation. You will also be familiar with basic flowsheet and plant design considerations, and of the instrumentation and control systems incorporated in mineral processing and coal preparation plants.Topics include: Ore characterisation. Gaudin-Schuhmann plots. Separation and blending equations. Release analysis. Grade-recovery and grade-gradient plots for mineral ores. Process instrumentation and control. Radiation based on-line instrumentation. Review of coal washability. Rosin-Rammler plots. The Mayer curve. Flotation: the Tree procedure. Materials handling: stockpiles and blending. Sampling theory and practice. Process efficiency (partition curves). Processes in parallel and series. Instantaneous grade theory of process optimisation and its application. Physics and chemistry of surfaces. Double layer theory. Rheology of suspensions. Process simulation: comminution, screening, classification, flotation, dense medium cyclones. Simulation software packages. Flow sheet design. Equipment selection and plant layout. Rejects and tailings disposal. Leaching processes and environmental considerations.

MINE4810 Computational Methods in Geomechanics
School of Mining Engineering
Staff Contact: J Watson
UOC3 HPW3 S2

Assumed Knowledge: MINE2320To 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.

MINE7341 Mineral Process Engineering
School of Mining Engineering
Staff Contact: School Office
UOC3 S1

Objectives of mineral processing and coal preparation. Mine-mill interface. Properties of minerals and ores. Sampling and evaluation. Comminution: fracture, liberation, size criteria, energy-size relationships. Crushing and grinding. Screening and classifying. Concentration processes: density and other physical processes. Dissolution processes. Interfacial phenomena. Flotation. Liquid-solid separation: flocculation, thickening, filtration. Washability curves. Partition curves. Material balances. Performance prediction. Laboratory exercises.

MINP4010 Hydrometallurgical Processes
School of Chemical Eng and Industrial Chemistry
Staff Contact: School Office
UOC2 S1 S2

Application of principles of aqueous thermodynamics, electrochemistry, chemical and electrochemical kinetics to hydrometallurgical processes; leaching of metals, minerals and concentrates, solution purification, precipitation, and other separation processes, ion-exchange and liquid-liquid extraction, electro-winning and electro-refining. Emphasis is on processes currently used in the Australian mineral industry.

MINP4020 Hydrometallurgy Practices
School of Chemical Eng and Industrial Chemistry
Staff Contact: School Office
UOC3 S1 S2

Please refer to the Schools of Materials Science & Engineering for details.

MINP4030 Hydrometallurgical Process Engineering
School of Chemical Eng and Industrial Chemistry
Staff Contact: School Office
UOC2 S1 S2

Please refer to the School of Materials Science & Engineering for details.

MODL2000 Cross-Cultural Communication
School of Modern Language Studies
Staff Contact: J Battestini-Newman
UOC6 HPW3 S2

Prerequisite/s: 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 in different cultures. The aims are to identify and compare (1) factors which lead to communication breakdown; (2) expressions of formality, politeness and emotion in European and Asian languages. The course is designed to complement courses offered within the School of Modern Language Studies by developing learners' cross-cultural communication skills. Lectures will be in English with language specific work included in tutorials. It will also be of interest to any students whose work involves dealing with people of different cultures.

MODL2002 Communicating to the World: Introduction to Professional Interpreting
School of Modern Language Studies
Staff Contact: L Stern
UOC6 HPW3 S1
Prerequisite/s: 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/s: Proficiency in English and a language other than English, includes French, German, Indonesian, Japanese, Korean, Russian or Spanish.

MSCI2001 Introductory Marine Science
Centre for Marine and Coastal Studies
Staff Contact: School Office
UOC6 HPW4 S1 S2

Ocean basins, sediments, properties of seawater, ocean circulation, coasts and coastal processes. Marine biology and ecology, primary and secondary productivity. Personal expenses will be incurred.

Note/s: Field work.

MSCI2051 Coral Reef: Environment and Ecology
Centre for Marine and Coastal Studies
Staff Contact: School Office
UOC3 S1 S2 X1

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. Personal expenses will be incurred.

Note/s: Available February and July

MSCI3001 Physical Oceanography
Centre for Marine and Coastal Studies
Staff Contact: M England
UOC6 HPW4 S2

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 oceanprocesses, including waves, tides, beach currents and the El-Nino/Southern Oscillation. Oceanographic instrumentation and the design of ocean measuring programs.

Assumed Knowledge:Any 6 Units of Credit of Level I Mathematics.

Note/s: Laboratory and field work.

MSCI4003 Marine Science 4 Honours Full-Time
Centre for Marine and Coastal Studies
Staff Contact: School Office
Enrolment requires school approval
UOC24 HPW30 S1 S2

The General Education requirements are met within the Honours program by seminars, an essay and participation in discussion groups.

MSCI6200 Coastal Monitoring Techniques
Centre for Marine and Coastal Studies
Staff Contact: A Albani
UOC6 HPW5 S1

General principles of surveying. Optical and electronic methods of distance and elevation measuring. Coastal position fixing. Coordinate systems and their application to coastal mapping. Map projections. Long and short term monitoring of coastal changes. Tides, their measurement.

Note/s: Field work of up to 4 days is a compulsory part of this course. Students will incur personal costs.

MSCI6300 Coastal Environmental Assessment
Centre for Marine and Coastal Studies
Staff Contact: A Albani
UOC6 HPW5 S1

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/s: 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
Staff Contact: M Tordon
UOC3 HPW3 S1
Excluded: MECH4201, MECH9201, MTRN9201

Introduction. Review of number theory. Symbolic logic. An introduction to TTL compatible devices. Formulation and implementation of problems in logic. Microprocessor architecture. Components of a microprocessor based system. Memory maps. Input/Output devices. Dedicated and special purpose computers. Principal features of a microprocessor based system. Laboratory complement to lectures.

MTRN3202 Microprocessor Control
School of Mechanical and Manufacturing Engineering
Staff Contact: J Katupitiya
UOC3 HPW3 S2
Prerequisite/s: 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
Staff Contact: R Willgoss
UOC3 HPW3 S2
Prerequisite/s: 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.

MTRN3530 Computing Applications in Mechanical Systems
School of Mechanical and Manufacturing Engineering
Staff Contact: J Katupitiya
UOC3 HPW3 S1
Prerequisite/s: MECH1500
Excluded: MECH3510, MECH3530

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
Staff Contact: R Willgoss
UOC3 HPW3 S2
Prerequisite/s: 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.

MUSI1141 Musicology 1A
School of Music and Music Education
Staff Contact: J Napier
UOC3 HPW3 S1
Excluded: MUSI1002, MUSI1003

Introduction to a wide range of musical styles, techniques and circumstances. Enables students to acquire insight into compositional processes and the place music occupies in different societies. Includes detailed study of twentieth century music and ethnomusicology. Also includes vocal repertoire which involves singing in many styles and genres. As part of the assessment students must attend a specified number of concerts on campus as outlined in the course handout.

Assumed Knowledge:A satisfactory standard in HSC Music or AMEB 7th grade practical pass plus 6th grade theory or musicianship.

MUSI1142 Musicology 1B
School of Music and Music Education
Staff Contact: P Brown
UOC3 HPW3 S2
Prerequisite/s: MUSI1141
Excluded: MUSI1002, MUSI1004

Continuation of MUSI1141 Musicology 1A, with detailed study of baroque music. As part of the assessment students must attend a specified number of concerts on campus as outlined in the course handout.

MUSI1241 Musicianship 1A
School of Music and Music Education
Staff Contact: C Watts
UOC3 HPW2 S1
Excluded: MUSI1003, MUSI1002

Classes in the structures and processes of music focusing 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. This course requires the successful completion of music literature tests.

MUSI1242 Musicianship 1B
School of Music and Music Education
Staff Contact: C Watts
UOC3 HPW2 S2
Prerequisite/s: MUSI1241
Excluded: MUSI1002, MUSI1004

Classes in structures and processes of music. These aim to further students' knowledge of harmonic vocabulary through analysis of both diatonic and chromatic harmony in various styles and periods, the observation of harmonic and melodic practices in appropriate musical composition and the acquisition of aural skills to include form and variation techniques. This course requires the successful completion of music literature tests.

MUSI1301 Fundamentals of Music Part A
School of Music and Music Education
Staff Contact: A Walker
UOC6 HPW3 S1
Excluded: MUSI1103, MUSI1141, MUSI2141, MUSI1102, MUSI1142

Provides an opportunity for students to develop their musicianship and their understanding of the technical details of music.

MUSI1302 Fundamentals of Music Part B
School of Music and Music Education
Staff Contact: A Walker
UOC6 HPW3 S2
Prerequisite/s: MUSI1301

Continuation of MUSI1301 Fundamentals of Music Part A. A credit in MUSI1302 permits progression to MUSI2311. The course requires participation in a School performing group and can be taken as a self-sufficient course or as a path to further musical studies, including a music major.

MUSI1401 Professional Practices 1A
School of Music and Music Education
Staff Contact: C Logan
UOC6 HPW6 S1
Prerequisite/s: enrolment in 3425 or 3427
Excluded: MUSI1701

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.

MUSI1402 Professional Practices 1B
School of Music and Music Education
Staff Contact: C Logan
UOC6 HPW6 S2
Prerequisite/s: MUSI1401
Continuation of MUSI1401.

MUSI1501 Music Performance 1A
School of Music and Music Education
Staff Contact: G McPherson
UOC6 HPW6 S1
Prerequisite/s: enrolment in program 3426
Excluded: MUSI1700

Includes private tuition on major instrument and participation in university ensembles, plus two hours of tutorial on minor instruments (guitar and percussion).

MUSI1502 Music Performance 1B
School of Music and Music Education
Staff Contact: G McPherson
UOC6 HPW6 S2
Prerequisite/s: MUSI1501
Continuation of MUSI1501.

MUSI1801 Music Education 1A
School of Music and Music Education
Staff Contact: A Walker
UOC6 HPW3 S1
Prerequisite/s: enrolment in program 3426
Excluded: MUSI1600

Designed as a foundation course in music education. 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 the employer.

MUSI1802 Music Education 1B
School of Music and Music Education
Staff Contact: A Walker
UOC6 HPW3 S2
Prerequisite/s: MUSI1801

Continuation of MUSI1801 Music Education 1A, plus three weeks practice teaching in a primary school.

MUSI2111 History of Performance Conventions Part A
School of Music and Music Education
Staff Contact: C Logan
UOC3 HPW1 S1
Prerequisite/s: MUSI1142, MUSI1242 or MUSI1004 or MUSI1002 or MUSI2001
Corequisite/s: MUSI2141
Excluded: MUSI2101

An historical introduction to the issues of performance practice. The ways in which research contributes to the making of an informed scholarly performance are examined through investigation of the evidence in historical documents, recent scholarship, scores, recorded performances, practical demonstration and student participation in performance and analysis especially in Baroque music.

MUSI2112 History of Performance Conventions Part B
School of Music and Music Education
Staff Contact: C Logan
UOC3 HPW1 S2

Prerequisite/s: MUSI2111
Corequisite/s: MUSI2142

Continuation of MUSI2111 History of Performance Conventions Part A with detailed examination of issues in Renaissance and late 18th - 20th Centuy music.

MUSI2121 Orchestration and Arrangement Part A
School of Music and Music Education
Staff Contact: C Logan
UOC3 HPW1 S1
Prerequisite/s: MUSI1142, MUSI1242 or MUSI1004 or MUSI1002 or MUSI2001
Corequisite/s: MUSI2141
Excluded: MUSI2102

Introduction to the skills of arranging, orchestration and music copying. Topics include: the resources of orchestral instruments, scoring for string orchestra and small orchestra, arranging for woodwind instruments, notation conventions in preparing a score, and analysis of orchestration from the literature.

MUSI2122 Orchestration and Arrangement Part B
School of Music and Music Education
Staff Contact: C Logan
UOC3 HPW1 S2
Prerequisite/s: MUSI2121

Continuation of MUSI2121 Orchestration and Arrangement Part A. Includes arranging for brass and percussion instruments, scoring for large orchestra, analysis of orchestration from the literature, and problems in orchestration.

MUSI2141 Musicology 2A
School of Music and Music Education
Staff Contact: D Fabian
UOC3 HPW4 S1
Prerequisite/s: (MUSI1142 and MUSI1242) or MUSI1002 or MUSI1004
Excluded: MUSI2002, MUSI3001

Extends Musicology 1A and 1B with a detailed study of Classical and Romantic music, plus Aboriginal and Torres Strait Islander music in their historical, social and cultural contexts. As part of the assessment students must attend a specified number of concerts on campus as outlined in the course handout.

MUSI2142 Musicology 2B
School of Music and Music Education
Staff Contact: P Brown
UOC3 HPW4 S2
Prerequisite/s: MUSI2141 or MUSI1002 or MUSI1004

Extends MUSI2141 Musicology 2A with a detailed study of Renaissance music and an introduction to electronic music and music technology. As part of the assessment students must attend a specified number of concerts on campus as outlined in the course handout.

MUSI2241 Musicianship 2A
School of Music and Music Education
Staff Contact: J Napier
UOC3 HPW2 S1
Prerequisite/s: (MUSI1142 and MUSI1242) or MUSI1002 or MUSI1004
Excluded: MUSI3001, MUSI2002

Classes in the structures and processes of music which focus on chromatic harmony in various styles and periods, and the observation of harmonic and melodic practices in appropriate musical composition. The techniques of unrelated modulation are also explored. The analysis, observation and composition of two-part counterpoint are major components of this course. Acquisition of aural skills includes sightreading, with a major emphasis on rhythm, and the exploration of texture and musical structure. This course requires the successful completion of music literature tests.

MUSI2242 Musicianship 2B
School of Music and Music Education
Staff Contact: J Napier
UOC3 HPW2 S2
Prerequisite/s: MUSI2241

Classes in the structures and processes of music, focusing on the study of analytical techniques and their application in various styles and periods. The aural skills component extends students' sightreading ability and their perception skills. This course requires the successful completion of music literature tests.

MUSI2311 Musicology 2E
School of Music and Music Education
Staff Contact: D Fabian
UOC3 HPW3 S1
Prerequisite/s: MUSI1103 or MUSI1302 at credit level
Excluded: MUSI1002, MUSI1003, MUSI2001

As for MUSI1141.

MUSI2312 Musicology 2F
School of Music and Music Education
Staff Contact: P Brown
UOC3 HPW3 S2
Prerequisite/s: MUSI2311

As for MUSI1142.

MUSI2321 BA Music Performance 2A
School of Music and Music Education
Staff Contact: P Brown
UOC3 HPW2 S1 S2
Prerequisite/s: (MUSI1142 and MUSI1242) or MUSI1103 at credit level or MUSI2001 or MUSI1302 at credit level
Excluded: MUSI2010

Requires second year and/or third year students enrolled in BA with a major in Music to take part in one performance group, usually the Collegium Musicum Choir or the University Concert Band or the University Orchestra, under full-time Music staff supervision, for weekly rehearsals and scheduled performances.

MUSI2322 BA Music Performance 2B
School of Music and Music Education
Staff Contact: P Brown
UOC3 HPW2 S1 S2
Prerequisite/s: MUSI2321

Continuation of MUSI2321 BA Music Performance 2A.

MUSI2341 Musicianship 2E
School of Music and Music Education
Staff Contact: C Watts
UOC3 HPW2 S1
Prerequisite/s: MUSI1103 or MUSI1302 at credit level
Excluded: MUSI1002, MUSI1003, MUSI2001

As for MUSI1241.

MUSI2342 Musicianship 2F
School of Music and Music Education
Staff Contact: C Watts
UOC3 HPW2 S2
Prerequisite/s: MUSI2341

As for MUSI1242.

MUSI2351 Advanced Program in Music 1 Part A
School of Music and Music Education
Staff Contact: D Fabian
UOC6 HPW3 S1
Prerequisite/s: (MUSI2312 and MUSI2342 at credit level) or (MUSI1142 and MUSI1242 at credit level)
Excluded: MUSI2300

Selected topics from the BMus program excluding composition and performance for students wishing to proceed to Honours in Music within the Bachelor of Arts.

MUSI2352 Advanced Program in Music 1 Part B
School of Music and Music Education
Staff Contact: D Fabian
UOC6 HPW3 S2
Prerequisite/s: MUSI2351

Continuation of MUSI2351 Advanced Program in Music 1 Part A.

MUSI2401 Professional Practices 2A
School of Music and Music Education
Staff Contact: C Logan
UOC6 HPW7 S1

Prerequisite/s: MUSI1402 or MUSI1701
Excluded: MUSI2701

Includes private instruction on major instrument, examination on major instrument, participation in university ensembles, keyboard tutorials, plus seminar in special electives (musicology, performance, composition, jazz studies).

MUSI2402 Professional Practices 2B
School of Music and Music Education
Staff Contact: C Logan
UOC6 HPW7 S2
Prerequisite/s: MUSI2401

Continuation of MUSI2401 Professional Practices 2A.

MUSI2501 Music Performance 2A
School of Music and Music Education
Staff Contact: G McPherson
UOC6 HPW6 S1
Prerequisite/s: MUSI1502 or MUSI1700
Excluded: MUSI2700

Includes private tuition on major instrument, participation in university ensembles, plus keyboard tutorial and either brass or woodwind instrument.

MUSI2502 Music Performance 2B
School of Music and Music Education
Staff Contact: G McPherson
UOC6 HPW6 S2
Prerequisite/s: MUSI2501

Continuation of MUSI2501.

MUSI2801 Music Education 2A
School of Music and Music Education
Staff Contact: F Murphy
UOC6 HPW3 S1
Prerequisite/s: (MUSI1600 or MUSI1802)
Excluded: MUSI2600, MUSI2601

Covers basic classroom strategies for teaching performance, listening and sightsinging in school years 7 to 10. Music reading skills are also introduced and developed in the context of lower secondary school classroom music. Incorporates recent developments in secondary classroom topics such as popular music, jazz and music from other cultures. Also includes evaluation of selected documents concerned with professional ethics, and an examination of the theory and practice of classroom management.

MUSI2802 Music Education 2B
School of Music and Music Education
Staff Contact: F Murphy
UOC6 HPW3 S2
Prerequisite/s: MUSI2801
Excluded: MUSI2602

Extension of MUSI2801 Music Education 2A. Additional component includes three weeks practice teaching in a secondary school.

MUSI3111 Seminar in Musicology Part A
School of Music and Music Education
Staff Contact: G Stubington
UOC3 HPW2 S1
Prerequisite/s: MUSI2242, MUSI2142 or MUSI2002 or MUSI3001
Corequisite/s: MUSI3141, MUSI3241
Excluded: MUSI3103

Requires active and regular participation in a seminar devoted to a series of specific issues in musicology.

MUSI3112 Seminar in Musicology Part B
School of Music and Music Education
Staff Contact: G Stubington
UOC3 HPW2 S2
Prerequisite/s: MUSI3111
Corequisite/s: MUSI3142, MUSI3242

Continuation of MUSI3111 Seminar in Musicology Part A. Includes submission of a formal written research project.

MUSI3121 Jazz and Popular Music Studies
School of Music and Music Education
Staff Contact: J Napier
UOC3 HPW2 S1
Prerequisite/s: MUSI2142, MUSI2242
Excluded: MUSI3005

Provides the opportunity for a detailed study of elements that have shaped and enriched twentieth century jazz and popular musics. Through a chronological study of music trends within the broad category of 'jazz', students become familiar with the significant innovations of each of the evolutionary stages. In applying some of the theories and methods of ethnomusicology and cultural studies to both jazz and popular music, an understanding of the social ecology of each genre will be sought.

MUSI3141 Musicology 3A
School of Music and Music Education
Staff Contact: P Brown
UOC3 HPW4 S1
Prerequisite/s: MUSI2002 or MUSI3001 or MUSI2142 or MUSI2242
Excluded: MUSI3002

Detailed study of Medieval music, plus further studies in electronic music and music technology. As part of the assessment students must attend a specified number of concerts on campus as outlined in the course handout.

MUSI3142 Musicology 3B
School of Music and Music Education
Staff Contact: C Logan
UOC3 HPW4 S2
Prerequisite/s: MUSI3141

Extends MUSI3141 Musicology 3A with a detailed study of 20th Century music, plus South Asian music. As part of the assessment students must attend a specified number of concerts on campus as outlined in the course handout.

MUSI3241 Musicianship 3A
School of Music and Music Education
Staff Contact: D Fabian
UOC3 HPW2 S1
Prerequisite/s: (MUSI2142 and MUSI2242) or MUSI3001 or MUSI2002
Excluded: MUSI3002

Analytical studies focusing on Medieval repertoire and structures. Sightsinging and aural studies provide a practical introduction to the musical repertoire examined concurrently in Medieval music history. This course requires the successful completion of music literature tests.

MUSI3242 Musicianship 3B
School of Music and Music Education
Staff Contact: D Fabian
UOC3 HPW2 S2
Prerequisite/s: MUSI3241

Continuation of MUSI3201 Musicianship 3A. Concentrates on 20th century music, particularly those works composed post 1945. Aural work focuses on 7th chords and other non-tonal formations, dissonant intervals and the singing of atonal or chromatic works. Classes include analytical presentations of contemporary compositions. This course requires the successful completion of music literature tests.

MUSI3311 Musicology 3G
School of Music and Music Education
Staff Contact: D Fabian
UOC3 HPW4 S1
Prerequisite/s: MUSI2312 or MUSI2001
Excluded: MUSI1002, MUSI1003, MUSI3001

As for MUSI2141.

MUSI3312 Musicology 3H
School of Music and Music Education
Staff Contact: P Brown
UOC3 HPW4 S2
Prerequisite/s: MUSI3311 or MUSI2001
Excluded: MUSI2002

As for MUSI2142.

MUSI3341 Musicianship 3G
School of Music and Music Education
Staff Contact: J Napier
UOC3 HPW2 S1
Prerequisite/s: MUSI2342 or MUSI2001
Excluded: MUSI1002, MUSI1003, MUSI2002, MUSI3001

As for MUSI2241.

MUSI3342 Musicianship 3H
School of Music and Music Education
Staff Contact: J Napier
UOC3 HPW2 S2
Prerequisite/s: MUSI3341 or MUSI2001

As for MUSI2242.

MUSI3351 Advanced Program in Music 2 Part A
School of Music and Music Education
Staff Contact: D Fabian
Enrolment requires school approval
UOC6 HPW3 S1
Prerequisite/s: MUSI2352 or MUSI2300 and permission of head of school
Excluded: MUSI2300, MUSI3300

Selected topics from BMus program excluding composition and performance for students wishing to proceed to Honours in Music within the Bachelor of Arts.

MUSI3352 Advanced Program in Music 2 Part B
School of Music and Music Education
Staff Contact: D Fabian
UOC6 HPW3 S2
Prerequisite/s: MUSI3351

Continuation of MUSI3351 Advanced Program in Music 2 Part A.

MUSI3401 Professional Practices 3A
School of Music and Music Education
Staff Contact: C Logan
UOC6 HPW7 S1
Prerequisite/s: MUSI2402 or MUSI2701
Excluded: MUSI3701

Includes private instruction on major instrument, examination on major instrument, participation in university ensembles, keyboard tutorials, plus seminar in special electives (musicology, performance, composition, jazz studies).

MUSI3402 Professional Practices 3B
School of Music and Music Education
Staff Contact: C Logan
UOC6 HPW6 S2
Prerequisite/s: MUSI3401
Excluded: MUSI3701

Includes participation in university ensembles, keyboard tutorials, plus seminar in special electives (musicology, performance, composition, jazz studies).

MUSI3412 Performance Recital
School of Music and Music Education
Staff Contact: C Logan
UOC3 HPW1 S1 S2
Prerequisite/s: MUSI2701 or MUSI3401
Excluded: MUSI3701

Tuition on major instrument, culminating in the presentation of a performance recital.

MUSI3501 Music Performance 3A
School of Music and Music Education
Staff Contact: G McPherson
UOC6 HPW6 S1
Prerequisite/s: MUSI2502 or MUSI2700
Excluded: MUSI3700

Includes private tuition on major instrument, participation in university ensembles, plus tutorials in keyboard laboratory and either a brass or woodwind instrument.

MUSI3502 Music Performance 3B
School of Music and Music Education
Staff Contact: G McPherson
UOC6 HPW6 S2
Prerequisite/s: MUSI3501

Continuation of MUSI3501 Music Performance 3A.

MUSI3801 Music Education 3A
School of Music and Music Education
Staff Contact: F Murphy
UOC6 HPW3 S1
Prerequisite/s: MUSI2802 or MUSI2602, MUSI2142, MUSI2242 or MUSI2002
Excluded: MUSI3600, MUSI3601

Focuses on the junior elective curriculum and teaching strategies involved in effectively meeting syllabus requirements. Content includes performance, aural perception, composition and listening and critical evaluation of selected documents concerned with educational policy and practice.

MUSI3802 Music Education 3B
School of Music and Music Education
Staff Contact: A Walker
UOC6 HPW3 S2
Prerequisite/s: MUSI3801
Excluded: MUSI3602

Continuation of MUSI3801 Music Education 3A, plus strategies for teaching improvisation and composition during years 7 to 12. Also includes three weeks practice teaching at a secondary school.

MUSI3812 Principles & Processes of Music Education
School of Music and Music Education
Staff Contact: G McPherson
UOC6 HPW3 S2
Prerequisite/s: enrolment in program 3426 and (MUSI2600 or MUSI2602)
Excluded: MUSI4602, MUSI4603

Examines the scope of 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. Focuses on the application of psychology to music teaching in the Australian environment, and examines theories concerned with creativity, musical ability/aptitude, and the perception of music. Aims to expose students to a variety of ideas and trends which confirm or contradict established norms and attitudes on effective music teaching. At the discretion of the Program Coordinator this course can be used to replace one Education Studies elective.

MUSI4000 Bachelor of Music Honours Full-Time
School of Music and Music Education
Staff Contact: C Logan
Enrolment requires school approval
UOC24 S1 S2
Prerequisite/s: Completion of all requirements for the Pass degree with an average of at least Credit level in Music courses and permission from head of school

Appropriate seminars in musicology, further development of performance skills and musical leadership, together with a thesis of 15,000 - 20,000 words on a musicological topic, an extended recital or other approved special project.

Note/s: For BMus and BMusBA students only and the successful completion of music literature tests.

MUSI4005 Music Honours (BA)
School of Music and Music Education
Staff Contact: D Fabian
Enrolment requires school approval
UOC24 S1 S2
Prerequisite/s: 48 units of credit in MUSI including MUSI2352, MUSI3142, MUSI3242 and MUSI3352 with a credit average and permission of head of school

Appropriate seminars in musicology, further development of performance skills and musical leadership, together with a thesis of 15,000 - 20,000 words on a musicological topic and the successful completion of music literature tests.

MUSI4101 Advanced Professional Practices
School of Music and Music Education
Staff Contact: G McPherson
UOC6 HPW6 S1
Prerequisite/s: (MUSI2142 and MUSI2242) or MUSI2002
Excluded: MUSI4002

Designed as an extension to MUSI3102 and MUSI3202. Includes lectures in Jazz and Popular music studies, conducting, and either composition or aesthetics.

MUSI4501 Music Performance 4
School of Music and Music Education
Staff Contact: G McPherson
UOC6 HPW5 S1 S2
Prerequisite/s: MUSI3502 or MUSI3700
Excluded: MUSI4700

Includes concert practice leading to the presentation of a recital on major instrument, plus participation in university ensembles and lectures which examine research and methods of teaching musical performance at all levels. Covers learning theory and pedagogy, administration of school ensembles, developmental and remedial instrumental teaching, beginning instruction and acquiring performance technique, and conducting/rehearsing/diagnosing skills and techniques.

MUSI4610 Music Education Honours
School of Music and Music Education
Staff Contact: G McPherson
Enrolment requires school approval
UOC24 S1 S2
Prerequisite/s: Completion of all requirements for the Pass degree with an average of at least Credit in all music (in the case of Honours in music) or music education (in the case of Honours in music education) courses and permission of head of school

Seminars on research methods in music education and culminating in a thesis of 15,000-20,000 words on a topic in music education or other approved special project and the successful completion of music literature tests.

MUSI4801 Music Education 4A
School of Music and Music Education
Staff Contact: F Murphy
UOC3 HPW3 S1
Prerequisite/s: MUSI3142, MUSI3242 or MUSI3002, MUSI3802 or MUSI3600 or MUSI3602
Excluded: MUSI4600

Requirements for the Higher School Certificate examinations in music in years 11 and 12. Lesson styles are examined and methods of designing programs are also considered. Includes administrative arrangements for MUSI4812 Extended Practice Teaching, and allows for evaluation of the school based practicum. An additional component deals with current developments in educational policy and practice plus issues of professional responsibility.

MUSI4802 Music Education 4B
School of Music and Music Education
Staff Contact: F Murphy
UOC3 S1 S2
Prerequisite/s: MUSI4801
Corequisite/s: MUSI4812
Excluded: MUSI4600

Extension of MUSI4801 including lectures in professional ethics, legal responsibility of teachers, and programming. Evaluation sessions before and after Extended Practice Teaching period provide opportunities for students to think about, discuss and contribute creatively to the kind of future they would like for themselves, their society and their profession.

Note/s: Taught in condensed mode during the week before and after MUSI4812.

MUSI4812 Extended Practice Teaching
School of Music and Music Education
Staff Contact: F Murphy
UOC12 S1 S2
Prerequisite/s: (MUSI4501, MUSI4101, MUSI4801) or (MUSI3002, MUSI3602, MUSI3700)
Corequisite/s: MUSI4802
Excluded: MUSI4601

Designed to assist the integration of theory and practice and to develop and test the knowledge, understandings and skills required to commence a career as a specialist school music teacher. Consists of 50 days' supervised teaching experience in an approved school.

Note/s: 50 days' supervised extended practice teaching in secondary school.

NANO1001 Nanotechnology 1
School of Material Science and Engineering
Staff Contact: School Office
UOC3 HPW3 S2

This course will provide 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 four projects to study the connection between the underlying nanoscience of various nanotechnology devices. Students, in samll groups, will undertake studies chosen from each of the major themes of biodevices and nanostructures. Examples from major nanotechnology initiatives will include quantum computing, DNA chips, nanogears, quantum dots, DNA sequencing, ion-channel biosensors and other examples. Students will prepare written reports and oral presentations of their material.

Note/s: Available only to students enrolled in program 3617

NANO2002 Nanotechnology 2
School of Material Science and Engineering
Staff Contact: School Office
UOC3 HPW3 TBA

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.

Note/s: Available only to students enrolled in program 3617

NANO3003 Nanotechnology 3
School of Material Science and Engineering
Staff Contact: School Office
UOC3 HPW3 TBA

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.

Note/s: Available only to students enrolled in program 3617

NANO3410 Chemistry of Surfaces
School of Chemistry
Staff Contact: N Singh
UOC3 HPW3 TBA
Prerequisite/s: NANO2002

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 Material Science and Engineering
Staff Contact: P Munroe
UOC3 HPW2 S2

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
Staff Contact: School Office
UOC3 HPW3 TBA
Prerequisite/s: CHEM2041

Principles of transduction, immobilization of biomolecules, affinity sensors, catalytic sensors, practical realities of their construction, electrochemical sensors, evanscent wave and other optical sensors.

NANO4004 Nanotechnology Project
School of Material Science and Engineering
Staff Contact: School Office
Enrolment requires school approval
UOC36 HPW18 TBA

This course will require a major piece of research undertaken by students in the fourth year of the Nanotechnology program 3617. A range of interdisciplinary projects will be offered by contributing schools,

Chemistry, Physics, Material Science and Biochemistry, enabling students to carry out experimental investigations in an area of nanotechnology.

Note/s: Enrolment in and completion of Stages 1-3 of program 3617 Nanotechnology is required.

NAVL3100 Principles of Ship Design
School of Mechanical and Manufacturing Engineering
Staff Contact: P Helmore
UOC3 HPW3 S2
Prerequisite/s: NAVL3601 or NAVL3603
Corequisite/s: NAVL3602 or NAVL3604

Development of ships and shipbuilding. The trading environment. The ocean environment. Ship types. Freeboard and load lines. Tonnage. Methods and mathematics of ship design. Estimation of a ship?s dimensions, weights, capacity, freeboard, stability, powering and engine selection. Computer-aided representation of hull shape and drawings.

NAVL3110 Ship Practice
School of Mechanical and Manufacturing Engineering
Staff Contact: P Helmore
UOC3 HPW3 S1
Corequisite/s: NAVL3601 or NAVL3603

Ship terminology. Project visits to dockyard, classification society, survey authority, naval architecture consultancy, propeller foundry, container terminal, bulk-cargo facility, naval vessel, cargo vessel, harbour ferry, harbour tug, Australian National Maritime Museum and Sydney Heritage Fleet. Inclining experiment and practical aspects of ship stability and stability criteria. Report writing.

NAVL3400 Ship Structures 1
School of Mechanical and Manufacturing Engineering
Staff Contact: M Chowdhury
UOC3 HPW3 TBA
Prerequisite/s: MATH2009 or MATH2029, MATS9520, MECH2412, MECH3400

Introduction to rationally-based structural design and optimisation. Loading and responses in ship and offshore structures. Bending of the hull girder - linear deterministic approach. Statistical predictions of wave loads and hull girder response. Fatigue strength and minimum required section modulus. Frame analysis and applications in ship structures. Laterally loaded grillages and stiffened panels - elastic analysis. Applications of extended beam theory - hull girder analysis. Properties of different materials such as steel and aluminium in terms of weldability and other methods of joining. Influence of classification rules and other regulations on construction details.

NAVL3603 Ship Hydromechanics A
School of Mechanical and Manufacturing Engineering
Staff Contact: L Doctors
UOC6 HPW6 S1
Prerequisite/s: MATH2029, MECH2300, MECH2602

Basic concepts and techniques. Hydrostatic particulars and integration techniques. Coefficients of form. Intact stability. Stability at a small angle. Cross curves of stability. Righting-arm curve. Effect of a free surface. Wall-sided formula. Effect on stability of suspended weights. Watertight subdivision. Flooding. Determination of floodable length. Launching and docking. Computer methods in hydrostatics and stability.Dimensional analysis applied to problems in Naval Architecture. Conservation of mass, Bernoulli equation, momentum principle. Stream function and potential function. Body generation with a distribution of sources and thin-body approximation. Complex potential, velocity and pressure. Airfoils and hydrofoils.

NAVL3604 Ship Hydromechanics B
School of Mechanical and Manufacturing Engineering
Staff Contact: L Doctors
UOC3 HPW3 S1 S2
Prerequisite/s: NAVL3603
Corequisite/s: MECH3300

Plane progressive waves in both deep water and water of finite depth. Rolling and heaving of a ship in calm water. Small angles of roll and nonlinear rolling. Rolling in waves. Heave motion of a spar buoy in waves. Coupled pitching and heaving of a ship in forward motion. Ocean waves and their properties.

NAVL3700 Ship Propulsion
School of Mechanical and Manufacturing Engineering
Staff Contact: P Helmore
UOC3 HPW3 S2
Prerequisite/s: NAVL3601 or NAVL3603
Corequisite/s: NAVL3602 or NAVL3604

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
Staff Contact: L Doctors
UOC3 HPW3 S1
Prerequisite/s: NAVL3100, NAVL3602 or NAVL3604
Corequisite/s: NAVL4401

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
Staff Contact: L Doctors
UOC3 HPW3 S2
Prerequisite/s: NAVL3100, NAVL3604
Corequisite/s: NAVL4402

General arrangement of yachts. Selection of principal dimensions and form coefficients, materials. Influence of rating rules, wind conditions, sea conditions and use of a velocity-prediction program. Hydrodynamics of canoe body, keel and rudder. Aerodynamics of sails and rigging. Scantlings of hull structure, mast and rigging.

NAVL4111 Ship Design Project A
School of Mechanical and Manufacturing Engineering
Staff Contact: L Doctors
UOC3 HPW3 S1
Prerequisite/s: NAVL3700
Corequisite/s: NAVL4101, NAVL471 0

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
Staff Contact: L Doctors
UOC3 HPW3 S2
Prerequisite/s: NAVL4111
Corequisite/s: 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
Staff Contact: D Kelly
UOC3 HPW3 S1
Prerequisite/s: NAVL3400, MECH3400
Excluded: AERO4401, 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
Staff Contact: M Chowdhury
UOC3 HPW3 S2
Prerequisite/s: NAVL4401

Composite materials - laminate theory, failure modes, design criteria, durability and manufacturing practices for composite structures. Fatigue

- fatigue of welded structures including S-N approach and fracture mechanics. Prediction of life, crack growth and inspection and maintenance requirements.

NAVL4710 Ship Standards
School of Mechanical and Manufacturing Engineering
Staff Contact: P Helmore
UOC3 HPW3 S1
Prerequisite/s: NAVL3602 or NAVL3604

Documentation, tendering and contract administration. Aspects of special craft. Construction materials and their advantages and disadvantages. Use of the USL Code. Resistance components including frictional, residuary, appendage and air, and methods of prediction.

NAVL4720 Marine Engineering
School of Mechanical and Manufacturing Engineering
Staff Contact: P Helmore
UOC3 HPW3 S2
Prerequisite/s: NAVL3602 or NAVL3604

Steam, diesel, gas turbine, electric and nuclear propulsion. Systems for power transmission, fuel supply, electricity generation, pumping and piping, compressors, purifiers, automation and life-saving. Ship manoeuvring and control. Design of rudders and steering gear.

OBST5001 Obstetrics and Gynaecology
Obstetrics and Gynaecology, School of Women's and Children's Health
Staff Contact: M Bennett
UOC12 S1 S2
Prerequisite/s: MDSG4001

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. A program of lectures 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 three weeks in the hospitals in Wagga Wagga and Albury. In the future up to 25% of students will receive all their teaching at these 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 written 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
Staff Contact: School Office
UOC8 HPW8 S1

Objectives: Understanding of physical and geometrical optics, and the measurement of optical radiation preliminary to ocular hazard assessment, colour measurement and specification and lighting design. Brief Curriculum: Physical Optics, the nature of light, interference, diffraction, polarisation. Reflection, refraction, thin lenses. Analysis of lens systems: thick lenses, telescopes, microscopes. Factors affecting visual resolution. Standard reduced eye: 3-surface schematic eye, reduced eye derivation. Sources of optical radiation. Sunlight and daylight. Detectors. The eye as a detector. Principles and practice of photometry. Principles and practice 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
Staff Contact: G Boneham
UOC4 HPW4 S2
Prerequisite/s: 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 studies 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.

OPTM1202 Clinical Optometry 1
School of Optometry and Vision Science
Staff Contact: H Swarbrick
UOC6 HPW6 S2

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
Staff Contact: School Office
UOC4 HPW4 S2
Prerequisite/s: OPTM1105, PHYS1199
Corequisite/s: OPTM1201

Objectives: Understanding of the optics of the eye and spectacle lenses. Brief Curriculum: Visual Resolution: measurement and notation, optical and retinal limits, contrast sensitivity. Refraction at curved surfaces: cornea. Standard reduced eye. Retinal image analysis. Errors of refraction. Accommodation. Ocular aberrations. Modulation transfer function. Projection of the retina: relative size and distance magnification, entoptic field. Reflection at curved surfaces: cornea, keratometry. 3-surface schematic eye: components of refraction, phakometry, step-along vergence analysis, reduced eye derivation. Optics of the measurement and correction of errors of refraction. Ophthalmic prisms. Spectacle correction, lens forms, prismatic effects, spectacle magnification, effectivity, spectacle aberrations.

OPTM1207 Foundations of Hygiene & Infectious Disease in Optometric Practice
School of Optometry and Vision Science
Staff Contact: P Anderton
UOC4 HPW4 S2
Prerequisite/s: BIOS1401, CHEM1819
Corequisite/s: CHEM1829

Objectives: An understanding of basic microbiology applied to optometric practice. Brief Curriculum: Biology, metabolism and genetics of microbes. Theory of infection and disease propagation. Antibiotics and bacteria. Immunology: Basics, T-cell types and functions, immunoglobulins, cell-mediated immunity, hypersensitivity, auto-immune disease and ocular inflammation. Outline of disease-causing bacteria. Detailed examination of common ocular pathogens. Contact lens related disease and microbiology. Eukaryotic pathogens.

OPTM2101 Ocular and Visual Science 2A
School of Optometry and Vision Science
Staff Contact: P Anderton
UOC6 HPW6 S1
Prerequisite/s: OPTM1201, CHEM1829
Corequisite/s: PHPH2121

Objectives: Understanding of the anatomical, physiological and psychophysical fundamentals of visual perception, as they underlie the practice of modern clinical optometry. Brief Curriculum: Review of classical ideas on the nature of visual perception. Anatomy of the skull and orbit, brain, and visual pathway. Structure and function of retinal photoreceptors and normal and abnormal visual perception. More recent study of models of parallel information processing in higher visual centres, reading performance and visual perception.

OPTM2102 Clinical Optometry 2A
School of Optometry and Vision Science
Staff Contact: B Junghans
UOC6 HPW6 S1
Prerequisite/s: OPTM1201, OPTM1202, OPTM1205
Corequisite/s: OPTM2101, OPTM2105

Objectives: Development of good communication skills. 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.

OPTM2105 Optics and the Eye 3
School of Optometry and Vision Science
Staff Contact: G Dick
UOC3 HPW3 S1 S2
Prerequisite/s: OPTM1205
Corequisite/s: OPTM2101, OPTM2102

Objectives: Understanding of clinical optics applied to spectacle lenses and ophthalmic instruments. Brief Curriculum: Clinical management of subsidiary effects of spectacle lenses. Optics of clinical ophthalmic instruments. Low vision aids. Optics of components of refraction, intraocular implants and corneal refractive surgery. Optics of contact lenses.

OPTM2201 Ocular and Visual Science 2B
School of Optometry and Vision Science
Staff Contact: C Suttle
UOC6 HPW6 S2
Prerequisite/s: OPTM2101, OPTM2102
Corequisite/s: PHPH2221, OPTM2202

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 neural basis of binocular vision: 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
Staff Contact: B Junghans
UOC6 HPW6 S2
Prerequisite/s: OPTM2101, OPTM2102, OPTM2105
Corequisite/s: OPTM2201, OPTM2206

Objectives: Building 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. Brief Curriculum: Interviewing skills. Ocular health: biomicroscopy, tonometry, ophthalmoscopy. Ametropia: objective and subjective refraction. Binocular vision: sensory and motor aspects of binocular vision, introduction to binocular vision anomalies, accommodation/convergence imbalances.

OPTM2206 Pathology for Optometry
School of Optometry and Vision Science
Staff Contact: P Herse
UOC3 HPW3 S2
Prerequisite/s: OPTM1207, OPTM2102

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.

OPTM3102 Clinical Optometry 3A
School of Optometry and Vision Science
Staff Contact: L Asper
UOC12 HPW12 S1
Prerequisite/s: OPTM2201, OPTM2202, OPTM2206•
Corequisites: OPTM3108, PSYC3516

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 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.

OPTM3203 Clinical Optometry 3B
School of Optometry and Vision Science
Staff Contact: L Asper
UOC3 HPW3 S2
Prerequisite/s: OPTM3102, OPTM3108, PSYC3516
Corequisites: OPTM3204, 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 ofa 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
Staff Contact: L Asper
UOC8 HPW8 S2
Prerequisite/s: OPTM3102, OPTM3108, PSYC3516
Corequisites: 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, clinicla 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
Staff Contact: S Dain
UOC6 HPW6 S2
Prerequisite/s: OPTM3102
Corequisites: OPTM3203

Objectives: to understand the impact of environmental factors on the eye, and the optometrical management of environmentally produced ocular and visual problems. Brief Curriculum: optometrical aspects of occupational health and safety. Eye hazards, eye protection, ocular first-aid, ocular and visual factors in the workplace, visual ergonomics, visual standards, vision screening, lighting design, epidemiology of occupational eye disease. Handling of clinical and occupational data. Occupational health and safety law. Case studies: visual aspects of driving and aviation. The screen-based equipment user.

OPTM4114 Optometry and the Professional Environment A
School of Optometry and Vision Science
Staff Contact: D Pye
UOC3 HPW3 S1
Corequisite/s: 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.

OPTM4210 Research Project
School of Optometry and Vision Science
Staff Contact: P Herse
UOC3 HPW3 S2
Prerequisite/s: OPTM3108, OPTM3203, OPTM3204, OPTM3209, PHPH3302

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.

OPTM4214 Optometry and the Professional Environment B
School of Optometry and Vision Science
Staff Contact: D Pye
UOC3 HPW3 S2
Prerequisite/s: OPTM4114
Corequisite/s: OPTM4311, OPTM4312, OPTM4313

Objectives: to make optometry students aware of the purposes and consequences of their education, to develop an awareness of progessional 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. Challenges in optometry.

OPTM4311 Clinical Optometry 4A
School of Optometry and Vision Science
Staff Contact: D Pye
UOC6 HPW6 S1 S2
Prerequisite/s: OPTM3108, OPTM3203, OPTM3204, OPTM3209, PSYC3516, PHPH3302
Corequisite/s: 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
Staff Contact: D Pye
UOC6 HPW6 S1 S2
Prerequisite/s: OPTM3108, OPTM3203, OPTM3204, OPTM3209, PSYC3516, PHPH3302
Corequisite/s: 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, 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
Staff Contact: D Pye
UOC6 HPW6 S1 S2
Prerequisite/s: OPTM3108, OPTM3203, OPTM3204, OPTM3209, PSYC3516, PHPH3302
Corequisite/s: 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.

PAED5101 Paediatrics
Paediatrics, School of Women's and Children's Health
Staff Contact: R Henry
UOC12 S1 S2
Prerequisite/s: MDSG4001

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.

PATH0005 Pathology Honours Full-time
Department of Pathology
Staff Contact: C Geczy
Enrolment requires school approval
UOC24 S1 S2

Research component of thesis: basic mechanisms of human disease processes, including inflammation, rheumatoid arthritis, asthma, uvetis, 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 Department of Pathology or at a laboratory of an affiliated institute or hospital department associated with the school.

PATH0006 Pathology Honours Part-time
Department of Pathology
Staff Contact: School Office
Enrolment requires school approval
UOC24 TBA

Research component of thesis: basic mechanisms of human disease processes, including inflammation, rheumatoid arthritis, asthma, uvetis, 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 Department of Pathology or at a laboratory of an affiliated institute or hospital department associated with the school.

PATH2201 Processes in Disease
Department of Pathology
Staff Contact: M Dziegielewski
UOC6 HPW4 S2
Prerequisite/s: BIOS1101, BIOS1201 and 12uc ANAT, BIOC and PHPH

Lectures, tutorials and museum study sessions aimed at increasing understanding of important disease processes. Comparisons between normal and abnormal cell, tisssue and organ function will be made. Includes processess 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. Aberrations of cell growth introduces neoplasia with examples of common tumours.

PATH3101 Pathology
Department of Pathology
Staff Contact: G Velan
UOC10 HPW5 S3

The discipline of Pathology forms a continuous stream of teaching of the pathogenesis of disease throughout the 3rd, 4th, 5th and 6th years of the medical curriculum. In Year 3, the course PATH3101 comprises an introduction to basic disease processes (General Pathology), ie. those fundamental processes which are common to all tissues and organs of the body. The course covers classification of disease, and deals with both congenital and acquired diseases. The program comprises lectures, tutorials, practical classes and demonstrations on responses of cells to injury, inflammation, aberrations of the blood and vascular system and specific related effects of embolism and infarction, as well as studies of normal and abnormal growth, and of healing and regenerative processes. In addition, it includes consideration of the basic processes of neoplasia and carcinogenesis, as well as an introduction to the pathobiology of such contemporary health problems as environmental toxicology. In order to integrate the teaching of pathology with clinical studies, each

fundamental process will be exemplified by references to examples of diseases of organ systems (Systemic Pathology) of practical importance.Assessment: Proficiency in the course, sufficient to proceed to Year 4, will be assessed by mid-year and end of year examinations which will comprise 30% and 70% respectively of the total mark in Pathology. Both assessments will comprise theory and practical components. Progress self-assessments with automated feedback will be made available on the World Wide Web.

PATH3205 Molecular Basis of Disease A
Department of Pathology
Staff Contact: M Davenport
UOC6 HPW4 S1
Prerequisite/s: PATH2201

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/s: Students are advised that previous and concurrent study of Anatomy, Physiology, Biochemistry or Immunology would be an advantage.

PATH3206 Molecular Basis of Disease B
Department of Pathology
Staff Contact: M Dziegielewski
UOC6 HPW4 S2
Prerequisite/s: 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/s: Advantage in having undertaken previous study in ANAT3231 Cell Biology.

PATH3207 Musculoskeletal Diseases
Department of Pathology
Staff Contact: M Dziegielewski
UOC6 HPW4 S2
Prerequisite/s: PATH2201, ANAT2111 or ANAT2511

Current scientific concepts of musculoskeletal diseases including arthritis, metabolic bone disease, primary and secondary bone neoplasms and neuromuscular disease. Detailed coverage of fracture healing and its complications and of biomaterials and prosthetic devices relevant to orthopaedic applications.

PFST1103 Introduction to Dance
School of Theatre, Film and Dance
Staff Contact: D Meyer
UOC6 HPW3 S2
Excluded: DANC1103

An introduction to the study and analysis of dance and movement forms in their cultural contexts.

PFST2000 Dance Analysis and Composition 1
School of Theatre, Film and Dance
Staff Contact: D Spurgeon
UOC6 HPW4 S1

Studies (a) a range of systems and methods of analysing dance, leading to a comprehensive understanding of the ways in which movement makes meaning and (b) an introduction to dance making and the fundamentals of dance composition.

PFST2002 Theatre Production
School of Theatre, Film and Dance
Staff Contact: R Gregg
UOC6 HPW4 S2
Prerequisite/s: DANC1002 or THST1101 or THFI1002 or DANC1103 or FILM1101
Excluded: DANC2002

Addresses the question of how theatre and dance are presented and produced, provides the comprehensive theoretical basis involved in staging a production, along with practical experience in selected areas of production.

PFST2007 History of Dance
School of Theatre, Film and Dance
Staff Contact: School Office
UOC6 HPW3 S1
Prerequisite/s: DANCE1002 or THST1101 or THFI1002 or DANC1103 or FILM1101
Excluded: DANC2001, DANC2007

Explores the nature and historical background of dance as an art form and as musical theatre. The emphasis is on major events and figures in Western European, American and Australia ballet, modern and jazz dance.

PFST2009 Performance and Culture
School of Theatre, Film and Dance
Staff Contact: D Meyer
UOC6 HPW3 S2
Prerequisite/s: 48 units of credit in Arts and Social Sciences
Excluded: DANC2009

A survey of general concepts in Performance Studies through and examination of the performative bases of culture and the ways in which individuals and groups enact and perform social realities. Primary areas of study include: performance semiotics, ritual studies, performance ethnography, and the performance of everyday life.

PHIL1007 Knowledge and Reality
School of Philosophy
Staff Contact: S Hetherington
UOC6 HPW3 S2

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 to be discussed could 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
Staff Contact: K Lai
UOC6 HPW3 S2

This is political philosophy and moral philosophy at the intersection of the political with the personal. When we make decisions in important areas like euthanasia, reproductive freedom and reproductive technology, the allocations of health resources, the suppression of smoking and other drugs, censorship, the environment, penal reform and capital punishment, we must balance the rights and duties of the individual with the demands and obligations of society. In this team-taught course, we consider current debate about the above questions.

PHIL1010 Thinking About Reasoning
School of Philosophy
Staff Contact: P Staines
UOC6 HPW3 S1
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. This course 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.

PHIL1011 Minds, Bodies and Persons
School of Philosophy
Staff Contact: R Diprose
UOC6 HPW3 S1

What are we, what are we like? What is a person? Are only humans persons? Are we mind, body or both? These are among the most puzzling and compelling questions that humans can ask. This course is an introduction to some of the many ways philosophers have approached these and related questions. Some philosophical perspectives on the subject have a moral focus, some a psychological, some a computational,

some a political. We look at the works of ancient philosophers and of philosophers working today.

PHIL2117 Philosophical Logic
School of Philosophy
Staff Contact: M Michael
UOC6 HPW3 S2
Prerequisite/s: PHIL2106

Follows from PHIL2106 logic, and is intended to introduce students to the ways various logics have been deployed within philosophy, with a view to illuminating such topics as linguistic meaning, content of thought, modalities, necessity and possibility, contrary-to-fact conditionals, law of nature, action value, deducibility and fiction.

PHIL2118 Philosophy and Biology
School of Philosophy
Staff Contact: M Michael
UOC6 HPW3 S1
Prerequisite/s: 6 level 1 units of credit in Philosophy and 36 units of credit overall or 30 units of credit in HPST or BIOS1011
Excluded: HPST3012, HPST3117

Our understanding of ourselves is powerfully shaped by our conception of our biological nature. Central in this conception is the idea that we have evolved so the theory of evolution plays an important role in our understanding of ourselves. This course aims at being an in-depth examination of some of the conceptual and philosophical issues which are raised by evolutionary theory. In particular, we will be looking at the explanatory structure of modern evolutionary theory and its relationship to the vexed issue of classification.

PHIL2206 Philosophy of Mind
School of Philosophy
Staff Contact: P Cam
UOC6 HPW3 S1
Prerequisite/s: 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
Staff Contact: P Cam
UOC6 HPW3 S2
Prerequisite/s: 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
Staff Contact: S Hetherington
UOC6 HPW3 S2
Prerequisite/s: 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
Staff Contact: P Staines
UOC6 HPW3 S2
Prerequisite/s: 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 The Heritage of Hegel
School of Philosophy
Staff Contact: School Office
UOC6 HPW3 S1
Prerequisite/s: 6 units of credit in level 1 Philosophy and 36 units of credit overall

Hegel is one of the towering presences in contemporary philosophy. Long recognised as an influence on European philosophy from Marx to Lacan, Derrida and Kristeva, the Hegelian philosophy of identity, difference, subjectivity and desire, is essential to anyone who wants to understand current directions in critical theory. Covers a close reading of Phenomonolgy of Spirit together with selections from Hegel's lectures on logic. The second half of the course looks at important readings of Hegel by Derrida, Habermas, Irigaray, etc.

PHIL2310 Heidegger and the Tradition
School of Philosophy
Staff Contact: A Haase
UOC6 HPW3 S2
Prerequisite/s: 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
Staff Contact: K Lai
UOC6 HPW3 S1
Prerequisite/s: 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.

PHIL2407 Contemporary European Philosophy
School of Philosophy
Staff Contact: School Office
UOC6 HPW3 S1
Prerequisite/s: 6 units of credit in level 1 Philosophy and 36 units of credit overall

The earliest philosophy attached myth and poetry; the most recent philosophy wonders if it is possible to live without them. The writers studied criticise the moral and the aesthetic values of their culture; they demand new ways of feeling and thinking, new modes of behaviour and language. Their visions are troubling and sometimes violent, but we cannot simply dismiss them. The purpose is to reach a better understanding of the work of Nietzsche, the Surrealists, Bataille and Deleuze, in order to evaluate their critique of modernity; these writers have been chosen because of their impact on current theoretical debates in the social sciences, literature and art.

PHIL2416 Nietzsche and Philosophy
School of Philosophy
Staff Contact: R Diprose
UOC6 HPW3 S1
Prerequisite/s: 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
Staff Contact: K Lai
UOC6 HPW3 S1
Prerequisite/s: 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 enquiry 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.

PHIL2508 Theories in Moral Philosophy
School of Philosophy
Staff Contact: School Office
UOC6 HPW3 S1
Prerequisite/s: 6 units of credit in level 1 Philosophy and 36 units of credit overall

Examination of three moral theories central in the history and development of moral philosophy. David Hume, Immanuel Kant, and John Stuart Mill present different kinds of moral theories, differing approaches to arriving at a moral theory, and specific theories which are markedly different from each other. Each moral theory is investigated in itself and in comparison with the other two.

PHIL2509 Philosophy of Law
School of Philosophy
Staff Contact: School Office
UOC6 HPW3 S2
Prerequisite/s: 6 units of credit in level 1 Philosophy and 36 units of credit overall

Selected conceptual and normative issues in the philosophy of law, centering around the broad areas of law (e.g, its nature, validity, bindingness and relation to morality), liberty, justice, responsibility (including strict, vicarious and collective liability), and punishment.

PHIL2518 Greek Philosophy
School of Philosophy
Staff Contact: A Haase
UOC6 HPW3 S2
Prerequisite/s: 6 units of credit in level 1 Philosophy and 36 units of credit overall
Excluded: PHIL2507

Covers themes in Plato and Aristotle which have had a continuing influence in Western philosophy. Discussion centres on concepts of virtue and knowledge in relation to ideals of wisdom and contemplation.

PHIL2519 Introduction to Chinese Philosophy
School of Philosophy
Staff Contact: K Lai
UOC6 HPW3 S2
Prerequisite/s: 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
Staff Contact: K Lai
UOC6 HPW3 S2
Prerequisite/s: 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
Staff Contact: School Office
UOC6 HPW3 S1 S2
Prerequisite/s: 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.

PHIL3900 Themes in Seventeenth Century Philosophy (Advanced)
School of Philosophy
Staff Contact: M Michael
UOC6 HPW3 S1
Prerequisite/s: 36 units of credit with at least 6 units of credit in Philosophy at 65% or higher
Excluded: PHIL2228

Includes a range of topics drawn from the writing of the seventeenth century philosophers John Locke, Rene Descartes, Benedict de Spinoza and Gottfried Leibniz. Topics will be selected from the following: substance, minds and bodies, freedom, contingency, possibility and necessity, time and space. Includes a one hour advanced level seminar with the lecturer each week.

PHIL3901 Themes in Eighteenth Century Philosophy (Advanced)
School of Philosophy
Staff Contact: School Office
UOC6 HPW3 S2
Prerequisite/s: 36 units of credit with at least 6 units of credit in Philosophy at 65% or higher
Excluded: PHIL2229

Focuses on themes taken from the writings of the philosophers George Berkeley, David Hume and Immanuel Kant. We discuss the major topics of the eighteenth century Enlightenment such as: the status of knowledge and reason, the question of the meaning of being, the conception of the ideal and the real, the relation of theory and practice. The course includes a one hour advanced level seminar with the lecturer each week.

PHIL3910 Pre-Honours Seminar
School of Philosophy
Staff Contact: School Office
UOC6 HPW3 S2
Prerequisite/s: 30 units of credit in Philosophy with an averall standard of 65% or higher
Excluded: PHIL3106

A team-taught course for students intending to take Honours in Philosophy, designed to form skills in philosophical research and writing through seminar discussion of readings illustrating a range of philosophical approaches, styles and techniques.

PHIL4000 Philosophy Honours (Research) Full-Time
School of Philosophy
Staff Contact: R Diprose
Enrolment requires school approval
UOC24 S1 S2
Prerequisite/s: 54 units of credit in PHIL with an average of 70% and PHIL3910, PHIL3900 and PHIL3901 and permission from head of school

The Honours year consists of a one year-length seminar, one session-length seminar, and writing a research thesis under supervision.

PHIL4050 Philosophy Honours (Research) Part-Time
School of Philosophy
Staff Contact: School Office
Enrolment requires school approval
UOC12 S1 S2
Prerequisite/s: 54 units of credit in PHIL with an average of 70% and PHIL3910, PHIL3900 and PHIL3901 and permission from head of school

The Honours year consists of one year length seminar, one session length seminar, and writing a research thesis under supervision.

PHIL4500 Combined Philosophy Honours (Research) F/T
School of Philosophy
Staff Contact: School Office
Enrolment requires school approval
UOC12 S1 S2
Prerequisite/s: 48 units of credit in PHIL with an average of 70% and PHIL3910, PHIL3900 and PHIL3901 and permission from head of school

For Combined Honours candidates are required to present a thesis as approved by the Heads of the two participating Schools.

Note/s: Students contemplating Honours are urged to seek advice from the School on their program early in their course.

PHIL4550 Combined Philosophy Honours (Research) P/T
School of Philosophy
Staff Contact: School Office
Enrolment requires school approval
UOC6 S1 S2
Prerequisite/s: 48 units of credit in PHIL with an average of 70% and PHIL3910, PHIL3900 and PHIL3901 and permission from head of school

For Combined Honours, candidates are required to present a thesis as approved by the Heads of the two participating Schools.

Note/s: Students contemplating Honours are urged to seek advice from the School on their program early in their course.

PHPH1004 Biology for Medical Students
Department of Physiology and Pharmacology
Staff Contact: S Head
UOC4 HPW4 S1

Objectives: To provide an understanding of basic biological principles for the continuing study of human biology and medicine. An introductory course consisting mainly of lectures which will be complemented by practical classes and excursions. Topics include: basic cell biology; introductory genetics; invertebrates; parasites; ecology, evolution; comparative anatomy and physiology. Assessment: Assessment is based on a practical examination during the session and a theory examination at the end of Session 1.

PHPH1501 Health and Physical Activity
Department of Physiology and Pharmacology
Staff Contact: D Garlick G Simonetta
UOC6 S1 S2

The course deals with concepts of health, physical activity and fitness. The effects of physical activity are described in relation to children, the older subject and to conditions such as obesity, diabetes and mental states. A range of fitness tests are described. An analysis of the ethical processes in business, research and education will be explored.

PHPH2018 Medical Physiology 1
Department of Physiology and Pharmacology
Staff Contact: K Gibson
UOC6 HPW8 S3
Prerequisite/s: PHPH1004

Objectives: To gain knowledge and understanding of the function of the cellular elements of the body and the function of certain major body organ systems in humans: to gain experience in the use of medical instrumentation and in the measurement of variables in mammalian biological systems; to gain experience in problem-solving approaches in the study of the physiology of the normal person; to integrate knowledge of anatomy, biochemistry and physiology to provide an understanding of human structure and function. Systematic lectures, tutorials, practicals and demonstrations deal with cells and excitable tissues, circulation, respiration, kidney and body fluids, gastro-intestinal tract and temperature regulation. Attention is paid to the principles of physics and statistics necessary to understand the functioning of cells and organ systems. Clinical material illustrates the relevance of the course to the study of medicine. Assessment: Examinations are held mid-year and at the end of the year and include both lecture and practical content.

PHPH2101 Physiology 1A
Department of Physiology and Pharmacology
Staff Contact: G Simonetta
UOC6 HPW6 S1

Introduces fundamental physiological principles, from basic cellular function in terms of chemical and physical principles to the operation and interaction of body systems. The ares 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/s: Students intending to major in Physiology and/or Pharmacology should note Level III prerequisites which can only be waived at the discretion of the Head of School.

PHPH2121 Principles of Physiology A
Department of Physiology and Pharmacology
Staff Contact: G Simonetta
UOC6 HPW6 S1

Provides an introduction to fundamental physiological principles for students in BOptom. degree course. 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/s: Restricted to students enrolled in BOptom degree course.

PHPH2201 Physiology 1B
Department of Physiology and Pharmacology
Staff Contact: G Simonetta
UOC6 HPW6 S2

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. This subject is taken by students enrolled in any of the Physiology programs.

Note/s: Students intending to major in Physiology and/or Pharmacology should note Level III prerequisites which can only be waived at the discretion of the Head of School.

PHPH2221 Principles of Physiology B
Department of Physiology and Pharmacology
Staff Contact: G Simonetta
UOC6 HPW6 S2

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 gastronintestinal 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/s: Restricted to students enrolled in BOptom degree course.

PHPH2501 Physiology for Health and Sports Science A
Department of Physiology and Pharmacology
Staff Contact: D Garlick G Simonetta
UOC6 S1 S2
Prerequisite/s: BIOS1201, PHPH1501, 12 units of credit of Level 1 Chemistry, MATH1031, MATH1041

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 series of practical class experiments on these different areas of physiology.

PHPH2502 Physiology for Health and Sports Science B
Department of Physiology and Pharmacology
Staff Contact: D Garlick G Simonetta
UOC6 S2
Prerequisite/s: PHPH2501

The areas of physiology covered in this unit build on the fundamental physiological principles introduced in PHPH2501 (Physiology for Health and Sports Science A). The topics covered include reproduction, the respiratory system, the gastrointestinal system, kidney and body fluids and the endocrine system. Again this unit includes a substantial series of practical class experiments on these different areas of physiology.

PHPH3014 Medical Physiology 2
Department of Physiology and Pharmacology
Staff Contact: R Vickery
UOC8 HPW4 S3
Prerequisite/s: PHPH2018

Objectives: To extend knowledge of normal physiology to areas not covered in Medical Physiology I, particularly blood, the nervous and endocrine systems and reproduction; problem solving approaches are emphasised and students are encouraged to integrate their knowledge of anatomy, biochemistry and physiology to provide an understanding

of normal human structure and function. Those principles of biophysics necessary for an understanding of the subject are discussed. In addition, the subject places emphasis on applied physiology, including the physiology of exercise. Some clinical physiology is included where basic physiological principles are applied to the understanding of selected clinical disorders. Teaching involves systematic lectures, tutorials, practical classes and demonstrations. Assessment: Examinations are held both mid-year and at the end of the year and cover both lecture and practical content.

PHPH3055 Medical Pharmacology
Department of Physiology and Pharmacology
Staff Contact: V Kapoor
UOC10 HPW4 S3

Objectives: To understand the mechanism of drug action with special reference to drugs of clinical importance; to be aware of the principles of drug interaction. Medical pharmacology is the science of drugs or chemicals used to prevent, diagnose and heal disease, as well as the role of chemicals in the environment that cause disease. The medical pharmacology subject is concerned with basic principles of drug action, including the pharmacodynamics, pharmacokinetics and toxicology of drugs of clinical importance. Assessment: Examinations are held mid-year and at the end of the year and include both lecture and practical content.

PHPH3121 Membrane and Cellular Physiology
Department of Physiology and Pharmacology
Staff Contact: P Barry
UOC6 HPW6 S1
Prerequisite/s: PHPH2101

The properties of cell membranes and the role of channels and transporters in permeation and transport of ions, solutes and water across membranes, in the generation of electrical signals in nerve and muscled cells, in synaptic transmission and in second messenger pathways and their part in cellular function. Includes understanding modern techniques, such as patch clamping, used to study the properties of individual ionic channels and site-directed mutagenesis and other molecular biological techniques, used to investigate the relationship between the molecular structure of appropriate proteins and physiological function. Includes the properties of water channels and epithelial transport, the mechanisms underlying muscle contraction and disease states resulting from such things as genetic defects in ion channels. It should provide a foundation for understanding higher physiological systems.

PHPH3131 Neurophysiology
Department of Physiology and Pharmacology
Staff Contact: M Rowe
UOC6 HPW6 S1
Prerequisite/s: PHPH2101

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 sensory and motor nerves within muscles through to the highest levels of cerebral cortical function. Segments are also included on the neural control of cardiorespiratory function; transmitters and neuromodulators; neural mechanisms in certain higher functions, eg language and memory; nervous system plasticity; computer applications in neuroscience. 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.

PHPH3151 Introductory Pharmacology and Toxicology
Department of Physiology and Pharmacology
Staff Contact: M Murray
UOC6 HPW6 S1
Prerequisite/s: PHPH2101, PHPH2201, BIOC2101 or BIOC2181, BIOC2201 or BIOC2291

Includes a study of the fundamentals of drug action, such as dose-response methods, receptor binding, drug absorption, distribution and metabolism. Further material on drug analysis and adverse effects of drugs will be presented. Segments dealing with aspects of chemical toxicology and the requirements of government agencies for the registration and evaluation of toxic chemicals will be covered, The practicals will cover basic pharmacological methods.Advanced Science students will be affiliated with a research group within the School involving attendance at group meetings, seminars and the presentation of a report based on literature within the subject area.

PHPH3211 Cardiorespiratory and Exercise Physiology
Department of Physiology and Pharmacology
Staff Contact: M Perry
UOC6 HPW6 S2
Prerequisite/s: PHPH2101,PHPH2201

An advanced course which emphasises function and control of the cardiovascular system; gas exchange in the lung, respiratory pathophysiology, preventive medicine and laboratory testing of the cardiorespiratory system in exercise physiology. Performance of the cardiorespiratory system in extremes of pressure and temperature is discussed. Extensive practical components involve mammalian preparations and human subjects.

PHPH3221 Endocrine, Reproductive and Developmental Physiology
Department of Physiology and Pharmacology
Staff Contact: E Lumbers G Simonetta
UOC6 HPW6 S2
Prerequisite/s: PHPH2101,PHPH2201

There are three major components to this subject, which consists of lectures, practical classes, tutorial and case studies. The first component of the course is a study of neuroendocrinology, molecular and systematic endocrinology. The second component of the subject deals with female and male reproductive physiology. The third component of the subject details the physiology of pregnancy, and that of the fetus and the newborn.

PHPH3251 Clinical and Experimental Pharmacology
Department of Physiology and Pharmacology
Staff Contact: M Murray
UOC6 HPW6 S2
Prerequisite/s: PHPH2101,PHPH2201,PHPH3151,BIOC 2101 or BIOC2181, BIOC2201 or BIOC2291

The subject deals with the pharmacology of drug classes, with emphasis on mode of drug action. Effects of drugs on the major organs, including the cardiovascular system, kidney, endocrine systems, and the central nervous system, will be covered. Students will be introduced to recent innovations in drug development and 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.

PHPH3302 Pharmacology for Optometry
Department of Physiology and Pharmacology
Staff Contact: R Knihinicki
UOC4 HPW4 S2
Prerequisite/s: OPTM2101, PHPH2121, PHPH2221

Objectives: To introduce optometry students to the mechanisms of drug action and interaction, with an emphasis on the pharmacology of the eye. Pharmacodymamics, pharmacokinetics and toxicology of drugs used in the diagnosis and treatment of eye conditions; side effects of drugs used to treat systemic disease.

PHPH3501 Brain Mechanisms and Sensory-Motor Integration
Department of Physiology and Pharmacology
Staff Contact: School Office
UOC6 TBA
Prerequisite/s: PHPH2501, PHPH2502, BIOC2181

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
Department of Physiology and Pharmacology
Staff Contact: School Office
UOC6 TBA
Prerequisite/s: PHPH2501, PHPH2502, BIOC2181

The structural basis for motor control is described in terms of the sensory and motor pathways and the many elements of which these are made up. The hierarchical organisation of the spinal cord, brain stem, cerebellum and cortex is illustrated and described. Some of the basic functions of the nervous system are dealt with and developmental aspects of motor control are indicated. Practical classes will include observations on the organisation of the motor cortex.

PHPH3503 Exercise and Cardio-Respiratory Systems
Department of Physiology and Pharmacology
Staff Contact: School Office
UOC6 TBA
Prerequisite/s: PHPH2501, PHPH2502

An advanced course which emphasises function and control of the cardiovascular system; gas exchange in the lung and blood gas carriage in the respiratory system and exercise capacity, preventative medicine and laboratory testing in exercise physiology involving human subjects.

PHPH3504 Endocrine and Exercise
Department of Physiology and Pharmacology
Staff Contact: School Office
UOC6 TBA
Prerequisite/s: PHPH2501, PHPH2502, BIOC2181

The course will cover and extend the student's preliminary knowledge of endocrinology. Topics covered will include: neuroendocrine axis; leptin and obesity; the pineal gland; thyroid; adrenals and endocrine pancreas. The endocrine control of intermediary metabolism, bone and mineral metabolism and fluid and electrolyte balance will be studied. The endocrinology of reproduction, puberty and control of growth and development as well as the effects of ageing on endocrine function will be investigated. The impact of exercise and training on endocrine function will be emphasised.

PHPH3511 Cardiorespiratory and Exercise Physiology (Advanced)
Department of Physiology and Pharmacology
Staff Contact: M Perry
UOC6 HPW6 S2
Prerequisite/s: PHPH2101,PHPH2201

An advanced course which emphasises function and control of the cardiovascular system; gas exchange in the lung and blood gas carriage in the respiratory system and work capacity, preventive medicine and laboratory testing in exercise physiology. Extensive practical components involve mammalian preparations and human subjects.Advanced Science students will do a project which has planning (wks. 1,2,4), execution (wks. 6,7,8,9) and presentation (wks. 14).

PHPH3521 Membrane and Cellular Physiology (Adv)
Department of Physiology and Pharmacology
Staff Contact: P Barry
UOC6 HPW6 S1
Prerequisite/s: PHPH2101

The properties of cell membranes and the role of channels and transporters in permeation and transport of ions, solutes and water across membranes, in the generation of electrical signals in nerve and muscle cells, in synaptic transmission and in second messenger pathways and their part in cellular function. Includes understanding modern techniques, such as patch clamping, used to study the properties of individual ionic channels and site-directed mutagenesis and other molecular biological techniques, used to investigate the relationship between the molecular structure of appropriate proteins and physiological function. Included the properties of water channels and epithelial transport, the mechanisms underlying muscle contraction and disease states resulting from such things as genetic defects in ion channels. It should provide a foundation for understanding higher physiological systems. This course will include an assessable research affiliation program.

PHPH3531 Neurophysiology (Advanced)
Department of Physiology and Pharmacology
Staff Contact: M Rowe
UOC6 HPW6 S1
Prerequisite/s: PHPH2101

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 sensory and motor nerves within muscles through to the highest levels of cerebral cortical function. Segments are also included on the neural control of cardiorespiratory function; transmitters and neuromodulators; neural mechanisms in certain higher functions, eg language and memory; nervous system plasticity; computer applications in neuroscience. 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.The Neurophysiology (Advanced) course will involve an assessable research affiliation program based upon discussion and evaluation of a research project, and submission of a research report.

PHPH3551 Introductory Pharmacology and Toxicology (Advanced)
Department of Physiology and Pharmacology
Staff Contact: M Murray
UOC6 HPW6 S1
Prerequisite/s: PHPH2101, PHPH2201, BIOC2101 or BIOC2181, BIOC2201 or BIOC2291

Includes a study of the fundamentals of drug action, such as dose-response methods, receptor binding, drug absorption, distribution and metabolism. Further material on drug analysis and adverse effects of drugs will be presented. Segments dealing with aspects of chemical toxicology and the requirements of government agencies for the registration and evaluation of toxic chemicals will be covered. The practicals will cover basic pharmacological methods.Advanced Science students will be affiliated with a research group within the School involving attendance at group meetings, seminars and the presentation of a report based on literature within the subject area.

PHPH3621 Endocrine, Reproductive and Developmental Physiology (Advanced)
Department of Physiology and Pharmacology
Staff Contact: G Simonetta
UOC6 HPW6 S2
Prerequisite/s: PHPH2101,PHPH2201

There are three major components to this subject, which consists of lectures, practical classes, tutorial and case studies. The first component of the course is a study of neuroendocrinology, molecular and systematic endocrinology. The second deals with female and male reproductive physiology. The third component details the physiology of pregnancy, and that of the fetus and the newborn.In the Advanced Science course students will be required to develop and investigate a research topic related to endocrinology, reproduction and/or development.

PHPH3651 Clinical and Experimental Pharmacology (Adv)
Department of Physiology and Pharmacology
Staff Contact: M Murray
UOC6 HPW6 S2
Prerequisite/s: PHPH2101,PHPH2201,PHPH3551,BIOC2101 or BIOC2181, BIOC2201 or BIOC2291

The subject deals with the pharmacology of drug classes, with emphasis on mode of drug action. Effects of drugs on the major organs, including the cardiovascular system, kidney, endocrine systems, and the central nervous system, will be covered. Students will be introduced to recent innovations in drug development and 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.Advanced Science students will be affiliated with a research group within the School involving attendance at group meetings, seminars and the presentation of a report based on literature within the subject area.

PHPH4218 Physiology 4 Honours Full-Time
Department of Physiology and Pharmacology
Staff Contact: J Morley
UOC48 S1 S2

The Honours Year provides an introduction to research. Students undertake a research project with supervision which is written up as a thesis and presented as a seminar. Students are also required to participate in departmental seminars, and to submit an essay. For further infornation see the Honours coordinator.

PHPH4224 Physiology 4 Honours Part-Time
Department of Physiology and Pharmacology
Staff Contact: J Morley
UOC24 S1 S2

The Honours Year provides an introduction to research. Students undertake a research project with supervision which is written up as a thesis and presented as a seminar. Students are also required to participate in departmental seminars and to submit an essay. For further information see the Honours coordinator.

PHPH4258 Pharmacology Honours Full-Time
Department of Physiology and Pharmacology
Staff Contact: J Morley
UOC48 S1 S2

The Honours Year provides an introduction to research. Students undertake a research project with supervision which is written up as a thesis and presented as a seminar. Students are also required to participate

in departmental seminars, and to submit an essay. For further information see the Honours coordinator.

PHPH4264 Pharmacology Honours Part-Time
Department of Physiology and Pharmacology
Staff Contact: J Morley
UOC24 S1 S2

The Honours Year provides an introduction to research. Students undertake a research project with supervision which is written up as a thesis and presented as a seminar. Students are also required to participate in departmental seminars and to submit an essay. For further information see the Honours coordinator.

PHPH4501 Introductory Research Methods
Department of Physiology and Pharmacology
Staff Contact: School Office
UOC3 TBA

This course deals with the statistical and epidemiological bases for understanding the scientific approach and for undertaking research. The student receives training in statistical software such as SPSS and learns to use the software for tests on the various levels of measurements including correlations, regressions, t-tests and analysis of variance. The student, develops a research proposal during the course.

PHPH4502 Principles of Pharmacology
Department of Physiology and Pharmacology
Staff Contact: School Office
UOC3 TBA
Prerequisite/s: PHPH2501, PHPH2502, BIOC2181.

This course included a study of the fundamentals of drug action, such as dose response methods, receptor binding, drug absorption, distribution and metabolism. Further material on drug analysis and adverse effects of drugs will be presented. Segments dealing with aspects of chemical toxicology and the requirements of government agencies for the registration and evaluation of toxic chemicals will be covered. This is a lecture only course.

PHPH4503 Practicum A
Department of Physiology and Pharmacology
Staff Contact: School Office
UOC6 TBA

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 agreed professional person in this area who will verify entries in a log-book recording activities and skills undertaken by the student. The student is required to submit a substantial report of the internship, together with the submission of the completed log book.

PHPH4504 Practicum B
Department of Physiology and Pharmacology
Staff Contact: School Office
UOC6 TBA

Similar to Practicum A, the student undertakes an internship in a different or related professional area. The same requirements apply in terms of a completed log book and a substantial report.

PHPH4505 Research Project
Department of Physiology and Pharmacology
Staff Contact: School Office
UOC6 TBA
Prerequisite/s: PHPH4501

A research proposal will have been developed in the course Introductory Research Methods (PHPH4501). In this course the student will implement the approved project in terms of reviewing the literature, applying the appropriate methods, accumulating results and processing these through the relevant statistics, discussing the results and drawing conclusions. A report is to be written in the form of a scientific paper.

PHPH4506 Drugs in Sport (Effects and Interactions)
Department of Physiology and Pharmacology
Staff Contact: School Office
UOC3 TBA
Prerequisite/s: PHPH4502 or PHPH3157

This is a course in systematic pharmacology dealing with the effects of drugs on systems with particular emphasis on the drugs that enhance performance and underlying mechanisms responsible for their effects. As well students will study the impact of drug treatment on performance and the effects of exercise on drug actions and side effects. This course will be given as lecture only.

PHPH4507 Drugs in Sport (Effects, Interactions and Testing)
Department of Physiology and Pharmacology
Staff Contact: School Office
UOC6 TBA
Prerequisite/s: PHPH3151

As per PHPH4506, and in addition 3 extra units of credit will be generated by undertaking practical classes dealing with drug testing and issues concerning the control of the management and use of drugs in sport.

Note: Students may choose either PHPH4506 or PHPH4507 for study in session 2.

PHPH4511 Sports Management
Department of Physiology and Pharmacology
Staff Contact: School Office
UOC3 TBA

The principles and practice of sports management will be dealt with, emphasising planning, staffing, financial management and information systems management. A 'systems' view of sporting organisations will be developed. There will be examination and discussion of the Australian sporting industry and its changing structure and its relation to the media and multimedia international organisations. Practical work will require selecting appropriate topics in these areas for analysis and reports.

PHPH4512 Circadian Rhythms: Sleep Physiology and Pathophysiology
Department of Physiology and Pharmacology
Staff Contact: School Office
UOC3 TBA
Prerequisite/s: PHPH3503, PHPH3504

The course emphasises the importance of circadian rhythms in regard to athletes and their performance. The neurophysiology and location of rhythm generators will be reviewed and their effects on the neuro-hormonal axis discussed. The ultradian rhythms, such as the alert-drowsy cycle, will be discussed in relation to performance. Sleep physiology and its stages will be discussed in relation to hormonal changes such as on diurnal changes in plasma cortisol and growth hormone. There will be discussion of jet-lag in relation to the phase changes due to rapid changes in longitude as occurs in airline travel. The effects of disordered sleep will be considered in relation to its effects on performance and related effects on arousal and attention and on hormones. Practical work will include observations in a sleep laboratory.

PHYS1000 Physics Thinking
School of Physics
Staff Contact: R Newbury
UOC3 HPW3 S2

Techniques in scientific thinking and experimentation: seeing similarities, using diverse knowledge and techniques, having good ideas. Estimation in theory and experiment. The subject will mainly be taught in small groups organised to solve experimental and theoretical problems, some of them quite difficult. The problems may have fundamental as well as applied character, but the emphasis of the course is on universal principles, including conservation, symmetries, scaling and dimensional analysis, behaviour near equilibrium.

PHYS1111 Fundamentals of Physics
School of Physics
Staff Contact: R Newbury
UOC6 HPW6 S1 S2

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/s: Introductory level course for students of all disciplines. Recommended courses: MATH1011 or MATH1131 or MATH1031.

PHYS1121 Physics 1A
School of Physics
Staff Contact: R Newbury
UOC6 HPW6 S1 S2
Corequisite/s: MATH1131 or MATH1141

Motion in a line and a plane. Oscillations. Motion of particles under the influence of mechanical, electrical, magnetic and gravitational forces. Rotational motion. Force, inertial mass, energy, momentum. Charge, potential, electric and magnetic fields. Capacitors, dielectrics. Electric current and circuits. Conservation principles applied to problems involving charge, energy and momentum.

PHYS1131 Higher Physics 1A
School of Physics
Staff Contact: R Newbury
UOC6 HPW6 S1 S2
Corequisite/s: MATH1131 or MATH1141

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
Staff Contact: R Newbury
UOC6 HPW6 S1
Corequisite/s: 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.

PHYS1169 Physics 1 (Chem,Mech,Min Eng)
School of Physics
Staff Contact: R Newbury
UOC6 HPW6 S1

Mechanics of intermolecular systems. Atomic structure of solids; forces and defects. Plasticity of solids. Fracture of solids. Thermal properties of solids, liquids and gases. Geometrical optics, optical instruments, interference and diffraction, polarisation. Electrostatics, direct-current circuits. Elementary circuit theory. Magnetic forces and fields, electromagnetic induction. Alternating currents .

PHYS1189 Physics 1 (Geomatic Engineering)
School of Physics
Staff Contact: R Newbury
UOC6 HPW6 S1

Vectors, linear mechanics. Newton's laws 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. Geometrical optics and instruments. Fluid mechanics; Bernoulli's equation, viscosity; Stoke's Law, Nuclear physics, radioactivity, half-life, nuclear forces, binding energies, fission and fusion.

PHYS1199 Physics 1 (Optometry)
School of Physics
Staff Contact: R Newbury
UOC6 HPW6 S1

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. Fluid mechanics; Bernoulli's equation; viscosity; Stoke's Law. Nuclear Physics; radioactivity, half-life, nuclear forces, binding energies, fission and fusion.

Note/s: Restricted to program 3950.

PHYS1201 Life Sciences Physics
School of Physics
Staff Contact: R Newbury
UOC6 HPW6 S1 S2

This course examines selected topics in Physical Science, with emphasis on underlying broad classical and quantum principles which have direct relevance to rapidly developing fields of Molecular Biology, Biotechnology and other life science fields which are becoming increasingly reliant upon knowledge and techniques of Physical Science. This course extends the elementary physics presented in the Fundamentals of Physics course providing a more mathematical treatment but tailored to emphasize material with direct relevance to Life Sciences fields.

PHYS1221 Physics 1B
School of Physics
Staff Contact: R Newbury
UOC6 HPW6 S2 X1
Prerequisite/s: PHYS1121
Corequisite/s: 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.

PHYS1229 Concepts in Engineering Physics
School of Physics
Staff Contact: R Newbury
UOC6 HPW6 S2
Prerequisite/s: PHYS1111
Corequisite/s: MATH1021 or MATH1031 or MATH1131

This course will examine selected topics from classical and quantum physics which are of relevance to the various Engineering disciplines. The course extends the level beyond PHYS1111 Fundamentals of Physics presenting a more mathematical treatment and including physics applications in various Engineering areas to emphasise the essential way in which Physics underpins many of the advances which have been made in modern Engineering and technology.

PHYS1231 Higher Physics 1B
School of Physics
Staff Contact: R Newbury
UOC6 HPW6 S2 X1
Prerequisite/s: PHYS1131
Corequisite/s: MATH1231 or MATH1241

Temperature, heat and the first law of thermodynamics, kinetic theory of gases. Waves in elastic media, sound waves, interference, diffraction, gratings and spectra, polarisation. Relativity, quantum physics, wave nature of matter.

PHYS1241 Higher Physics 1B (Special)
School of Physics
Staff Contact: R Newbury
UOC6 HPW6 S2
Prerequisite/s: PHYS1131
Corequisite/s: 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 approxiamately 20 hours for the session. A list of projects offered will be circulated at the commencemnt of Session 2.

PHYS1249 Physics 1B (Aviation)
School of Physics
Staff Contact: R Newbury
UOC3 HPW6 S2

Syllabus as per PHYS1229, but more limited scope, for weeks 1 - 7 only.

PHYS1250 Physics 1 (Building)
School of Physics
Staff Contact: R Newbury
UOC3 HPW3 S2

Energy transfer: concepts of temperature and heat; calorimetry; gas laws; phase changes and humidity; heat transmission; refrigeration. Electrostatics and electromagnetism; electric and magnetic fields; DC circuits. Properties of matter: atomic bond types and their relation to elasticity, plasticity and fracture; pressure in stationary and moving fluids.

PHYS1259 Physics 1 (Industrial Design)
School of Physics
Staff Contact: R Newbury
UOC4 HPW4 S2

Energy transfer: concepts of temperature and heat; calorimetry; gas laws; phase changes and humidity; heat transmission; refrigeration. Electrostatics and electromagnetism; electric and magnetic fields; DC circuits; electromagnetic induction. Sound: wave properties; absorption

of sound. Properties of matter: atomic bond types and their relation to elasticity, plasticity and fracture; pressure in stationary and moving fluids.

PHYS1279 Physics 1 (Civil Engineering)
School of Physics
Staff Contact: R Newbury
UOC4 HPW4 S2

Mechanics; elastic waves; electromagnetism; DC and AC circuits; introduction to electric measurement systems; instrumentation; digital electronic information processing systems; mechanical properties of matter; atomic structure; elasticity of solids; surface tension and viscosity of fluids; non-destructive testing; wave phenomena and acoustic techniques.

PHYS1601 Computer Applications in Experimental Science 1
School of Physics
Staff Contact: R Newbury
UOC6 HPW6 S1 S2

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
Staff Contact: S Hagon
UOC3 HPW2 S1
Prerequisite/s: PHYS1002 or PHYS1221 or PHYS1231 and MATH1231 or MATH1241
Corequisite/s: MATH2011 or MATH2110 or MATH2100
Excluded: PHYS2001

Simple, damped and forced harmonic oscillations, central force problems, systems of particles, Lagrange's equations, coupled oscillations, waves.

PHYS2020 Computational Physics
School of Physics
Staff Contact: S Hagon
UOC3 HPW2 S1
Prerequisite/s: PHYS1002 or PHYS1022 or PHYS1221 or PHYS1231 and MATH1021 or MATH1231 or MATH1241 or MATH1031
Excluded: PHYS2001

Use of computers to solve problems in Physics. Application to mechanics, chaos, quantum and thermal physics, data analysis.

PHYS2030 Laboratory A
School of Physics
Staff Contact: S Hagon
UOC3 HPW3 S1
Prerequisite/s: PHYS1002 or PHYS1022 or PHYS1111 or PHYS1221 or PHYS1231 and MATH1021 or MATH1131 or MATH1141 or MATH1031
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
Staff Contact: S Hagon
UOC3 HPW2 S1
Prerequisite/s: PHYS1002 or PHYS1221 or PHYS1231 and MATH1231 or MATH1241
Excluded: PHYS2021

Postulates of quantum mechanics, operators. Applications: potential wells, steps, barriers and tunneling, harmonic oscillator. H atom. Orbital and spin angular momentum, magnetic moment. Spin-orbit coupling.

PHYS2050 Electromagnetism
School of Physics
Staff Contact: S Hagon
UOC3 HPW2 S2
Prerequisite/s: PHYS1002 or PHYS1221 or PHYS1231 and MATH1231 or MATH1241
Corequisite/s: 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
Staff Contact: S Hagon
UOC3 HPW2 S2
Prerequisite/s: PHYS1002 or PHYS1022 or PHYS1111 or PHYS1221 or PHYS1231 and 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
Staff Contact: S Hagon
UOC3 HPW2 S2
Prerequisite/s: PHYS1002 or PHYS1221 or PHYS1231 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
Staff Contact: S Hagon
UOC3 HPW2 S2
Excluded: GENS4014

A scientific examination of the 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-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.

PHYS2310 Nuclear Science and Technology
School of Physics
Staff Contact: S Hagon
UOC3 HPW2 S2
Prerequisite/s: PHYS1002 or PHYS1022 or PHYS1111 or PHYS1221 or PHYS1231 and MATH1021 or MATH1131 or MATH1141 or MATH1031
Excluded: PHYS2021, GENS4009

Structure of atom and nucleus, historical review, binding energy, mass defect, liquid drop model, semi-empirical mass formula. Radioactive decay, fission, nuclear reactors, natural (background) radiation, nuclear accidents, fusion and cosmology. Impact of radiation on living organisms, nuclear medicine.

PHYS2410 Biophysics 1
School of Physics
Staff Contact: S Hagon
UOC3 HPW2 S2
Prerequisite/s: PHYS1002 or PHYS1022 or PHYS1111 or PHYS1201 or PHYS1221 or PHYS1231

Biomechanics. Scaling theory. Fluid physiology and dynamics. Electrochemical potential. Membrane impedance, origin of membrane potentials. Generation and propagation of the nerve impulse. Physics of vision and hearing.

PHYS2520 Einstein's Relativity and Spacetime
School of Physics
Staff Contact: S Hagon
UOC3 HPW2 S2
Excluded: PHYS3550

Einstein's principle of relativity in four-dimensional spacetime from a conceptual and non-technical approach suitable for understanding the philosophical viewpoint. Overview of spacetime and worldlines. The limiting velocity. Mass and energy equivalence. The concept of 'momenergy'. Discussion of twin (clock), pole and barn and other 'paradoxes'. Matter in flat spacetime. Curved spacetime.

PHYS2601 Computer Applications in Experimental Science 2
School of Physics
Staff Contact: School Office
UOC6 HPW5 TBA
Prerequisite/s: 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
Staff Contact: S Hagon
UOC3 HPW3 S2
Prerequisite/s: PHYS1002 or PHYS1221 or PHYS1231 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
Staff Contact: S Hagon
UOC6 HPW4 S1
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.

Assumed Knowledge: MATH1031 or equivalent; PHYS1111 or equivalent or GEOG1701

PHYS2810 Atmospheric Physics
School of Physics
Staff Contact: S Hagon
UOC3 HPW2 S1
Prerequisite/s: PHYS1002 or PHYS1022 or PHYS1149 or PHYS1111 or PHYS1221 or PHYS1231 or PHYS1889 and MATH1021 or MATH1231 or MATH1079 or MATH1031
Excluded: PHYS2801

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, 1D and 3D climate models, applications, global warming.

Note/s: recommended PHYS1111 or higher or GEOG1701

PHYS2850 Environmental Acoustics
School of Physics
Staff Contact: School Office
UOC3 HPW2.5 S1
Prerequisite/s: PHYS1002 or PHYS1022 or PHYS1149 or PHYS1111 or PHYS1221 or PHYS1231 or PHYS1889 and MATH1021 or MATH1231 or MATH1079 or MATH1031

Elasticity of solids and fluids, intensity, pressure and particle velocity. Audiology. Response and threshold curves, loudness, A-weighting. Speech. Sources of noise: aerodynamic, engines, panels. Noise criteria. Noise reduction.

PHYS2939 Physics 2 (Electrical Engineering)
School of Physics
Staff Contact: S Hagon
UOC3 HPW3 S1
Prerequisite/s: PHYS1231 or PHYS1969 or PHYS1002

Electrostatics in vacuum and in dielectric materials. Electric current. Magnetostatics in vacuum and magnetic media, magnetic materials and magnetic circuits. Time-varying fields. Capacitance and inductance calculations. General field concepts. superconductivity. Maxwell's equations. Electromagnetic waves.

PHYS2969 Physics of Measurement (Geomatic Engineering)
School of Physics
Staff Contact: S Hagon
UOC3 HPW3 S1
Prerequisite/s: PHYS1998 or PHYS1189

Digital electronics, CCD arrays and computerised image enhancement. analogue-to-digital conversion. Transducers including direct digital output. Wave motion. Geometrical optics. Physical optics including interference, diffraction and polarisation. Optical instruments: Telescopes, image brightness and resolution, photography.

PHYS3010 Quantum Mechanics (Advanced)
School of Physics
Staff Contact: S Hagon
UOC3 HPW2 S1
Prerequisite/s: PHYS2021 or PHYS2040
Corequisite/s: MATH2120
Excluded: PHYS3210

Fundamental principles; the Hydrogen atom; angular momentum; stationary and time-dependant perturbations; semi-classical radiation theory; variational methods; systems of particles; the Helium atom; matrix formulation.

Note/s: Not available without a mark of 65 or greater in PHYS2021 or PHYS2040.

PHYS3020 Statistical Physics
School of Physics
Staff Contact: S Hagon
UOC3 HPW2 S1
Prerequisite/s: PHYS2060 or PHYS2011
Excluded: PHYS3021

Thermodynamic probability, entropy, paramagnetism, canonical distribution, Boltzmann distributions. Open systems, grand canonical ensemble, chemical potential. Fermi-Dirac and Bose-Einstein distributions, Bose condensation. Radiation in a cavity (blackbody radiation). Chemical reactions, phase equilibria. Fluctuations, noise, Nyquist's theorem.

PHYS3030 Electromagnetism (Advanced)
School of Physics
Staff Contact: S Hagon
UOC3 HPW2 S1
Prerequisite/s: PHYS2011 or PHYS2050 and MATH2011 and MATH2120 and MATH2520
Excluded: PHYS3230

Electromagnetic fields; Maxwell's equations, Poynting theorem, potential formulation. Planel waves, reflection and transmission. Emission of radiation from accelerating charges, scattering and propagation of radiation in material media. Covariant formulation of electromagnetism.

Note/s: Not available without a mark of 65 or greater in PHYS2011 or PHYS2050.

PHYS3040 Experimental Physics A1
School of Physics
Staff Contact: B Perczuk
UOC3 HPW4 S1

A selection of experimental investigations in areas including: chaotic motion, high temperature superconductivity, semiconductors, electron and tunneling 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/s: Some experiments assume knowledge of PHYS2030, PHYS2040 or PHYS2050.

PHYS3050 Nuclear Physics
School of Physics
Staff Contact: S Hagon
UOC3 HPW2 S2
Prerequisite/s: 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
Staff Contact: S Hagon
UOC3 HPW2 S2
Prerequisite/s: PHYS1002 or PHYS1221 or PHYS1231
Corequisite/s: MATH2120

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.

PHYS3070 Experimental Physics A2
School of Physics
Staff Contact: B Perczuk
UOC3 HPW4 S2

As for PHYS3040 Experimental Physics A1.

Note/s: Some experiments assume knowledge of PHYS2030, PHYS2040 or PHYS2050.

PHYS3080 Solid State Physics
School of Physics
Staff Contact: S Hagon
UOC3 HPW2 S1
Prerequisite/s: PHYS2021 or PHYS2040
Corequisite/s: 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.

PHYS3110 Experimental Physics B1
School of Physics
Staff Contact: B Perczuk
UOC3 HPW4 S1

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 spectrometry, 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
Staff Contact: School Office
UOC3 HPW4 S2

As for PHYS3110 Experimental Physics B1.

PHYS3160 Astrophysics
School of Physics
Staff Contact: S Hagon
UOC3 HPW2 S2
Prerequisite/s: PHYS2021 or PHYS2040

Stellar radiation, spectra classification. Hertzsprung Russell diagrams, determination of stellar masses and radii. Equations of stellar structure, energy sources in stars, nuclear reaction cycles energy transport, equations of state, degeneracy, opacity. Properties of main sequence stars, stellar evolution, structure of red giants and white dwarfs. The solar atmosphere.

PHYS3210 Quantum Mechanics
School of Physics
Staff Contact: S Hagon
UOC3 HPW2 S1
Prerequisite/s: PHYS2021 or PHYS2040
Corequisite/s: MATH2120
Excluded: PHYS3010

As for PHYS3010 Quantum Mechanics (Advanced), but treated in less depth and excluding matrix formulation.

PHYS3230 Electromagnetism
School of Physics
Staff Contact: S Hagon
UOC3 HPW2 S1
Prerequisite/s: PHYS2011 or PHYS2050 and MATH2011 and MATH2120
Excluded: PHYS3030

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.

PHYS3310 Physics of Solid State Devices
School of Physics
Staff Contact: S Hagon
UOC3 HPW2 S2
Corequisite/s: PHYS3080 or PHYS3021

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
Staff Contact: School Office
UOC3 HPW2 TBA
Prerequisite/s: PHYS2011 or PHYS2060 and PHYS2410

Physics of self-assembling systems, cellular ultrastructure. Thermodynamics of irreversible processes, application to life processes. Thermodynamical description of ecological associations. Structure of proteins and other macro-molecules. Physics of nerve and muscle.

PHYS3510 Advanced Mechanics, Fields and Chaos
School of Physics
Staff Contact: S Hagon
UOC3 HPW2 S1
Prerequisite/s: PHYS2001 or PHYS2010 and MATH2011

Lagrange'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
Staff Contact: S Hagon
UOC3 HPW2 S2
Prerequisite/s: PHYS1002 or PHYS1231 or PHYS1221, MATH2011

Relativistic kinematics and dynamics, tensors and tensor operations, Christoffel symbols, formulation of general relativity, curvature of space, geodesics, gravitational field equations, Schwarzschild solution, tests of the theory, astrophysical and cosmological implications.

PHYS3610 Computational Physics
School of Physics
Staff Contact: S Hagon
UOC3 HPW2 S2
Prerequisite/s: PHYS2001 or PHYS2020 and MATH2120

Use of computers in solving physical problems, including matrix eigenvalue problems and quantum energy levels, boundary value problems (heat conduction, fluid flow and electrostatics) and Monte Carlo techniques.

PHYS3630 Electronics
School of Physics
Staff Contact: S Hagon
UOC3 HPW3 S1
Prerequisite/s: PHYS2031 or PHYS2630

Noise and drift. Instrumentation, amplifiers, precision amplifier techniques. Digital electronics. Oscillators. Modulation and demodulation, phase locked loops. RF techniques. Conversion between analogue and digital. Transducers. Bandwidth narrowing techniques. Power supplies.

PHYS3770 Laser and Spectroscopy Laboratory
School of Physics
Staff Contact: B Perczuk
UOC3 HPW4 S1 S2

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
Staff Contact: B Perczuk
UOC3 HPW4 S1 S2

A selection of experiements 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

communictions, wavelength division multiplexing, Er droped fibre amplifiers, optical domain reflectometery, etc.

PHYS4103 Physics 4 Honours Full Time
School of Physics
Staff Contact: M Ashley
Enrolment requires school approval
UOC24 S1 S2

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/s: 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.

PHYS4411 Medical Physics
School of Physics
Staff Contact: J Wolfe
UOC6 HPW2 S1 S2
Prerequisite/s: PHYS2021 or PHYS2040

Radiotherapy: radiation sources, interactions of radiation with the body, radiation detection and measurement. Dosimetry and radiotherapy planning. Radioisotopes, brachytherapy. Nuclear Medicine: Radioisotope production. Radiopharmaceuticals. Basic instrumentation. Gamma camera. SPECT and PET. Medical Imaging: x-rays and C.T. Magnetic Resonance Imaging (MRI). Ultrasound. Safety and quality control in Medical Physics.

PHYS4413 Medical Physics Projects
School of Physics
Staff Contact: J Wolfe
UOC9 HPW9 S1 S2

These projects for final year Medical Physics students will be in areas such as Radiotherapy, Nuclear Medicine, Medical Imaging or Biophysics. Generally carried out in a hospital environment under the supervision of a practising medical physicist but may be carried out in the university or elsewhere, if suitable facilities available. Students required to submit a written thesis and present a seminar describing their project work.

Note/s: Restricted to Course 3973 Medical Physics.

PLAN0081 Work Experience
Planning and Urban Development
Staff Contact: P Williams
UOC24 S2
Prerequisite/s: PLAN3041

During the program, students must undertake 48 weeks of approved employment related to the Program: for example, in private development companies or with planning consultants, in government planning and housing authorities, in local councils preparing or implementing Local Environment Plans. This is normally undertaken in the twelve months following Session 1 of Year 3. Work experience requirements must be completed prior to graduation. The type of employment proposed must be submitted to the Program Head for approval.

PLAN0082 Work Experience
Planning and Urban Development
Staff Contact: P Williams
UOC24 S1

During the program, students must undertake 48 weeks of approved employment related to the Program: for example, in private development companies or with planning consultants, in government planning and housing authorities, in local councils preparing or implementing Local Environment Plans. This is normally undertaken in the twelve months following Session 1 of Year 3. Work experience requirements must be completed prior to graduation. The type of employment proposed must be submitted to the Program Head for approval.

PLAN1011 Urban Society and Sociology
Planning and Urban Development
Staff Contact: R Zehner
UOC3 HPW3 S1

A series of lectures and discussions on the social structure of urban areas with reference to both social theorists and empirical studies. The origins and concerns of the discipline of sociology and of urban sociology. Urban effects on living patterns. The relationships between different interest groups, including planners, in the urban context. Contrasting perspectives on the planner s role in contemporary society.

PLAN1012 Principles of Political Economy
Planning and Urban Development
Staff Contact: G Argyrous
UOC3 HPW2 S2

This course is an introduction to political economy for non-economists. It establishes a foundation of concepts and viewpoints which are utilised in a number of courses. Topics include: the forms of capital; modes of production; global economic change and the new international division of labour; relationship between economy and state; politics and ideology; class structure; elementary price theory; factors influencing economic growth; the distribution of welfare.

PLAN1022 The Development Process
Planning and Urban Development
Staff Contact: S Harris
UOC3 HPW2 S2

An introduction to real property law, the statutory requirements of the NSW planning system, environmental laws and land taxation. Also covered are small building construction issues, the nature of the housing market, commercial and industrial property markets, the funding of infrastructure and the roles of government agencies involved in the property market. Assignments are prepared in the form of consultant reports.

PLAN1041 The Language of Planning
Planning and Urban Development
Staff Contact: S Harris
UOC4 HPW2 S1

This course aims to introduce students, commencing their planning studies, to the forms and languages used by planning: the vocabulary used by professionals, its explicit and implicit meanings and implications. Specifically, the aims are to ensure students understand the generalities and some detail of the relationship between politics, government and society; the forms and structures of Australian politics and government; the relationships between planning, politics and government; planning systems in theory and practice; the operation of development control systems; land ownership and titling; land uses and activities, and their definitions; density definition and its planning implications; planning associations and organizations and their significance; the language of urban design; methods of describing society and its structures.

PLAN1042 Planning Processes
Planning and Urban Development
Staff Contact: S Thompson
UOC6 HPW4 S2

The course covers planning methodologies, with a focus on the strategic choice approach. A planning exercise is used as a case study to demonstrate the use of the method in practice. Applications are critically assessed. The emphasis is on cooperative work within the planning process framework.

PLAN1052 Quantitative Methods
Planning and Urban Development
Staff Contact: R Zehner
UOC6 HPW5 S2

Lectures, discussions and assignments on quantitative research methods and their use in applied planning contexts. Contrasts with qualitative approaches. Survey research methods: study design, survey sampling techniques, questionnaire design, data collection, strengths and weaknesses of survey methodology. Introduction to statistics and to data analysis using packaged computer software.

PLAN1062 Effective Communications
Planning and Urban Development
Staff Contact: S Harris
UOC3 HPW2 S2

The range of non-graphic techniques of planners information communication: reports and letters language, structure, style; audiovisual presentation, video and slide/tape; public speaking, telephone, one-to-one, small groups, large meetings, basic techniques and uses.

PLAN2011 Economy of Cities and Regions
Planning and Urban Development
Staff Contact: P Murphy
UOC3 HPW3 S1

This course introduces how economic processes influence (1) the structure and performance of the economies of regions and urban centres; and (2) the structure and patterns of changes in land uses within urban centres, with specific reference to large urbanised regions. Topics covered include: factors driving regional and urban economic performance; urban hierarchies and inter-urban competition; economics of urban size; land rent, land uses, land prices; regional population densities; employment and service location. The basic theory is taught using Australian case studies.

PLAN2012 Economic Development Planning
Planning and Urban Development
Staff Contact: P Murphy
UOC3 HPW3 S2

This course aims to show how, at the levels of both theory and practice, the planning system interlocks with socio-political pressures, the effects of which are to influence the shape and direction of development. Bodies of theory on planning and development are introduced and the relationship between them analysed. Planning is presented as a socio-political process the form of which shifts over space and time. The myth of rational, value free planning is exposed. The role of the state and the local state in managing conflicts intrinsic to a capitalist space economy is emphasised.

PLAN2021 History of Urban Development
Planning and Urban Development
Staff Contact: R Freestone
UOC3 HPW2 S1

Introduction to patterns and processes of urbanisation and urban development at global, national, regional and local scales canvassing theoretical, conceptual and empirical issues. Surveys evolution of urban space in a societal context from the pre-modern to the post-modern eras with emphasis on understanding the form and evolution of the late twentieth century Australian city. The course involves lectures, presentations, fieldwork and applied research projects.

PLAN2032 Integrated Planning 1 - Urban Design
Planning and Urban Development
Staff Contact: R Freestone
UOC6 HPW6 S1
Prerequisite/s: BENV1101

The course provides an introduction to skills necessary to urban design, particularly with regard to site analysis, spatial understanding and design response. The specific aims are to develop an understanding and appreciation of the integration of urban design projects; an understanding of the physical structure of places; and urban design methodology. The course is a mix of formal lectures, discussion sessions, excursions, and feedback tutorials/interactive studios supporting ongoing project work. The major outcomes for students relate to implementing learned concepts from the lectures, discussions and site studies into a design project. Development of the design project is to be assisted through undertaking smaller assessment tasks including case study research; and written, graphic and verbal communication exercises.

PLAN2041 Critical Research Seminars
Planning and Urban Development
Staff Contact: R Zehner
UOC6 HPW2 S1
Prerequisite/s: PLAN1062

A series of student-led seminars on topics of importance to planning (e.g. sustainable development, urban consolidation, community design and crime, the new urbanism, planning for controversial land uses). Emphases are placed on research and seminar preparation, as well as on presentation and participation techniques.

PLAN2042 History of Urban Planning
Planning and Urban Development
Staff Contact: R Freestone
UOC3 HPW2 S2

This course provides an introduction to planning history as a backdrop for an appreciation of the origins, mission and constraints of modern urban planning. It concentrates on the evolution of planning theories and practices in the late 19th and 20th century with special reference to the Australian metropolitan experience. The course documents major planning paradigms from early civic design through to contemporary issues of sustainability and economic development. The material is covered through lectures, projects, seminars and fieldwork, usually with several fieldtrips to explore the success of planned interventions in the landscape. Assessment is usually based on written and graphic commnunication.

PLAN2051 Environmental Economics and Resource Management
Planning and Urban Development
Staff Contact: P Murphy
UOC3 HPW3 S2

This course introduces basic concepts and methods from resource economics. The aim is both to extend economic literacy and to cast the management of land use within a conceptually sound economic framework. Topics covered include: market failure; types of resources; valuation of resources; economic tools for resource management; principles of cost benefit analysis and its relationship to environmental impact assessment; and the precautionary principle for resource management. Contemporary Australian case studies are used.

PLAN3015 Social Planning
Planning and Urban Development
Staff Contact: S Thompson
UOC6 HPW6 S2
Prerequisite/s: PLAN2041, PLAN3031

An in-depth examination of the social and cultural characteristics and needs of the different groups who inhabit and claim space in the post-modern city. Groups to be explored include ethnic communities, Aborigines, children, youth, older people, homeless, poor, those with disabilities, and gays and lesbians. Using both practical exercises and key theoretical readings, students question their own prejudices and values and the way that these impact on their professional roles. Assessment is based on participation in class exercises, workshops and field trips, set readings, some written assignments and a group presentation.

PLAN3021 Heritage and Conservation
Planning and Urban Development
Staff Contact: S Harris
UOC3 HPW3 TBA
Prerequisite/s: PLAN3015, PLAN3041

Definitions and philosophy of heritage and conservation planning. Setting objectives and formulating policy, criteria for selecting and assessing heritage and conservation areas; planning considerations to protect and enhance the community fabric; legislation and mechanisms for heritage and conservation existing in New South Wales and elsewhere; potential; some effects of heritage and conservation (physical, social, economic); attitudes to heritage and conservation. Case studies of selecting and planning a heritage and/or conservation area.

PLAN3031 Integrated Planning 2 - Existing Areas
Planning and Urban Development
Staff Contact: S Harris
UOC6 HPW4 S1
Prerequisite/s: PLAN2032

An applied focus on selected planning issues in an established urban area. Introduces the concept of the study brief and the role of the consultant planner. The course integrates group skills and knowledge to address multifaceted planning issues typical of central city, inner urban, suburban or regional centre environments. Examples would include environmental, town centre, open space, urban design, transportation, redevelopment, or heritage studies. The emphasis is on individual and team research, analysis, technical report production, and presentations, with a significant fieldwork component.

PLAN3032 Integrated Planning 3 - New Development
Planning and Urban Development
Staff Contact: R Freestone
UOC6 HPW4 S2
Prerequisite/s: PLAN2032, PLAN3041

To demonstrate the process of planning as applied to an area undergoing urban development and give students the experience of carrying out such planning; to ensure that students can work competently as planners in urbanising areas; to show the inter-relationships between the planner and other professionals in release area planning.

PLAN3041 Planning Law and Administration
Planning and Urban Development
Staff Contact: P Williams
UOC6 HPW4 S1
Corequisite/s: PLAN3051

The course comprises three parts, Planning Law, Planning Administration and Land Valuation. Planning Law: historical, conceptual / theoretical nature of the law; relationship between the environmental context, the Crown, the parliament and the judiciary; ways in which the laws are made and promulgated, relationship between laws and regulations, the legal concept of property in land, definition of various legal concepts of interests in land, Australian Constitution and legal relationship between Commonwealth and States, particularly in regard to matters affecting land, the place of administrative law. Planning Administration: administrative context within which planning operates as a function of government, especially the role and function of statutory bodies in the planning and environment area, the administration of the planning function at the national, state and local levels, the art of management, administrative theory, personnel administration, the role and responsibility of the professional planner in the public and private sector. Land Valuation: principles and practices of land valuation in Australia. Definitions of value, methods of valuation, the role of the valuer, compensation and betterment.

PLAN3051 Development Control
Planning and Urban Development
Staff Contact: P Williams
UOC6 HPW4 S1
Corequisite/s: PLAN3041

This course introduces students to the implementation of planning objectives in the NSW Planning System via this State s statutory development control system. various development control systems are examined, based on common law, statute and policy. Strategic planning at state and local government levels are examined in detail, as is the statutory planning (i.e., development application) process. Emphasis in this course is placed on familiarising students with the skills required by a professional planner in undertaking various planning tasks.

PLAN3052 Qualitative Methods
Planning and Urban Development
Staff Contact: S Thompson
UOC6 HPW3 S2
Prerequisite/s: PLAN3031

An introduction to qualitative research as a powerful methodological tool for understanding complex planning issues, especially those pertaining to people/place relationships. Basic instruction is given in interviewing technique (one-on-one and focus groups interviews), rigorous thematic analysis of qualitative data and the reporting of qualitative research findings. Students undertake their own qualitative project, from topic selection, in-depth interviewing, transcription preparation, data analysis, to reporting the findings. They also reflect on and share experiences of their research process. Assessment is based on participation in class discussions and exercises, the major qualitative research project and reading set texts.

PLAN4021 Metropolitan Policy
Planning and Urban Development
Staff Contact: P Murphy
UOC3 HPW2 S1
Prerequisite/s: PLAN3032, PLAN3041

This course examines preoccupations in the management of large urbanised regions and the range of public policy measures available to influence structure and process. It is assumed that metropolitan policy provides a framework within which local government decisions on land use, and the work of agencies which supply urban infrastructure, is framed. Topics include: population densities; commercial centres; industrial land uses; transportation; environmental quality; tools for management of metropolitan growth and change; political and administrative systems and issues. The focus will be on Australian cities - especially Sydney - but some cross-national material will be used.

PLAN4031 Research Design
Planning and Urban Development
Staff Contact: R Freestone
UOC3 HPW2 S1
Prerequisite/s: PLAN3032, PLAN3052

This course provides an introduction to issues of research design in urban and planning studies. It considers both fundamental epistemological questions and more pragmatic topics such as writing and presentation, as well as providing insights into the world of advanced research. The primary focus is on the written thesis required in the final year of the BTP Program. The course canvasses the relevant conceptual, methodological, and technical bases for the construction of the thesis. Lectures, tutorials and assessments guide students toward a developed thesis proposal and plan of study.

PLAN4032 Thesis Project
Planning and Urban Development
Staff Contact: R Freestone
UOC15 HPW1 S1 S2
Prerequisite/s: PLAN4031

A specialized individual study taken under staff supervision with the object of allowing students either to gain knowledge in some aspect of Town Planning which is not covered in the program or to increase their knowledge of some aspect which has been covered. The study does not require original experimental research for the purpose of discovering new facts or the testing of an hypothesis; neither is it an essay permitting the student s unsupported opinion. A thesis proposal is developed in PLAN4031 for the approval of the Program Head. The completed thesis is submitted for examination towards the end of Session 2. Students are expected to participate in regular discussions with supervisors during this session to present progress reports on their theses. The course is not complete until a bound copy has been submitted.

PLAN4043 Planning in Practice
Planning and Urban Development
Staff Contact: P Williams
UOC3 HPW4 S2
Prerequisite/s: PLAN3032, PLAN3041

This course consists of two components: environment law and dispute resloution, and professional practice. Environmental law and dispute resolution examines recent statutory and administrative changes to the planning system, the roles of planners at court and other means for the resolution of environmental disputation. Professional practice focuses on professional ethics and standards, planning as a profession, negligence, preparing and responding to a consultants brief and preparing for court work. Such hand-on skills are discussed in the broader context of philosophical positions, 'professionalism' and the social, plolitical and industrial environment.

POLS1002 Power and Democracy in Australia
School of Politics and International Relations
Staff Contact: M Rolfe
UOC6 HPW3 S1

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. Consequently, this course 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.

POLS1005 Politics and Crisis: An Introduction to Western Political Theory
School of Politics and International Relations
Staff Contact: I Tregenza
UOC6 HPW3 S1

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.

POLS1008 Politics of Post-Communist Systems
School of Politics and International Relations
Staff Contact: S Fortescue
UOC6 HPW3 S2

Examines political concepts and phenomena in Post-Communist systems, with the emphasis on Russia. Background is given on the Communist period, before moving to post-1989.

POLS1010 State and Society: An Introduction to Political Sociology
School of Politics and International Relations
Staff Contact: G Kitching
UOC6 HPW3 S1

A basic introduction to diverse and influential explanations of the social origin of political power focusing on the works of Karl Marx and Max Weber. Not only examines the intellectual development of the Marxist and Weberian traditions, but also investigates post-modernist social and political theories and asks whether the whole idea of a 'science' of society or politics is a coherent one.

POLS1014 Global Politics and the Environment
School of Politics and International Relations
Staff Contact: J Pemberton
UOC6 HPW3 S2
Excluded: GENT0703

Examines environmental issues from a global perspective. Studies the basic institutions of global politics - the state, the United Nations and International Law - and their respective capacities to deal with environmental problems. Also examines the links between environmental issues and a range of other questions - international trade, population, refugees, indigenous rights - which are central to modern diplomacy. Also examines environmental concerns in relation to the key concepts of world politics: security and sovereignty.

POLS1017 International Relations in the 20th Century
School of Politics and International Relations
Staff Contact: M Wesley
UOC6 HPW3 S1
Excluded: INST1001

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.

POLS1018 Politics, Power, Principle: An Introduction to Modern Political Theory
School of Politics and International Relations
Staff Contact: I Tregenza
UOC6 HPW3 S2

Introduces the ideas of some of the main political thinkers of the twentieth century; examines some of their main theories and concepts with particular emphasis on their views of power, of society and of the state; examines some of the main principles of justice, equity and human rights that have become current this century.

POLS1019 Power and Prejudice: Sex, Race, Class
School of Politics and International Relations
Staff Contact: I Tregenza
UOC6 HPW3 S2

Introduces some of the main theories of power and of the causes and consequences of prejudice relating to race, sex, and class, and explores the ways the three interact. Provides examples from a variety of countries, including Australia. Topics include how far different forms of racism are linked to different types of migration; the relationship between sex, gender, the family and sexuality; the transformation of class systems under the impact of globalisation and privatisation; unemployment and underemployment; the rise and fall of the welfare state; and the criminalisation of poverty.

POLS2003 The Political Development of Contemporary China
School of Politics and International Relations
Staff Contact: J You
UOC6 HPW3 S2
Prerequisite/s: 36 units of credit in Arts and Social Science courses

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.

POLS2005 International Relations: Continuity and Change
School of Politics and International Relations
Staff Contact: S Scott
UOC6 HPW3 S1
Prerequisite/s: 36 units of credit in Arts and Social Science courses

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.

POLS2008 Public Policy Making
School of Politics and International Relations
Staff Contact: E Thompson
UOC6 HPW3 S2
Prerequisite/s: 18 units of credit in POLS or SLSP2000 courses

The problems of administering government and the problems of decision-making in the modern State. Models of organisations are discussed, as are problems of participation and implementation. The role of the State and the impact of economic rationalism and managerialism are examined. Students may choose to participate in a parliamentary internship as a component of this course.

POLS2020 Sex, Gender and Justice
School of Politics and International Relations
Staff Contact: H Pringle
UOC6 HPW3 S1
Prerequisite/s: 36 units of credit in Arts and Social Science courses

Examines thought and practices about justice, with particular attention to those of liberal democracy, in connection with questions of human sexuality. Conceptions of tolerance, equality, autonomy and freedom of the person, freedom of contract and citizenship will be examined, with reference to some classic expositions of liberal thought. These conceptions will be considered in the light of problems such as pornography, prostitution, sexual violence and rape, surrogacy, marriage and the family and harassment.

POLS2023 Globalisation and Uneven Development
School of Politics and International Relations
Staff Contact: G Kitching
UOC6 HPW3 S2
Prerequisite/s: 36 units of credit in Arts and Social Science courses
Excluded: COMD2000, 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.

Note/s: Previously 'Politics of Development'.

POLS2032 Globalisation, Power and Development in Australia
School of Politics and International Relations
Staff Contact: School Office
UOC6 HPW3 S1
Prerequisite/s: 36 units of credit in Arts and Social Science courses

Australia is one of the most urbanised countries in the world. The course deals with Australian politics in the context of urban, city and industrial development and of the power of the international environment of which Australia is a part. Such broad topics as American influence, British ties, the role of the state, gender, immigration and the language of modern Australian politics are examined for their influence on Australian cities.

POLS2033 Jews in Modern Society
School of Politics and International Relations
Staff Contact: G Levey
UOC6 HPW3 S1
Prerequisite/s: 36 units of credit in Arts and Social Science courses
Excluded: JWST2000

Introduces students to the social scientific study of the Jews and their communities in the modern period. Focus is on the different paths of Jewish emancipation in Western societies, the impact of modernisation on Jewish life, and the signifance of the Holocaust and the establishment

of the State of Israel for contemporary Jewish identity. Themes include: occupational, educational, and social class transformations; religious, ethnic, and communal forms of Jewish identification; Jews and others; political allegiances; Israel-Diaspora relations; and assimilation and intermarriage.

POLS2034 Jews, States and Citizenship
School of Politics and International Relations
Staff Contact: G Levey
UOC6 HPW3 S2
Prerequisite/s: 36 units of credit in Arts and Social Science courses
Excluded: JWST2001

Examines tensions in the relationship of Jews to the governing principles of liberal states through analysis of case materials and controversies that have occurred in France, Britain, Australia, Canada, USA, and Israel over the political recognition of religious practices and group identity. Topics include: the terms of liberal citizenship; church state separation; affirmative action; free speech; state recognition and support of Jewish practices; multiculturalism as a new public policy and challenge to Jews; Israel as a liberal and a Jewish state.

POLS2035 Multiculturalism in Law and Political Theory
School of Politics and International Relations
Staff Contact: G Levey
UOC6 HPW3 S2
Prerequisite/s: 36 units of credit in Arts and Social Science courses

Examines justifications for the recognition of cultural group identity in law and politics. Focus is on whether multiculturalism threatens or complements liberal notions of justice, equality and common citizenship. Issues include: the various meanings of multiculturalism; the sense in which "cultural rights" may be rights; and the differences between kinds of cultural groups and the kinds of state recognition, accommodation, and support to which they might be entitled. Course material is based on cases from Australia, Britain, France, and North America and on readings in contemporary political theory.

POLS2036 Political Development in Northeast Asia
School of Politics and International Relations
Staff Contact: J You
UOC6 HPW3 S1
Prerequisite/s: 36 units of credit in Arts and Social Science courses

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. Major 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 and the Globalisation of Politics
School of Politics and International Relations
Staff Contact: S Scott
UOC6 HPW3 S2
Prerequisite/s: 36 units of credit

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/s: Previously 'International Law and the Globalisation of Politics'. No prior knowledge of law is assumed.

POLS2040 Politics and Business
School of Politics and International Relations
Staff Contact: S Fortescue
UOC6 HPW3 S2
Prerequisite/s: 36 units of credit in Arts and Social Science courses

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
Staff Contact: V Farrer
UOC6 HPW3 S2
Prerequisite/s: 36 units of credit in Arts and Social Science courses
Excluded: 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.

POLS3023 International Security
School of Politics and International Relations
Staff Contact: S Scott
UOC6 HPW3 S1
Prerequisite/s: 18 units of credit in Political Science at credit level

Examines the concept of security as a framework for understanding in international relations. Far from being a narrow concept concerned primarily with territorial threats as it is frequently (mis)understood, security is a broad concept that encompasses economic, environmental, political, social and military conditions. This course introduces some of the main explorations of security understood in this expanded framework.

POLS3032 The Party System in Australia
School of Politics and International Relations
Staff Contact: School Office
UOC6 HPW3 S1
Prerequisite/s: 18 units of credit in Political Science at credit level

Aspects of Australian political parties at national and state level, including their origins, ideologies, organisations, socio-economic bases, electoral fortunes and performance in office. Explores what it means to describe Australian party politics as a system and examines recent challenges to that system, including the decline of party identification, the rise of minor parties and independent parliamentarians and the proliferation of new social movements and issue groups. Some comparisons will be made with the party systems of other countries.

POLS3044 Electoral Studies
School of Politics and International Relations
Staff Contact: School Office
UOC6 HPW3 S2
Prerequisite/s: 18 units of credit in Political Science at credit level
Excluded: POLS3032

An examination of different aspects of elections and electoral behaviour; including electorate boundary setting, vote counting, election funding, campaigns, the media and advertising, public opinion polls and voting behaviour. Methods of analysis used include introductory quantitative research using computers.

POLS3047 Theories of the Market and Its Critics
School of Politics and International Relations
Staff Contact: G Kitching
UOC6 HPW3 S1
Prerequisite/s: 18 units of credit in Political Science at credit level

The first part focuses on the major claims for the merits of the 'market' as an economic regulator made by conventional economists since the days of Adam Smith. The second part considers the arguments of those theorists and thinkers who have been sceptical of those conventional claims. The latter includes the following traditions: early nineteenth century 'anti-capitalist' political economy in England and France: 'populist' anti-capitalist economics in nineteenth century America and Russia; 'state socialist' and 'planned economy' theories (both Marxist and non-Marxist); twentieth century Keynesian and Sraffian critiques of orthodox economics; and contemporary environmentalist critiques of the market.

Note/s: Previously 'The Socialist Idea and the Market'.

POLS3053 The Problem of Language in Modern Social Theory
School of Politics and International Relations
Staff Contact: G Kitching
UOC6 HPW3 S2
Prerequisite/s: 18 units of credit in Political Science at credit level

Examines the old debate over whether a 'science' of society and politics is possible, but from a particular 'language focussed' perspective. Begins from the claim of Winch (1958) that the whole "idea of a social science" is based on a fundamental misunderstanding of the role played by language in human social interaction. Considers the attempts of various defenders of social science to reply to the original Winchian critique, the development of the debate since that time, and what remains of the whole enterprise of academic social and political study if the aspiration to science is abandoned.

POLS3057 International Relations in Northeast Asia
School of Politics and International Relations
Staff Contact: J You
UOC6 HPW3 S2
Prerequisite/s: 18 units of credit in POLS at 65% average

Examines the interactions of the four major powers (China, Japan, US and Russia) in Northeast Asia in the post-Cold War era, and brings in the perspectives of two middle powers (Australia and Korea). The first section analyses the theoretical and cultural foundations for major power interaction, the second looks at important bilateral relations between these major powers, and the third focuses on the issues with which they have to deal. Topics to be covered are the clash of civilisations and ideologies; the security environment in the region; the chief actors' perceptions of the linkage between economic security and national interests; arms build-up, and regional flash points such as the disputes between the People's Republic of China and Taiwan.

POLS3901 States, Nations and Ethnic Identities
School of Politics and International Relations
Staff Contact: E Nimni
UOC6 HPW3 S1
Prerequisite/s: 36 units of credit in Arts and Social Science courses, including 6 uoc in POLS at credit level
Excluded: POLS2030

An introduction to contemporary theories of ethnicity and nationalism. Covers the contemporary resurgence of ethnicity, the emergence of the idea of the nation, nationalism and modernity, nationhood and popular sovereignty, the emergence of the nation state, the relation between ethnicity and nationalism and some contrasting interpretations on the contemporary revival of nationalism. It culminates with a brief examination of three case studies: South Africa, Israel and Palestine, and the European Union.

POLS3910 The Art of Political Science
School of Politics and International Relations
Staff Contact: G Levey
UOC6 HPW3 S1
Prerequisite/s: 18 units of credit in POLS at 65% average
Excluded: POLS3056

Is political science like the natural sciences in terms of its aims and methods? Or is it more like journalism or perhaps interpreting a text? Examines debates in political science over its subject matter and mission, and over what political knowledge is and how it is acquired. The focus is on 'landmark' studies in political science and influential works in the philosophy of science. Topics include the nature of political phenomena and political explanation; different approaches to political research; and how contending theories and knowledge claims may be evaluated.

POLS3911 Asia and the International Political Economy
School of Politics and International Relations
Staff Contact: M Williams
UOC6 HPW3 S2
Prerequisite/s: 18 units of credit in POLS at 65% average

A theoretical and empirical analysis of the international political economy and its interactions with the Asian region. First section analyses the capitalist transformation of Asia, its role as the world's 'wealth bowl' and the political economic crises it faces. The second examines the movements of regional and global capital, especially from the United States and Japan, in the forms of investment, trade and finance as well as the resulting migrations of people and ecological problems. The final section assesses how far regional and global forms of governance can solve the main problems facing the region in the twenty first century.

POLS4000 Politics and International Relations Honours (Research) Full-Time
School of Politics and International Relations
Staff Contact: M Wesley
Enrolment requires school approval
UOC24 S1 S2
Prerequisite/s: 54 units of credit in POLS at an average of 65%, including at least 12 units of credit at 65% in one POLS39## and one POLS391# course and permission from head of school

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 Eng and Industrial Chemistry
Staff Contact: R Burford
UOC3 HPW3 S1
Prerequisite/s: CHEM2021, INDC2040

Polymerisation chemistry and processes. Step and radical chain polymerisation. Ionic (including stereo regular) polymerisation. Methods including bulk, suspension, emulsion, solution and gas phase polymerisation. Industrially important polymers and their manufacture. Principles of analysis. Molecular weight distribution. Thermodynamics of polymer solutions. Polymer chain conformation. Viscoelasticity. Mechanical behaviour. Polymer morphology. Thermal behaviour and analysis. Chemistry and physics of elastomers. Elements of polymer compounding and fabrication. New polymers.

POLY3012 Polymer Science - Practice
School of Chemical Eng and Industrial Chemistry
Staff Contact: T Davis
UOC3 HPW3 S2
Prerequisite/s: CHEM2021, INDC2040, POLY3011

A series of practical laboratory exercises designed to illustrate the kinetics of polymerisation and the mechanical behaviour and properties of polymers.

PORT1000 Portugese Studies 1A
School of Modern Language Studies
Staff Contact: School Office
UOC6 HPW6 S1

For students who have little or no prior knowledge of Portuguese. Intended to introduce students to spoken and written Portuguese and offer an introduction to aspects of modern Portuguese history and culture.

PORT1001 Portuguese Studies 1B
School of Modern Language Studies
Staff Contact: School Office
UOC6 HPW6 S2
Prerequisite/s: PORT1000

For students who have little or no knowledge of Portuguese. Intended to give students a sound basis in spoken and written Portuguese and continues an introduction to aspects of Portuguese history and culture.

PSCY2101 Human Behaviour
School of Psychiatry
Staff Contact: U Vollmer-Conna
UOC6 HPW3 S3Prerequisite/s: MFAC1001

Objectives: To provide students with key concepts in the five main topic areas and demonstrate the practical application of these concepts in medical practice. The five main topic areas are: research methods in behavioural sciences, psychology in relation to medicine, sociology in relation to medicine, bioethics, and human sexuality. Students are encouraged to develop an understanding of human behaviour as the result of complex interactions between multiple factors, so that they are better able to appreciate and respect their patients and colleagues as persons. Taught over both sessions. Didactic material and some case material is presented in lectures and the tutorial program is structured to consolidate this information. Emphasis is placed on developing skills in clear professional communication, with feedback on written assignments and tutorial presentations. Tutorial exercises encourage the development of supportive and co-operative working relationships among students and provide an introduction to interviewing skills. Specific topics covered include: risk behaviours; anxiety; stigma; social class and health; the sexual response and how it changes across the life-span; and a range of bioethical

topics including human and animal experimentation, euthanasia, the doctor and the state.A handbook for the course is produced each session and may be borrowed from the Biomedical Library Closed Reserve or purchased from the School of Psychiatry.Assessment: In Session 1, assessment consists of two written examinations, a tutorial presentation and a class test. In Session 2, students are required to write a major essay on Bioethics, present a tutorial paper and sit a final written examination.

PSCY2201 Human Behaviour (Science)
School of Psychiatry
Staff Contact: U Vollmer-Conna
UOC6 HPW3 S1 S2

Objectives: To provide students with key concepts in the five main topic areas and demonstrate the practical application of these concepts in medical practice. The five main topic areas are: research methods in behavioural sciences, psychology in relation to medicine, sociology in relation to medicine, bioethics, and human sexuality. Students are encouraged to develop an understanding of human behaviour as the result of complex interactions between multiple factors, so that they are better able to appreciate and respect their patients and colleagues as persons. Taught over both sessions. Didactic material and some case material is presented in lectures and the tutorial program is structured to consolidate this information. Emphasis is placed on developing skills in clear professional communication, with feedback on written assignments and tutorial presentations. Tutorial exercises encourage the development of supportive and co-operative working relationships among students and provide an introduction to interviewing skills. Specific topics covered include: risk behaviours; anxiety; stigma; social class and health; the sexual response and how it changes across the life-span; and a range of bioethical topics including human and animal experimentation, euthanasia, the doctor and the state.A handbook for the course is produced each session and may be borrowed from the Biomedical Library Closed Reserve or purchased from the School of Psychiatry.Assessment: In Session 1, assessment consists of two written examinations, a tutorial presentation and a class test. In Session 2, students are required to write a major essay on Bioethics, present a tutorial paper and sit a final written examination.

Note/s: Restricted to combined degree program 3821.

PSCY5001 Psychiatry
School of Psychiatry
Staff Contact: G Parker
UOC12 S1 S2
Prerequisite/s: MDSG4001

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.Assessment: 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.

PSYC1001 Psychology 1A
School of Psychology
Staff Contact: B Spehar
UOC6 HPW5 S1
Excluded: GENB4001

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
Staff Contact: B Spehar
UOC6 HPW5 S2
Excluded: GENB4002

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
Staff Contact: G Huon
UOC6 HPW4 S2

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 will focus on the professional and social responsibilities of psychologists.

Note/s: Restricted to Program 3432, Bachelor of Psychology.

PSYC2001 Research Methods 2
School of Psychology
Staff Contact: P Lovibond
UOC6 HPW4 S1
Prerequisite/s: PSYC1001, PSYC1011

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/s: PSYC1001 may be taken as a corequisite.

PSYC2061 Social and Developmental Psychology
School of Psychology
Staff Contact: J Forgas
UOC6 HPW4 S1
Prerequisite/s: 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
Staff Contact: M Taft
UOC6 HPW4 S2
Prerequisite/s: 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
Staff Contact: R Westbrook
UOC6 HPW4 S1
Prerequisite/s: 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/s: PSYC1001 may be taken as a corequisite.

PSYC2101 Assessment and Personality
School of Psychology
Staff Contact: S McDonald
UOC6 HPW4 S2
Prerequisite/s: 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.

PSYC2126 Sports Psychology
School of Psychology
Staff Contact: M Rohan
UOC6 HPW4 S2
Prerequisite/s: PSYC1001, PSYC1011

This course focuses on intrapsychic and interpersonal processes relevant to the training and practice of sport. Theories in areas such as self-perception, self-evaluation, attentional control, attribution, social comparison, group cohesiveness, leadership, and conflict management will be described and applied to the sporting context. Physiological consequences of psychological processes, and their implications for preparation and performance will be discussed. Practical classes will include consideration of issues and methods involved in assessment of relevant personality and individual differences.

Note/s: Restricted to Program 3850 Bachelor of Science - Health and Sports Science.

PSYC3001 Research Methods 3A
School of Psychology
Staff Contact: M Gleitzman
UOC6 HPW4 S1
Prerequisite/s: 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
Staff Contact: M Gleitzman
UOC6 HPW4 S2
Prerequisite/s: 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
Staff Contact: J Cranney
UOC6 HPW4 S2
Prerequisite/s: PSYC2001, PSYC2081

The neural control of behaviour with special emphasis on cerebral localisation of function in humans. Clinical conditions will be considered to the extent they illuminate mechanisms and theory of brain function, and the professional issues raised by different theories will be canvassed.

PSYC3121 Social Psychology
School of Psychology
Staff Contact: J Forgas
UOC6 HPW4 S2
Prerequisite/s: 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
Staff Contact: J Bright
UOC6 HPW4 S2
Prerequisite/s: PSYC2001, PSYC2061

The application of general psychological theories and principles to contemporary management problems. It will aquaint 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
Staff Contact: P Lovibond
UOC6 HPW4 S1
Prerequisite/s: 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.

PSYC3221 Vision and Brain
School of Psychology
Staff Contact: B Gillam
UOC6 HPW4 S1
Prerequisite/s: 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
Staff Contact: R Richardson
UOC6 HPW4 S1
Prerequisite/s: 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
Staff Contact: G Huon
UOC6 HPW4 S1
Prerequisite/s: PSYC2061, 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
Staff Contact: J Delahunty
UOC6 HPW4 S1
Prerequisite/s: PSYC2001, PSYC2061

An examination of various aspects of the judicial process from a psychological perspective in terms of their impact upon the trial participants and society. The focus will be upon contributions of social psychology, although other areas of experimental psychology will be drawn from as well. Topics will include eyewitness memory, judges instructions, lie-detection, trial tactics, reactions to insanity defenses and jury decision making.

PSYC3311 The Psychology of Language
School of Psychology
Staff Contact: M Taft
UOC6 HPW4 S1
Prerequisite/s: 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 developent will also be considered.

PSYC3321 Cognitive Development
School of Psychology
Staff Contact: B Hayes
UOC6 HPW4 S2
Prerequisite/s: PSYC2001 , PSYC2061 or PSYC2071

The study of cognitive development is concerned with changes in the way that information is encoded, transformed, and responded to as a function of age. The scope of this course ranges from the perceptual and motor abilities of young infants, to the memory functioning of elderly people. Several different perspectives leading to an understanding of cognitive development through the life span will be examined, including the Piagetian approach, age-related changes in information processing, and the acquisition of concepts and beliefs within specific knowledge domains. The applied relevance of developmental findings will also be considered.

PSYC3331 Health Psychology
School of Psychology
Staff Contact: G Huon
UOC6 HPW4 S2
Prerequisite/s: PSYC2001 , PSYC2061 or PSYC2101
Excluded: PSYC3536

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).

PSYC3516 Psychology for Optometry
School of Psychology
Staff Contact: M Rohan
UOC3 HPW2 S1

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/s: Restricted to Program 3950 Bachelor of Optometry.

PSYC3526 Workplace Psychology
School of Psychology
Staff Contact: J Bright
UOC3 HPW2 S2
Excluded: GENB4005

An examination of the aims, methods and ethics of industrial and organisational psychology. Topics will include personnel selection, training, job analysis and design, and the relation between job satisfaction and job performance.

Note/s: Restricted to students enrolled in Safety Science major.

PSYC3536 Health Psychology
School of Psychology
Staff Contact: G Huon
UOC6 HPW4 S2
Prerequisite/s: PSYC2126
Excluded: PSYC3331

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).

Note/s: Restricted to Program 3850 Bachelor of Science - Health and Sports Science.

PSYC4053 Psychology 4A
School of Psychology
Staff Contact: B Hayes
Enrolment requires school approval
UOC24 S1 S2

A supervised research thesis and coursework to be determined in consultation with the Head of School.

PSYC4063 Psychology 4B
School of Psychology
Staff Contact: B Hayes
UOC24 S1 S2
Prerequisite/s: PSYC4053

A continuation of PSYC4053.

PTRL1010 Introduction to the Petroleum Industry
School of Petroleum Engineering
Staff Contact: H Salisch
UOC3 HPW3 S1

UNIT 1: Worldwide distribution of oil and gas reserves. Data sampling and interpretation. Measurement scaling. Core, log and test data. UNIT 2: Rock/fluid systems. Coring and core analysis. Well logging and log interpretation. Well testing and test analysis. UNIT 3: Drilling of oil and gas wells. Drilling fluids. Well completions. Hydrocarbon production techniques. Hydrocarbon recovery mechanisms. UNIT 4: Economics of the upstream and downstream oil and gas industry. Supply and demand for oil and gas. International trading in oil and gas.

PTRL1011 Reservoir Rock Properties & Fluid Flow
School of Petroleum Engineering
Staff Contact: P Wong
UOC3 HPW3 S2

Porosity, permeability, saturation. Steady-state flow of compressible and incompressible fluids. Basic reservoir engineering concepts. Static pressure distribution. Capillary pressure and relative permeability. Static distribution of fluids and capillary-gravity equilibrium. Electrical conductivity of fluid saturated rocks. Thermal properties of rocks and geothermal gradient. Methods of calculating of average permeability of bed in parallel and in series. Effect of gas slippage on permeability measurements. Field and laboratory techniques to determine porosity, permeability and fluid saturations.

PTRL1012 Reservoir Fluid Properties
School of Petroleum Engineering
Staff Contact: I Kutasov
UOC3 HPW3 S2

Fundamentals of behavior of hydrocarbon fluids. PVT properties for oil-gas systems. Composition and phase diagrams of natural gases. Pseudo-critical properties of hydrocarbons. Surface tension and properties of the liquid and vapor phases. Properties of water and brines. Determination of the average reservoir pressure and the reservoir temperature. Material balance equations. Schilthuis equation. Havlena and Odeh linearisation. Gas-cap drive. Solution gas drive. Pressure depletion drive. Water drive. Combination drive reservoirs.

PTRL1013 Computing for Petroleum Engineers
School of Petroleum Engineering
Staff Contact: P Wong
UOC3 HPW3 S2

Overview of computer applications in petroleum engineering. Scientific programming languages. Basic probability and statistical concepts for geological applications. Introduction to mathematical and statistical software. Use of spreadsheets for reservoir evaluation and simple cash flow analysis. Visualising quantitative information. Graphical techniques for the analysis and display of reservoir data. Contour mapping. Estimating hydrocarbon volumes from reservoir maps. Practical sessions on solving petroleum engineering problems.

PTRL1014 Petroleum Exploration & Development
School of Petroleum Engineering
Staff Contact: H Salisch
UOC3 HPW3 S2

UNIT 1: Australia's sedimentary basins. The search for oil and gas in Australia. Onshore and offshore exploration. Techniques of finding oil and gas reservoirs.UNIT 2: Field Development. Onshore and offshore field appraisal and development. Development planning and design. Field development hardware.UNIT 3: Oil and gas accounting and budgeting. Full cost accounting. Successful efforts accounting. Reserves classification for company accounts in Australia.HSE: Health, Safety, Environment.

PTRL2009 Field Development Geology
School of Petroleum Engineering
Staff Contact: D Tamhane
UOC3 HPW3 S2

Introduction to the field development geology. Impact of sedimentary environment and associated diagenesis on field development strategy. Carbonate depositional processes and their effect on reservoir characteristics. Identification and characterization of reservoir flow and barrier units. Reservoir seals. Importance of electrolog correlation in oil and gas field development. Identification and quantification of reservoir heterogeneity. 3D geological modeling. Reserves estimation. Geology of fractured reservoirs. Reservoir geophysics. Aquifer characterization. New oil from old fields. Data planning during field development Role of synergy in oil and gas field development. Case histories.

PTRL2010 Communication Skills & Business Practices for Engineers
School of Petroleum Engineering
Staff Contact: School Office
UOC6 HPW6 S1

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, farmins, company annual reports, company special reports, oil and gas marketing, reserves reporting, relations with Governments and partners.

PTRL2012 Formation Evaluation 1
School of Petroleum Engineering
Staff Contact: H Salisch
UOC3 HPW3 S2

The study of petroleum reservoirs. Fundamentals of petrophysics. Fundamentals of petrophysics. Interrelation between petrophysical parameters. Borehole environment. Invasion profiles and invasion characteristics. Hydrocarbon mobility. Acquisition of petrophysical data. Data quality assurance. Presentation of petrophysical data. Measurement of natural gamma rays. Formation waters. Importance of formation water characteristics. The SP curve. Wellsite log evaluation. Formation resisitivities. Shallow and deep resistivity measuring devices. Practical work with well log and core analysis and well pressure data.

PTRL2013 Rock & Fluid Properties Laboratory
School of Petroleum Engineering
Staff Contact: S Rahman
UOC3 HPW3 S1

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.

PTRL3008 Reservoir Engineering A
School of Petroleum Engineering
Staff Contact: V Pinczewski
UOC3 HPW3 S1

Introduction to basic concepts of hydrocarbon accumulations and recovery processes. Reservoir volumetrics and initial volumes in-place. Hydrostatic pressure distribution. Fluid gradients and contacts from pressure data. Phase behaviour and PVT properties from laboratory tests. Properties of hydrocarbons and formation waters. Material balance equations. Classification of recovery mechanisms. Water influx. Porosity-permeability relationships. Fluid flow, Darcy's law and pressure potential. Steady-state linear and radial flow. Well inflow equations, skin factor, effective wellbore radius, and flow efficiency. Unsteady-state flow and the radial diffusivity equation. Pseudo-steady-state flow. Gas flow, pseudo-pressure and pseudo-time. Horizontal wells, drainage areas, productivity index, comparison with vertical wells.

PTRL3009 Reservoir Engineering B
School of Petroleum Engineering
Staff Contact: V Pinczewski
UOC3 HPW3 S2

Wettability and capillary pressure. Relationship between pore size distribution, capillary pressure and fluid saturation. Measurement of capillary Pressure in reservoir rocks. Correlation of capillary pressure data. Capillary-gravity equilibrium and initial vertical fluid distribution. Relationship between capillary pressure, relative permeability and rock microstructure. Stone' s model for relative permeability in three-phase flow. Fractional flow and displacement efficiency. Viscous fingering, gravity segregation and the effect of vertical heterogeneity of recovery. Use of reservoir simulators to calculate field recovery factors. Water and gas coning. Decline curve analysis. History matching water influx. Pseudo relative permeability and capillary pressure.

PTRL3010 Reservoir Engineering
School of Petroleum Engineering
Staff Contact: H Salisch
UOC6 HPW6 S2

Unit 1: Porosity measurements from well logs. Fundamentals of seismic wave propagation. Seismic data acquisition and interpretation. Three dimensional seismic methods. Time lapse 4D seismic methods. Seismic inversion. Case histories.Unit 2: Lithology, saturation and permeability studies from well logs. Shaly sand analysis. Complex- reservoir analysis. Dipmeter logs. Integration of, core, log ,well test and seismic data evaluation. Cementing quality monitoring. Cased hole well logs. Wireline testing. Practical work with logs from an Australian oil/gas field.

PTRL3012 Well Testing
School of Petroleum Engineering
Staff Contact: I Kutasov
UOC3 HPW3 S1 S2

Theory of transient well testing. Principle of superposition. Drawdown and buildup tests. Actual and ideal buildup tests. Effects and duration of afterflow. Horner's approximation. Use of pseudopressure in gas well testing. Constant bottomhole pressure tests. Practical aspects of design and performance of field tests. Analysis of transient pressure data, effects of boundaries, reservoir heterogeneity , multiphase flow. Study of production, DST and formation interval tests. Pulse testing and multiwell tests. Computer assisted well test analysis techniques.

PTRL3013 Reservoir Characterisation
School of Petroleum Engineering
Staff Contact: P Wong
UOC3 HPW3 S1 S2

Overview of reservoir characterisation problems. Reservoir mapping. 3D modelling. Risk assessment. Uncertainty quantification. Univariate, bivariate and multivariate statistics for reservoir data analysis. Pattern recognition techniques for petrophysical predictions from well logs. Introduction to petroleum geostatitsics. Experimental variograms. Variogram fitting. Various types of kriging estimators. Stochastic simulation of reservoir properties. Sequential simulation. Gaussian simulation. Indicator simulation. Accounting for seismic attributes. Constraining reservoir models with geology, well tests and production data. Reservoir upgridding and upscaling.

PTRL3015 Petroleum Production Engineering
School of Petroleum Engineering
Staff Contact: I Kutasov
UOC3 HPW3 S2

Component of the petroleum production systems. Well productivity and production engineering. Production from undersaturated oil reservoirs. Production from two-phase reservoirs. Production from gas reservoirs. Pseudo-critical properties of natural gases. Gas well deliverability for non-Darcy flow. The near-wellbore condition and damage characterisation, the effect of perforating conditions on well performance. Wellbore flow performance. Well deliverability. Well head surface gathering systems. Gas lift and pump assisted lift. Horizontal production. System analysis.

PTRL3016 Well Drilling Equipment & Operations
School of Petroleum Engineering
Staff Contact: S Rahman
UOC3 HPW3 S1

Introduction to physical processes involved in drilling oil and gas wells. Rotary drilling rigs for both land and offshore operation. Drilling equipment including rig powering 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.

PTRL3017 Drilling Fluids & Cementing
School of Petroleum Engineering
Staff Contact: S Rahman
UOC3 HPW3 S1

Introduction to the basic functions and properties of drilling fluids and cement slurries. Composition and related properties of drilling fluids and cement slurries. Types of equipment and methods used in cementing operations. Drilling fluid and cement slurry hydraulics. Determination of torque and drag. Calculation of cutting transport efficiency. Placement technique of cements. Gas migration through cement columns.

PTRL3018 Drilling & Production Laboratory
School of Petroleum Engineering
Staff Contact: S Rahman
UOC3 HPW3 S2

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, filtration, 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.

PTRL3019 Petroleum Project Evaluation
School of Petroleum Engineering
Staff Contact: W Allinson
UOC3 HPW3 S1

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).

PTRL3020 Risk Analysis and Management
School of Petroleum Engineering
Staff Contact: W Allinson
UOC3 HPW3 S2

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). 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).

PTRL3021 Design Project for Petroleum Engineers
School of Petroleum Engineering
Staff Contact: W Allinson
UOC6 HPW3 S1 S2

The design project covers all aspects of the design of processing facilities for a potentially viable oil/gas field from conceptual design and environmental impact statement preparation through to a detailed design of processing facilities. Major emphasis is placed on the preparation of piping and instrumentation diagrams. Other topics include control schemes, a HAZOP analysis, equipment layout, main power and material requirements, and project schedule and economics.

PTRL3022 Petroleum Thermodynamics
School of Petroleum Engineering
Staff Contact: V Pinczewski
UOC3 HPW3 S1

Review of phase behaviour and gas-oil system PVT properties. Ideal gas law, real gas law, van der Waals (vdW) equation of state (EOS). Relationship between vdW EOS parameters and fluid critical properties. Continuity of vapour, liquid states; principle of corresponding states. Extension to multi-component mixtures, mixing rules, binary interaction parameters. Accentric parameter. Peng-Robinson EOS. Thermodynamics of phase equilibrium. Fugacity and fugacity coefficient. Fugacity coefficients from equations of state. Fugacity coefficients for multi-component mixtures. Two-phase equilibrium flash calculations. Treatment of complex reservoir gas-oil systems. Component splitting, lumping; plus-fraction characterization. Improvement of liquid density predictions. EOS to generate gas-oil system PVT data.

PTRL4010 Integrated Reservoir Description Project
School of Petroleum Engineering
Staff Contact: W Allinson
UOC12 HPW6 S1

This course gives the opportunity for the students to carry out the complete description of a hypothetical but representative discovery of crude oil offshore Australia. The objective is to describe the reservoir and derive a reservoir model of the discovery. The main tasks include geological and geophysical analysis based on basin and field evaluations, determination of reservoir parameters based on formation evaluation and reservoir mapping at different levels of confidence. Risk analysis and probability assessments will be a key aspect of the project.

PTRL4011 Integrated Reservoir Analysis Project
School of Petroleum Engineering
Staff Contact: W Allinson
UOC8 HPW4 S2

This course is a continuation of PTRL4010. Based on the results of the reservoir description, the students estimate the oil-in-place and the reserves in the discovery at different levels of confidence. They assess the production performance of individual wells and make a forecast of production over the life of the field. Finally, the students decide where to locate an appraisal well, choose the type of well and design how it will be drilled.

PTRL4012 Integrated Drilling and Economics Project
School of Petroleum Engineering
Staff Contact: W Allinson
UOC8 HPW10 S2

Optimising the development design of a hypothetical, but representative crude oil discovery offshore Australia. Making cost estimates of key components of the construction. The development of a cash flow model which incorporates the terms of the Australian petroleum fiscal regime. Selecting the optimum development from a commercial standpoint. Carrying out a valuation of the field and make a bid to acquire an interest in it.

PTRL4013 Well Completion and Stimulation
School of Petroleum Engineering
Staff Contact: S Rahman
UOC3 HPW3 S1

Well completion design: types of completion, completion selection and design criteria. Interval selection and productivity considerations: effect of producing mechanisms. Inflow performance and multiple tubing performance analyses using commercial software. Well stimulation and workover planning. Tubing-packer movement and forces. Tubing design: graphical tubing design and simplified tensional strength design. Selection of downhole equipment, tubing accessories and wellhead equipment. Basics of perforation, selection of equipment and procedure for perforating oil and gas wells. Technology of sand control: gravel packing. Fundamentals of well stimulation technologies: acidisation and hydraulic fracturing.

PTRL4014 Drilling System Design and Optimisation
School of Petroleum Engineering
Staff Contact: S Rahman
UOC3 HPW3 S1

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 bottom hole assembly. Drilling methods and equipment for directional, horizontal and multilateral wells. Selection of casing shoes, material properties and design of casing program.

PTRL4015 Numerical Reservoir Stimulation
School of Petroleum Engineering
Staff Contact: V Pinczewski
UOC3 HPW3 S1

Reservoir simulation and reservoir management. Differential material balance equations. Relative permeability, capillary pressure and residual saturations in two and three-phase flow. Compositional reservoir simulator equations and the Black Oil Model. Numerical solution of simulator equations. Truncation errors and stability. Transmissibilities, upstream weighing, explicit and implicit and explicit treatment of transmissibilities. Numerical dispersion and grid-orientation effects. Model and grid selection. Model initialisation and capillary pressure-gravity equilibrium. Well models and equivalent radius of a well block, relating well grid-block pressures to pressure test build-up pressures. Use of well dynamic and vertical pseudo-functions. Planning and executing a reservoir simulation study. Reservoir simulation workshop.

PTRL4016 Natural Gas Engineering
School of Petroleum Engineering
Staff Contact: H Salisch
UOC3 HPW3 S1

Rock and fluid properties. Gas-in-place by volumetric and material balance methods. Ultimate recovery and future performance predictions. Dry gas, wet gas and retrograde condensate reservoirs. Hydorcarbon phase behaviour. Fluid sampling and laboratory tests. Abnormally high-pressured reservoir analysis. Waterdrive reservoir recovery and rate sensitivity. Water coning, critical rates and time calculations. Gas flow through porous media. Delivery tests. Pressue transient test analysis. Applicability of the real gas potential and oil flow equations in addition to classical gas well methods. Gas storage. Pressure maintenance. Recovery optimisation. Maximum efficient rate. Tight gas reservoirs. Naturally fractured reservoirs. Horizontal wells.

RUSS1111 Introductory Russian 1
Department of German and Russian Studies
Staff Contact: L Stern
UOC6 HPW6 S1

Intended for complete beginners, this course provides a basic introductory knowledge of spoken and written Russian. Assessment: weekly assignments, tests.

Note/s: Excluded native speakers of Russian and students qualified to enter RUSS1113 or RUSS1114.

RUSS1112 Introductory Russian 2
Department of German and Russian Studies
Staff Contact: L Stern
UOC6 HPW6 S2
Prerequisite/s: RUSS1111

A continuation of RUSS1111. Assessment: weekly assignments and tests.

Note/s: Excluded native speakers and students qualified to enter RUSS1113 or RUSS1114.

RUSS1113 Russian Language (Native Speakers) 1
Department of German and Russian Studies
Staff Contact: L Stern
UOC3 HPW3 S1
Excluded: RUSS1100, RUSS1001

A first-year language course of 3 hours per week for advanced speakers of Russian (native speakers may be offered an alternative program of 2 hours per week), comprising Russian grammar, translation and conversation. Assessment: weekly assignments, tests.

RUSS1114 Russian Language (Native Speakers) 2
Department of German and Russian Studies
Staff Contact: L Stern
UOC3 HPW3 S2
Prerequisite/s: RUSS1113
Excluded: RUSS1100, RUSS1001

A continuation of RUSS1113. Assessment: weekly assignments, tests.

RUSS1115 Russian Literature 1
Department of German and Russian Studies
Staff Contact: B Lewis
UOC6 HPW3 S2
Corequisite/s: RUSS1113
Excluded: RUSS1001, RUSS2100

20th-century Russian literature and society as listed under RUSS2101. Assessment: 3 essay-type assignments.

RUSS2101 Twentieth Century Russian Literature and Society
Department of German and Russian Studies
Staff Contact: B Lewis
UOC6 HPW3 S2
Prerequisite/s: 36 units of credit in Arts and Social Science courses

A survey of 20th century Russian literature and developments in Soviet society. Concentrates on the major events of the Revolution, World War II and Stalinism as reflected in literature. Authors studied in English translation include Gorky, Zamyatin, Bulgakov, Olesha, Solzhenitsyn, Pasternak, Chukovskaya, Shalamov. Assessment: 3 essay-type assignments.

Note/s: No knowledge of the Russian language required.

RUSS2102 The Great Terror
Department of German and Russian Studies
Staff Contact: M Ulman
UOC6 HPW3 S2
Prerequisite/s: 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. Assessment: 2-3 essay-type assignments.

Note/s: No knowledge of the Russian language required.

RUSS2103 The Russian Revolution
Department of German and Russian Studies
Staff Contact: B Lewis
UOC6 HPW3 S1
Prerequisite/s: 36 units of credit in Arts and Social Science courses
Excluded: HIST2433

The Russian Revolution of 1917 was one of the major turning points of the last century and its reverberations continue to be felt in the 21st century. Analyses the principal causes of the Revolution - the economic and social specifics of 19th century Russian society, the decline of Tsarism and the crucial influence of Marxist/Leninist ideology. The Bolshevik seizure of power and the actions of its principal players, Lenin and Trotsky, are discussed in detail, as well as the aftermath of the Revolution - the catastrophic civil war of 1918-1920, the rise of the Stalinist dictatorship and the enduring impact of the Revolution on East-West relations and world history.

RUSS2111 Intermediate Russian 1
Department of German and Russian Studies
Staff Contact: L Stern
UOC6 HPW4 S1
Prerequisite/s: 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
Department of German and Russian Studies
Staff Contact: L Stern
UOC6 HPW4 S2
Prerequisite/s: RUSS2111

A continuation of RUSS2111. Assessment: weekly assignments, tests.

RUSS3101 Russian Option 1
Department of German and Russian Studies
Staff Contact: M Ulman
UOC3 HPW1.5 S1 S2
Prerequisite/s: One of the following: RUSS2112 or RUSS1114 or RUSS1115 or RUSS2000 or RUSS2001 or RUSS1001 or RUSS1101.

Selected authors of Russian literature.

Note/s: Refer to Department for available options.

RUSS3102 Russian Option 2
Department of German and Russian Studies
Staff Contact: B Lewis
UOC3 HPW1.5 S1 S2
Prerequisite/s: One of the following: RUSS2112 or RUSS1114 or RUSS1115 or RUSS2000 or RUSS2001 or RUSS1001 or RUSS1101.

Selected authors of Russian literature.

Note/s: Refer to Department for available options.

RUSS3103 Russian Option 3
Department of German and Russian Studies
Staff Contact: M Ulman
UOC3 HPW1.5 S1 S2
Prerequisite/s: One of the following: RUSS2112 or RUSS1114 or RUSS1115 or RUSS2000 or RUSS2001 or RUSS1001 or RUSS1101.

Selected authors of Russian literature.

Note/s: Refer to Department for available options.

RUSS3104 Russian Option 4
Department of German and Russian Studies
Staff Contact: M Ulman
UOC3 HPW1.5 S1 S2
Prerequisite/s: One of the following: RUSS2112 or RUSS1114 or RUSS1115 or RUSS2000 or RUSS2001 or RUSS1001 or RUSS1101.

Selected authors of Russian Literature.

Note/s: Refer to Department for available options.

RUSS3105 Russian Option 5
Department of German and Russian Studies
Staff Contact: M Ulman
UOC3 HPW1.5 S1 S2
Prerequisite/s: One of the following: RUSS2112 or RUSS1114 or RUSS1115 or RUSS2000 or RUSS2001 or RUSS1001 or RUSS1101.

Selected authors of Russian literature.

Note/s: Refer to Department for available options.

RUSS3106 Russian Option 6
Department of German and Russian Studies
Staff Contact: M Ulman
UOC3 HPW1.5 S1 S2
Prerequisite/s: One of the following: RUSS2112 or RUSS1114 or RUSS1115 or RUSS2000 or RUSS2001 or RUSS1001 or RUSS1101.

Selected authors of Russian literature.

Note/s: Refer to Department for available options.

RUSS3107 Russian Option 7
Department of German and Russian Studies
Staff Contact: M Ulman
UOC3 HPW1.5 S1 S2
Prerequisite/s: One of the following: RUSS2112 or RUSS1114 or RUSS1115 or RUSS2000 or RUSS2001 or RUSS1001 or RUSS1101.

Selected authors of Russian literature.

Note/s: Refer to Department for available options.

RUSS3108 Russian Option 8
Department of German and Russian Studies
Staff Contact: M Ulman
UOC3 HPW1.5 S1 S2
Prerequisite/s: One of the following: RUSS2112 or RUSS1114 or RUSS1115 or RUSS2000 or RUSS2001 or RUSS1001 or RUSS1101.

Selected authors of Russian literature.

Note/s: Refer to Department for available options.

RUSS3111 Advanced Russian 1
Department of German and Russian Studies
Staff Contact: L Stern
UOC6 HPW4 S1
Prerequisite/s: 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
Department of German and Russian Studies
Staff Contact: L Stern
UOC6 HPW4 S2
Prerequisite/s: RUSS3111

A continuation of RUSS3111. Assessment: weekly assignments, tests.

RUSS3900 Intermediate Russian 1 (Advanced)
Department of German and Russian Studies
Staff Contact: L Stern
UOC6 HPW4 S1
Prerequisite/s: 36 units of credit including 12 units of Russian at credit level
Excluded: RUSS2111

The intensive reading program in Russian will represent an extension to the core course and will suit individual students' areas of interest. Set texts (literary, periodicals, etc.) will be accompanied by assignments. Regular extra meetings will be arranged.

RUSS3901 Intermediate Russian 2 (Advanced)
Department of German and Russian Studies
Staff Contact: L Stern
UOC6 HPW4 S2
Prerequisite/s: 36 units of credit including 12 units of Russian at credit level
Excluded: RUSS2112

The intensive reading program in Russian will represent an extension to the core course and will suit individual students' areas of interest. Set texts (literary, periodicals, etc.) will be accompanied by assignments. Regular extra meetings will be arranged.

RUSS4000 Russian Honours (Research) Full-Time
Department of German and Russian Studies
Staff Contact: L Stern
Enrolment requires school approval
UOC24 S1 S2
Prerequisite/s: 54 units of credit in RUSS courses at 65%

Advanced language (2 hours) plus two options and a 15,000-20,000 word thesis on a topic to be approved by the Head of Department.

RUSS4050 Russian Honours (Research) Part-Time
Department of German and Russian Studies
Staff Contact: L Stern
Enrolment requires school approval
UOC12 S1 S2
Prerequisite/s: 54 units of credit in RUSS courses at 65%

Advanced language (2 hours) 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
Department of German and Russian Studies
Staff Contact: L Stern
Enrolment requires school approval
UOC12 S1 S2
Prerequisite/s: 48 units of credit in RUSS courses at 65%

Advanced language (2 hours) or 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
Department of German and Russian Studies
Staff Contact: L Stern
Enrolment requires school approval
UOC6 S1 S2
Prerequisite/s: 48 units of credit in RUSS courses at 65%

Advanced language (2 hours) or one option and a 15,000-20,000 word thesis on a topic to be approved by the Heads of the participating Schools/ Departments.

SAED1401 Human Growth and Development
School of Art Education
Staff Contact: School Office
UOC4 HPW3 S1 S2

This course fosters the prospective teacher's understanding of secondary school students through awareness of developmental theories, processes, determinants, variations and patterns. Fieldwork provideds students with opportunities to exercise observation skills, reflect and relate current theoretical constructions to classroom practices. Studies of the biological, personality, social, cognitive and moral development of adolescents include theorists such as Erikson, Piaget, Kohlberg and Bandura.

SAED1402 Teacher Development 1
School of Art Education
Staff Contact: School Office
UOC6 HPW3 S1 S2

This course, the first in a series of three teacher development courses, introduces students to the classroom and teaching practice, and the importance of preparation, planning and evaluation. Content includes: perceptions of teaching; classroom communication; developing instructional skill; an introduction to classroom management and professional ethics; ten days fieldwork orienting students to the teaching profession and daily routines of schools. The experience is focussed on students becoming familiar with teaching, aware of school procedures and protocols and developing their confidence as prospective teachers through a primary school placement.

SAED1403 Foundations of Art Education
School of Art Education
Staff Contact: School Office
UOC4 HPW2 S1 S2

This course introduces the field of art education in a series of landmark readings by significant educators and art educators who set out the key concepts and issues shaping art and design education theory and practice. A modular course structure facilitates an investigation of territories, institutions and issues in contemporary art and design education. An acquaintance with the scholarly practices of research, publishing and writing, library and data base skills is encouraged.

SAED1404 Visual Arts Workshop
School of Art Education
Staff Contact: School Office
UOC6 HPW3 S1 S2

This course investigates some of the frameworks and methods of identifying and representing art making content for tutorial or instructional purposes appropriate to art and design education. Artistic performances and the practices of artists and designers are studied as one primary resource for the art student and teacher, along with sites that can be utilised, such as exhibitions, catalogues, print and electronic media, amongst others, for generating content. Current curriculum requirements for representing visual arts content as forms, frames and subject matter, and design briefs and processes are considered.

SAED2401 Educational Psychology
School of Art Education
Staff Contact: School Office
UOC6 HPW3 S1 S2
Prerequisite/s: SAED 1401

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.

SAED2402 Teacher Development 2
School of Art Education
Staff Contact: School Office
UOC6 HPW3 S1 S2
Prerequisite/s: SAED1402

Teacher Development 2 is focussed on questioning, firstly as an instructional and explanatory teaching skills, and then further developed utilising the frames in developing four distinct conceptualisations of knowledge and models of teaching as expressed by types of questioning. The emphasis in this course is on improving teaching performance by more effectively developing classroom communication and language and questioning strategies.

SAED2405 Special Education
School of Art Education
Staff Contact: School Office
UOC4 HPW2 S1 S2
Prerequisite/s: SAED 1401

Special Education extends and develops the prospective teachers experiences, attitudes and understandings of students with special and/ or high support needs in the secondary school. 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 students 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
Staff Contact: School Office
UOC6 HPW3 S1 S2

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.

SAED2475 Multicultural Contexts
School of Art Education
Staff Contact: School Office
UOC4 HPW2 X2

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.

SAED2476 Art as Therapy
School of Art Education
Staff Contact: School Office
UOC4 HPW2 S2

This course has been organised for students who wish to be involved in helping people of all ages to improve the quality of their lives by giving them opportunities to develop their non-verbal expression and communication. Through lecture and workshop activities the course will look at the role of therapy and the competencies required before an art educator can act as a therapist.

SAED2479 Dialogues and Communities
School of Art Education
Staff Contact: School Office
UOC4 HPW2 TBA

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
Staff Contact: School Office
UOC4 HPW2 S2 X1

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.

SAED2481 Media and Communication Contexts for Art and Design
School of Art Education
Staff Contact: School Office
UOC4 HPW2 S1

This course utilitises contemporary theories and practices of communication to investigate the role of broadcast, print and electronic media in organising, 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 2
School of Art Education
Staff Contact: School Office
UOC3 HPW3 S1 S2
Prerequisite/s: SAED2402

Ten days Professional Experience in a metropolitan, regional or country secondary school or other approved setting provides students with the opportunity to extend their understanding of the function and organisation of schools and teaching practice to secondary contexts. Working with a cooperating teacher in a negotiated program of classroom, department and whole school activities and responsibilities, students with increased confidence, plan, prepare and implement classes for years 7-10 visual arts and design.

SAED3402 Teacher Development 3
School of Art Education
Staff Contact: School Office
UOC6 HPW3 S1 S2
Prerequisite/s: SAED2402

Students develop skills and apply methods of clinical supervision to understand and improve their teaching knowledge and practice with a particular focus on classroom management. Classroom management aspires to developing strategies for consistency and preventing problems rather than defaulting to reaction and erratic or inconsistent responses to student and group behaviour. Classroom management, properly handled, minimises disciplinary action and contributes to a positive learning environment. Finally, Kounin's research showing how teacher behaviour can be investigated and described is examined and applied.

SAED3403 Issues in Contemporary Design Education
School of Art Education
Staff Contact: School Office
UOC6 HPW3 TBA

Issues in Contemporary Design Education comprises an analysis and intepretation 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 Theories and Practices of Art History in Education
School of Art Education
Staff Contact: School Office
UOC6 HPW3 S1 S2

This course aims to present students with a range of theories of art history and develop student ability to explore and apply art historical methodologies to the educational conditions of setting, student and curriculum. Students will consider the educational significance of concepts of the historical event, the interpretation of art works in cultural and historical contexts, and the formation of spatiotemporal frames of reference among art works.

SAED3407 Curriculum Studies in Art Education
School of Art Education
Staff Contact: School Office
UOC6 HPW3 S1 S2

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 3
School of Art Education
Staff Contact: School Office
UOC3 S1 S2

Professional Experience 3 involves further in-school professional experience. Students work in another secondary school that provides new and different educational cultures and practices. A wider understanding of the profession as entailing administration, collegial and community consultation, along with visual arts and design expertise and the completion of projects is required.

SAED4051 Practices of Research in Art, Design and Education
School of Art Education
Staff Contact: School Office
UOC6 HPW3 TBA

Clifford Geertz says that those who wish to understand what a science is should look not, in the first instance, to its theories or its findings but to what the practitioners of it do. 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 aims to introduce 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.

SAED4053 Curriculum in Art, Design and Education
School of Art Education
Staff Contact: School Office
UOC6 HPW3 S2

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 archeology 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
Staff Contact: School Office
UOC8 HPW10 S1 S2

This course enables students to prepare and complete an Art Education research project in a chosen area of specialisation. Content includes a review of major research paradigms including: historical, descriptive, experimental and philosophical methodologies. Students will complete a research project submitting a report which identifies an issue or problem of art educational significance and demonstrates understanding and appropriate application of selected methodologies to the investigation of the chosen problem, and is presented in the form of a publishable paper of 5500-7500 words in length.

SAED4403 Theory of Aesthetics in Art Education
School of Art Education
Staff Contact: School Office
UOC6 HPW3 S1 S2
Prerequisite/s: SAED 3404

This course aims to provide students with opportunities to examine aesthetics and art theory as these relate to the teaching of art, to increase their critical awareness, to become more aware of their own philosophy of art education and the implications of this for their teaching. Through a combination of lectures and seminars the subject will include the historic ideas and aims of aesthetic education. Curriculum design and validation in aesthetic education will be an important component.

SAED4406 Philosophical Issues in Education
School of Art Education
Staff Contact: School Office
UOC6 HPW3 S1 S2

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 emancipatory consequences.

SAED4491 Professional Experience Internship
School of Art Education
Staff Contact: School Office
UOC6 HPW3 S1 S2

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, eveluate and document a curriculum of ten weeks duration for a selected class. Clinical supervision methods, applied at five weekly intervals, in consultation with their co-operating teacher, identify 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 co-operating teachers and jointly assessed by co-operating teachers and faculty of teh School of Art Eduction. 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 Eduction Elective and the approval of teh Head of School. Students should consult the lecturer in their elective orientation for further advice.

SAHT1101 Mapping the Modern
School of Art History and Theory
Staff Contact: School Office
UOC4 HPW4 S1

This course examines the production of art, art theory and art s meanings within changing social, political and cultural contexts. Commencing with the nineteenth-century and concluding with the outbreak of World War II, Mapping the Modern looks at different modes of visual representation ranging from Realism, Symbolism and Expressionism to early twentieth-century avant-gardes such as Futurism, Dada and Surrealism. These are considered against the backdrop of industrialisation, technological transformations, colonisation and international conflicts.

SAHT1102 Mapping the Postmodern
School of Art History and Theory
Staff Contact: School Office
UOC4 HPW4 S2

Commencing with the art of totalitarian regimes, and tracing the transformations in art practice and theory from the 1940s to the present, Mapping the Postmodern examines major forms of cultural production in relation to changing social, political and economic patterns. 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, international exhibitions and the new technologies.

SAHT1211 Theories of the Image
School of Art History and Theory
Staff Contact: School Office
UOC6 HPW3 S1

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
Staff Contact: School Office
UOC6 HPW3 S2

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 Wolfflin, Panofsky, Gombrich, Baxandall, Fry, Antal, Clark, and Pollock.

SAHT1213 Approaches to Australian Art
School of Art History and Theory
Staff Contact: School Office
UOC6 HPW3 S1

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.

SAHT1214 Methods of Research and Writing on Art
School of Art History and Theory
Staff Contact: School Office
UOC6 HPW3 S2

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.

SAHT1221 Audiences for Art
School of Art History and Theory
Staff Contact: School Office
UOC6 HPW3 S1

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
Staff Contact: School Office
UOC6 HPW3 S2

The emphasis in this course t 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 - Early Modern Period to Postmodernism
School of Art History and Theory
Staff Contact: School Office
UOC4 HPW2 S1

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 backdrop of industrialisation, technological transformations, colonisation and international conflicts. The theories, practices, aesthetics, cultural and economic considerations employed by 20 th Century designers will be explored both from a formal elements and principles base and a socio-political stand-point. Within these parameters 20tth 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.

SAHT1627 Aboriginal Art
School of Art History and Theory
Staff Contact: School Office
UOC4 HPW2 S1

This course will provide an historical overview of the variety of Aboriginal Art Forms that were practiced prior to European invasion; traditionally-based art forms that are still practised in the more remote parts of Australia and the innovative art forms that have developed in contemporary Aboriginal Australia. It will examine the ethnocentricity of European thinking that can inhibit appreciation of Aboriginal art and will address the problem of appropriation of Aboriginal imagery.

SAHT2103 Aesthetics for Contemporary Practice
School of Art History and Theory
Staff Contact: School Office
UOC6 HPW2 S2

This course will critically examine aspects of art history and theory which can be seen as relevant to contemporary visual arts. Art History and Theory 3 will enable students to gain a critical understanding of the historical discourses and art practices which structure the understanding of the practice of art.

SAHT2211 Grand Narratives of Western Art
School of Art History and Theory
Staff Contact: School Office
UOC6 HPW3 S1

To tell progressive stories of art, grand narratives have been formed in Western histories of art which have entailed ordering a selection of historical material into Eurocentric and ethnocentric evolutions. This course is constructed to cut across wide historical fields and their periodisations to critically examine how these grand narratives have been formed in western art and its histories. It sets out to focus upon the nature of historical material constituted as evidence for such grand narratives as classicism from Ancient Greece to Nazi Germany, mimesis in terms of illusionism involving the Renaissance control of space and direction of the gaze. It will also explore the geopolitical nature of representing the environment through such genres as landscape and cityscape, formations of gender, sexuality and the body through images of the nude, and notions of race as insinuated through such stylistic classifications as orientalism and primitivism, and their connections with Western connotations of exoticism as eroticism.

SAHT2212 Art and Cultural Difference
School of Art History and Theory
Staff Contact: School Office
UOC6 HPW3 S2

The conceptualisation of difference, diversity and multiplicity, both within and across cultural boundaries, has occupied a central position in the historical trajectory of Art, paricularly since the end of World War II and the advent of a variety of neo and postcolonialisms. Topics covered include the relationship 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, Irigary 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
Staff Contact: School Office
UOC4 HPW2 S1

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. Our 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.

SAHT2221 Genres of Art Writing
School of Art History and Theory
Staff Contact: School Office
UOC6 HPW3 S1

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 journalese, 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.

SAHT2301 Design History, Theory and Aesthetics 2 - Design and Consumption
School of Art History and Theory
Staff Contact: School Office
UOC4 HPW2 S2
Prerequisite/s: 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 and Rome
School of Art History and Theory
Staff Contact: School Office
UOC4 HPW2 S1

Egyptian pharoah pyramids, tombs and culture of death, the sculpture and friezes of Assyria and Mesopotamia will be examined in relation to the break-up of the Mycenaen world and matriarchal cultures, together with the shifts of dominance in the Eastern Mediterranean by the Persian Empire, until its defeat by the Greeks. The supremacy of the Athenian Greeks, their rule of demos (democracy) and ethos (ethics) will be explored in relation to their new Classical Order articulated through temples and sculpture, philosophy, poetry and drama, together with the shift to Alexandria and Hellenism, and the ultimate displacement and appropriation of Greek culture by the Roman Empire.

SAHT2603 The Medieval and Rennaissance Cultures of Europe
School of Art History and Theory
Staff Contact: A Oldfield
UOC4 HPW2 S2

The emergence of urban cultures from the 12th century will be examined in relation to the organization of the artist s workshop, a domestication of religious imagery, the flourishing of fresco narrative, the emergence of secular patronage and its ramifications upon new genres of art and culture. Humanism and the recording of the Antique, Nominalism and Neoplatonic philosophy, expansions of trade routes and global exploration, will define an historical context for the examination of Renaissance art and culture, and artists as diverse as Donatello, Piero della Francesca, Holbein, Jan Van Eyck and Bosch.

SAHT2606 The Painting of Modern Life: French and British Painting in Focus
School of Art History and Theory
Staff Contact: School Office
UOC4 HPW2 S1

This course 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 manifested in reviews and cartoons. Questions to do with gender, class, sexuality, labour and leisure are examined in relation to Courbet, Manet, Morisot, Degas, Holman Hunt and Ford Madox Brown, among others, as well as lesser known figures such as Augustus Egg and Francois Salle.

SAHT2607 Modernism and the 20th Century Experience of Modernity 1890-1950
School of Art History and Theory
Staff Contact: F Brauer
UOC4 HPW2 S1 S2

This course has been constructed to explore the interrelationship between the rapidly changing conditions of technological modernity and modernist cultures. This exploration will be undertaken through a close examination of individuals and particular groups of artists, such as the Cubists, Futurists, German Expressionists, Surrealists and Russian Constructivists, and the ways in which their art affirms, denies or interrogates modernity.

SAHT2609 Postindustrialisation, Postmodernity and Postmodernism
School of Art History and Theory
Staff Contact: S Best
UOC4 HPW2 S2

Hyperreality, a society of spectacle and simulacra, an age of postindustrial technocracy, consumerism, obsolescence and the end of ideology are all terms used to characterise Postmodernity and distinguish it from The Modern. While the conjunctions of Modernism to Postmodernism remains a contentious issue, their interrelationship will be examined through such characteristics, together with ways in which Postmodernism has been defined through art and culture.

SAHT2622 Australian Art and Culture 1870-WWII
School of Art History and Theory
Staff Contact: School Office
UOC4 HPW2 S1

The transition from established colonies to an emerging nation found expression in the art of the Australian settlers. Conventionally, this process is represented through certain landscape traditions, notably the rural bush mythology. Formations of nation leading to Federation will be explored in relation to the open-air camps of painting and the Heidelberg School, aestheticism and the revival of classicism through such artists as Norman Lindsay, as well as the emergence of Modernism with such seminal figures as Grace Cossington-Smith. The Second Phase of Modernism , as Bernard Smith calls the period from the Great Depression to World War II, will be considered through such astists as Grace Crowley, Frank Hinder, Thea Proctor and Margaret Preston.

SAHT2632 the Arts of the Pacific: Image, Myth and History
School of Art History and Theory
Staff Contact: D Losche
UOC4 HPW2 S1

In this course students will explore the processes of change in the cultural and social contexts in which the arts of the Pacific region have been created and viewed since the 18th century meeting between European and local people. This exploration will be carried out through case studies related to specific geographical areas including Australasia, Melanesia, Polynesia, Micronesia as well as parts of Asia.

SAHT2633 Peripheral Visions: Perspectives of Colonial and Post-Colonial Art
School of Art History and Theory
Staff Contact: D McNeill
UOC4 HPW2 S1

This course will investigate the effects of the spread of Euro-American modernism through the so-called Third World during the 20th century and particularly during the period following World War II. It will analyse the ways in which different cultures selectively adopt and transform aspects of various modernist styles and the ways in which these styles are incorporated into indigenous visual practice. It will examine such matters as the relationship between economic imperialism and cultural production, the transition from colonialism to postcolonialism, the effects of tourism and the value of 'decentred' postmodern modes of understanding in a Third World context. Art of the Asia-Pacific region, Africa and Latin America will be addressed. Some general knowledge of the evolution of modern and postmodern art will be assumed.

SAHT2641 Introduction to Modern Aesthetics
School of Art History and Theory
Staff Contact: School Office
UOC4 HPW2 S1

This course will introduce students to aesthetics as a separate branch of Philosophy, from Baumgarten to Worringer. The most fundamental ideas of such key thinkers in art as Burke, Kant, Hegel, Schopenhauer, Nietzsche will be discussed in class and examined in both historical context and the contemporary.

SAHT2643 Pornography, Art and Politics
School of Art History and Theory
Staff Contact: School Office
UOC4 HPW2 S1

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
Staff Contact: School Office
UOC4 HPW2 S1

The course is designed to provide students with knowledge of the theories of psychoanalysis which can be used in a study of visual arts. The theories to be studied include Carl Gustave Jung s notions of the archetypes, Sigmund Freud s psychoanalytic explanations of motivation, and feminist critiques of psychoanalysis. These theories are applied to an interpretation of dream images, popular visual culture and fine art. Issues addressed include the meaning of dreams, sexuality and difference, personality development and spirituality.

SAHT2649 Creative Writing for Artists
School of Art History and Theory
Staff Contact: School Office
UOC4 HPW2 S2

Many visual artists develop and maintain a writing practice that informs, supplements and enriches their art, and/or that complements work presented in exhibitions and artists books. In this course, students read the writing of artists and develop their own writing directions and skills. Particular attention is paid to the forms of creative writing that many artists appear to find valuable, including short stories, poetry and autobiography.

SAHT2653 Dance - Party Culture
School of Art History and Theory
Staff Contact: P McNeil
UOC4 HPW2 S2

This course examines the relationship between design and dance-party culture with reference to fashion, graphics, music, film and architecture. Topics examined include geopgraphies of youth culture, the carnivalesque, clubbing and consumption, new masculinities, sexuality, cyber-feminism, spatiality and sensation, techno music and computer-generated graphics, psychadelic design and drug culture. Theoretical frameworks are drawn from sub-culture theory, critical theory, cultural studies and sociology. Writers include Adorno, Bahktin, Bachelard, de Certeau, Deleuze and Guattari, and Levi-Strauss.

SAHT2663 A History of Avant-Garde Cinema
School of Art History and Theory
Staff Contact: School Office
UOC4 HPW2 S2

This screenings course will survey early avant-garde cinemas. This will include German Expressionism, Russian Constructivism, Dada, Surrealist, and Cubist Cinema.

SAHT2667 Installation, Structures and Spaces
School of Art History and Theory
Staff Contact: S Best
UOC4 HPW2 S2

This course will examine the nature of the physical surround of the art object. While the focus will be on installation work produced since the 1960s there will also be an examination of a range of cultural context and historical periods. In every case examined there will be an emphasis on the way in which the physical surround of the art object is conceptualized. Included will be the influence of the Theatre of Cruelty, past revolutionary Russian theatre and cinema, Dada and Surrealism on the conceptualization of installation and a comparison of the Oriental and European constructions of figure/ground relationships.

SAHT2668 Photography: Historical Perspectives
School of Art History and Theory
Staff Contact: School Office
UOC4 HPW2 S1

This course will examine photography historically taking into account the diversity and ubiquity of the medium and the problems that this raises for linear chronological accounts. Areas to be covered in the medium s one hundred and fifty year history include changing technologies, genres, uses, aesthetic debates and the intersection of photography with larger historical forces. Specific topics include documentary and social reform, war photography, advertising, photojournalism and the rise of the illustrated press, the emergence of fine art photography, recurrent aesthetic themes and oppositional practices.

SAHT2672 History of Jewellery
School of Art History and Theory
Staff Contact: School Office
UOC4 HPW2 TBA

This course has been designed to introduce students to the history of jewellery with particular reference to its evolution in the Western World. The course will encompass the period from the Bronze Age to contemporary times.

SAHT2674 A History of Drawing
School of Art History and Theory
Staff Contact: V Rees
UOC4 HPW2 S1

This course is designed to provide students with an understanding of a wide historical range of drawings, and to examine the relationship of drawing to other art forms as well as its development as an art form with its own integrity. Drawings from the Neolithic and Greek periods, from Carolingian and Medieval times through to the Renaissance, Baroque and Modern times will be examined, within the cultural contexts.

SAHT2676 Art, Technology and New Media
School of Art History and Theory
Staff Contact: A Munster
UOC4 HPW2 S2

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 on 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 artists' work.

SAHT2677 Time-Based Art: Histories and Themes
School of Art History and Theory
Staff Contact: A Munster
UOC4 HPW2 S1

This course is a transverse or nonlinear history which presents a wide range of work in film, video,sound and digital media through lines of inquiry including temporality, materiality, technology and popular culture. It will emphasise the investigation of contexts for contemporary time-based work through historical research. This course offers approaches to research design and methodology in the visual arts and culture. It critically examines the different ways of conceiving the domain, functions and definitions of art history to ultimately provide a diversity of tools for the construction of an Honours Thesis or project.

SAHT3105 Art since 1990
School of Art History and Theory
Staff Contact: School Office
UOC6 HPW2 S1

This course will explore the many interrelationships between artistic practices, whether drawing, painting, printmedia, photomedia, sculpture, or time based art, and critical and theoretical issues that arise out of these practices and have been used to frame and comprehend them. Many modern and postmodern artists chose to carry a toolbox of history and of philosophical assumptions into the studio with them. The overall aim is to enable students to gain a critical understanding of both the historical and contemporary discourses which have framed our understanding of the role and meaning of art.

SAHT3211 Theories of Meaning/Meaning of Theory
School of Art History and Theory
Staff Contact: School Office
UOC6 HPW3 S1

This course will re-examine a number of theoretical approaches to the understanding of images and objects that have been addressed during the course. These approaches will be applied to a range of artworks produced in Australia and Internationally over the last decade or so. It will offer an overview of many of the contemporary developments, themes and issues that have concerned artists in the period up to and beyond postmodernism. Issues to be considered include: how objects and images come to have meaning; the ways in which artworks differ from other objects; the relations between language and visual images; the ways images and objects can be seen and the sort of viewer(s) they imply; the different forms of perceptual address that we bring to artworks, including visual, tactile and kinaesthetic; and the significance of art images and objects in relation to the politics of information dissemination, gender, postcolonialism, class and ethnicity.

SAHT3212 Art and the Culture of Everyday Life
School of Art History and Theory
Staff Contact: School Office
UOC6 HPW3 S2

This course examines the major structures and ways of thinking which have both constituted and transformed the practices of art, and criticism and evaluation of art in an era characterised by the pervasiveness of mass media and the aestheticization of everyday life. The course explores the forms and significance of popular culture in the 20th century, focussing on such phenomena as consumerism, mass media, TV and advertising, subcultures, the city and the suburb. The interdisciplinary development of cultural studies provides tools for reading artistic strategies in the light of television, film, computer imaging, the popular press and advertising. The work of theorists such as Jean Baudrillard,

Michel de Certeau and Meaghan Morris is applied to these areas and critically examined.

SAHT3213 Museum Studies: Exhibitions, Collections and Material Culture
School of Art History and Theory
Staff Contact: School Office
UOC6 HPW3 S2

This course reviews theoretical frameworks and current research on museums and art museums. It examines the history of collecting and exhibiting, and the museum as an institution. Taking the new museology as its theoretical starting point, it considers the cultural role of museums. It compliments the practical emphasis of the professional contexts strand within the core of the BArtTh by exploring critical theoretical approaches to museum culture. Its emphasis is on material culture, objects, artworks and curatorship in the contexts of collections and exhibitions.

SAHT3221 Contexts, Professions and Practices
School of Art History and Theory
Staff Contact: School Office
UOC6 HPW3 S1

This course orients students towards professional practice in arts administration, curatorship, writing and other arts-related professions. Students will critically consider the professionalisation 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.

SAHT3222 Industry Placement
School of Art History and Theory
Staff Contact: School Office
UOC6 S1 S2

This course is designed to give students hands-on experience in a particular area of professional practice. In consultation with the subject co-ordinator, students are placed into an institutional framework for a specified period of time. This could be a commercial gallery, museum, artist run initiative, artist s studio or arts funding body. The student shall carry out one project while at the institution, and prepare a report at the end of the session on the placement.

SAHT3301 Design History, Theory and Aesthetics 3 - Theoretical Frameworks for Design
School of Art History and Theory
Staff Contact: School Office
UOC4 HPW2 S1
Prerequisite/s: 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.

SAHT3614 Screen Culture
School of Art History and Theory
Staff Contact: School Office
UOC4 HPW2 S1

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.

SAHT3634 Peripheral Visions 2: Perspectives of Colonial and 'Peripheral' Art Practiced in Asia, India, SE Asi
School of Art History and Theory
Staff Contact: School Office
UOC4 HPW2 S2

This course will investigate the effects of the spread of Euro-American 'modernism' through the Asian, Indian and South East Asian region during the Twentieth Century and particularly during the period following World War II. It will analyse the ways in which different cultures selectively adopt and transform aspects of various modernist styles and the ways in which these styles are incorporated into indigenous and local visual practices. It will examine such matters as the relationship between economic imperialism and cultural production, the transition from colonialism to postcolonialism, the effects of tourism and the value of 'decentred' postmodern modes of understanding in a non-European context.

SAHT3669 Critical Theories of Photography
School of Art History and Theory
Staff Contact: Contact School
UOC4 HPW2 S2

This course will examine the major ways in which the photographic image and the social practices of photography have been theorised. Semiotic and post-structural approaches to reading photographs will be given particular attention. Other areas to be covered include aesthetic theories of photography, theories about the nature of photography, context and meaning, photography and truth, documentary realism and critiques of realism.

SAHT3690 Special Project
School of Art History and Theory
Staff Contact: School Office
UOC4 TBA

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
School of Art History and Theory
Staff Contact: School Office
Enrolment requires school approval
UOC18 S1 S2

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 and arrange supervision with a member of staff no later than mid-March, when work on the thesis should commence.

SAHT4212 Specialist Studies
School of Art History and Theory
Staff Contact: School Office
UOC6 HPW3 S1

This course offers intensive investigation of theoretical writing, period, issue or theme. In consultation with a supervisor and the Honours co-ordinator, and subject to the approval of the Head of School, students may undertake Specialist Studies by attending and satisfying the requirements of another UNSW course at an appropriate level.

SAHT4301 Design History, Theory and Aesthetics 4
School of Art History and Theory
Staff Contact: School Office
UOC4 HPW2 S1 S2
Prerequisite/s: SAHT3301 or COFA5337

This course addresses issues faced by the student designer moving into the professional design environment. These include; market trends, design ethics, semiotics, product semantics, design economics and socio-environmental politics. These investigations will build on skills, knowledge and understanding gained by students from their previous studio and theoretical courses.

SART1301 Introductory Studies: Drawing, Painting, Printmedia
School of Art
Staff Contact: School Office
UOC8 HPW6 S1

This course will introduce students to the basic relationships between drawing, painting and printmedia. Through a series of projects, emphasis is upon the development of a keen critical awareness by looking at the content and context of contemporary art 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.

SART1302 Introductory Studies: Photomedia, Sculpture, Time-Based Art
School of Art
Staff Contact: School Office
UOC8 HPW6 S1

This studio based course introduces the student to the broad experience of working with photomedia focusing on image, object; sculpture focusing on installation, object, performance; time based art focusing on sound, video, performance. Emphasis is upon the development of a keen critical awareness by looking at the content and context of contemporary art 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.

SART1311 Drawing/Painting 1
School of Art
Staff Contact: School Office
UOC8 HPW6 S2
Prerequisite/s: SART1301

This course will assist students to develop and extend the 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 and techniques. The importance of analytical observation will be emphasised. Students will be expected to attain a basic competence in drawing and painting by the end of the session.

SART1312 Photomedia 1
School of Art
Staff Contact: School Office
UOC8 HPW6 S2
Prerequisite/s: SART1302

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 focussed toward the development of the individual s visual language. Students will have the opportunity to explore the use of image-making processes such as digital imaging and the opportunity to consider the relationship of photomedia to time-based media and three-dimensional form.

SART1313 Printmedia 1
School of Art
Staff Contact: School Office
UOC8 HPW6 S2
Prerequisite/s: SART1301

This course will introduce students to basic concepts and skills in printmedia, developing a firm skills base from which they will expand in their continuing studies in the discipline. Students will be encouraged to understand both the inter-relationships of form and content and the creative possibilities of various media and techniques in both two and three dimensions. In line with current art practice, expression is encouraged through the use of traditional and contemporary print media including etching, digital imaging, lithography, paper moulding, photocopying, relief and screen printing. The importance of analytical observation will be emphasied. Students will be expected to attain a basic competence in printmedia by the end of session. Studio health and safety and the appropriate handling and presentation of prints will be covered.

SART1314 Sculpture, Performance Installation 1
School of Art
Staff Contact: School Office
UOC8 HPW6 S2
Prerequisite/s: SART1302

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 marriage of concept to process, intention to outcomes. Critical awareness and interpretive skills are developed along with an understanding of basic sculptural languages such as metaphor, narrative, metonymy, spatiality, materiality, form, mass, scale. The interdisciplinary nature of contemporary sculptural practice is explored through a diversity of experiences such as producing works using time, light, installation, body works, clay, 3D digital visualisation, sound, collaboration and performance, as well as exploratory applications of traditional forms and methodologies.

SART1315 Time-Based Art 1
School of Art
Staff Contact: School Office
UOC8 HPW6 S2
Prerequisite/s: SART1302

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 1 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.

SART1319 Drawing
School of Art
Staff Contact: School Office
UOC4 HPW3 S2

This course will provide a foundation of drawing skills and introduce students to a basic drawing vocabulary. A range of approaches will be taken and diverse media will be explored. Through the investigation of drawing process, students will be encouraged to develop an expression appropriate to, and integrated with, their major area of art practice.

SART1333 Drawing: Object, Life and Landscape
School of Art
Staff Contact: School Office
UOC4 HPW3 S2

This course will introduce students to the techniques for visually representing objects, figures and landscapes as well as using abstract concepts. The use of sketching will be encouraged to "visually think" and communication, using a variety of methods, techniques, tools and materials, and strategies. Students will examine the human form, landscape and objects in terms of structure, proportion, movement, surface qualities and associated ideas.

SART1361 Etching Elective 1
School of Art
Staff Contact: School Office
UOC4 HPW3 S2

These courses aim to introduce the student to a wide range of experiences in the process of intaglio printing, including etching, drypoint and engraving. Students will be encouraged to cultivate an awareness of the creative possibilities of intaglio printing and to relate their concepts to the characteristics of the medium through a combination of theoretical and practical studies.

SART1401 Foundation Studies 1 (Barted)
School of Art
Staff Contact: School Office
UOC8 HPW6 S1

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 art work. Through sustained inquiry students will have the opportunity to be critical, inventive and experimental in their approach. An emphasis is placed on the students own developing practice.

SART1402 Foundation Studies 2 (Barted)
School of Art
Staff Contact: School Office
UOC8 HPW6 S2

This course builds on skills and understandings established in Foundation Studies 1 through engaging students in a series of structured projects to encourage individual exploration and expression. These studies will expand the range of critical and practical skills through which the student may develop their own personal visual language and ideas.

SART1461 Lithography Elective 1
School of Art
Staff Contact: School Office
UOC4 HPW3 S2

These courses will introduce the student to a wide range of experiences in the technique of lithography. Through investigation and selection students will develop an understanding of the technical means and aesthetic qualities of the original print. Students will be encouraged to attain a high level of competence in lithographic processes and to develop their individuality and potential as creative artists in printmedia.

SART1501 Painting Elective 1
School of Art
Staff Contact: School Office
UOC4 HPW3 S1 S2

The aim of these courses is to enable the student to develop skills and an intuitive awareness of aesthetic values in 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 as a basis for making paintings. The student will undertake projects aimed at encouraging an individual, creative and professional approach to painting.

SART1502 Drawing Elective 1
School of Art
Staff Contact: School Office
UOC4 HPW3 S1 S2

The aim of these courses is to enable students to develop a command of drawing as a visual arts discipline and to relate the art of drawing to other areas of creative endeavour. The student will explore various aspects of drawing and develop competence and confidence in drawing. The student will undertake exercises which will emphasise drawing as a means of creative expression, and also as a tool of research in the visual arts.

SART1521 Photomedia Elective 1
School of Art
Staff Contact: School Office
UOC4 HPW3 S1 S2

The aim of these courses 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. The following basics are covered in Phototmedia Elective 1: overview of 35 mm camera operation; B/W film types and exposure; processing and printing; print finishing and presentation. The following Photomedia skills are covered in Photomedia Elective 2-3: colour photography and printing.

SART1561 Relief Printing Elective 1
School of Art
Staff Contact: School Office
UOC4 HPW3 S2

These courses aim to introduce students to a wide range of experiences in the process of relief printing. Students will be encouraged to cultivate an awareness of the creative possibilities of relief printing, and to develop the skills and techniques necessary to express these concepts. Through a combination of theoretical and practical studies the student will research the principles and techniques of relief printing, including lino block, wood block, mixed media, printing and presentation of prints.

SART1581 Screen Printing Electives 1
School of Art
Staff Contact: School Office
UOC4 HPW3 S2

These courses aim to introduce the student to all techniques involved in screen printing. Through investigation and selection students will develop an understanding of the technical means and the aesthetic qualities of the original print. The subjects will engage elements including 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.

SART1591 Printmedia Elective 1
School of Art
Staff Contact: School Office
UOC4 HPW3 S1

In line with current art practice, expression is encouraged through the use of traditional and contemporary print media to be chosen (dependant upon availability) from the range of etching, digital imaging, lithography, paper moulding, photocopying, relief and screen printing. The aim of this sequence of courses is to enable the student, by applica-tion 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 printmedia.

SART1600 Language of Digital Media
School of Art
Staff Contact: School Office
UOC4 HPW2 S1

Digital media create and communicate experience in ways which are both specific to the media and embedded in broader cultural, historical and political contexts. Digital media practice employs technical problem-solving skills and logical thought to generate content which is conceptually and aesthetically resolved and culturally meaningful. In this course, the analogy between digital media language and spoken and written language highlights the semantics and structures of computer languages. Distinguished from everyday languages by their use of formal logics and mathematics, computer programming languages are based on logical, abstract and systematic thought. Also explored are other aspects of digital media which are central to reading screen images and text: these include concepts of navigation and non-linear organisation, issues of keystroke function, game structure, resolution and frame rate. This course deals with the development of computer programming languages and the broader contexts within which those languages are deployed to make culturally meaningful communication.

SART1601 Sculpture Elective 1
School of Art
Staff Contact: School Office
UOC4 HPW3 S1 S2

The aim of this sequence of courses 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 experiment with sculptural concepts, techniques and mediums toward the development of original works.

SART1602 Web Authoring
School of Art
Staff Contact: School Office
UOC4 HPW3 S2

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.

SART1604 Introduction to Digital Media
School of Art
Staff Contact: School Office
UOC4 HPW3 S1

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 analog and digital technologies. An introduction to photographic process will also be covered.

SART1605 Lighting
School of Art
Staff Contact: School Office
UOC4 HPW3 S1 S2

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.

SART1606 Drawing for Media
School of Art
Staff Contact: School Office
UOC4 HPW3 S1

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.

SART1608 Digital Composite 1
School of Art
Staff Contact: School Office
UOC4 HPW3 S2

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.

SART1621 Installation Elective 1
School of Art
Staff Contact: School Office
UOC4 HPW3 S1 S2

These courses provide the opportunity to explore the various forms and disciplines three-dimentional activity can take in contemporary art practice. These courses are designed to allow maximum flexibility for both multimedia experimentation and specialisation in the exploration of the construction, installations and spaces as an expressive vehicle. These courses are studio based with an emphasis on the critical analysis of research, experiencial learning and conceptual development. This discussion is centered around a rigorous studio theory program, conducted on the studio floor and in tutorials.

SART1641 Video Elective 1
School of Art
Staff Contact: School Office
UOC4 HPW3 S2

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.

SART1651 Animation Elective 1
School of Art
Staff Contact: School Office
UOC4 HPW3 S1

The Animation Electives explore an overview of various animation techniques in both traditional film and computer graphic forms as well as ways of combining these various techniques. This sequence of courses encourage experimentation on the part of the student. Such techniques as pixilation, cell animation, smudge animation, computer graphic manipulation of the image, computer animation, cut out techniques, in camera techniques, concepts of the frame, and landscape animation may be explored.Through the development of an awareness of movement and timing and the application of rigorous techniques to the various media the student s individual and experimental artistic practice will be developed.

SART1661 Performance Elective 1
School of Art
Staff Contact: School Office
UOC4 HPW3 S1 S2

These courses enable students to develop critically aware multi-disciplinary approaches, which will intelligently utilise the traditions of sound performance and installation in order to form a contemporary art practice which is innovative, challenging and pertinent. By exploration of the theoretical overview and the development of relevant skills, students will formulate and implement an extensive study of a field of practice in this area.

SART1681 Multimedia Computing Elective 1
School of Art
Staff Contact: School Office
UOC4 HPW3 S1 S2

These courses enable 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.

SART1810 Introduction to Computing
School of Art
Staff Contact: School Office
UOC4 HPW2 S1 S2 X2

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. Introduction to Microsoft Office Word, focusing on the basics of formatting and COFA style requirements. Introduction to the basics of Web authoring. Introduction to Power Point. File and document management with file formats commonly used and file types to use for cross-platform applications.

SART2320 Drawing/Painting 2
School of Art
Staff Contact: School Office
UOC8 HPW8 S2
Prerequisite/s: SART1311

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.

SART2321 Photomedia 2
School of Art
Staff Contact: School Office
UOC8 HPW8 S1
Prerequisite/s: SART1312

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 development of photomedia technical skills by introducing the student to digital image manipulation/colour processes and advanced studio based equipment. Students are directed toward an analysis and critical awareness of current visual arts practice, central to the production and advancement of their own work.

SART2322 Printmedia 2
School of Art
Staff Contact: School Office
UOC8 HPW8 S1
Prerequisite/s: SART1313

In this course students will investigate and imaginatively interpret the significant concepts and conventions of the disciplines within Printmedia. In consultation with lecturers, students will begin to develop a program of printmedia studies which reflects their individual focus on printmedia disciplines. Various media, techniques and aspects of printmedia will be examined, and students will be encouraged to develop concepts relating to the characteristics of specific media. Workshop procedures will be covered.

SART2323 Sculpture, Performance and Installation 2
School of Art
Staff Contact: School Office
UOC8 HPW8 S1 S2
Prerequisite/s: SART1314

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, body works, or traditional mediums such as bronze casting. The emphasis at this stage is on an open-ended, exploratory investigation of sculptural language, the stimulation of the imagination, 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.

SART2324 Time-Based Art 2
School of Art
Staff Contact: School Office
UOC8 HPW8 S1
Prerequisite/s: SART1315

This course introduces the conceptual understanding and technical skills underpinning practice in time based arts. 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-technological 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.

SART2330 Drawing/Painting 3
School of Art
Staff Contact: School Office
UOC8 HPW8 S2
Prerequisite/s: 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.

SART2331 Photomedia 3
School of Art
Staff Contact: School Office
UOC8 HPW8 S2
Prerequisite/s: SART2321

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 digital and analogue skills acquired in Photomedia 1 and 2 are refined and applied to project work. Students explore a diversity of conceptual approaches in order to extend their use of visual language.

SART2332 Printmedia 3
School of Art
Staff Contact: School Office
UOC8 HPW8 S2
Prerequisite/s: SART2322

In this course students will continue to investigate and imaginatively interpret the significant concepts and conventions of the disciplines within printmedia. In consultation with lecturers, students will further develop a program of printmedia studies which reflects their individual interests and which may be built upon and expanded in subsequent sessions. Various media, techniques and aspects of printmedia will be examined, and students will be encouraged to develop concepts relating to the characteristics of specific media. Documentation and conservation of prints and printworks will be covered.

SART2333 Sculpture, Performance and Installation 3
School of Art
Staff Contact: School Office
UOC8 HPW8 S1 S2
Prerequisite/s: SART2323

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 divergent or interdisciplinary works such as spatial, temporal, ephemeral or performative installations, or develop particular sculptural forms related to object making, works related to the body, or traditional mediums such as bronze casting. The emphasis at this stage is 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.

SART2334 Time-Based Art 3
School of Art
Staff Contact: School Office
UOC8 HPW8 S2
Prerequisite/s: SART2324

This course furthers the conceptual understanding and technical skills underpinning practice in time based arts. The course examines the traditions and contemporary contexts of art practices which developed in response to the mediums of film, television and multimedia. The course investigates the interactions between film, video, sound and computing technologies in time based art practices. Students develop a body of work exploring and integrating these technologies in art.

SART2361 Etching Elective 2
School of Art
Staff Contact: School Office
UOC4 HPW3 S2

These courses aim to introduce the student to a wide range of experiences in the process of intaglio printing, including etching, drypoint and engraving. Students will be encouraged to cultivate an awareness of the creative possibilities of intaglio printing and to relate their concepts to the characteristics of the medium through a combination of theoretical and practical studies.

SART2461 Lithography Elective 2
School of Art
Staff Contact: School Office
UOC4 HPW3 TBA

These courses will introduce the student to a wide range of experiences in the technique of lithography. Through investigation and selection students will develop an understanding of the technical means and aesthetic qualities of the original print. Students will be encouraged to attain a high level of competence in lithographic processes and to develop their individuality and potential as creative artists in printmedia.

SART2501 Painting Elective 2
School of Art
Staff Contact: School Office
UOC4 HPW3 S1 S2

The aim of these courses is to enable the student to develop skills and an intuitive awareness of aesthetic values in 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 as a basis for making paintings. The student will undertake projects aimed at encouraging an individual, creative and professional approach to painting.

SART2502 Drawing Elective 2
School of Art
Staff Contact: School Office
UOC4 HPW3 S1 S2

The aim of these courses is to enable students to develop a command of drawing as a visual arts discipline and to relate the art of drawing to other areas of creative endeavour. The student will explore various aspects of drawing and develop competence and confidence in drawing. The student will undertake exercises which will emphasise drawing as a means of creative expression, and also as a tool of research in the visual arts.

SART2521 Photomedia Elective 2
School of Art
Staff Contact: School Office
UOC4 HPW3 S1 S2

The aim of these courses 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. The following basics are covered in Phototmedia Elective 1: overview of 35 mm camera operation; B/W film types and exposure; processing and printing; print finishing and presentation. The following Photomedia skills are covered in Photomedia Elective 2-3: colour photography and printing.

SART2561 Relief Printing Elective 2
School of Art
Staff Contact: School Office
UOC4 HPW3 TBA

These courses aim to introduce students to a wide range of experiences in the process of relief printing. Students will be encouraged to cultivate an awareness of the creative possibilities of relief printing, and to develop the skills and techniques necessary to express these concepts. Through a combination of theoretical and practical studies the student will research the principles and techniques of relief printing, including lino block, wood block, mixed media, printing and presentation of prints.

SART2581 Screen Printing Elective 2
School of Art
Staff Contact: School Office
UOC4 HPW3 TBA

These courses aim to introduce the student to all techniques involved in screen printing. Through investigation and selection students will develop an understanding of the technical means and the aesthetic qualities of the original print. The subjects will engage elements including 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.

SART2591 Printmedia Elective 2
School of Art
Staff Contact: School Office
UOC4 HPW3 TBA

In line with current art practice, expression is encouraged through the use of traditional and contemporary print media to be chosen (dependant upon availability) from the range of etching, digital imaging, lithography, paper moulding, photocopying, relief and screen printing. The aim of this sequence of courses is to enable the student, by applica-tion 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 printmedia.

SART2601 Sculpture Elective 2
School of Art
Staff Contact: School Office
UOC4 HPW3 TBA

The aim of this sequence of courses 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 experiment with sculptural concepts, techniques and mediums toward the development of original works.

SART2602 Sound Media 1
School of Art
Staff Contact: School Office
UOC4 HPW3 S2

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.

SART2606 Multimedia Authoring 2
School of Art
Staff Contact: School Office
UOC4 HPW3 S2

Multimedia Authoring 2 extends the students experience gained in Multimedia Authoring furthering the conceptual understanding, appreciation and technical skills underpinning interactive practice.

SART2607 Multimedia Authoring 1
School of Art
Staff Contact: School Office
UOC4 HPW3 S1

Multimedia authoring provides the platform for student 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. The pre requisite for Multimedia Authoring is Web Authoring.

SART2608 Digital Composite 2
School of Art
Staff Contact: School Office
UOC4 HPW3 S1

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.

SART2609 3D Graphics & Modeling 1
School of Art
Staff Contact: School Office
UOC4 HPW3 S1

This course introduces students to aspect of 3D Modeling including; modeling primitives, character generation, texture mapping, rendering, and ray tracing. The Graphics & Modeling course seeks to establish an awareness of the three-dimensional world and alertness to the possibilities within. Emphasis is placed on 3D-skill development and strategies suitable to the integration of the 3D into other digital media.

SART2610 Writing for the Digital Media
School of Art
Staff Contact: School Office
UOC4 HPW3 S1

This subject focuses on creative writing and visual storyboarding 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.

SART2621 Installation Elective 2
School of Art
Staff Contact: School Office
UOC4 HPW3 TBA

These courses provide the opportunity to explore the various forms and disciplines three-dimentional activity can take in contemporary art practice. These courses are designed to allow maximum flexibility for both multimedia experimentation and specialisation in the exploration of the construction, installations and spaces as an expressive vehicle. These courses are studio based with an emphasis on the critical analysis of research, experiencial learning and conceptual development. This discussion is centered around a rigorous studio theory program, conducted on the studio floor and in tutorials.

SART2651 Animation Elective 2
School of Art
Staff Contact: School Office
UOC4 HPW3 TBA

The Animation Electives explore an overview of various animation techniques in both traditional film and computer graphic forms as well

as ways of combining these various techniques. This sequence of courses encourage experimentation on the part of the student. Such techniques as pixilation, cell animation, smudge animation, computer graphic manipulation of the image, computer animation, cut out techniques, in camera techniques, concepts of the frame, and landscape animation may be explored.Through the development of an awareness of movement and timing and the application of rigorous techniques to the various media the student s individual and experimental artistic practice will be developed.

SART2661 Performance Elective 2
School of Art
Staff Contact: School Office
UOC4 HPW3 TBA

These courses enable students to develop critically aware multi-disciplinary approaches, which will intelligently utilise the traditions of sound performance and installation in order to form a contemporary art practice which is innovative, challenging and pertinent. By exploration of the theoretical overview and the development of relevant skills, students will formulate and implement an extensive study of a field of practice in this area.

SART2681 Multimedia Computing Elective 2
School of Art
Staff Contact: School Office
UOC4 HPW3 S1 S2

These courses enable 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.

SART2811 Multimedia Computing Workshop
School of Art
Staff Contact: School Office
UOC4 HPW3 S2

The course consists of a series of workshop/tutorials examining contemporary art issues as explored through relevant software, particularly the interactive manipulation of digital photographic images, planar and 3D animation and sound. Classes include demonstrations and workshops, treatments, discussions and tutorials, review and critique.

SART2812 Sound Studio: Introductory Workshop
School of Art
Staff Contact: School Office
UOC4 HPW3 S1

This course covers all aspects of audio production to produce audio art works and/or soundtrack for film, video, performance and multimedia computing.

SART2813 Video Workshop
School of Art
Staff Contact: School Office
UOC4 HPW3 S2

The course is designed to explore and expand an understanding of video production methods and practice. The course is comprised of technical demonstrations and workshops, discussions and tutorials, individual and group project development, assessment and critique. Proficiency on A/B roll editing will be gained in the workshop. The use of timecode, telecine, and sound editing will also be introduced.

SART2814 Cinematography Workshop
School of Art
Staff Contact: School Office
UOC4 HPW3 X2

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.

SART2815 Photomedia: Digital Imaging Workshop
School of Art
Staff Contact: School Office
UOC4 HPW3 S1 S2

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.

SART2816 Photomedia: Analogue Workshop
School of Art
Staff Contact: School Office
UOC4 HPW3 S2

The course introduces the student to the basic analogue skills in photography. Students will acquire technical skills in B/W photographic processes and are encouraged to explore, experimemt and develop ideas through set projects. The course addresses and questions the content and context of the photographic image with relationship to the intent of the student.

SART2817 Extended Photomedia Workshop
School of Art
Staff Contact: School Office
UOC4 HPW3 S1

In this workshop the student is introduced to extended photomedia processes and applications outside of the utilisation of the camera. The student is provided with the opportunity to experiment with photo-sensitive methods for transferring and reproducing images onto a variety of materials. Innovative and interdisciplinary activity will extend the student's image making opportunities. An emphasis is placed on the application of these new skills in work which continues to explore the individual s current areas of concern.

SART2819 Photo Techniques for Printmedia Workshop
School of Art
Staff Contact: School Office
UOC4 HPW3 S2

A study of the application of photo mechanical, photo-related and computer-generated techniques in printmedia.

SART2821 Metal Joining Techniques Workshop
School of Art
Staff Contact: School Office
UOC4 HPW3 S1

This is a workshop based course to extend students skills in metal fabrication. It contains information and practice concerning skills of joining various metals efficiently, safely and with aesthetic consideration. Mechanical, soldered and welded jointing will be carried out by students as well as cutting and shaping techniques.

SART2826 3D Fabrication Workshop
School of Art
Staff Contact: School Office
UOC4 HPW3 S2

This is a workshop-based course for students wishing to improve their ability to manipulate materials for making sculpture installation, and bodyworks. It contains information and practice in elementary fabrication and assembly techniques. Through lectures, demonstrations and projects, students will acquire understanding and skills concerning the purpose and use of a range of hand and power tools, and methods of measuring and gauging.

SART2828 Artists Books Workshop
School of Art
Staff Contact: School Office
UOC4 HPW3 S1 S2

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 Workshop
School of Art
Staff Contact: School Office
UOC4 HPW3 S1

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. 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.

SART2830 Performance Workshop
School of Art
Staff Contact: School Office
UOC4 HPW3 TBA

This course will examine performance art in terms of contemporary practice. The body as a medium or vehicle of expression will be explored. Notions of performance as it relates to film, video and multimedia computing will also be examined e.g. notions of acting, non-theatrical performance, and gesture/dance. Performance in relation to various technologies will also be addressed.

SART2831 Spatial Constructions Drawing Workshop
School of Art
Staff Contact: School Office
UOC4 HPW3 S2

This course is designed to consolidate and extend previous drawing experience. Students will be engaged in 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 Workshop
School of Art
Staff Contact: School Office
UOC4 HPW3 S2

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. This course will provide an introduction to anatomy. Emphasis will be placed on direct observations and their interpretation in graphic media.

SART2833 Drawing Workshop
School of Art
Staff Contact: School Office
UOC4 HPW3 TBA

This course is designed to enable students to explore a range of visual images and ideas. The course will deal with practical and theoretical issues of drawing. Through interpretation and translation of two and three dimensions the student will examine space, form and structure. Students will also be encouraged to develop a personal graphic language.

SART2834 Experimentation in Mixed Media Workshop
School of Art
Staff Contact: School Office
UOC4 HPW3 S1

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 Workshop
School of Art
Staff Contact: School Office
UOC4 HPW3 S1

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 Workshop
School of Art
Staff Contact: School Office
UOC4 HPW3 S1 S2

This course will investigate colour across numerous disciplines. Students will be introduced to colour in relation to areas such as pigment, light and computing.

SART2837 Sound Studio:Advanced Workshop
School of Art
Staff Contact: School Office
UOC4 HPW3 S2

Through consultation with the lecturer, each student will develop projects based upon the utilisation of the audio studio. This may be a soundtrack for a film, video, performance or computer based work or a recorded sound work. This course, if taken inconjunction with Time Based Art 3, will facilitate the completion of advanced film and video projects within that unit.

SART2838 Writing/Text Workshop
School of Art
Staff Contact: School Office
UOC4 HPW3 TBA

This course is designed for students to develop their skills in writing/text for various media including writing/text for film, video, audio work, performance, visual text for photography or painting as well as multimedia computing. It is envisaged that students will be writing with the notion of producing a work based on the writing/text developed in this course. Students are set a number of writing exercises covering character, point of view, visual aspects, poetic and non verbal aspects of storytelling and genre, as well as non-narrative and experimental forms.

SART2839 Animation Workshop
School of Art
Staff Contact: School Office
UOC4 HPW3 S2

The Animation Workshop explores an overview of various animation techniques in both traditional film and computer graphic forms as well as ways of combining these various techniques. Such techniques as pixilation, cell animation, smudge animation, computer graphic manipulation of the image, computer animation, cut out techniques, in camera techniques, concepts of the frame, and landscape animation are explored.

SART2841 Electronics Workshop
School of Art
Staff Contact: School Office
UOC4 HPW3 S1 S2

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 Workshop
School of Art
Staff Contact: School Office
UOC4 HPW3 S2

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 Workshop, Field Studies
School of Art
Staff Contact: School Office
UOC4 HPW3 TBA

This course is designed to enable students to experience the practical applications of a concerntrated 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 Workshop
School of Art
Staff Contact: School Office
UOC4 HPW3 S2

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 consider-ations. Modelling and casting skills are followed by basic constructivist techniques.

SART2849 Alternative Printmedia Workshop
School of Art
Staff Contact: School Office
UOC4 HPW3 S2

This course will allow students at any level of experience to explore the use of alternative materials and procedures in printmedia. Through lectures, demonstrations and projects students will gain understanding and skills in the uses 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 Workshop
School of Art
Staff Contact: School Office
UOC4 HPW3 S1

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.

SART2853 Printmedia Colour Workshop
School of Art
Staff Contact: School Office
UOC4 HPW3 S2

This course aims to demystify the complexities of colour theory and techniques as they relate to printmedia. Beginning with a basic introduction to Colour Theory and a comparison of analogue and digital colour models students are introduced to advanced colour printing procedures with emphasis upon etching and screenprinting. Through lectures, demonstrations and projects students will gain understanding and skills in the practical application of specialist procedures not generally covered in elective printmedia subjects. This course will be of most benefit to students who have some previous experience in etching

SART2854 Digital Illustration and Text Workshop
School of Art
Staff Contact: School Office
UOC4 HPW3 S1
Prerequisite/s: SART2815 or SART2811 or SART1521

In this studio workshop the student explores advanced photo-based digital imaging techniques, and is introduced to interrelated 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.

SART2856 Digital Printmedia Workshop
School of Art
Staff Contact: School Office
UOC4 HPW3 S1

This course will introduce students to digital imaging and output procedures as they apply to printmedia. Through lectures, demonstrations and projects, students will gain unerstanding 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 proecedures as compared directly with traditional print practice, and the extension of traditional print media through the incorporation of these practices into existing technologies.

SART2857 Paper Technology Workshop
School of Art
Staff Contact: School Office
UOC4 HPW3 S1

This subject will attempt a comprehensive investigation of the characteristics and functions of paper in its broadest sense, with emphasis on the wide variety of papers used by printmedia artists. Students will gain an insight into the history, making and usage of paper, particularly as it applies to contemporary art practice. Through lectures, demonstrations and projects, students will gain an understanding of such things as the conservation of paper, hand paper making, cast paper, and other three dimensional uses of paper in artworks, and appropriate choice of paper for various media.

SART2858 Narrative and Gameplay: Scripting Storyboarding and Design Documentation for Interactive Media and Games
School of Art
Staff Contact: P George
UOC4 HPW3 S2

Staring from the nature of traditional narrative and story structure, this course provides intensive hands-on work in the understanding and development of creative design documents for films, games and other interactive media.It focuses especially on the intersection of narrative, gameplay and interactivity, and how these concepts are translated into a design document. Students spend time analysing the components of different media, before developing an original design idea.

SART3340 Drawing/Painting 4
School of Art
Staff Contact: School Office
UOC8 HPW8 TBA
Prerequisite/s: SART2330

In this course students will concentrate upon their major creative interests. Students will begin the initiation and execution of a body of studio work which demonstrates the relationship between their own work and current art practices and concepts. Students will be encouraged to analyse the relationship between perceived aims and results achieved in their studio practice.

SART3341 Photomedia 4
School of Art
Staff Contact: School Office
UOC8 HPW8 S1
Prerequisite/s: SART2331

In this course the student will concentrate on developing the production of a body of work which demonstrates an understanding and refinement of the 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 their digital/ 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. Interdisciplinary studies are encouraged where relevant to the projects undertaken.

SART3342 Printmedia 4
School of Art
Staff Contact: School Office
UOC8 HPW8 S1
Prerequisite/s: SART2332

This course will continue to build upon concepts and skills developed in previous sessions. Students will investigate the creative possibilities of media appropriate to the expression of individual ideas. 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. A proposal outlining intended studies is required.

SART3343 Sculpture, Performance and Installation 4
School of Art
Staff Contact: School Office
UOC8 HPW8 TBA
Prerequisite/s: SART2333

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 and studio research methodologies, 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, works related to the body, or traditional mediums such as bronze casting.

SART3344 Time-Based Art 4
School of Art
Staff Contact: School Office
UOC8 HPW8 S1
Prerequisite/s: SART2334

This course furthers the students knowledge of the art histsorical 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 deepends the studetns critical comprehension of time based forms through study and analysis of different art works in the screening and presentation programs.

SART3350 Drawing/Painting 5
School of Art
Staff Contact: School Office
UOC8 HPW8 TBA
Prerequisite/s: 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 subject students are expected to extend and develop the focus of their inquiry towards a coherent body of work which incorporates previous theories and concepts.

SART3351 Photomedia 5
School of Art
Staff Contact: School Office
UOC8 HPW8 TBA
Prerequisite/s: SART3341

In this course the student will concentrate on the production of a substantial body of work which demonstrates an understanding and refinement of the concepts and contexts central to their individual art practice. The works produced will be a culmination of intensive research and study within the area of photomedia. The investigation is initiated by the student and undertaken with lecturer supervision. It is expected that students will continue to refine their digital/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. Interdisciplinary studies are encouraged where relevant to the projects undertaken.

SART3352 Printmedia 5
School of Art
Staff Contact: School Office
UOC8 HPW8 TBA
Prerequisite/s: SART3342

This course will consolidate concepts and skills developed in previous sessions. Students will continue to investigate the creative possibilities of media appropriate to the expression of individual ideas. 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.

SART3353 Sculpture, Performance and Installation 5
School of Art
Staff Contact: School Office
UOC8 HPW8 TBA
Prerequisite/s: 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, the refinement of skills and studio research methodologies, 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, 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.

SART3354 Time-Based Art 5
School of Art
Staff Contact: School Office
UOC8 HPW8 TBA
Prerequisite/s: SART3344

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.

SART3361 Etching Elective 3
School of Art
Staff Contact: School Office
UOC4 HPW3 S2

These courses aim to introduce the student to a wide range of experiences in the process of intaglio printing, including etching, drypoint and engraving. Students will be encouraged to cultivate an awareness of the creative possibilities of intaglio printing and to relate their concepts to the characteristics of the medium through a combination of theoretical and practical studies.

SART3461 Lithography Elective 3
School of Art
Staff Contact: School Office
UOC4 HPW3 TBA

These courses will introduce the student to a wide range of experiences in the technique of lithography. Through investigation and selection students will develop an understanding of the technical means and aesthetic qualities of the original print. Students will be encouraged to attain a high level of competence in lithographic processes and to develop their individuality and potential as creative artists in printmedia.

SART3501 Painting Elective 3
School of Art
Staff Contact: School Office
UOC4 HPW3 TBA

The aim of these courses is to enable the student to develop skills and an intuitive awareness of aesthetic values in 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 as a basis for making paintings. The student will undertake projects aimed at encouraging an individual, creative and professional approach to painting.

SART3502 Drawing Elective 3
School of Art
Staff Contact: School Office
UOC4 HPW3 S1 S2

The aim of these courses is to enable students to develop a command of drawing as a visual arts discipline and to relate the art of drawing to other areas of creative endeavour. The student will explore various aspects of drawing and develop competence and confidence in drawing. The student will undertake exercises which will emphasise drawing as a means of creative expression, and also as a tool of research in the visual arts.

SART3521 Photomedia Elective 3
School of Art
Staff Contact: School Office
UOC4 HPW3 S1 S2

The aim of these courses 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. The following basics are covered in Phototmedia Elective 1: overview of 35 mm camera operation; B/W film types and exposure; processing and printing; print finishing and presentation. The following Photomedia skills are covered in Photomedia Elective 2-3: colour photography and printing.

SART3561 Relief Printing Elective 3
School of Art
Staff Contact: School Office
UOC4 HPW3 TBA

These courses aim to introduce students to a wide range of experiences in the process of relief printing. Students will be encouraged to cultivate an awareness of the creative possibilities of relief printing, and to develop the skills and techniques necessary to express these concepts. Through a combination of theoretical and practical studies the student will research the principles and techniques of relief printing, including lino block, wood block, mixed media, printing and presentation of prints.

SART3581 Screen Printing Elective 3
School of Art
Staff Contact: School Office
UOC4 HPW3 TBA

These courses aim to introduce the student to all techniques involved in screen printing. Through investigation and selection students will develop an understanding of the technical means and the aesthetic qualities of the original print. The subjects will engage elements including 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.

SART3591 Printmedia Elective 3
School of Art
Staff Contact: School Office
UOC4 HPW3 TBA

In line with current art practice, expression is encouraged through the use of traditional and contemporary print media to be chosen (dependant upon availability) from the range of etching, digital imaging, lithography, paper moulding, photocopying, relief and screen printing. The aim of this sequence of courses is to enable the student, by applica-tion 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 printmedia.

SART3601 Sculpture Elective 3
School of Art
Staff Contact: School Office
UOC4 HPW3 TBA

The aim of this sequence of courses 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 experiment with sculptural concepts, techniques and mediums toward the development of original works.

SART3603 Digital Video 2
School of Art
Staff Contact: School Office
UOC4 HPW3 S2

Building on the various production techniques and concepts explored within Digital Video 1, this course seeks to develop students' knowledge through specific project work, with technical concentration on further pre-production and post-production techniques and critical assessment of contemporary and historical film and video practise.

SART3609 Graphics and Modeling 2
School of Art
Staff Contact: School Office
UOC4 HPW3 S2

This course builds on the experience and skills developed from Graphics & Modeling then extends the students experience into 3D animation, visualization, broadcast graphics, special effects, multimedia and digital imaging.

SART3610 Digital Studio
School of Art
Staff Contact: School Office
UOC6 HPW6 TBA

The digital studio course has been establish for students to consolidate their various digital media practices. This course is designed to encourage student speculation experimentation and then creative development into a mature out come. Students are supported in their area of research, within an environment that encourages collaboration across divergent media and practice.

SART3611 Industry Placement
School of Art
Staff Contact: P George
UOC4 HPW3 S2

The Industry placement program is seen as a critical component of the BDM. Students are placed into appropriate industry settings, ether nationally or internationally. The Industry placement program will test students ability within contemporary Digital Media environment. Each student will have a Lecturer assigned to him or her.

SART3612 Professional Portfolio
School of Art
Staff Contact: School Office
UOC4 HPW4 TBA

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.

SART3615 Sound Media 2
School of Art
Staff Contact: School Office
UOC4 HPW3 S2

"Sound Media 2" more closely examines both audio/visual relationships and sound/music genres, while expanding upon the techniques and ideas taught in the previous semester. Both individual and group projects will be based around the sound design and sound/music score of audio/visual works created within other classes, with an option to create further "stand-alone" sound/music works. The relationship of sound to editing within time-based and interactive works will be examined. Technical knowledge of sound recording and editing will be refined, with a concentration on working between audio/visual programs such as Final Cut Pro, Flash and Dreamweaver. Further techniques such as MIDI composition and analogue synthesis will be explored. A screening and listening lecture program will examine further sound/music pieces, installations and soundtracks.

SART3616 Professional Practice
School of Art
Staff Contact: School Office
UOC4 HPW3 TBA

This course will provide students with a range of strategies, skills that will prepare them for working in a dynamic fluid industry. Professional practice will equip students with the skills knowledge and attitudes that will assist them to develop their practice as professionals, whether in employment or self employed. Industry professionals will at times be invited to address students. Topics such as documenting work, copyright, intellectual propriety, ethics, and taxation will be addressed around the core of project management and development.

SART3621 Installation Elective 3
School of Art
Staff Contact: School Office
UOC4 HPW3 TBA

These courses provide the opportunity to explore the various forms and disciplines three-dimentional activity can take in contemporary art practice. These courses are designed to allow maximum flexibility for both multimedia experimentation and specialisation in the exploration of the construction, installations and spaces as an expressive vehicle. These courses are studio based with an emphasis on the critical analysis of research, experiencial learning and conceptual development. This discussion is centered around a rigorous studio theory program, conducted on the studio floor and in tutorials.

SART3651 Animation Elective 3
School of Art
Staff Contact: School Office
UOC4 HPW3 TBA

The Animation Electives explore an overview of various animation techniques in both traditional film and computer graphic forms as well as ways of combining these various techniques. This sequence of courses encourage experimentation on the part of the student. Such techniques as pixilation, cell animation, smudge animation, computer graphic manipulation of the image, computer animation, cut out techniques, in camera techniques, concepts of the frame, and landscape animation may be explored.Through the development of an awareness of movement and timing and the application of rigorous techniques to the various media the student s individual and experimental artistic practice will be developed.

SART3661 Performance Elective 3
School of Art
Staff Contact: School Office
UOC4 HPW3 TBA

These courses enable students to develop critically aware multi-disciplinary approaches, which will intelligently utilise the traditions of sound performance and installation in order to form a contemporary art practice which is innovative, challenging and pertinent. By exploration of the theoretical overview and the development of relevant skills, students will formulate and implement an extensive study of a field of practice in this area.

SART3681 Multimedia Computing Elective 3
School of Art
Staff Contact: School Office
UOC4 HPW3 TBA

These courses enable 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.

SART3800 Professional Practice
School of Art
Staff Contact: School Office
UOC4 HPW3 S1 S2

This course will prepare students completing the BFA for professional practice as artists in Australia.

SART3840 Advanced Multimedia Computing Workshop
School of Art
Staff Contact: School Office
UOC4 HPW3 S1 S2

This advanced workshop explores concepts and techniques of 3D simulation. Notions of linear sequence and interactive structures in the production of artworks, are both explored. Individual elements of sound, image and text are generated using these programs with the knowledge that these elements could become frames/fragments of time based works.

SART3858 Advanced Analogue - Studio Lighting and Camera Workshop
School of Art
Staff Contact: School Office
UOC4 HPW3 S1

In this studio workshop the student is introduced to advanced techniques for studio based photography and their creative applications. The student will need to have a knowledge of B/W and colour photography, camera operation, exposure, film processing and print production. This knowledge will be extended to studio lighting techniques and large format camera operation. Projects are set which focus on the production of photographic images for contemporary visual art works. The emphasis is on the development of skills suitable for integration into visual arts practices.

SART3859 Advanced Digital Imaging - 3D Workshop
School of Art
Staff Contact: School Office
UOC4 HPW3 S2

In this studio workshop the student is introduced to advanced techniques for digital imaging and their creative application. The subject is founded on a pre-requisite knowledge of 2D digital imaging techniques. This knowledge is extended into a variety of 3D digital imaging techniques to be used by the student within projects which focus on image production and visualisation for contemporary visual art works. Students will also explore how to combine 2D and 3D digital imaging techniques together. Finally students will investigate a variety of options for digital print output, and how to navigate the colour correction of digital files to a selected print media. The emphasis is on the development of skills suitable for the integration of digital technologies into visual arts practices.

SART3860 Digital Media for Painters Workshop
School of Art
Staff Contact: School Office
UOC4 HPW3 TBA

Digital Media for Painters workshop.

SART3861 Art Scients and visualisation
School of Art
Staff Contact: School Office
UOC6 HPW3 S2

This course will introduce the students to contemporary and historical crossovers and collaborations between art, science and medicine, looking at imaging and visualisation techniques such as microscopy, electron microscopy, anatomical photography, DNA sequencing and visualisation. Positioning these within the history of art and science from the seventeenth century to the present, it will examine the differences between documentation and representation in the scientific image, the concept of the clinical gaze, imaging the unseen and virtual representations of the organic and inorganic worlds. These concerns will be addressed at both a studio and theory level with equal time spent on developing historical and conceptual understanding of scientific imaging and acquiring basic technical skills in producing and working with various kinds of images.

SART4030 Honours Paper
School of Art
Staff Contact: School Office
Enrolment requires school approval
UOC6 S1 S2

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
Staff Contact: School Office
Enrolment requires school approval
UOC18 S1 S2

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.

SART4045 Honours Program - Bachelor of Digital Media
School of Art
Staff Contact: School Office
UOC48 TBA

The Bachelor of Digital Media (BDM) Honours program is a one-year full time program, at a higher level of study. 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 possible complexity of the media. It is with this in mind that the BDM Honours program may include, where appropriate collaborative work.

SCOM1011 Science, Technology and Society
School of Science and Technology Studies
Staff Contact: School Office
UOC6 HPW3 S1
Excluded: 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.

SCOM1021 Introduction to Science Communication
Faculty of Science
Staff Contact: W Rifkin
UOC6 HPW3 S1

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.

SCOM2021 Professional Science Communication
Faculty of Science
Staff Contact: W Rifkin
UOC6 HPW3 S2
Prerequisite/s: SCOM1021

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 will be 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.

SCOM2505 Science Communication Project A
Faculty of Science
Staff Contact: W Rifkin
UOC3 HPW2 S1 S2 X1 X2
Prerequisite/s: SCOM1021

Students pursue a project to learn about an area of science communication of their choice - eg. 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' will determine 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.

SCOM3011 Communicating Science: Theory and Practice
School of Science and Technology Studies
Staff Contact: School Office
UOC6 HPW3 S2
Prerequisite/s: 36 Units of Credit in Arts or 24 Units of Credit in Level 1 Science courses
Excluded: SCTS3127

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 on-line journal.

SCOM3021 Science Communication Internship
Faculty of Science
Staff Contact: W Rifkin
UOC6 HPW3 S1 S2 X1 X2
Prerequisite/s: SCOM1021

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 observe and 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 on the scientific activities there, reports that 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.

SCOM3505 Science Communication Project B
Faculty of Science
Staff Contact: W Rifkin
UOC3 HPW3 S1 S2 X1 X2
Prerequisite/s: SCOM1021

Students pursue a project to learn about an area of science communication of their choice - eg. 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' will determine 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.

SCTS1106 Science, Technology and Society
School of Science and Technology Studies
Staff Contact: S Healy
UOC6 HPW3 S1
Excluded: SCTS1001, SCOM1011

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; technologies of everyday life.

SCTS1107 Understanding Environmental Controversy
School of Science and Technology Studies
Staff Contact: P Brown
UOC6 HPW3 S2
Excluded: SCTS1002

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.

SCTS2107 How Science Works: The Sociology of Science and Technology
School of Science and Technology Studies
Staff Contact: J Schuster
UOC6 HPW3 S2
Prerequisite/s: 36 units of credit
Excluded: SCTS2002

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.

SCTS2108 Information Technology, Politics and the Media
School of Science and Technology Studies
Staff Contact: J Merson
UOC6 HPW3 S1
Prerequisite/s: 36 units of credit
Excluded: SCTS2003

Examines the global expansion of Information Technology and its social and economic impacts. It looks at the role of internet, intranet and satellite broadcasting systems in breaking down traditional barriers of time and space. Examples discussed include: the spread of global media services; international telemedicine; education and training accessed globally; international consumer banking and finance; and manufacturing processes controlled globally on-line. Also explores the political implications of these changes, and the efforts of communities in both developed and underdeveloped countries to take advantage of this information superhighway without being culturally annihilated in the process.

SCTS2109 The Challenge of the New Biotechnologies
School of Science and Technology Studies
Staff Contact: N Rasmussen
UOC6 HPW3 S2
Prerequisite/s: 36 units of credit
Excluded: SCTS2004

Examines the new medical and agricultural technologies, stemming from the molecular biology revolution, in social context. Topics covered may include xenotransplantation, the Human Genome Project, new reproductive biotechnologies for humans, the genetic manipulation of food crops and animals for altered product qualities, and the impact of biotechnology on agricultural sustainability.

SCTS2118 Technology, Environment, Politics
School of Science and Technology Studies
Staff Contact: P Brown
UOC6 HPW3 S1
Prerequisite/s: 36 units of credit

Provides theoretical and historical background for understanding the 'social crisis of the environment'. Environmental crisis is often blamed on 'Western Industrialised Society'.This needs careful definition along with 'liberal democratic', 'Northern', 'modern' and 'capitalist'. Key historical themes and concepts are related to current environmental politics. Topics include: pre-industrial European social and political developments; the Enlightenment; the Industrial Revolution; images of nature and modernity; positivism, natural science and social science; progress and ecological impacts of industrialisation; technocracy and totalitarianism; the critique of science and technology since World War Two; globalisation and postmodernity; the lifeworld, risk, trust and participatory decision making.

SCTS2120 Science and Technology in the Movies
School of Science and Technology Studies
Staff Contact: G Bindon
UOC6 HPW3 S1
Prerequisite/s: 36 units of credit

Since moving pictures began, the impacts of science and technology on society and the environment have provided themes and images for movie-makers. Involves viewing films and critically examining their representation of the interactions of science, technology, society and the environment. Examines the parallel development of the scholarly study of science, technology and society, and reflection of academic analyses in popular media. Topics include: the portrayal of scientists and engineers; knowledge and power; the scientific/modern project and alternate world views; utopias and dystopias; science 'popularisation'; 'scientistic' vs. 'scientific' content; pro-science and anti-science views, and science fiction in the formulating scientific futures.

SCTS2122 Evolution, Innovation, Communications and the Future
School of Science and Technology Studies
Staff Contact: G Bindon
UOC6 HPW3 S2
Prerequisite/s: 36 units of credit
Excluded: SCTS2116

Humans are able to change the conditions of our own existence. We achieve this by changing what we do and whom we do it with, and by making things that previously didn't exist. Focuses on a developing convergence of thinking about evolution, communications, economics and technological innovation/change. Considers ways of explaining how we create physical and cultural extensions of our bodies and our brains, and how these have evolved, and continue to evolve. As we move rapidly into a 'post-industrial'/'post-modern' world, this course provides an opportunity to consider the nature, origins, and consequences of the changes we shall be experiencing.

SCTS3106 Technology, Sustainable Development and the Third World
School of Science and Technology Studies
Staff Contact: J Merson
UOC6 HPW3 S1
Prerequisite/s: 36 units of credit
Excluded: COMD2050, SCTS3001

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.

SCTS3119 Reading Option in Science and Technology Studies
School of Science and Technology Studies
Staff Contact: J Schuster
UOC6 HPW3 S1 S2
Prerequisite/s: 36 units of credit

Permission for enrolment in the Reading Option must be obtained from the Head of School. Students wishing to enrol 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.

SCTS3126 Society and Environmental Process: Botany Bay
School of Science and Technology Studies
Staff Contact: P Brown
UOC6 HPW3 S2
Prerequisite/s: SCTS2118 and 84 units of credit overall
Excluded: SCTS3013, SCTS3020

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/s: In addition to SCTS2118, it is desirable that students have completed other Upper Level courses listed in the Environmental Studies program.

SCTS3127 Communicating Science: Theory & Practice
School of Science and Technology Studies
Staff Contact: G Bindon
UOC6 HPW3 S2
Prerequisite/s: 36 units of credit

Communicating science is crucial. Scientists need to communicate not only among themselves but with business, unions, government, the media and environmental and community interest groups. Examines how different concepts of 'science' affect our understanding of how science is communicated. Topics include: history of science communication; new communications technologies and science; popularisation; distortion; the communication of uncertainty and risk. Considers the role of communicators and guides students towards on-line tools to access, evaluate and use current information.The class will simulate issues of communication and produce appropriate outputs, including journalistic articles, press releases, contributions to an on-line journal.

SCTS3128 Energy and its Politics
School of Science and Technology Studies
Staff Contact: S Healy
UOC6 HPW3 S2
Prerequisite/s: 36 units of credit

Energy is fundamental to our way of life. Global energy use continues to expand, straining resources and increasing pollution. Australia has resolved to provide 2% extra electricity from clean renewable sources by 2010 yet Denmark is on track to provide 20% from these sources by 2003. There is currently intense jockeying between countries over these matters. Explores energy options, analysing the economic, political, environmental and technical constraints upon them, in light of major current imperatives - climate change and the deregulation of the energy industry. Emphasises matters such as the viability of solar energy and the future of nuclear power.

SCTS3900 Technology and Everyday Life: Key Themes in Technology Studies
School of Science and Technology Studies
Staff Contact: A Corones
UOC6 HPW3 S1
Prerequisite/s: 36 units of credit including 6 units of HPST/SCTS at credit level

What is technology? How does it shape our form of life? How did we become dependent upon the technological systems of modern life? Why does technological change often seem a remote process difficult to influence? We explore these issues through the philosophy, history and sociology of technology. Among topics considered are: technology and the life-world; technological determinism; the history of everyday technologies from the mid-nineteeth century; issues of citizen participation and strategies for change.

SCTS4000 Science and Technology Studies Honours (Research) Full-Time
School of Science and Technology Studies
Staff Contact: J Schuster
Enrolment requires school approval
UOC24 S1 S2
Prerequisite/s: 54 units of credit in HPST/SCTS at 65% including at least one of HPST3900 or SCTS3900

For Honours, candidates are required to present a thesis and complete coursework as approved by the Head of School.

Note/s: With the approval of the Head of School, courses outside the School carrying up to 12 units of credit may be substituted.

SCTS4050 Science and Technology Studies Honours (Research) Part-Time
School of Science and Technology Studies
Staff Contact: J Schuster
Enrolment requires school approval
UOC12 S1 S2
Prerequisite/s: 54 units of credit in HPST/SCTS at 65% including at least one of HPST3900 or SCTS3900.

For Honours, candidates are required to present a thesis and complete coursework as approved by the Head of School.

Note/s: With the approval of the Head of School, courses outside the School carrying up to 12 units of credit maybe substituted.

SCTS4200 Combined Honours (Research) in Environmental Studies Full-Time
School of Science and Technology Studies
Staff Contact: P Brown
Enrolment requires school approval
UOC12 S1 S2

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/s: Students must meet the following requirements: 1. Combined honours prerequisites in a discipline. 2. At least 48 units of credit from the list of nominated courses for the interdisciplinary major in Environmental Studies, including SCTS2118 and SCTS3126, with an average of Credit or better. 3. Permission of the Honours Comittee of the Environmental Studies Committee.

SCTS4201 Combined Honours (Research) in Environmental Studies Part-Time
School of Science and Technology Studies
Staff Contact: P Brown
Enrolment requires school approval
UOC6 S1 S2

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/s: Students must meet the following requirements: 1. Combined honours prerequisites in a discipline. 2. At least 48 units of credit from the list of nominated courses for the interdisciplinary major in Environmental Studies, including SCTS2118 and SCTS3126, with an average of Credit or better. 3. Permission of the Honours Comittee of the Environmental Studies Committee.

SCTS4500 Science and Technology Studies Combined Honours (Research) Full-Time
School of Science and Technology Studies
Staff Contact: J Schuster
Enrolment requires school approval
UOC12 S1 S2
Prerequisite/s: 48 units of credit in HPST/SCTS at 65% including at least one of HPST3900 or SCTS3900.

For Combined Honours, candidates are required to present a thesis as approved by the Heads of the two participating Schools.

Note/s: With the approval of the Head of School, courses outside the School carrying up to 12 units of credit may be substituted.

SCTS4550 Science and Technology Studies Combined Honours (Research) Part-Time
School of Science and Technology Studies
Staff Contact: J Schuster
Enrolment requires school approval
UOC6 S1 S2
Prerequisite/s: 48 units of credit in HPST/SCTS at 65% including at least one of HPST3900 or SCTS3900.

For Combined Honours, candidates are required to present a thesis as approved by the Heads of the two participating Schools.

Note/s: With the approval of the Head of School, courses outside the School carrying up to 12 units of credit may be substituted.

SDES1101 Design Studio 1A - Elements and Principles of Design
School of Design Studies
Staff Contact: School Office
UOC6 HPW4 S1 S2

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 1B - Analysing Design Principles
School of Design Studies
Staff Contact: School Office
UOC6 HPW4 S2 X1
Prerequisite/s: 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.

SDES1103 Design and Human Functioning - the Body at Work
School of Design Studies
Staff Contact: School Office
UOC4 HPW2 S1

The aim of this course is to introduce and develop understandings about the functioning human being at both the physical and cognitive levels. The relationship between human physiology and psychology is examined in the context of the designed environment and its implications for questions of ergonomics. The course will refer to the physiology and neurology of sensation, the psychology of perception, ergonomics and anthropometrics as knowledge domains pertinent to designing the optimum interface between humans and their environment.

SDES1104 Interactive Systems - Design and Responsible Management of the Enviroment
School of Design Studies
Staff Contact: School Office
UOC4 HPW2 S2

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.

SDES1105 Presentation Techniques
School of Design Studies
Staff Contact: School Office
UOC3 HPW2 S1

This course aims to emphasise the development of a keen and critical awareness in students of the principles of verbal and visual presentation techniques within the Design context. The questions of intent; content and application are focussed towards the intended development of the individual's visual language and presentation technique.

SDES1107 Modelmaking: Communicating in Three Dimensions
School of Design Studies
Staff Contact: School Office
UOC3 HPW2 S1 S2

This course introduces students to basic materials, equipment and techniques involved in modelmaking. The knowledge and understanding derived from these initial investigations is applied to a range of exercises and projects. The projects include fabricating and forming materials to appropriately and clearly articulate design intent. The relevance of three-dimensional models within the design process is emphasised by understanding the place of models as tools of; Exploration, Communication, Visualisation and Presentation. This course aims to equip students with necessary knowledge and skills to apply to concepts within the design studio setting.

SDES1108 Typography and Composition
School of Design Studies
Staff Contact: School Office
UOC3 HPW2 S1 S2

This course examines the principles of two dimensional design, creatively explored through typographic and print-based projects. It introduces the history and fundamentals of typography, principles of layout and composition, and the variety of graphic applications in contemporary contexts. Students will be encouraged to develop perceptual awareness, analytical and technical skills in their understanding and approach to typography and composition in graphics/media design.

SDES1109 Measured Drawing
School of Design Studies
Staff Contact: School Office
UOC3 HPW2 S1 S2

This course will introduce students to the communication of ideas through measured drawing. Students will be introduced to topics by means of exercises in plane geometry, descriptive geometry and orthographic projections. Exercises will also include those to develop the ability to visualise and record forms and spaces in measured drawings.

SDES1110 Design and Computers 1B
School of Design Studies
Staff Contact: School Office
UOC4 HPW3 S2 X1

This course extends students knowledge in four basic areas of design and computers. These areas are: image acquisition and manipulation, shape manipulation, introduction to CADconcepts and introduction to multimeda authoring. This course will explore rapidly developing tool sets, identify and familiarise students with basic user interface metaphors utilised by most sofware packages while placing software applications commonly seen in industry and studio work flows, into context.

SDES1144 Textiles Workshop
School of Design Studies
Staff Contact: School Office
UOC4 HPW3 S1 S2

This course introduces the student to a wide range of techniques and processes involving textiles. Students will be encouraged to cultivate an awareness of the creative possibilities of textiles through technical sampling, research and application. Contemporary and historical textile artists as well as other artists who incorporate textiles-related processes will be discussed. Students will be introduced to and work with various textiles processes including: fabric manipulation, print, tapestry and weave.

SDES1154 Jewellery Workshop
School of Design Studies
Staff Contact: School Office
UOC4 HPW3 S1 S2

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 Ceramics Workshop
School of Design Studies
Staff Contact: School Office
UOC4 HPW3 S1 S2

This course is designed to enable students to undertake a program of practical study in the nature of ceramic material, and to explore traditional and contemporary techniquesemployed in its use. Through lectures, demonstrations and practical application, students will study techniques which may include hand building, adobe techniques, mould making, slip casting, glazing, throwing and firing. Appropriate health and safety procedures will be demonstrated, discussed and considered in the production of students work.

SDES1303 Introductory Studies:Ceramics , Jewellery, Textiles
School of Design Studies
Staff Contact: School Office
UOC8 HPW6 S1

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 1
School of Design Studies
Staff Contact: School Office
UOC8 HPW6 S2
Prerequisite/s: SDES1303

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 1
School of Design Studies
Staff Contact: School Office
UOC8 HPW6 S2
Prerequisite/s: SDES1303

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 1
School of Design Studies
Staff Contact: School Office
UOC8 HPW6 S2
Prerequisite/s: SDES1303

This course introduces the student to the basic concepts, techniques and processes of contemporary textiles practice while developing a firm skills base from which they will expand in their continuing studies in the discipline. Contemporary, traditional, cultural and historical textiles are examined, developing knowledge and a critical awareness of these textile processes and how they can be can be integrated within the contemporary context. The course provides preliminary technical training in woven and interlaced structures and surface techniques of stitch, print and dyes.

SDES1601 Colour, Composition and Typography
School of Design Studies
Staff Contact: School Office
UOC4 HPW3 S1

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 Design Studio 2A - Applied/Object
School of Design Studies
Staff Contact: School Office
UOC4 HPW3 S1
Prerequisite/s: SDES1102

In this course design practice is undertaken which requires students to integrate technical knowledge and artisan skills with material, form and contextual issues in the applied design discipline. Projects will address the conceptual, material and sculptural understandings of 3D object design. Elements of the design process - critical analysis, research, problem solving and design development - will be undertaken to facilitate the resolution of form and fabrication design issues.

SDES2102 Design Studio 2A - Environments/Spatial
School of Design Studies
Staff Contact: School Office
UOC4 HPW3 S1
Prerequisite/s: 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 Design Studio 2A - Graphics/Media
School of Design Studies
Staff Contact: School Office
UOC4 HPW3 S1
Prerequisite/s: SDES1102

In this course design practice is undertaken which requires students to integrate theoretical knowledge and technical skills with contextual issues in the graphics/media design discipline. Projects will address the principles of visual representation, media and processes, typography, composition, colour and contextual issues in graphics/media applications. Elements of the design process - critical analysis, research, problem solving and design development - will be undertaken to facilitate the resolution of visual communication design issues.

SDES2104 Design Studio 2A - Ceramics
School of Design Studies
Staff Contact: School Office
UOC4 HPW3 S1
Prerequisite/s: SDES1102

This course requires students to integrate technical knowledge and artisan skills with material form and contextual issues in the ceramic design discipline. Projects address the conceptual, material and sculptural understandings of 3D object design in clay and associated materials. In particular, this course highlights 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 Design Studio 2A - Jewellery
School of Design Studies
Staff Contact: School Office
UOC4 HPW3 S1
Prerequisite/s: SDES1102

In this course design practice is undertaken which requires students to integrate technical knowledge and artisan skills with material form and contextual issues in the jewellery design discipline. Projects will address the conceptual and material understandings of 3D jewellery and object design. Elements of the design process- critical analysis, research, problem solving and design development- will be undertaken to facilitate the resolution of form and fabrication design issues. This course will develop students' understanding of jewellery design through investigations of materials and jewellery processes. 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 Design Studio 2A - Textiles
School of Design Studies
Staff Contact: School Office
UOC4 HPW3 S1
Prerequisite/s: SDES1102

In this course design practice is undertaken which requires students to integrate knowledge, conceptual understanding and technical skills with materials, form and contextual issues in the textile design discipline. Projects will address the conceptual, material and sculptural understanding of constructed textile processes. Elements of the design process - critical analysis, research, problem solving and design development - will be undertaken to facilitate the resolution of form and fabrication design issues. Through projects the subject will introduce and develop the students' understanding of the textile processes of interlacing, weave and fabric manipulation.

SDES2107 Design and Computers 2A
School of Design Studies
Staff Contact: School Office
UOC4 HPW4 S1
Prerequisite/s: SDES1106

This course is an investigation into computers, hardware, software and design in the graphics/media industry. The software programs will include photographic enhancement, image manipulation, typography. The course will also cover the processes and techniques used in computer generated design. This course will intergrate the graphics component the introduction of 2D drawing on the computer by the use of CAD (Computer Aided Drawing) software program for the generating of technical and mechanical design drawings. With this basis of computer

generated drawing, the students can create and manipulate designs and drawings. The areas that this course will cover includes placing, manipulating and modifying elements, drafting features, references filing, dimensioning, annotating, plotting and 2D drawing techniques.

SDES2108 Design Studio 2B - Applied/Object
School of Design Studies
Staff Contact: School Office
UOC4 HPW3 S2
Prerequisite/s: SDES2101

In this course the students' existing design practice is investigated, requiring students to extend their capacity to integrate technical knowledge and artisan skills with material, form and contextual issues in the applied design discipline. Projects will address the conceptual, material and sculptural understandings of 3D object design. Elements of the design process - critical analysis, research, problem solving and design development - will be undertaken to facilitate a more complex resolution of form and fabrication design issues.

SDES2109 Design Studio 2B - Environments/Spatial
School of Design Studies
Staff Contact: School Office
UOC4 HPW3 S2
Prerequisite/s: 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 Design Studio 2B - Graphics/Media
School of Design Studies
Staff Contact: School Office
UOC4 HPW3 S2
Prerequisite/s: SDES2103

In this course design practice is investigated which requires students to extend their capacity to integrate theoretical knowledge and technical skills with contextual issues in the graphics/media design discipline. Projects will address the principles of visual representation, media and processes, typography, composition, colour, 2D and 3D graphics, and contextual issues in graphics/media applications. Elements of the design process - critical analysis, research, problem solving and design development - will be undertaken to facilitate a more complex resolution of visual communication design issues.

SDES2111 Design Studio 2B - Ceramics
School of Design Studies
Staff Contact: School Office
UOC4 HPW3 S2
Prerequisite/s: SDES2104

This course provides the opportunity for students to investigate existing design practice and to extend their capacity to integrate technical knowledge and skills with material, formal and contextual issues in the ceramic discipline. Projects address the conceptual, material and sculptural understandings of three dimensional object design in clay. In particular, these projects require that students engage with ideas, materials and techniques relevant to achieving fired ceramic surfaces appropriate to their developing individual practice. 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 practice.

SDES2112 Design Studio 2B - Jewellery
School of Design Studies
Staff Contact: School Office
UOC4 HPW3 S2
Prerequisite/s: SDES2105

In this course the students' existing design practice is investigated, requiring students to extend their capacity to integrate technical knowledge and artisan skills with material, form and contextual issues in the jewellery design discipline. Projects will address the conceptual, material and sculptural understandings of 3D jewellery design. Elements of the design process - critical analysis, research, problem solving and design - will be undertaken to facilitate a more complex resolution of form and fabrication design issues. This course will focus students 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.

SDES2113 Design Studio 2B - Textiles
School of Design Studies
Staff Contact: School Office
UOC4 HPW3 S2
Prerequisite/s: SDES2106

In this course design practice is undertaken which requires students to integrate knowledge, conceptual understanding and technical skills with material, form and contextual issues in the textile design discipline. Projects will address the conceptual and material understanding of textile processes relating to surface design techniques. Elements of the design process - critical analysis, research, problem solving and design development - will be undertaken to facilitate the resolution of form and fabrication design issues. Through projects, this course will introduce and develop the students' understanding of the textile processes of print, dyed and stitched textiles.

SDES2114 Design and Social Theory
School of Design Studies
Staff Contact: School Office
UOC4 HPW2 S1

This course introduces students to concepts within social theory and their application within the area of design. Current issues in design will be discussed and analysed to examine the behaviour of social groups and target populations. By investigating issues such as green design, gender and social responsibility in design, students can develop an understanding of the social impact of design. This investigation will require active involvement by the students in observation, analysis and speculation concerning the social factors present in all aspects of the design process.

SDES2115 Design and Computers 2B
School of Design Studies
Staff Contact: School Office
UOC4 HPW4 S2
Prerequisite/s: SDES2107

The course is an investigation into computers, hardware, software and design in the graphics/media industry. The software program will include photographic enhancement, image manipulation, typography and desk top publishing applications. The courset will also cover the processes and techniques used in computer generated design. This course will integrate the graphics component the introduction to 2D drawing on the computer by the use of CAD (Computer Aided Drawing) software program for the generating of technical and mechanical design drawings. With this basis of computer generated drawing, the students can create and manipulate designs and drawings. The areas that this course will cover includes placing, manipulating and modifying elements, drafting features, references filing, dimensioning, annotating, plotting and 2D drawing techniques.

SDES2116 Design Practice
School of Design Studies
Staff Contact: School Office
UOC4 HPW2 S1

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, 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 Ceramics Technology Workshop
School of Design Studies
Staff Contact: School Office
UOC4 HPW3 S2

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. Theoretical information is contextualised with reference to ceramic history and to contemporary developments/usage. The subject 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.

SDES2143 Low Impact and Alternative Ceramic Processes Workshop
School of Design Studies
Staff Contact: School Office
UOC4 HPW3 S1

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. Throughout, students work with accessible materials to produce clay media, equipment and firings that are inexpensive, energy efficient and easily replicated in the domestic studio.

SDES2145 3D Textiles Workshop
School of Design Studies
Staff Contact: School Office
UOC4 HPW3 TBA

This course introduces the student to the techniques and processes of the three dimensional textile structures of interlacing, weave and basketry and the incorporation of these processes into contemporary textiles practice. The course develops a firm skills base to expand in continuing studies in the textiles discipline. The course provides technical training in woven, interlaced and basketry structures. Tapestry weaving, loom weaving and basketry techniques and structures will be introduced with a range of techniques being covered in each area.

SDES2146 2D Textiles Workshop
School of Design Studies
Staff Contact: School Office
UOC4 HPW3 TBA

This course introduces the student to the techniques and processes of textile surface design and the incorporation of these processes into contemporary textiles practice. The course develops a firm skills base to expand in continuing studies in the textiles discipline. The course provides technical training in print, dyed and stitched textiles with a range of techniques being covered in each area.

SDES2151 Jewellery Workshop:Surface Techniques
School of Design Studies
Staff Contact: School Office
UOC4 HPW3 S1

This is a practical class open to students requiring skills centred in the jewellery studio This course will focus on a thorough examination of surface as applied to jewellery allowing for experimentation in any one of a variety of specialist surface techniques such as granulation, etching, keum-bo or married metal.

SDES2152 Jewellery Workshop in Colour
School of Design Studies
Staff Contact: School Office
UOC4 HPW3 TBA

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.

SDES2163 Jewellery Elective 1:Contemporary Wearables
School of Design Studies
Staff Contact: School Office
UOC4 HPW3 S2

This course will enable students to gain insight into and understanding of jewellery practice. Within a framework encompassing traditional and 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 Elective 2:3D Jewellery and Small Scale Objects
School of Design Studies
Staff Contact: School Office
UOC4 HPW3 S1

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 works which are body related but not wearable and which may be expressed as vessels or implements expanding their understanding of this traditional component of jewellery practice.

SDES2167 Textiles for Fashion
School of Design Studies
Staff Contact: School Office
UOC4 HPW3 S1 S2

This course covers the design and making of textiles for costumes and fashion garments. Particular emphasis will be placed on the textiles used for fashion, the selection of textiles, the way textiles are used, and the manipulation of textiles for fashion garments. The course provides an introduction to textiles, explored in the context of fashion. Students will design and make fabrics from which to create garments. The fashion industry will be introduced and explored in relation to the work of selected designers.

SDES2168 Commercial Textile Design and Industry
School of Design Studies
Staff Contact: School Office
UOC4 HPW3 S1 S2

This course follows the design process for the commercial production of textiles, from design brief and concept development to sampling and final manufacture. It will explore and examine the weave, stitch and print processes at studio and industry level including professional presentation, colourways and client requirements. The course will involve students in visits to textile firms in industry and the commercial sector, where the concept of briefs, design development and client relationships will be explored. Students will use this knowledge to produce textile related project work with industrial applications to set briefs, relating to fashion or furnishing fabrics.

SDES2171 Design Management Elective
School of Design Studies
Staff Contact: School Office
UOC4 HPW3 S2

By considering the form that a design culture takes, 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 the main focus while social responsibility and ethical practice will add an additional focus.

SDES2174 Fashion and Costume Design 1
School of Design Studies
Staff Contact: School Office
UOC4 HPW3 S1 S2

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
Staff Contact: School Office
UOC4 HPW3 S1

This course will introduce students to design and performance in various contexts. Design in theatre will be the major focus of this subject and students will systematically examine design needs and the crafts of the theatre and participate in practical workshops intended to provide technical and construction experiences. A design craft brief will be set for students to complete.

SDES2178 Independent Study
School of Design Studies
Staff Contact: School Office
UOC4 HPW3 TBA

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 Theatre
School of Design Studies
Staff Contact: School Office
UOC4 HPW3 S1 S2

Fundamentals of stage design including technical drawing, plans, renderings and model construction. Scene design, painting and perspective, special effects using colour and synthetic materials. Costume design, patterns and pattern making, cutting and construction. Historical and social research in theatre design.

SDES2184 Textiles: Woven Forms
School of Design Studies
Staff Contact: School Office
UOC4 HPW3 S1 S2

This course provides an introduction to textile processes and techniques associated with constructed textiles as a means of expressing ideas. Practical work in tapestry and loom weaving is complimented by critical, historical and theoretical information which assists students in understanding elements of contemporary textile work, and which enables them to place their work in context.

SDES2185 Textiles: Fabric Manipulation
School of Design Studies
Staff Contact: School Office
UOC4 HPW3 S1 S2

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 in mark making on fabric, and hand and machine embroidery is complimented by critical, historical and theoretical information which assists students in understanding elements of contemporary textile work, and which enables them to place their work in context.

SDES2187 Ceramics: The Contemporary Vessel
School of Design Studies
Staff Contact: School Office
UOC4 HPW3 S1 S2

This course provides an opportunity for students to use basic materials, technology, processes and skills associated with the construction and firing of studio based work in clay. Practical work is contextualised within historical and theoretical considerations/debates that frame contemporary ceramic practice. In particular, Ceramics 1 studio projects give prominence to disparate contemporary interpretations of the vessel and associated notions of containment.

SDES2188 Ceramics: Mutiples, Meanings and Methods
School of Design Studies
Staff Contact: School Office
UOC4 HPW3 S1 S2

This course highlights a range of fundamental approaches and skills that underpin the multiple strands of contemporary ceramic practice. Practical work is contextualised within historical and theoretical considerations/debates that frame contemporary ceramic practice. In particular, Ceramics 2 studio projects give prominence to ideas and processes associated with the construction and firing of ceramic multiples and work in series.

SDES2195 The Arts and Aboriginal People and Torres Strait Islanders
School of Design Studies
Staff Contact: School Office
UOC4 HPW3 TBA

This course will concentrate on one form of visual art, such as textiles, from the range of media utilised by the Aboriginal and Torres Strait Islander people. It will examine the course from a traditional and contemporary viewpoint with emphasis placed on its relationship to other art forms. The interconnectedness of the art forms with the culture will be studied. Visits to museum and gallery collections will be included. A studio component will be incorporated to complement the art and problem solving activities based on stylistic qualities of various art forms.

SDES2325 Ceramics 2
School of Design Studies
Staff Contact: School Office
UOC8 HPW8 S1
Prerequisite/s: SDES1316

This course builds on the general introduction to ceramic processes and materials developed in Ceramics 1. It highlights both mechanical and non-mechanical approaches to the construction of three-dimensional objects in clay and associated considerations of form, purpose, permanence, scale, site etc. Studio projects require that students gain competency in the use and 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 2
School of Design Studies
Staff Contact: School Office
UOC8 HPW8 TBA
Prerequisite/s: SDES1317

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 works which are body related three dimensional jewellery objects. Studio activity will examine the technology of metal and its translation through heat into three-dimensional forms. The techniques of soldering, casting and fabrication will be explored using both ferrous and non-ferrous materials to translate two-dimensional drawn designs into three-dimensional jewellery objects both wearable and non-wearable.

SDES2327 Textiles 2
School of Design Studies
Staff Contact: School Office
UOC8 HPW8 S1
Prerequisite/s: SDES1318

This course introduces the conceptual understanding and technical skills of textiles practise relating to textile structures. Students become familiar with the textile processes of weave, basketry and fabric manipulation. The emphasis at this stage is an open ended, exploratory investigation of textiles language and processes through experimentation and research. The process is supported by the acquisition of skills in constructed textiles including the presentation of projects, field work, studio theory and documentation of completed works. Students produce individual work which integrates technical and conceptual approaches.

SDES2335 Ceramics 3
School of Design Studies
Staff Contact: School Office
UOC8 HPW8 S2
Prerequisite/s: 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 3
School of Design Studies
Staff Contact: School Office
UOC8 HPW8 S1 S2
Prerequisite/s: SDES2326

This course will focus students on a thorough examination of qualities of suface 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 3
School of Design Studies
Staff Contact: School Office
UOC8 HPW8 S2
Prerequisite/s: SDES2327

This course introduces the conceptual understanding and technical skills of textiles practise relating to textile surfaces. Students become familiar with the textile processes of printed and dyed textiles and embroidery. The emphasis at this stage is an open ended, exploratory investigation of textiles language and processes through experimentation and research. The process is supported by the acquisition of skills in constructed textiles including the presentation of projects, field work, studio theory and documentation of completed works. Students produce individual work which integrates technical and conceptual approaches.

SDES3101 Design Studio 3A - Applied/Object
School of Design Studies
Staff Contact: School Office
UOC4 HPW3 S1
Prerequisite/s: SDES2108

In this course design solutions are developed from briefs that are academically based or emulate problems typical of applied 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.

SDES3102 Design Studio 3A - Environments/Spatial
School of Design Studies
Staff Contact: School Office
UOC4 HPW3 S1
Prerequisite/s: 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 Design Studio 3A - Graphics/Media
School of Design Studies
Staff Contact: School Office
UOC4 HPW3 S1
Prerequisite/s: SDES2110

In this course design solutions are developed from briefs that are academically based or emulate problems typical of graphics/media 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 graphics/media design conventions.

SDES3104 Design Studio 3A - Ceramics
School of Design Studies
Staff Contact: School Office
UOC4 HPW3 S1
Prerequisite/s: SDES2111

This course provides the opportunity to develop design solutions from briefs that are academically based or emulate the approaches and problems typical of ceramic design in the professional context. 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.

SDES3105 Design Studio 3A - Jewellery
School of Design Studies
Staff Contact: School Office
UOC4 HPW3 S1
Prerequisite/s: SDES2112

In this subject 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 Design Studio 3A - Textiles
School of Design Studies
Staff Contact: School Office
UOC4 HPW3 S1
Prerequisite/s: SDES2113

This course provides the opportunity to develop design solutions from briefs that are academically based or emulate the approaches and problems typical of textile design in the professional context. The design proposals must address complex contextual issues and the interactions of the brief. Students will be encouraged to develop a clear design process and apply their skills to appropriate documentation and presentation of textiles.

SDES3107 Design and Computers 3
School of Design Studies
Staff Contact: School Office
UOC4 HPW4 S1
Prerequisite/s: SDES2115

The course is an advanced investigation into computers and design in graphics and high resolution output for print and its applications in the graphics/media industry. The program will include graphics software for 3D modelling, image manipulation and typography. The subject will also involve the integration of graphics with the advanced investigation into 2D and 3D drawing and modelling for object, graphics and environment purposes. This area takes the students from the basics of creating simple three dimensional models through to the more complex problems that arise from three dimensional modelling. Students will learn how to create three dimensional models and then produce two dimensional drawings from these models.

SDES3108 Design Studio 3B - Applied/Object
School of Design Studies
Staff Contact: School Office
UOC4 HPW3 S2
Prerequisite/s: SDES3101

The aim of the course is to build on the skills and knowledge from Design Studio 3A - Applied and to increase the complexity of the studio practice within the applied discipline. Self-direction will be 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.

SDES3109 Design Studio 3B - Environments/Spatial
School of Design Studies
Staff Contact: School Office
UOC4 HPW3 S2
Prerequisite/s: SDES3102

The aim of the course is to build on the skills and knowledge from Design Studio 3A - Environments and to increase the complexity of the studio practice within the environments discipline. Self-direction will be 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 Design Studio 3B - Graphics/Media
School of Design Studies
Staff Contact: School Office
UOC4 HPW3 S2
Prerequisite/s: SDES3103

The aim of the course is to build on the skills and knowledge from Design Studio 3A - Graphics/Media and to increase the complexity of the studio practice within the graphics/media discipline. Self-direction will be 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.

SDES3111 Design Studio 3B - Ceramics
School of Design Studies
Staff Contact: School Office
UOC4 HPW3 S2
Prerequisite/s: SDES3104

The aim of this subject is to build on skills and knowledge from Design Studio - Ceramics - 3A and to increase the complexity of studio practice within the ceramic discipline. Self-direction will be encouraged so that students develop and apply their skills within the development and articulation of the brief. Project documentation and presentation methods are expected to reflect a substantial sophistication of design ideas and communication techniques.

SDES3112 Design Studio 3B - Jewellery
School of Design Studies
Staff Contact: School Office
UOC4 HPW3 S2
Prerequisite/s: SDES3105

The aim of the subject is to build on the skills and knowledge from Design Studio 3A - Jewellery and to increase 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 development and articulation of a brief. Project documentation and presentation methods are expected to reflect a substantial sophistication of design ideas and communication.

SDES3113 Design Studio 3B - Textiles
School of Design Studies
Staff Contact: School Office
UOC4 HPW3 S2
Prerequisite/s: SDES3106

The aim of this course is to extend the students design experience through complex projects in the textile design discipline. The aim of this course is to build on the skills and knowledge from Design Studio 3A - Textiles and to increase the complexity of the studio practice within the textiles discipline. Self-direction will be 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 textile design ideas and techniques.

SDES3162 Ceramics 3 Elective:Non-Functional,3 Dimensional Ceramics
School of Design Studies
Staff Contact: School Office
UOC4 HPW3 S1 S2

This course provides the opportunity for students to explore technical and creative skills in developing and executing studio based work in clay. The practical component of the program broadens students engagement with ceramic processes and materials while critical/ theoretical elements encourage students to deepen their understanding of contemporary ceramic practice. In particular, Elective 3 studio projects give prominence to ideas and processes associated with non-functional, three dimensional ceramics.

SDES3165 Jewellery Elective 3: the Replicated Object-Jewellery Multiples
School of Design Studies
Staff Contact: School Office
UOC4 HPW3 TBA

Students will develop an understanding of jewellery practice and explore the concepts of making multiples to produce wearable and non-wearable objects which have the body as their format. Students will be encouraged through a range of material and process experiments to focus their making on the production of jewellery multiples and series in the studio.

SDES3166 Jewellery Design for Fashion
School of Design Studies
Staff Contact: School Office
UOC4 HPW3 TBA

This course will introduce students to the contemporary and commercial applications of jewellery design for fashion. The class will encourage students to integrate ideas, processes and materials in the design and fabrication of jewellery and accessories with a fashion focus. Specific technologies will be selected for research within the subject. In the pursuit of this research liaisons with industries associated with the related technologies will be established.

SDES3169 Textiles: New Technologies
School of Design Studies
Staff Contact: School Office
UOC4 HPW3 S1

This course introduces the new textile technologies and processes developed by artists and industry for textiles in the worlds of art, design, engineering and science. The course covers the development of textile fabrics, materials and structures for fashion, art, design, science, engineering and industrial purposes. It will introduce a range of technologies and processes including thermoplastics, smart textiles, ultra sound and transfer print processes, digital and computerised techniques for textiles.

SDES3171 Digital Design - Video and Interactive
School of Design Studies
Staff Contact: School Office
UOC4 HPW2 S1 S2

The course expands the students' knowledge in digital video and interactive applications in the development and display of digital image design, information technology and information design processes. Students will also develop skills in pre-production and post-production media processes as well as the administrative and non-digital elements required for interactive media design, authoring and construction. 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 interactive applications from briefs and concepts developed in class. The course will increase their knowledge of the design processes required for developing high-end video output.

SDES3172 Digital Design - Interactive Media
School of Design Studies
Staff Contact: School Office
UOC4 HPW2 S1 S2

The course is an advanced investigation into computing in and design in graphics and their application in the graphics/media industry. The course also considers the areas of information technology, information design and the design processes involved in the creation of interactive media. The subject expands the students use of CAD modelling, image manipulation, typography, digital audio, digital video and reactive software for computer interaction. Students will be given 'hands on' experience in computer software for the graphics/film/title design industry. The student will also become experienced with a combination of advanced digital media applications for designing and producing interactive computer interfaces and information systems.

SDES3174 Web Design and Screen Interface
School of Design Studies
Staff Contact: School Office
UOC6 HPW3 S1 S2

This course provides students with the knowledge and skills to design web and screen based interface, to a design brief. This course focuses on the creation and design of web and screen based interface in relation to and satisfying the parameters set for a specified brief and target audience. Students will explore and apply hypertext markup language, research content, create and apply navigational strategies and structures, generate and produce fully functioning web pages to a brief to a sophisticated level of design. The content includes: Critical analysis of selected web page applications and sites; Criteria governing web page design; Critical analysis of target audience for a specified brief; Research and structuring of web page design; Research and application of HTML to web page design; Research and analysis of navigational strategies to web page design; Research, analysis and use of appropriate technologies.

SDES3175 Fashion and Costume Design 2
School of Design Studies
Staff Contact: School Office
UOC4 HPW3 TBA

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 I. 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 Design Pre-Press
School of Design Studies
Staff Contact: School Office
UOC6 HPW3 S2

In this course students will learn to use appropriate industry principles methods and terminology to select, plan and implement the most

appropriate digital pre-press, direct to press processes and digital print production processes for print graphics applications. Students will focus on the preparation and creation of appropriate digital artwork and print specifications for a variety of briefs from single colour to multi-colour print designs, and from single page to multi-page documents. 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 Digital Design - Object and Space
School of Design Studies
Staff Contact: School Office
UOC4 HPW2 S2

This course is an investigation of the use of CAD, 2D and 3D software in the areas of surface generation and advanced modelling. Students will design and create models and transfer these files for manipulation and alteration in a wide range of available software packages and manufacturing techniques. This course assists the students to develop advanced skills and understanding in computer strategies for design as they apply to knowledge in the areas of pre-production, post-production and design processes in creating CAD models and drawings, including areas of Computer Aided Manufacturing, stereolithography and other modelling applications.

SDES3183 Jewellery 3
School of Design Studies
Staff Contact: School Office
UOC4 HPW3 S1

Students will develop their understanding of jewellery practice and explore the concepts of making multiples to produce wearable and non wearable objects which have the body as their format. Students will be encouraged through a range of material and process experiments to focus their making on the production of jewellery multiples and series in the studio.

SDES3186 Textiles: Surface Design
School of Design Studies
Staff Contact: School Office
UOC4 HPW3 S1

This course provides an introduction to textile processes and techniques associated with dyed and printed textiles as a means of expressing ideas. Practical work in dyeing, printing and repeat designing is complimented by critical, historical and theoretical information which assists students in understanding elements of contemporary textile work, and which enables them to place their work in context.

SDES3345 Ceramics 4
School of Design Studies
Staff Contact: School Office
UOC8 HPW8 S1
Prerequisite/s: 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 4
School of Design Studies
Staff Contact: School Office
UOC8 HPW8 S1
Prerequisite/s: SDES2336

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 4
School of Design Studies
Staff Contact: School Office
UOC8 HPW8 S1
Prerequisite/s: SDES2337

This studio based course centres upon the students' self initiated work program which is devised in consultation with their lecturers. 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 context central to their work. Special content extends the students' technical and conceptual skills in relation to print, weave, embroidery and dyed textiles. Lectures, tutorials, demonstrations of advanced textile processes, the acquisition of advanced skills and studio research methodologies, the presentation of seminars by each student about the content and context of their practice are employed to achieve a thorough knowledge and critical awareness of contemporary textile practice and an ability to articulate the concerns of visual arts making.

SDES3355 Ceramics 5
School of Design Studies
Staff Contact: School Office
UOC8 HPW8 S2
Prerequisite/s: SDES3345

This course requires that 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/appropriate, critically engaged approach to making.

SDES3356 Jewellery 5
School of Design Studies
Staff Contact: School Office
UOC8 HPW8 S2
Prerequisite/s: 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 both students conceptual and technical capabilities.

SDES3357 Textiles 5
School of Design Studies
Staff Contact: School Office
UOC8 HPW8 S2
Prerequisite/s: SDES3347

This studio based course allows students to produce a substantial project which demonstrates an understanding and refinement of the concepts and contexts central to their work. Students refine their technical and conceptual skills in textiles and are expected to develop an area of research relevant to their individual art practice. This self initiated and directed project is devised in consultation with relevant lecturers. The course aims to produce an integrated approach to studio practice through lectures, tutorial discussion, field work, the refinement of skills, studio research methodologies and the presentation of seminars by each student about the content and context of their practice are employed to achieve the synthesis of conceptual concerns and studio practice.

SDES3501 Design Craft 3A Ceramics
School of Design Studies
Staff Contact: School Office
UOC8 HPW6 S1

This course examines sculptural ceramic forms. Studio practice will examine: relief and three dimensional forms; surface treatment; scale; mixed media; mass; stress factors; personal and public sculpture; cultural, religious and political icons.

SDES3502 Design Craft 3A Jewellery
School of Design Studies
Staff Contact: School Office
UOC8 HPW6 S1

The role of the contemporary jeweller and the aesthetics of jewellery-making within a commercial context. Studio activity: stone-setting; metal alloying; etching; patination; setting a design based on consumer research; one-off designs and multiple production; linking studio capabilities with industries (electroplating, metal spinning, die-forming); visual problems involved with aesthetics, jewellery and mass production.

SDES3503 Design Craft 3A Textiles
School of Design Studies
Staff Contact: School Office
UOC8 HPW6 S1

This course explores further the textile techniques and concepts covered in previous sessions developing an individual approach to textiles practice. Projects assist students with individual conceptual interpretation of studio work and the integration of concepts and techniques, further developing skills in surface and constructed textiles.

SDES3504 Advanced Problems in Design
School of Design Studies
Staff Contact: School Office
UOC4 HPW3 S1 S2

This course will encourage and assist students to develop advanced individual projects in their area of specialisation. Opportunities for group discussions and tutorials will enable students to share their work with staff and other students. Projects in textiles, ceramics or metal will require a design craft problem, identification of the process and strategies to assist the solution and completion of craft work. Presentation will require submission of documentation of process as well as completed work.

SDES3505 Design Craft 3B - Ceramics
School of Design Studies
Staff Contact: School Office
UOC8 HPW6 S2

This course provides an opportunity for the individual production of a major body of work which must contain elements of ceramic material and ceramic process. Studio practice will involve a student-initiated design craft brief (approved by subject lecturer).

SDES3506 Design Craft 3B - Jewellery
School of Design Studies
Staff Contact: School Office
UOC8 HPW6 S2

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.

SDES3507 Design Craft 3B - Textiles
School of Design Studies
Staff Contact: School Office
UOC8 HPW6 S2

This is a self-initiated and directed course exploring textile techniques and concepts to develop an individual approach to textile practice, in consultation with relevant staff. The subject aims to produce an integrated approach to studio practice through lectures, discussion, research and class presentations.

SDES3508 Profesional Experience Project
School of Design Studies
Staff Contact: School Office
UOC4 HPW3 TBA

Students will be placed in the field to work with an organisation or industry in order to work alongside professionals in the field of craft arts. It is expected that students may undertake either a regular involvement each week over the session or complete their attachment in a more intensive block of time by working on a specific project. Students will be undertaking their work related activities under the general supervision of a professional colleague in the organisation which will be followed up by a School supervisor.

SDES3509 Advanced Project
School of Design Studies
Staff Contact: School Office
UOC4 HPW3 S2

The identification of an individual project in the student s area of specialisation that will be based on the study of a craft art form or creative process. The project will require both an historical inquiry and studio production program to produce an individual work or series of works for exhibition. The work will be located within one of the specialisations: textiles, ceramics or jewellery and may extend the inquiry and development of form into newer craft arts areas by the use of technology and other processes and materials.

SDES3510 Professional Issues in Craft Practice
School of Design Studies
Staff Contact: School Office
UOC4 HPW3 S2

This course introduces students to issues related to professional craft practice in order to educate and prepare them for a range of possible career options. Relevant topics such as arts law, copyright, craft/art/design in industry, exhibiting and photographing work, writing curriculum vitaes and public and private commissions will be examined.

SDES4101 Design Studio Project 4
School of Design Studies
Staff Contact: School Office
UOC8 S1 S2
Prerequisite/s: Any two "Design Studio 3B"

This student initiated project will be based in a "real" context. This project will be developed in conjunction with selected professionals or with a client who presents an actual design problem. The project must reflect the philosophy of the course by demonstrating an integrated approach to design. Design solutions are developed from student briefs which emulate typical problems encountered in commercial practice. The design proposals must address complex contextual issues and fully understand the constraints set by a brief. Students will be encouraged to develop a recognisable design process and apply their skills to clear documentation and presentation of an integrated design outcome.

SDES4102 Professional Experience Program
School of Design Studies
Staff Contact: School Office
UOC8 S1 S2

The aim of this program is to provide students with the opportunity to experience real-life professional design situations, over an extended period. During this program 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.

SDES4103 Design and Computers 4
School of Design Studies
Staff Contact: School Office
UOC4 HPW4 S1 S2
Prerequisite/s: SDES3107

The course in computer studies is self-directed and works in conjunction with the students Design Studio Project work that is to be presented. The course will expand the range of software and hardware previously studied with emphasis on the advanced use of equipment in relation to specific projects nominated by the students.

SDES4104 Honours Project
School of Design Studies
Staff Contact: School Office
UOC6 S1 S2
Excluded: SAED2475, COFA4033

The aim of this project is to provide the exceptional student with the opportunity to research and document an approved, self-nominated, design related topic. The topic may be derived from any one (or any combination) of the following design related areas; design history/theory, manufacturing processes and techniques, new materials and potential use, design management theories and practice strategies, Design Education, and studio projects.

SDES4501 Project A (Honours)
School of Design Studies
Staff Contact: School Office
UOC18 HPW3 S1

Honours program: investigation of theoretical and practical issues that focus upon the student s major area of specialisation. Each student will be required to identify a topic, area of interest, design problem that can be researched, documented and reported in a major illustrated paper of 5000 words. An alternative presentation of an equivalent standard may be individually negotiated.

SDES4502 Project B (Honours)
School of Design Studies
Staff Contact: School Office
UOC24 HPW6 S1 S2

Students accepted into the fourth year of the program (Honours) will be required to complete a research and development project in their specialist craft art area leading to a major presentation/exhibition. The project will need to be fully documented (words/visuals) and the documentation presented as an additional record. This record should identify a research area, methods for investigating the particular creative process and findings. The project will include regular meetings/ discussions with a supervisor. At regular periods over the academic year members of the School will be invited to participate in some of these discussions to provide feedback. The project must be approved by the Head of School or the Head of School nominee.

SENG1010 Software Engineering Workshop 1A
School of Computer Science and Engineering
Staff Contact: School Office
UOC3 HPW2.5 S2
Corequisite/s: COMP1011, INFS1603

The Software Engineering Workshop is a series of subjects that span the first three years of the Software Engineering course. The subject 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 subjects of the course.Under guidance from staff, the intention of this series is to enable students to learn by reflective practice. Whateversteps 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 subject in the series will involve group project work, presentations, report writing, and documentation.This is the first subject 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; a discussion of the project to be undertaken in SENG1020.The groups formed during this subject will not persist for the entire series of subjects. Groups will be reformed arbitrarily at various stages.

SENG1020 Software Engineering Workshop 1B
School of Computer Science and Engineering
Staff Contact: School Office
UOC3 HPW2.5 S2
Corequisite/s: SENG1010, INF1611, COMP1021

See main entry SENG1010.This is the second subject in the series and during this phase each group will complete a domain analysis and a requirements analysis for the project determined in SENG1010. Each group will: examine similar systems; interview users or potential users of the system; develop a requirements document; validate the requirements by prototyping. This subject will form the practical component of INFS1611.

SENG2010 Software Engineering Workshop 2A
School of Computer Science and Engineering
Staff Contact: School Office
UOC3 HPW2.5 S1
Prerequisite/s: SENG1020
Corequisite/s: INFS2603, COMP2110

See main entry SENG1010.This is the third subject in the series and will cover specification. During this subject 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 INFS2603 and COMP2110. As part of the specification document, the groups should identify a set of acceptance tests appropriate to the functional specification This subject forms the practical components of COMP2110.

SENG2020 Software Engineering Workshop 2B
School of Computer Science and Engineering
Staff Contact: School Office
UOC3 HPW2.5 S2
Prerequisite/s: SENG2010

See main entry SENG1010.In this subject, the fourth subject in the series, the groups will take a specification document, such as might have been produced in SENG2010, and will produce a design document describing how the specified system will be mapped onto physical components.

SENG3010 Software Engineering Workshop 3A
School of Computer Science and Engineering
Staff Contact: School Office
UOC3 HPW2.5 S1
Prerequisite/s: SENG2020

See main entry SENG1010.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.

SENG3020 Software Engineering Workshop 3B
School of Computer Science and Engineering
Staff Contact: J Plaice
UOC3 HPW2.5 S2
Prerequisite/s: SENG3010

See main entry SENG1010.In the sixth and final subject in the series, the groups will undertake the integration, testing, evaluation, and maintenance of a system, whose components have been produced in SENG2010.

SENG4903 Industrial Training
School of Computer Science and Engineering
Staff Contact: School Office
UOC0 S1
Excluded: COMP4903

Students enrolled in program 3648 must complete a minimum of 60 days' industrial training. At least some of this should be obtained in Australia. Students are required to submit to the School evidence from their employers confirming completion of the prescribed training and a report, typically 2000 words long, summarising the work done and training received. Students will formally enrol in the course in Year 4, although they are strongly encouraged to complete as much industrial experience as possible in the breaks between the early years of the course.

SENG4910 Thesis Part A (Software Engineering)
School of Computer Science and Engineering
Staff Contact: School Office
UOC6 HPW7 S1 S2

See main entry for SENG4911.This subject represents the thesis proposal component. The proposal is assessed by a seminar given at the end of session.

SENG4911 Thesis Part B (Software Engineering)
School of Computer Science and Engineering
Staff Contact: School Office
UOC12 HPW14 S1 S2
Prerequisite/s: SENG4910

The thesis is done in the last two sessions of the BE degree course. For full-time students, seven hours per week in the first session and fourteen 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 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 session.

SENG4921 Professional Issues and Ethics
School of Computer Science and Engineering
Staff Contact: School Office
UOC6 HPW4 S1
Excluded: COMP4903, COMP4920

This subject 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.

SESC1001 Safety, Health and Environment
School of Safety Science
Staff Contact: C Winder
UOC6 HPW4 S2

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.

SESC1560 Risk Management 1
School of Safety Science
Staff Contact: J Cross
UOC3 HPW4 S2

This course gives an overview of risk and the risk management process. The course briefly considers what is risk, why people take risks and the cost of risk. It then considers the steps of the risk management process as defined by Australian standards on risk management. The steps are defining the system, risk identification, risk analysis and assessment risk control implementation and auditing. The class will apply each step of the process to case studies relating primarily to aviation issues.

Note/s: May not be takenas part of a major in Safety Science.

SESC2091 Safety, Health and Environmental Hazards
School of Safety Science
Staff Contact: C Winder
UOC6 HPW4 S2

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 those hazards be examining safety, health and environmental case studies.

SESC2100 Workplace Hazards
School of Safety Science
Staff Contact: A Green
UOC3 HPW2 S2

This course aims to make students aware of major workplace safety issues by discussing physical and biomechanical hazards. Issues covered include noise, whole body vibration, ionising and non ionising radiation, electrical hazards, dangerous goods and ergonomic design.

SESC2451 Biomechanics for Sports Scientists
School of Safety Science
Staff Contact: A McIntosh
UOC6 HPW5 S1

Student will study the basic principles of biomechanics and apply these to the analysis of sports. Basic mechanics (statics, kinematics and dynamics) will be studied in two and three dimensions. Human movement measurement methods will be introduced. The mechanics of the musculoskeletal system will be studied in detail in human gait walking, running and jumping. This will integrate the student's understanding of mechanics with functional anatomy through the study of normal gait dynamics, muscle function, work and power. Aerodynamics and hydrodynamics will be introduced and explained through the analysis of throwing and swimming.

SESC2560 Risk Management 2
School of Safety Science
Staff Contact: A Green
UOC3 HPW2 S2

This course looks into safety issues in aviation, identifies problems which could lead to emergency situations then considers the planning required for different types of emergency. The course covers writing safety and emergency procedures, emergency plans, setting up an emergency control centre, running emergency exercises and the links with state emergency planning system. General safety issues such as human factors in aviation safety and emergency planning, OHS and major hazard legislation.

SESC2800 Fundamentals of Toxicology
School of Safety Science
Staff Contact: C Winder
UOC3 HPW2 S2

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
Staff Contact: School Office
UOC3 HPW2 S2

This course covers concepts of law; the judicial and court systems; common law and equity; the common law of employment, occupational health and safety.

SESC3091 Safety, Health and Environmental Practice
School of Safety Science
Staff Contact: B Markovic
UOC6 HPW3 S2

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:SESC2100

SESC3200 Hazard and Risk Assessment
School of Safety Science
Staff Contact: J Cross
UOC3 HPW2 S2

This course takes a risk mangement approach to safety. The concept of safety risk management and requirements for safety risk manarement in regulations are introduced over the first 4 units. These principles are then illustrated by considering how the risks of particular industrial hazards are assessed and controlled. The topics, which use different methods of risk assessment, include manual handling, machine guarding, fire and explosion, pressure vessels, confined spaces and construction safety. In each module the heirarchy of controls is applied in the discussion of risk control strategies. The course concludes with a discussion of accident investigation, prevention and recording and emergency planning.

SESC3310 Social Issues in Science and Technology
School of Safety Science
Staff Contact: B Markovic
UOC3 HPW2 S1

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 by a combination of group activities, case studies, projects and seminars. This course will cover four major topic areas, which are: professional ethics, environmental related issues, safety and liability and controls of future technology.

SESC3451 Human Movement Measurement Methods
School of Safety Science
Staff Contact: A McIntosh
UOC6 HPW6 S2
Prerequisite/s: SESC2451

Students will study the theory and practice of human movement measurement. The course will be taught through lectures and laboratory sessions. Students will learn 2D and 3D optical measurement techniques and how to apply these to the study of human movement. Electromyography and general instrumentation will be studied with data processing and analysis methods. Methods for the study of human gait, electromyography and sporting skills will be covered in laboratort sessions.

SESC3541 Assessment of the Workplace Environment
School of Safety Science
Staff Contact: K Kothiyal
UOC6 HPW4 S2

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 will be carried out on sites in and around UNSW.

SESC3601 Occupational Health and Safety
School of Safety Science
Staff Contact: C Winder
UOC6 HPW4 S1
Excluded: SESC6610

Principles of occupational health and safety. The control of workplace risks. The legal system, duty of care and OHS , workers compensation and rehabilitation law, Environmental Protection law, OHS and Environmental management system standards. Safety and environmental auditing.

SESC3620 Occupational Disease and Injuries
School of Safety Science
Staff Contact: C Winder
UOC3 HPW3 S1

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

SESC4010 Project Research Methods
School of Safety Science
Staff Contact: D Gardner
UOC3 HPW2 S1 S2

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.

SESC4030 Occupational Health and Safety Law 2
School of Safety Science
Staff Contact: School Office
UOC3 HPW2 S2

This course extends concepts of law introduced in SESC3020, and covers other workplace legislation and procedures, such as workers compensation and rehabilitation legislation; cases and actions under common law.

SESC4140 Radiation Protection
School of Safety Science
Staff Contact: R Rosen
UOC3 HPW2 S1

Principles and practices of radiation protection for both ionising and non-ionising radiation. Radiation physics, detection and measurement; background radiation; biological effects of radiation; dose limits; technical controls for radioactive sources and radiating apparatus. Codes of safe practice; radiological monitoring and personal dosimetry; storage, transport and disposal of sources; environmental impact; administrative controls; emergency procedures; control of non-ionising radiation.

SESC4211 Risk Management
School of Safety Science
Staff Contact: J Cross
UOC6 HPW3 S1 S2

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. The student selects 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.

SESC4310 Safety, Health and Environmental Management
School of Safety Science
Staff Contact: D Gardner
UOC3 HPW2 S2
Prerequisite/s: PSYC3526 or PSYC3141 or IROB2721

This course covers basic issues for managing safety, health and the environment in organisations. Topics include management and management theory, the behaviour of workers, the behaviour of managers, safety culture, systems for managing safety, health and the environment.

SESC4410 Ergonomics 2
School of Safety Science
Staff Contact: A McIntosh
UOC3 HPW3 S1

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:SESC2090, SESC2100, SESC2500

SESC4820 Chemical Safety and Toxicology
School of Safety Science
Staff Contact: C Winder
UOC3 HPW3 S1

This course provides an outline of the toxicological, occupational hygiene and environmental aspects of chemical hazards and exposures. Metals, solvents, atmospheric contaminants, pesticides, carcinogens, hazardous wastes and dioxins are used as case studies.

Assumed Knowledge:SESC2100

SESC4850 Management of Dangerous Materials
School of Safety Science
Staff Contact: C Winder
UOC3 HPW3 S1 S2

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.

SESC4924 Research Project
School of Safety Science
Staff Contact: School Office
UOC24 S1 S2

Stage 4 undergraduate project comprising 24 units of credit (50% of Year 4 load, with the other 50% made up from Stage 4 courses). This course provides an introduction to the research process. Students will undertake a research project with supervision which is written up as a research project report.

SESC6610 Work and Safety
School of Safety Science
Staff Contact: B Markovic
UOC3 HPW2 S1 S2 X1 X2

This is an introductory course that covers the fundamental safety science principles. It is aimed at giving future managers the skills needed to identify and deal with safety issues in the workplace. The course concentrates on identification of workplace hazards, their associated risks to health and how they can be controlled.

Note/s: Also offered off campus via web mode.

SLSP1000 Social Science and Policy
School of Social Science and Policy
Staff Contact: S Keen
UOC6 HPW3 S1

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.

SLSP1001 Research and Information Management
School of Social Science and Policy
Staff Contact: G Argyrous
UOC6 HPW4 S2

Explores the processes involved in making sense of information used in the policy process and in generating new information through research. Introduces and examines a range of technologies to assess the use of information by policy making bodies both public and private, including 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.

SLSP1002 Introduction to Policy Analysis
School of Social Science and Policy
Staff Contact: M Johnson
UOC6 HPW3 S2

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 in influencing policy. Studies of key policy areas such as communications policy, environmental policy or health policy will be used to illustrate the concepts introduced in the course.

SLSP2000 Economy and Society
School of Social Science and Policy
Staff Contact: M Johnson
UOC6 HPW3 S1
Prerequisite/s: 36 units of credit in Arts and Social Science courses

An interdisciplinary overview of the relationship between social and economic theory and policy development. Considers how theory informs and legitimates policy choices and how policies are dependent on historical, social and economic contexts. Major social and economic theorists are considered and current policy case studies are used to evaluate policy implementation in the public and private sectors in Australia.

SLSP2001 Applied Social Research 1
School of Social Science and Policy
Staff Contact: R Pe-Pua
UOC6 HPW4 S1
Prerequisite/s: SLSP1001

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
Staff Contact: C Healy
UOC6 HPW3 S2
Prerequisite/s: 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.

SLSP2201 Social Research and Policy Analysis
School of Social Science and Policy
Staff Contact: S Keen
UOC6 HPW3 S2
Prerequisite/s: SLSP1000 or SLSP1002

An examination of ways in which organised knowledge influences decision-making. Various concepts of policy-making as well as the variety of roles, strategies and analytical approaches policy analysts assume in relation to decision-makers. The use and abuse of social science in the public, private and non-profit sectors. Students are directly exposed to professional policy research through visits to research centres, and participation of policy analysts from outside the university in the classroom discussions.

SLSP2301 Information Systems and Policy Analysis
School of Social Science and Policy
Staff Contact: C Healy
UOC6 HPW3 S2
Prerequisite/s: 36 units of credit in Arts and Social Science courses

Aims at expanding the analytic skills of students through further hands-on experience with computer-aided policy analysis. Focuses on the development and utilisation of information systems for decision support, policy development and program evaluation. Topics include: the role of information systems in policy analysis; practical problems of information collection and maintenance; design and implementation of a database information system; use of graphical and other presentation tools; use of desktop publishing facilities. This course is for students who would like to gain practical skills in the design and use of information systems for policy-related work.

SLSP2601 Social Policy
School of Social Science and Policy
Staff Contact: A Morris
UOC6 HPW3 S2
Prerequisite/s: SLSLP1000 and SLSP1002

An interdisciplinary examination of the theoretical and practical issues associated with the formulation and implementation of social policy.

SLSP2701 The Theory and Practice of Development
School of Social Science and Policy
Staff Contact: M Johnson
UOC6 HPW3 S1
Prerequisite/s: 36 units of credit in Arts and Social Science courses
Excluded: POLS2023, COMD2000

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.

SLSP3000 Social Theory and Policy Analysis
School of Social Science and Policy
Staff Contact: A Morris
UOC6 HPW3 S1
Prerequisite/s: 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
Staff Contact: R Hall
UOC6 HPW4 S1
Prerequisite/s: SLSP2001

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.

SLSP3002 Social Science and Policy Project
School of Social Science and Policy
Staff Contact: C Healy
UOC6 HPW3 S2
Prerequisite/s: SLSP2002, SLSP3000, SLSP3001

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.

SLSP3900 Advanced Policy Analysis
School of Social Science and Policy
Staff Contact: C Healy
UOC6 HPW3 S2
Prerequisite/s: 36 units of credit including SLSP2000 with an average of 65%
Excluded: SLSP2002

Explores the issues examined in SLSP2002 but in greater depth. Case studies in policy work will examine the political context of policy work and explore ways of dealing with problems of policy implementation.

SLSP3910 Policy Studies Internship
School of Social Science and Policy
Staff Contact: C Healy
UOC6 HPW3 S1
Prerequisite/s: 36 units of credit including SLSP2000 with an average of 65%

A policy project to be conducted in association with a policy unit in a government department, community sector or private organisation. The project will involve working with the organisation to produce a report which deals with some aspect of the policy work of the organisation and should include recommendations for action and address the problem of implementation.

SLSP3911 Inquiry and Interpretation in the Social Sciences
School of Social Science and Policy
Staff Contact: R Hall
UOC6 HPW3 S2
Prerequisite/s: 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
Staff Contact: C Healy
Enrolment requires school approval
UOC24 S1 S2
Prerequisite/s: 48 units of credit in SLSP and SLSP3911 at an average of 65% and permission from Head of School

A research project must be approved and commenced no later than Session I of the final year of study. Participation in prescribed seminars of at least four hours duration per week and an internship program are also required of each student in the fourth (final) year of study.

SLSP4050 Social Science and Policy Honours (Research) Part-Time
School of Social Science and Policy
Staff Contact: C Healy
Enrolment requires school approval
UOC12 S1 S2
Prerequisite/s: 48 units of credit in SLSP and SLSP3911 at an average of 65% and permission from Head of School

A research project must be approved and commenced no later than Session I of the final year of study. Participation in prescribed seminars of at least four hours duration per week and an internship program are also required of each student in the fourth (final) year of study.

SLSP4100 Policy Studies Honours (Research) Full-Time
School of Social Science and Policy
Staff Contact: C Healy
Enrolment requires school approval
UOC24 S1 S2
Prerequisite/s: 54 units of credit at 65% including SLSP1002, SLSP2000, SLSP2002, SLSP3000, SLSP3911 and permission from Head of School

Students undertake an approved research project and submit a thesis reporting this research; completion of an internship program as arranged by the School and participation in a seminar in policy analysis in Session 1 and a thesis workshop.

SLSP4150 Policy Studies Honours (Research) Part-Time
School of Social Science and Policy
Staff Contact: C Healy
Enrolment requires school approval
UOC12 S1 S2
Prerequisite/s: 54 units of credit at 65% including SLSP1002, SLSP2000, SLSP2002, SLSP3000, SLSP3911 and permission from Head of School

Students undertake an approved research project and submit a thesis reporting this research; completion of an internship program as arranged by the School and participation in a seminar in policy analysis in Session 1 and a thesis workshop.

SLSP4500 Combined Social Science and Policy Honours (Research) Full-Time
School of Social Science and Policy
Staff Contact: C Healy
Enrolment requires school approval
UOC12 S1 S2
Prerequisite/s: 48 units of credit in SLSP and SLSP3911 at an average of 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
Staff Contact: C Healy
Enrolment requires school approval
UOC6 S1 S2
Prerequisite/s: 48 units of credit in SLSP and SLSP3911 at an average of 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.

SOCA1001 Cultural Identities
School of Sociology
Staff Contact: M Humphrey
UOC6 HPW3 S1
Excluded: SOCC1431

Explores cultural identity in the contemporary world; as a construction within specific historical, spatial and cultural contexts; the central themes of identity, self, culture, place, difference and tradition; the relationship of European and non-European worlds through a study of the construction of knowledge of "the Other" in sociological and anthropological work; cross-cultural realities of our contemporary world and the growing interdependence cultures between North and South; difference by starting with our own worlds and interrogating how we encounter difference, especially in the context of a globalising world; the construction of "Other" cultures and the way we seek to know them. Questions the extent to which we know things through their difference or sameness.

SOCA1002 Australian Society
School of Sociology
Staff Contact: J Pixley
UOC6 HPW3 S2
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.

SOCA1003 Modern Sociology: Key Ideas
School of Sociology
Staff Contact: C Kessler
UOC6 HPW3 S1

An introduction to modern sociology via the examination of some of the discipline's key ideas, the formative debates over them, and their contemporary meanings and applications. Ideas to be considered that will be included are society, work, class, power, charisma, ideology, culture and belief.

SOCA1004 Relationships: Sociology and Everyday Life
School of Sociology
Staff Contact: A Game
UOC6 HPW3 S2
Excluded: SOCC1231, SOCI1230

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, Freud, Simmel and Buber.

SOCA1005 Australia's Media: Sociological Perspectives
School of Sociology
Staff Contact: D Olsberg
UOC6 HPW3 S2
Excluded: SOCC1531, SOCA3900

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 communciations set in the context of patterns of ownership and control produce new understandings of culture, ideology and social processes.

SOCA2101 Encountering Modernity: Sociological Theory
School of Sociology
Staff Contact: D Holmes
UOC6 HPW3 S1
Prerequisite/s: 6 level 1 units of credit in Sociology and 36 units of credit overall
Excluded: SOCI2101, SOCI2501

An encounter of the most influential theoretical accounts of 'modernity' through an examination of 'postmodernity'. The course begins with an examination of key descriptions of postmodernity as an historical development (including Lyotard, Jameson, Bauman) as a way into analysing modernity.The most influential theoretical traditions for studying modernity are explored. (Marx, Weber, Durkheim). The course asks: Is postmodernity a break with modernity or is it merely a fold within modernity?

SOCA2103 Globalisation and Fragmentation
School of Sociology
Staff Contact: M Humphrey
UOC6 HPW3 S2
Prerequisite/s: 36 units of credit
Excluded: SOCC2302, SOCI3596

Central to the concept of globalisation is the idea of the expansion and development of global capital and the ascendancy of transnational over national forms of economy, society, politics and culture. Globalisation is transforming the character of social boundaries and attachments. Individuals, families, and communities are no longer enclosed in the same way by geography or social worlds. People have become more internationally mobile and so have corporations and whole industries. Global cultures have emerged based on mass communication, media and consumer goods. Draws on the work of Appadurai, Friedman, Tilly, Taylor and Hall to explore concepts such as: identity, borders, migration, global communication, global culture, place and displacement, development, organisation, disorganisation (chaos), sociality and futures.

SOCA2106 Cities
School of Sociology
Staff Contact: D Olsberg
UOC6 HPW3 S2
Prerequisite/s: 36 units of credit
Excluded: 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.

SOCA2108 Social Anthropology: Diversity, Difference, Identity
School of Sociology
Staff Contact: R Pertierra
UOC6 HPW3 S1
Prerequisite/s: 36 units of credit
Excluded: SOCI2301, SOCI3709

Diversity, difference and identity have been at the core of social anthropology as a discipline since its inception. Foundations of social anthropology, its core concepts and contemporary theoretical approaches are examined using examples from Australia and the Asia-Pacific Region. Tensions between the local and the global, sexuality, belief, modes of exchange, the role of secrets, the cultural treatment of the body, work and leisure and communication focus the readings and lectures, including audio-visual material.

SOCA2110 Anthropolgy, Identity and the Cinema
School of Sociology
Staff Contact: A Davidson
UOC6 HPW3 S2
Prerequisite/s: 36 units of credit

Examines a range of films from an anthropological perspective and how particular cultures are represented, paying particular attention to the privileged gaze and the hegemonic (re)construction of cultural identities. Covers various topical areas including Orientalism, nationalism and violence, feminism, hyper-masculinity, post-modern alienation and nostalgia.

SOCA2201 Sociological Research Methods
School of Sociology
Staff Contact: F Lovejoy
UOC6 HPW3 S1
Prerequisite/s: 36 units of credit
Excluded: SOCI2401

A critical introduction to sociological research techniques. Practical experience in doing research.

SOCA2204 Pacific Island Research Fieldwork
School of Sociology
Staff Contact: School Office
UOC6 TBA
Prerequisite/s: 36 units of credit
Excluded: GENT1204, GENT1205, SOCI3710

Provides training in and use of ethnographic fieldwork methods in the context of a Pacific Island country with an understanding of village life and how development organisations impact. Ethnography is a part of the methodology of both sociology and anthropology. Far from the previous 'us the researcher and 'them the researched model, the qualitative approach here emphasises collaboration with local research populations. Takes place in Samoa and Tonga in a program organised with the National University of Samoa. Interview techniques and technologies, cultural mapping, methods of recording field data and participatory community development research are amongst the procedures to be explored. Visits to regional, government and non-government organisations form an introductory part of the research to understand how such institutions impact on village life. Most of the research time is to be spent in remote villages.

Note/s: This course will be taught in November-December 2002 during the summer break.

SOCA2205 Society and Desire
School of Sociology
Staff Contact: V Kirby
UOC6 HPW3 S2
Prerequisite/s: 36 units of credit
Excluded: 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.

SOCA3103 Professions: Disciplines, Knowledge and Power
School of Sociology
Staff Contact: A Daniel
UOC6 HPW3 X1
Prerequisite/s: 36 units of credit
Excluded: SOCI2302, SOCC2602

Professions create a culture and command a discourse which authorise their practitioners to work in fields significant often critical, in the everyday life of persons, societies and nations. Drawing on disciplines of training, practice and expertise they can exert pervasive and persistent influence on the way we live and represent ourselves. Takes up ideas and theories from Foucault, Durkheim, as well as Carol Smart, E. Freidson and other contemporary writers and applies them to current practices (and malpractices) in professional environments. As concluding

assignment students can undertake a theoretically informed empirical investigation of professional practice.

Note/s: Offered by distance mode. Students attend a two hour introductory meeting on the commncement day of the course, all further work is done via the internet. Students should consult the online timetable for further details.

SOCA3104 Travel
School of Sociology
Staff Contact: D Holmes
UOC6 HPW3 S2
Prerequisite/s: 12 units of credit in Level 1 Sociology and 36 units of credit overall
Excluded: SOCC2702

Investigates forms of travel, the meaning and experience of travel in a diverse range of contexts. It considers theoretical issues about time-space consciousness in forms of movement, story-telling and journeys, home,'sense of place', travel, subjectivity and the importance of 'mobility' in contemporary global culture. Cybertravel, flaneurie, tourism, post-tourism, and everyday forms of travel like commuting and watching television are explored.

SOCA3201 Culture: Anthropological Accounts
School of Sociology
Staff Contact: C Kessler
UOC6 HPW3 S1
Prerequisite/s: 36 units of credit
Excluded: SOCI2705

A critical consideration of culture as a key concept in modern anthropology. Issues to be considered include the explanation of human diversity; cultural pluralism and moral relativism; human creativity and the social construction of the imagination; understanding others and the negotiation of cultural differences; cultural difference and interpretive approaches in the social and human sciences.

SOCA3204 Modernity & Development in the Pacific Islands
School of Sociology
Staff Contact: G McCall
UOC6 HPW3 S2
Prerequisite/s: 36 units of credit
Excluded: SOCI3706

Australian organisations, NGOs (Non-Government Organisations), religious groups, secular charities and AusAID, the government development assistance organisation, all have played important roles in the Pacific Islands. Representatives of these and other groups will provide practical accounts of their experiences "doing development" in the Pacific, along with readings and reflection on what their experience means in terms of the impact of modernity on the region. The particular Australian role in Pacific affairs and its meanings is featured.

SOCA3205 Modern Southeast Asia: Society and Cultures
School of Sociology
Staff Contact: R Pertierra
UOC6 HPW3 S1
Prerequisite/s: 36 units of credit
Excluded: SOCI3708

Examines both mainland and insular Southeast Asia. Deals with specific communities as presented in ethnographies and with regional and historical perspectives associated with the colonial and post-colonial experiences, the rise of market economies and the modern state.

SOCA3206 Current Debates in Social Anthropology
School of Sociology
Staff Contact: G McCall
UOC6 HPW3 S2
Prerequisite/s: 36 units of credit

Presents a series of key debates in today's anthropological literature. Among the issues to be considered are: gender and sexuality; colonial and post colonial encounters; the nature of reason; social and political movements; globalisation of culture; applied anthropology and ethics; internet communities; politics of research; representations in museums and other anthropological institutions.

SOCA3208 Colonisation and Indigenous Identity Formation
School of Sociology
Staff Contact: School Office
UOC6 HPW3 S1
Prerequisite/s: 36 units of credit
Excluded: 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.

SOCA3209 Indigenous Australia: Gendered Identities
School of Sociology
Staff Contact: School Office
UOC6 HPW3 S2
Prerequisite/s: 36 units of credit
Excluded: SOCC3717

Examines Indigenous Australian gender as a central organising principle of Australian Indigenous societies in Pre-Colonial, Colonial and contemporary timeframes. Particular attention will be paid to colonial constructs of Aboriginal and non-Aboriginal women and the consequences this had for women's experiences in Australia. Other issues include effects of the stolen generation on gender relations, domestic violence and gender and the inclusion and exclusion of Indigenous women in the feminist movement.

SOCA3210 Whiteness Beyond Colour: Identity and Difference
School of Sociology
Staff Contact: School Office
UOC6 HPW3 S2
Prerequisite/s: 36 units of credit

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.

SOCA3301 Critical Reason: Modern Sociological Theories
School of Sociology
Staff Contact: M Markus
UOC6 HPW3 S1
Prerequisite/s: 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.

SOCA3310 The German-Jewish Experience
School of Sociology
Staff Contact: J Milfull
UOC6 HPW3 S1
Prerequisite/s: 36 units of credit
Excluded: EURO2300, JWST2103

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.

SOCA3311 The Attractions of Fascism
School of Sociology
Staff Contact: J Milfull
UOC6 HPW3 S2
Prerequisite/s: 36 units of credit
Excluded: EURO2301

The social psychology of Fascism and its "aesthetics", the seductive forms in which its inhuman aims were presented to appeal to both classes and individuals. An attempt to explain, through the study of documents, literary texts and film, the attractions of Fascism for broad sectors of European society without whose support and tolerance it could never have retained power, and the implications for our understanding of our own society. For a nation said to be docile followers of authority, the Germans have had rather more than their fair share of revolutions this

century: the workers revolution of 1918, Hitler's "national revolution" of 1933, the "antifascist-democratic revolution" in Eastern Germany in 1945, and most recently, the "Protestant revolution" of 1989 in the GDR which led to German reunification. Studies the events, personalities, ideas and forces involved in the four upheavals; the extent to which it is really justified to speak of them as "revolutions", and places them in the broader context of Germany's dramatic twentieth-century history as the points of transition from one regime to another.

SOCA3315 Gender, Race, Nature and Reason
School of Sociology
Staff Contact: J Milfull
UOC6 HPW3 S2
Prerequisite/s: 36 units of credit
Excluded: EURO2001

Vital concepts like equality, freedom and emancipation seem inseparable from the European "Enlightenment". Yet the following century saw the development of a new and more subtle form of patriarchy, the increasing discrimination and exploitation of colonised peoples and minorities, and the emergence of nationalism and Fascism. Explores a range of texts in literature, music, philosophy and social history from the eighteenth century to the present, and seeks to analyse both the so-called "failure[s] of enlightenment" and the impact of the two central and inter-related concepts, nature and reason, that shaped its program.

SOCA3407 Australian Migration Issues
School of Sociology
Staff Contact: F Lovejoy
UOC6 HPW3 X1
Prerequisite/s: 36 units of credit
Excluded: SOCI3614, GENT1209

An examination of racial, ethnic and social issues surrounding migration to Australia.

SOCA3410 Deviance
School of Sociology
Staff Contact: F Lovejoy
UOC6 HPW3 X1
Prerequisite/s: 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 rudeness, 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 (eg smoking, sexual harassment) or other activities gain social acceptance (eg higher education for women, ethnic diversity).

SOCA3605 Quality of Life in Australia
School of Sociology
Staff Contact: M Pusey
UOC6 HPW3 S1
Prerequisite/s: 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.

SOCA3701 Discipline of the Law
School of Sociology
Staff Contact: A Daniel
UOC6 HPW3 S1 X2
Prerequisite/s: 36 units of credit
Excluded: SOCC3601

Explores political, cultural and sociological interdependence of law and society. The relation between law and legal systems, on one hand, and socially located ideas, values and interest, on the other. Particular attention is directed to current issues and controversies and the activities of all caught up in the law - police and judiciary, legal profession and clients, prisoners and gaolers and any with material and ideal interest in the law.

Note/s: Taught by distance education.

SOCA3702 Social Power: Theories and Structures
School of Sociology
Staff Contact: M Markus
UOC6 HPW3 S1
Prerequisite/s: 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
Staff Contact: M Markus
UOC6 HPW3 S2
Prerequisite/s: 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. The focus will be placed on the numerous antinomies 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.

SOCA3706 Media and the Public Sphere
School of Sociology
Staff Contact: P Jones
UOC6 HPW3 S1
Prerequisite/s: 36 units of credit
Excluded: SOCA3901

Introduces sociological debates concerning the news media and public policy-making, including especially communications policy. The central organising theme is the democratic ideal of a public sphere of open discussion. Places Australian debates about the media in an international context of long-standing sociological concerns about journalistic practices (including news values and ethics).

SOCA3707 Social Forms of Television
School of Sociology
Staff Contact: P Jones
UOC6 HPW3 S1
Prerequisite/s: 36 units of credit

Examination of the 'social forms' of television: changing technologies and television institutions; the genre-forms of programs; the institutional and policy frameworks of program production; audience reception of television genres; genre diversity and state policies; 'industry' and 'academic' interpretations in television criticism. Case studies of Australian and overseas television.

SOCA3708 Cybersociety
School of Sociology
Staff Contact: D Holmes
UOC6 HPW3 S2
Prerequisite/s: 36 units of credit
Excluded: SOCA3906

An introduction to the sociology of cyberspace, contrasting the 'first media age' of broadcast media with the so-called 'second media age' - the emergence of 'cybersociety'. The different kinds of communication dynamics which can be found in cyberspace demands a reassessment of the methodologies used to explore media, as well as new understandings of interaction and community (virtual communities and broadcast communities). The way in which the 'form' of communication mediums (rather than simply content) shapes the construction of meaning is examined. The difference between information and communication, ritual communication and transmission notions of communication, analogue versus digital culture, cyberspace and virtual reality is also explored.

SOCA3803 Food, Body and Soul: Magic and Myth for Modern Times
School of Sociology
Staff Contact: M Crouch
UOC6 HPW3 S2

Prerequisite/s: 36 units of credit
Excluded: SOCI2607

Eating is a basic individual and social activity. Food and the way we consume it signify our beliefs concerning health, happiness and human relationships. Examines attitudes and practices relevant to food and eating, seeking to uncover their submerged meanings which often connect eating with our hopes, fears and morals. Readings in sociology and anthropology as well as from history and related fields are employed to support analyses of eating habits and beliefs. In student research exercises, information will be drawn from interviews and media material.

SOCA3804 Living and Dying
School of Sociology
Staff Contact: A Game
UOC6 HPW3 S1
Prerequisite/s: 36 units of credit
Excluded: SOCC2203, SOCC3203

Is death the ultimate, immutable other, the incomprehensible and unspeakable limit of existence? Or is death not also integral to life, a condition for life, experienced as impermanence, absence and lack or a creative impulse? Investigates the complex and ambiguous relations of life and death by examining different responses to death: how death is managed or exorcised, sought, denied or transcended. Includes discussions of love, ecstasy, grief, sex, laughter, generationality, seasonality, religion and science. Based on a close reading of Michel Serres' book, Angels: A Modern Myth, but this is supplemented by readings from Berger, Steindl-Rast, Rilke, Moore, Hillman and others.

SOCA3806 Medicine and Society
School of Sociology
Staff Contact: M Crouch
UOC6 HPW3 S1
Prerequisite/s: 36 units of credit
Excluded: SOCI3604

A consideration of health, illness and medicine as social phenomena. Disease patterns are related to cultural meanings of health and illness. Study of the historical context of medicine aids the analysis of its 'modern' forms and of its practical as well as symbolic significance in individuals' lives. The nature of medical knowledge, the power of the profession and the institutions of health care are critically examined. Theoretical understanding is developed through research into specific topics including AIDS, cancer, mental health and TB. Students will undertake a practical research component.

SOCA3810 The Space of Terror
School of Sociology
Staff Contact: M Humphrey
UOC6 HPW3 S1
Prerequisite/s: 36 units of credit
Excluded: SOCA3915, SOCA3805, SOCC2303, SOCC3303

Violence is historically an integral part of social and political processes even though it is often constructed as deviant and from the dark side. Explores contemporary political violence and its relationship to social space, self and community. Focuses on contemporary civil wars and ethnic and religious violence. Explores themes such as massacre, ethnic cleansing, and martyrdom as ways in which individual death is given collective meaning in the context of the crisis of the nation-state. Its methodology involves a micropolitics of violence and the semiotics of pain. Explores concepts such as the abject, torture, war, terrorism, trauma, testimony, witnessing, reconciliation and post-violence worlds. Draws on the work of Scarry, Kristeva, Nordstrom, Massumi, Foucault, Zulaika and Taussig.

SOCA3811 Creativity and Knowledge: Performing Sociology
School of Sociology
Staff Contact: A Metcalfe
UOC6 HPW3 S1
Prerequisite/s: 36 units of credit
Excluded: SOCA3913, SOCA2207, SOCC2204, SOCC3204

Discussion of the everyday practical skills of doing sociology and discussion of philosophical issues about different approaches to sociology and knowledge. Aims to improve students' analytical skills by making them more aware of the specific qualities of the tools through which academic knowledges are produced. Emphasises the full-bodied desires - the passions - involved in the generation of knowledges, and uses this awareness to develop rigorous, creative and joyous approaches to sociological analysis. Uses texts by Serres, Barthes, Winnicott, Merleau-Ponty, Blanchot, Cixous, Borges, Bohm and Steiner.

SOCA3812 Post-Human Subjects
School of Sociology
Staff Contact: V Kirby
UOC6 HPW3 S1
Prerequisite/s: 36 units of credit
Excluded: SOCA3102, SOCA3914

The difference between human and machine, or flesh and information, has become increasingly ambiguous in recent years. Many of our assumptions about the limits of human-ness have been challenged by such things as virtual surgery, cybersex, genetic engineering and new reproductive technologies. Investigates the relationship between the biological or physical realities of matter and the cultural representations that are thought to represent them. Explores the interface between human and machine, reality and representation, body and mind, and Nature and Culture. Does human identity become more fragile through such reconsiderations?

SOCA3910 Social Critique as Social Research
School of Sociology
Staff Contact: J Pixley
UOC6 HPW3 S2
Prerequisite/s: 36 units of credit including at least 6 units of credit in Sociology at credit level
Excluded: SOCA2202

Emphasises the role played in social research by social critique ie the adoption of a critical stance which draws on norms such as social justice, equity and democratic debate and decision making. Introduces approaches within sociology which, while capable of great precision, deliberately avoid emulating the claims to 'scientific objectivity' of the physical sciences. These approaches share a vision of sociology as a critical, socially-engaged project which is capable of embracing many modes of analysis, including empirical data collection. It is this critical social engagement which has distinguished sociological research from the uncritical description which characterises practices such as market research. Questions addressed include: Can 'opinion' ever really be polled? What is the difference between cultural criticism and social critique? Why have sociologists spent so much time recently criticising economists' methodologies? What is the relation between critical social research and 'bias'? Are sociologists frustrated investigative journalists?

SOCA3912 Risk and Trust in Modern Societies
School of Sociology
Staff Contact: M Markus
UOC6 HPW3 S2
Prerequisite/s: 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 Full-Time (Research)
School of Sociology
Staff Contact: A Davidson
Enrolment requires school approval
UOC24 HPW5 S1 S2
Prerequisite/s: 54 units of credit in SOCA at 70% average including 12 upper Level in the SOCA 3910 - 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/s: Before enrolling in the honours program, students are required to attend an interview about their proposed research with the Honours coordinator.

SOCA4050 Sociology Honours Part-Time (Research)
School of Sociology
Staff Contact: A Davidson
Enrolment requires school approval

UOC12 S1 S2
Prerequisite/s: 54 units of credit in SOCA at 70% average including 12 upper Level in the SOCA 3910 - 3915 range

In special circumstances, students may be permitted to enrol in an honours program in Sociology by the School and the Faculty 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/s: 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
Staff Contact: A Davidson
Enrolment requires school approval
UOC12 S1 S2
Prerequisite/s: 48 units of credit in SOCA at 70% average including 6 upper level in the SOCA3910 - 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/s: 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
Staff Contact: A Davidson
Enrolment requires school approval
UOC6 S1 S2
Prerequisite/s: 48 units of credit in SOCA at 70% average including 6 upper level in the SOCA3910 - 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/s: In special circumstances, students may be permitted to enrol in a combined honours program in Sociology by the School and the Faculty 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
Staff Contact: J Breckenridge
UOC6 HPW3 S1

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
Staff Contact: R Roberts
UOC6 HPW3 S2

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
Staff Contact: C Moran
UOC6 HPW3 S2

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 will be 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
Staff Contact: E Fernandez
UOC6 HPW3 S1

This course 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 retlated 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
Staff Contact: M Wearing
UOC6 HPW3 S1

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: Casework
School of Social Work
Staff Contact: D Barnes
UOC6 HPW3 S1
Prerequisite/s: SOCW1002

This course addresses practice theory and skills relevant to social work intervention at the direct personal level. Skills that are relevant to each of these phases are taught and practised in tutorials: exploratory interviewing and assessment skills, demand-for-work skills, and skills of reviewing and leave-taking.

SOCW2004 Society and Social Work 2
School of Social Work
Staff Contact: M Wearing
UOC6 HPW3 S2

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
Staff Contact: School Office
UOC6 HPW3 S2

This course looks at the nature of research - in particular, research in a social context. It 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. The course 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
Staff Contact: H Meekosha
UOC6 HPW3 S2
Prerequisite/s: SOCW1002, SOCW2003

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
Staff Contact: D Barnes
Enrolment requires school approval
UOC3 S1 S2
Corequisite/s: 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/s: Students who enter the BSW program with advanced standing take this course.

SOCW3001 Social Work Practice - Third Year Practicum
School of Social Work
Staff Contact: K Heycox
UOC12 S1 S2
Prerequisite/s: SOCW2003, SOCW2006
Corequisite/s: 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 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 - Group Work
School of Social Work
Staff Contact: S Regan
UOC6 HPW3 S1
Prerequisite/s: SOCW2003, SOCW2006
Corequisite/s: SOCW3001

Building on SWP-Casework and SWP-Community Work, this course provides the specialised knowledge needed for social work intervention at the social groupwork level of practice. The course examines the phases of group development, the dynamics of group process, and a range of group work models which support the diversity of group work practice. An emphasis is placed on experiential learning and skills development in addition to theoretical/conceptual understanding.

SOCW3003 Human Behaviour 3 (The Individual in the Social World)
School of Social Work
Staff Contact: C Moran
UOC6 HPW3 S1

Critically examines the major theories of human behaviour and evaluates the relative importance of individual differences and social factors. The course examines research studies, as well as popular beliefs and images of human individuality across a range of literature. The way human functioning is negatively influenced by social factors such as discrimination and disadvantage are also examined. Our understanding of human behaviour is then reviewed from the biopsychosocial perspective.

SOCW3004 Social Policy 1
School of Social Work
Staff Contact: E Baldry
UOC6 HPW3 S2

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
Staff Contact: R Hugman
Enrolment requires school approval
UOC6 HPW4 S2

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
Staff Contact: J Breckenridge
UOC6 HPW3 S2

Explores the legal, professional and ethical opportunities and constraints of social work practice. It 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
Staff Contact: School Office
UOC6 HPW3 S2

Various forms of experimental, qualitative and survey research designs. Forms of data collection and the development of measuring devices. Validity and reliability concepts. Correlation analysis and prediction problems. Introduces multivariate analysis. Part of class-time is allocated to working on group assessment.

SOCW3008 Social Work Practice - Selected Studies 1
School of Social Work
Staff Contact: R Roberts
UOC6 HPW3 S2
Prerequisite/s: 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.

SOCW4001 Social Work Practice - Fourth Year Practicum
School of Social Work
Staff Contact: School Office
UOC18 S2
Prerequisite/s: SOCW4002, SOCW4003, SOCW3001

Building on their 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 on the full range of required practice competencies. Students are again consulted in decisions about placement allocations. The placement is undertaken as a full-time block period, beginning in mid-July and extending throughout Session 2.

SOCW4002 Social Work Practice - Administration
School of Social Work
Staff Contact: L Hughes
UOC6 HPW3 S1
Prerequisite/s: SOCW3001, SOCW3002, SOCW3008

This course provides and introduction to management theory and skills which inform and guide students participation in their place of employment whether or not they choose to become administrators. The course is issues based and attempts to show how the values, knowledge and skills introduced throughout their program of study interrelate in the implementation of a human service organisation.

SOCW4003 Social Work Practice - Selected Studies 2
School of Social Work
Staff Contact: R Roberts
UOC6 HPW3 S1
Prerequisite/s: SOCW3001, SOCW3002, SOCW3008

Students take a second selected studies component to complement that taken in SOCW3008.

SOCW4004 Social Philosophy
School of Social Work
Staff Contact: D Grace
UOC6 HPW3 S1

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
Staff Contact: School Office
UOC6 HPW5 S1
Prerequisite/s: SOCW3005

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
Staff Contact: E Pittaway
UOC6 HPW3.5 S1

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).

SOLA1050 Introduction to Photovoltaics, Solar Energy and Computing 1
Centre for Photovoltaic Engineering
Staff Contact: J Cotter
UOC6 HPW4 S1

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 programing 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.

Note/s: HPW4 in S1, HPW3 in S2.

SOLA1051 Introduction to Photovoltaics, Solar Energy and Computing 2
Centre for Photovoltaic Engineering
Staff Contact: C Honsberg
UOC3 S2

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 programing 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.

Note/s: HPW4 in S1, HPW3 in S2.

SOLA1060 Chemical Processes for Photovoltaic Systems
Centre for Photovoltaic Engineering
Staff Contact: School Office
UOC3 HPW2 TBA

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 correspondening 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.

SOLA2000 Selected Strand 1
Centre for Photovoltaic Engineering
Staff Contact: School Office
UOC6 TBA

SOLA2001 Selected Strand 2
Centre for Photovoltaic Engineering
Staff Contact: School Office
UOC6 TBA

SOLA2003 Selected Strand 3
Centre for Photovoltaic Engineering
Staff Contact: School Office
UOC6 TBA

SOLA2020 Photovoltaic Technology and Manufacturing
Centre for Photovoltaic Engineering
Staff Contact: School Office
UOC6 HPW5 TBA

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
Centre for Photovoltaic Engineering
Staff Contact: J Cotter
UOC6 HPW3 S1

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 personations, system design, modelling, etc.

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.

Lecturers covering projecteering skills and practice are given in the early weeks, after which students work closely with their nominated project supervisor on their projects.

SOLA2052 Project in Photovoltaics and Solar Energy 2
Centre for Photovoltaic Engineering
Staff Contact: School Office
UOC6 S2

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 personations, system design, modelling, etc.

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.

Lecturers covering projecteering skills and practice are given in the early weeks, after which students work closely with their nominated project supervisor on their projects.

SOLA2060 Introduction to Electronic Devices
Centre for Photovoltaic Engineering
Staff Contact: A Aberle
UOC3 HPW2.5 S2

Operation, circuit characteristics, basic design principles and applications of a range of semiconductor devices. Material covered includes pn junction theory, bipolar junction transistors, avalanche diodes, MOSFET's, basic digital circuits, solar cells, light emitting diodes, semiconducting lasers, photodetectors and optical fibres in basic communication circuits. Transient and high speed analysis of electronic components are studied. Basic processing steps in semiconductor device fabrication are considered.

SOLA3050 Sustainable Energy
Centre for Photovoltaic Engineering
Staff Contact: School Office
UOC6 HPW4 TBA

Includes an introduction into issues in sustainable and renewable energy, including environmental impact, life cycle costing, energy payback time 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 sustainable energy generation systems, including an overview of wind, solar thermal, photovoltaics, hydro and biomass technology and issues.

The course will be conducted by external specialists where appropriate to provide a detailed working knowledge of related areas of engineering with which the renewable energy engineer is likely to interface.

Specific areas, such as materials, structures and footings, mechanics, thermodynamics and heat transfer will be covered as appropriate.

SOLA3054 Renewable Energy Product Reliability
Centre for Photovoltaic Engineering
Staff Contact: School Office
UOC3 HPW2.5 TBA

Given the generally high capital cost of renewable products, the reliability and durability of these products are of prime importance in determining economic returns. This course acquaints the student with the skills and techniques required to design product for reliable performance and to evaluate the likely reliability of new product. Case studies include photovoltaic modules, inverters and wind generators.

SOLA3507 Solar Cells and Systems
Centre for Photovoltaic Engineering
Staff Contact: J Cotter
UOC6 HPW4 S2
Prerequisite/s: 36 units of credit

Photovoltaics systems harness sunlight by using solar cells to convert it directly into electricity. This course covers factors important in the design of solar cells which are studied with regard to their effects on spectral response, temperature sensitivity, resistive losses, current generation and open circuit voltages. A range of solar cell technologies are considered both at the laboratory and commercial levels, including advanced concepts and designs for photovoltaic modules. Significant emphasis is placed on applications including systems design, construction and operation with this subject building on the material introduced in the subjec,t Applied Photovoltaics. Relevant types of systems receive particular attention. Experience will be gained with the computer-aided design procedures for photovoltaic systems. Management and entrepreneurial approaches in relation to starting a small business within the photovoltaic industry are also considered.

SOLA3540 Applied Photovoltaics
Centre for Photovoltaic Engineering
Staff Contact: S Wenham
UOC6 HPW4 S1

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.

SOLA4010 Building Integrated Photovoltaics
Centre for Photovoltaic Engineering
Staff Contact: School Office
UOC3 HPW2.5 TBA

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 envelope performance requisites, active and passive solar design principles, planning requirements, coordination 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.

SOLA4012 Grid-Connected Photovoltaic Systems
Centre for Photovoltaic Engineering
Staff Contact: School Office
UOC6 HPW4 TBA

This course familiarizes students with issues relevant to the use of photovoltaics in systems connected to the electricity distribution network with the aim of attaining competency in design and specification. The types of systems considered include residential, building integrated, distributed grid-support and central station. System components, design, operation, safety, standards and economics are addressed making extensive use of past field experience and site visits where appropriate.

SOLA4910 Thesis Part A
Centre for Photovoltaic Engineering
Staff Contact: School Office
UOC6 HPW5 S1 S2

SOLA4911 Thesis Part B
Centre for Photovoltaic Engineering
Staff Contact: School Office
UOC12 HPW10 S1 S2

The Thesis 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 work. Generally, the thesis involves the design and construction of

experimental apparatus together with laboratory tests. Each student is required to present a seminar as part of the requirements for SOLA4910, Thesis Part A. Satisfactory performance in subject SOLA4910 is a prerequisite for progress to subject 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.

SOLA5011 Solar Cells: Operating Principles and Technology
Centre for Photovoltaic Engineering
Staff Contact: School Office
UOC6 HPW4 TBA

This is an intermediate course directed at developing a thorough understanding of the operation of semiconductor p-n junctions and hence solar cells. Emphasis is upon developing an understanding of the relevant properties of semiconductors and how these affect the photovoltaic properties of solar cells. Based on the understanding of cell properties developed in the first half of the course, the second half of the course explores design, fabrication and operational issues relevant to the photovoltaic technologies of current interest: silicon, III-V compound, cadmium telluride, copper indium selenide, amorphous silicon and nanocrystalline dye cells.

SOLA5050 Renewable Energy Policy and International Programs
Centre for Photovoltaic Engineering
Staff Contact: School Office
UOC3 HPW2.5 TBA

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.

SOLA5051 Life Cycle Assessment
Centre for Photovoltaic Engineering
Staff Contact: School Office
UOC3 HPW2.5 TBA

This course will deal with life cycle analysis and its use for life cycle assessment of energy systems. Methodologies, boundary issues, data bases and applications will be studied. The uses of LCA will be illustrated with industrial case studies and with studies aimed at quantifying externalities associated with different electricity generation technologies.

SOLA5052 Biomass
Centre for Photovoltaic Engineering
Staff Contact: School Office
UOC6 HPW4 TBA

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.

SOLA5053 Wind Energy Converters
Centre for Photovoltaic Engineering
Staff Contact: School Office
UOC6 HPW4 TBA

This course will cover the principles of wind energy and wind power, as well as the design and operation of different types of wind energy converters. It will include machines for water pumping, remote area power supply and grid electricity generation. It will cover issues of site selection, monitoring and analysing wind data, estimating output from wind generators, integrating wind generators into hybrid power systems or the grid, economics, standards and environmental impacts.

SOLA5058 Special Topic in Photovoltaics
Centre for Photovoltaic Engineering
Staff Contact: School Office
UOC0 TBA

This syllabus changes to allow presentation of a special topic of current interest particularly by visitors with recognised expertise in the topic.

SOLA5059 Industrial Elective
Centre for Photovoltaic Engineering
Staff Contact: School Office
UOC6 TBA

Each Industrial Elective (6 units of credit) represents one year 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. An Industrial elective cannot be claimed for work submitted for credit as SOLA4911 Thesis. Details of the procedure for registering and the requirements to be met can be obtained from the Centre for Photovoltaic Engineering.

SOLA5060 Industrial Elective
Centre for Photovoltaic Engineering
Staff Contact: School Office
UOC3 TBA

Each Industrial Elective (3 units of credit) 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. An Industrial elective cannot be claimed for work submitted for credit as SOLA4911 Thesis. Details of the procedure for registering and the requirements to be met can be obtained from the Centre for Photovoltaic Engineering.

SOLA5061 Industrial Elective
Centre for Photovoltaic Engineering
Staff Contact: School Office
UOC3 TBA

Each Industrial Elective (3 units of credit) 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. An Industrial elective cannot be claimed for work submitted for credit as SOLA4911 Thesis. Details of the procedure for registering and the requirements to be met can be obtained from the Centre for Photovoltaic Engineering.

SOLA5508 High Efficiency Silicon Solar Cells
Centre for Photovoltaic Engineering
Staff Contact: School Office
UOC3 HPW2.5 TBA

This is an advanced level subject for those with a good background in semiconductor device physics and an interest in silicon solar cells or related devices. After a brief review of the crystal structure, energy bands and phonon spectra of silicon, the course examines silicon's optical, recombination and transport properties in some detail. Next comes a discussion of efficiency limits upon photovoltaic energy conversion, with particular emphasis upon light trapping and the potential for exceeding conventional limits. After discussion of presently achievable surface and bulk material properties, the final section of the course studies in detail the design of silicon cells upon both crystalline and multicrystalline substrates and under concentrated and non-concentrated sunlight.

SPAN1001 Introductory Spanish 1A
Department of Spanish and Latin American Studies
Staff Contact: D Palaversich
UOC6 HPW6 S1 X1
Excluded: SPAN1000, SPAN1020, SPAN1021, SPAN1100

For students who have little or no knowledge of Spanish. 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. All students enrolled in SPAN1001 must attend a first meeting for information and organisation of tutorial groups. See Department noticeboards for time and place.

SPAN1002 Introductory Spanish 1B
Department of Spanish and Latin American Studies
Staff Contact: D Palaversich
UOC6 HPW6 S2 X1
Prerequisite/s: 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.

SPAN1021 Introductory Spanish 1C
Department of Spanish and Latin American Studies
Staff Contact: D Palaversich
UOC6 HPW5 S1
Excluded: SPAN1000, SPAN1001, SPAN1020, SPAN1100

Begins an intensive review of Spanish grammar and stimulates the development of writing skills. It also contains an introduction to the history, literature and culture of Spain and Latin America. Three hours language, two hours literature and one hour civilisation lecture. All language and literature teaching is in tutorial groups.

Note/s: For students with previous knowledge of Spanish. An assessment of each student's existing knowledge of Spanish will be made in week 1.

SPAN1022 Introductory Spanish 1D
Department of Spanish and Latin American Studies
Staff Contact: D Palaversich
UOC6 HPW5 S2
Prerequisite/s: SPAN1021
Excluded: SPAN1000, SPAN1002, SPAN1020, SPAN1100

For students who completed SPAN1021. Completes an intensive review of Spanish grammar and continues the development of writing skills. It also contains an introduction to the history, literature and culture of Spain and Latin America. Three hours language, two hours literature and one hour civilisation lecture. All teaching is in tutorial groups.

SPAN2003 Intermediate Spanish A
Department of Spanish and Latin American Studies
Staff Contact: S Gregory
UOC6 HPW5 S1
Prerequisite/s: 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 and Latin American Studies
Staff Contact: S Gregory
UOC6 HPW5 S2
Prerequisite/s: SPAN2001 or SPAN2003
Excluded: SPAN2002

Two hours audio/visual comprehension and two hours of grammar/reading/written expression, plus one hour of cultural studies.

SPAN2023 Intermediate Spanish C
Department of Spanish and Latin American Studies
Staff Contact: S Gregory
UOC6 HPW4 S1
Prerequisite/s: SPAN1020 at credit level or SPAN1022
Excluded: SPAN2021

One hour grammar, one hour aural comprehension, one hour discussion, one hour video.

SPAN2024 Intermediate Spanish D
Department of Spanish and Latin American Studies
Staff Contact: J Brotherton
UOC6 HPW4 S2
Prerequisite/s: SPAN2023
Excluded: SPAN2022

One hour grammar, one hour aural comprehension, one hour discussion, one hour video.

SPAN2401 Colonising the Americas: The Spanish and Portuguese Empires
Department of Spanish and Latin American Studies
Staff Contact: M Berger
UOC6 HPW3 S2
Prerequisite/s: 36 units of credit in Arts and Social Science courses

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.

SPAN2406 Modern Spain: From Loss of Empire to European Integration Department of Spanish and Latin American Studies
Staff Contact: P Ross
UOC6 HPW3 S1
Prerequisite/s: 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 riven 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 and Latin American Studies
Staff Contact: P Ross
UOC6 HPW3 S1
Prerequisite/s: 36 units of credit in Arts and Social Science courses

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.

SPAN2422 Special Topic in Latin American History 2
Department of Spanish and Latin American Studies
Staff Contact: P Ross
UOC6 HPW3 S2
Prerequisite/s: 36 units of credit in Arts and Social Science courses

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.

SPAN2424 Dictatorship and Democracy in the Americas
Department of Spanish and Latin American Studies
Staff Contact: M Berger
UOC6 HPW3 S2
Prerequisite/s: 36 units of credit in Arts and Social Science courses

Examines post-Cold War Latin America from the perspective of the region's tumultuous nineteenth and twentieth century history. The historical trajectories of a number of nation-states in Latin America will be surveyed with a focus on themes such as dictatorship and democracy, as well as nationalism, revolution, neo-liberalism and globalisation.

SPAN2425 Pre-Columbian Empires: Aztecs and Incas
Department of Spanish and Latin American Studies
Staff Contact: P Ross
UOC6 HPW3 S2
Prerequisite/s: 36 units of credit in Arts and Social Science courses

An interdisciplinary study of the great civilisations encountered by the Spanish at conquest including Aztec and Inca ethnohistory, class, stratification, economy, religion, arts, crafts and lifestyles.

SPAN2429 Making/Unmaking the Third World: History and Global Development II
Department of Spanish and Latin American Studies
Staff Contact: J Levy
UOC6 HPW3 S1
Prerequisite/s: 36 units of credit
Excluded: HIST2061, COMD2020, INST2000

This course (which is the second part of a two-part sequence, either part of which can be taken discretely) explores the history of global inequality in the twentieth century. Some of the themes considered include:

colonialism and its legacies; the history of the idea of development; the state in economic development; the World Bank and the IMF; and the question of globalisation.

SPAN3003 Advanced Spanish A
Department of Spanish and Latin American Studies
Staff Contact: S Gregory
UOC6 HPW4 S1
Prerequisite/s: SPAN2002 or SPAN2004 at credit level
Excluded: SPAN3001

Two hours grammar, one hour aural comprehension, one hour audiovisual.

SPAN3004 Advanced Spanish B
Department of Spanish and Latin American Studies
Staff Contact: J Brotherton
UOC6 HPW4 S2
Prerequisite/s: SPAN3001 or SPAN3003
Excluded: SPAN3002

Two hours grammar, one hour aural comprehension, one hour audiovisual.

SPAN3031 An Introduction to Translation
Department of Spanish and Latin American Studies
Staff Contact: J Brotherton
UOC6 HPW3 S1
Prerequisite/s: SPAN1020 or SPAN1010 or SPAN1022

A practical study of translation methodology in a series of contexts - welfare, legal, comercial and literary, but with an emphasis towards preparation for NAATI examinations.

SPAN3310 The Theatre of Garcia Lorca
Department of Spanish and Latin American Studies
Staff Contact: J Brotherton
UOC6 HPW3 S1
Prerequisite/s: 36 units of credit in Arts and Social Science courses

Federico Garcia Lorca is one of the leading playwrights of the twentieth century. The course, with seminars in English and tutorials in Spanish or English, analyses Lorca's major plays, tracing his quest for a dramatic form suitable to express his constant preoccupations - death, time, frustration and impotence.

SPAN3350 Performing Passion & Pain: The Case of Frida Kahlo
Department of Spanish and Latin American Studies
Staff Contact: D Palaversich
UOC6 HPW3 S2
Prerequisite/s: 36 units of credit in Arts and Social Science courses

Frida Kahlo has become an icon of contemporary art and feminism. Examines her life, art, letters and diary to account for her status in Mexican and Latin American circles as well as in a broad international context. Emphasises the self-consciously theatrical ways in which Kahlo's work projects particular versions of the following general themes: ethnicity and "Mexicanness"; gender and identity; public and private selves; the body fragmented and in pain; radical leftwing politics; passion and masochism.

SPAN3900 Special Topic in Hispanic Studies (Advanced)
Department of Spanish and Latin American Studies
Staff Contact: S Gregory
UOC6 HPW3 S2
Prerequisite/s: 36 units of credit including 12 units of Spanish at credit level

This course is tailor-made to individual student requirements in consultation with staff members in the Department. Students will undertake an extensive reading of primary and secondary sources on selected areas in Spanish and Latin American Studies. They will be required to produce bibliographies and a number of essays or papers displaying a developed understanding of the materials involved in their chosen topics.

SPAN4000 Spanish and Latin American Studies Honours Full-Time
Department of Spanish and Latin American Studies
Staff Contact: School Office
Enrolment requires school approval
UOC24 S1 S2
Prerequisite/s: 54 units of credit in SPAN at an average of 65% and permission from Head of Department

Language and Literature: 2 seminars and a thesis. History: 2 seminars and a thesis.

SPAN4050 Spanish and Latin American Studies Honours Part-Time
Department of Spanish and Latin American Studies
Staff Contact: School Office
Enrolment requires school approval
UOC12 S1 S2
Prerequisite/s: 54 units of credit in SPAN at an average of 65% and permission from Head of Department

Language and Literature: 2 seminars and a thesis. History: 2 seminars and a thesis.

SPAN4500 Combined Spanish and Latin American Studies Honours
Department of Spanish and Latin American Studies
Staff Contact: School Office
Enrolment requires school approval
UOC12 S1 S2
Prerequisite/s: 48 units of credit in SPAN at an average of 65% 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 SPAN1020 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 and Latin American Studies
Staff Contact: School Office
Enrolment requires school approval
UOC6 S1 S2
Prerequisite/s: 48 units of credit in SPAN at an average of 65% 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 SPAN1020 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.

TAHM1666 Tourism and Hospitality Operational Studies 1
School of Marketing
Staff Contact: School Office
Enrolment requires school approval
UOC6 HPW6 S1
Prerequisite/s: Admission to program 3571
Excluded: HOSP1999

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 750 hours of industry employment in stages 2, 3 and 4.

TAHM1777 Tourism and Hospitality Operational Studies 2
School of Marketing
Staff Contact: School Office
UOC6 HPW6 S2
Prerequisite/s: TAHM1666; Exclusion: HOSP1999

This course provides theoretical and practical training in food and beverage management, food production or meetings and events, and management principles. The training takes place at an accredited hospitality and tourism training college and prepares students for the program requirement of 750 hours of industry employment in stages 2, 3 and 4.

TAHM2001 Tourism Policy and Planning 1
School of Marketing
Staff Contact: School Office
UOC6 HPW3 S1
Prerequisite/s: MARK1012
Excluded: HOSP2010

This course provides a grounding in the fundamental strategic and managerial components of the tourism and the hospitality industry, and analyses the characteristics of key industry segements. Strategic,

managerial and policy issues are analysed and evaluated. Topics include: structural frameworks of the industry, legislative frameworks, environmental and market frameworks, transport, lodging, events and attractions, and specil interests.

TAHM2002 Tourism Marketing
School of Marketing
Staff Contact: School Office
UOC6 HPW3 S2
Prerequisite/s: TAHM2001
Excluded: HOSP3011

This course examines the marketing context of tourism and hospitality. Major topics include: marketing of public and private sector tourism products and destinations; global dimensions of tourism; strategic destination marketing; consumer decision processes; strategic marketing systems of multinational tourism companies. The course includes seminars with industry executives and field trips.

TAHM2888 Applied Tourism & Hospitality Management 1
School of Marketing
Staff Contact: School Office
UOC6 S2
Prerequisite/s: TAHM1777
Excluded: HOSP2999

This course complements the theory and operational training gained in stage 1 with a period of at least 250 hours of industry employment in the summer vacation at the end of that year.

TAHM3001 Legal Aspects of Tourism
School of Marketing
Staff Contact: School Office
UOC6 HPW3 S1
Prerequisite/s: TAHM2002
Excluded: HOSP3010

This course examines the legal foundations of commerce in the tourism and hospitality industry. Topics include: national and international laws relating to tourism; legal environment of facilities, agents and operators; interaction of community and developer needs, consumer rights, and the implication of national and international regulations governing the sale and supply of hospitality services including food.

TAHM3002 Tourism and Hospitality Operations Management
School of Marketing
Staff Contact: School Office
UOC6 HPW3 S1
Prerequisite/s: TAHM2002
Excluded: HOSP3012

This course examines the competitive operational methods that Tourism and Hospitality businesses use to achieve their strategic goals. Topics include: environmental scanning; identifying forces driving change; choosing competitive methods; portfolios of products and services; competitive advantage; core competencies as competitive methods; managing service quality; globalisation, multinationals and corporate strategies.

TAHM3003 Tourism Policy and Planning 2
School of Marketing
Staff Contact: School Office
UOC6 HPW3 S1
Prerequisite/s: TAHM3002

This course analyses the institutional, financial, regulatory, legal and industrial environment of tourism and hospitality, and the strategic relationships between investors, developers, operators and regulators within it. Resulting policy and investment planning issues are analysed and evaluated.

TAHM3004 Managing People in the Tourism and Hospitality Industry
School of Marketing
Staff Contact: School Office
UOC6 HPW3 S2
Prerequisite/s: TAHM3002
Excluded: HOSP4014

This course examines the management of employees in hospitality and tourism operations. It uses human resources, organisational development and services marketing frameworks to understand contemporary and future employment in these sectors. Topics include: recruiting and selection; training and development; leadership; teamwork; stress management and managing turnover; corporate culture and climate; performance evaluation and career pathing.

TAHM3888 Applied Tourism and Hospitality Management 2
School of Marketing
Staff Contact: School Office
UOC6 S2
Prerequisite/s: TAHM2888
Excluded: HOSP2999

This course complements the theory and operational training gained in stage 2 with a period of at least 250 hours of industry employment in the summer vacation at the conclusion of that stage.

TAHM4001 Tourism and Hospitality Facilities Management
School of Marketing
Staff Contact: School Office
UOC6 HPW3 S1
Prerequisite/s: TAHM3004
Excluded: HOSP4015

This course examines the development, design and management of hospitality facilities products in response to market and environmental needs. Topics include: management of project teams, management of the facility development cycle, competitor analysis, business synthesis and analysis, history of hospitality facilities, hospitality architecture and interior design, design of hotels, resorts and restaurants, and environmental management in hospitality facilities.

TAHM4002 Project Report in Tourism and Hospitality
School of Marketing
Staff Contact: School Office
UOC6 HPW3 S1
Prerequisite/s: TAHM3004

This course builds on the thoretical principles of marketing research in an original, investigative project in tourism and hospitality policy or management.

TAHM4003 Strategic Management in Tourism and Hospitality
School of Marketing
Staff Contact: School Office
UOC6 HPW3 S2
Prerequisite/s: TAHM4001
Excluded: HOSP4004

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.

TAHM4888 Applied Tourism and Hospitality Management 3
School of Marketing
Staff Contact: School Office
UOC6 S2
Prerequisite/s: TAHM3888
Excluded: HOSP3999

This course complements the theory and operational training gained in stage 3 with a period of at least 250 hours of industry employment in the summer vacation.

TELE1010 Introduction to Telecommunications
School of Electrical Eng and Telecommunications
Staff Contact: P Rapajic
UOC3 HPW3 S1

Introduction to the nature and scope of telecommunications engineering, including basic communications theory, computing, data networks, electronics and communications systems. Careers for telecommunications engineers in public and private enterprise. Verbal and written communication and inter-personal skills in engineering.

TELE3013 Telecommunication Systems 1
School of Electrical Eng and Telecommunications
Staff Contact: G Peng
UOC6 HPW4 S1 S2
Prerequisite/s: ELEC3004

To present a general introduction to telecommunications in the form of an overview of signal acquisition, transmission and processing in communication systems. This subject is intended for electrical or computer engineering students not specialising in telecommunications and also as

a necessary background for those intending to specialise. Overview of major communication systems (telephony, radio and TV, radar, navigation, etc.). Major signal types and their characteristics (speech, audio, video, data). Characteristics of typical communication channels. Methods of handling various channel problems (modulation, diversity, coding, etc.). Propagation and antennas. Basic analogue and digital modulation methods. Data modems and standards, ISDN. Introduction to data networks.

TELE3015 High Frequency Electromagnetics
School of Electrical Eng and Telecommunications
Staff Contact: F Rahman
UOC3 HPW3 S2
Prerequisite/s: PHYS2939 or PHYS2949

Maxwell equations & electromagnetic waves; polaraization & TEM waves; plane & spherical waves. Interference principles. Energy & power in waves. Group velocity dispersion & group delay. Dielectric materials & transmission; conducting materials & shielding; nonlinear interactions; anisotropic materials. Transmission lines from circuit & electromagnetic viewpoints; transmission line circuits. Metallic & dielectric waveguides; waveguide modes. Dipole, array, dish & aperture antennas. Some health & environmental considerations.

TELE3018 Data Networks 1
School of Electrical Eng and Telecommunications
Staff Contact: H Mehrpour
UOC6 HPW4 S2
Prerequisite/s: COMP1021, ELEC2041

This subject provides an understanding of the technologies and network architectures surrounding tele-communications. It outlines the two most common telecommunication technologies - Circuit Switching (telephony) and Packet Switching (data) networks and identifies the specific applications (services) which use them. It also describes the advantages and disadvantages of each of these techniques in terms of qualify of service (QOS), flexibility and cost. Telecommunication systems from the network perspective. The OSI/ISO reference model. Evolution of the telephone system architecture. Digital switching and multiplexing. Packet switching. Traffic engineering. Flow and congestion control. Network management. Network security. Speech, video and data compression. Internetworking. TCP/IP reference model. LANs, MANs and FDDIs.

TELE4313 Optical Communications
School of Electrical Eng and Telecommunications
Staff Contact: School Office
UOC6 HPW4 S1
Prerequisite/s: TELE3013

Historical development of optical communication. Ray propagation and impulse response in step index multimode fibres. Ray propagation, dispersion and bandwidth in graded-index multimode fibres. Measurements of optical fibres. Light propagation and bandwidth in step-index single mode fibres. Graded-index single mode fibres. Bending and microbending losses in fibres. Launching efficiencies in multimode and single mode fibres. Power budget and dispersion budget in fibre systems. Optical fibre components.

TELE4323 Digital Modulation and Coding
School of Electrical Eng and Telecommunications
Staff Contact: J Yuan
UOC6 HPW4 S1
Prerequisite/s: TELE3013

Provides detailed understanding of techniques used to process digital information in order to ensure its reliable delivery over noisy channels. Examines the fundamental resources available to telecommunication systems and develops techniques for understanding the implications of different modulation and coding techniques on these fundamental quantities. The course also provides a general understanding of the role of digital modulation and coding in practical digital communication systems. 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 Eng and Telecommunications
Staff Contact: J Yuan
UOC6 HPW4 S2
Prerequisite/s: TELE3013

Introduction to wireless technologies. First, second and third generation wireless networks. MAC technologies for wireless, packet switching, circuit switching, burst switching. Radio resource allocation and cellular systems. Cellular digital packet data (CDPD) network. GSM architecture: routing and flow control protocols, mobility management. High-speed circuit-switched data (HSCSD) services. General Packet Radio Service (GPRS). Enhanced data for global evolution (EDGE) and global third generation (G3G). Wireless local area network (WLANs) - IEEE 802.11 and Hiperlan standards. Broadband wireless acess (BWA). Application of wireless services. Future wireless services and software radios.

TELE4343 Source Coding and Compression
School of Electrical Eng and Telecommunications
Staff Contact: D Taubman
UOC6 HPW4 S2
Prerequisite/s: TELE3013, ELEC3004

Comprehensive overview of source compression techniques and standards, which play a key role in digital communication and multimedia systems. Characteristics of analogue information sources (speech, audio, images, video). Sampling methods. Scalar and vector quantisation. Information and entropy. Elementary coding tools. Lossless compression methods. Lossy compression and distortion measures. Rate-distortion analysis and optimization. Basic “waveform coding” methods: PCM, DM, DPCM, etc.. Advanced waveform coding methods: linear transforms, including DCT and subband/Wavelet transforms; and predictive methods. Non-waveform methods, including vocoders and frequency domain methods. Major coding methods and standards for speech, audio, images and video. Embedded/progressive coding with applications in modern communication systems. Real time transmission of speech, audio and video in telecommunication systems, including fixed and variable bit rate coding.

TELE4352 Data Networks 2
School of Electrical Eng and Telecommunications
Staff Contact: H Mehrpour
UOC6 HPW4 S1
Prerequisite/s: TELE3018

This subject provides insight into how to design, analyze and evaluate performance of the telecommunication networks. The subject identifies the benefits of high speed networks such as effectiveness, cost and customer control. It also describes the functions and characteristics of several services and technologies, including Personal Communication Services (PCs), Frame Relay, Asynchronous Transfer Mode (ATM), SONET/SDH and Switched Multimegabit Data Services (SMDS). Protocol modelling and verification techniques. Asynchronous Transfer Mode (ATM). ATM LANs, multimedia communication. Analysis of protocols for data link, network and transport layers. Network design. Frame Relay. Switched Multimegabit Data Services (SMDS). Operating system views of communication.

TELE4353 Mobile and Satellite Communication Systems
School of Electrical Eng and Telecommunications
Staff Contact: P Rapajic
UOC6 HPW4 S2
Prerequisite/s: TELE3013

A specialist subject, aimed to provide a fundamental understanding of the system architecture and system design, and the effect of the channel on the performance of two of the most important digital telecommunications systems, i.e. digital cellular mobile communication and digital satellite communication. It shows how digital modulation and coding techniques taught in TELE4323 Digital Modulation and Coding may be used to improve the reliability of each system. It also provides a general understanding of these systems from the network perspective. Modern communication systems from a systems point of view. Cellular mobile communication systems. Propagation-loss model. The mobile fading channel. Multiple access techniques. The GSM. Digital satellite communication systems. Satellite orbits. Station keeping. Multiple access techniques. System synchronisation. DAMA. Satellite packet communication. Mobile satellite networks.

TELE4354 Network Management
School of Electrical Eng and Telecommunications
Staff Contact: A Seneviratne
UOC6 HPW4 S1
Prerequisite/s: TELE4352

This course will introduce students to methods, techniques and tools for the management of telecommunication systems and networks with specific examples from Internet SNMP, SNMPv2, RMON, RMON2 and the OSI/ISO based CMIS/CMIP. It will address issues associated with: configuration and name management, fault and performance management, security, and accounting management.

TELE4363 Telecommunications Systems 2
School of Electrical Eng and Telecommunications
Staff Contact: H Mehrpour
UOC6 HPW4 S1
Prerequisite/s: TELE3013

This course provides a fundamental coverage of important communication systems, their basic componenets, as well as legal and commercial aspects affecting the design and operation of these systems. This course 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. Antenna radiation. Active microwave devices. Radar and navigation systems. Broadcast radio and TV systems. Cable systems. Introduction to mobile and satellite communications.

TELE4910 Thesis Part A
School of Electrical Eng and Telecommunications
Staff Contact: School Office
UOC3 HPW4 S1 S2
Prerequisite/s: 132 units of credit and weighted average mark of 65, ELEC3017

The thesis 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 subject 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 TELE4910.

TELE4911 Thesis Part B
School of Electrical Eng and Telecommunications
Staff Contact: School Office
UOC9 HPW10 S1 S2
Prerequisite/s: TELE4910

Thesis Part B typically involves the theoretical development or modelling of work completed in Part A. A written thesis report must be submitted on each project by Tuesday of Week 14 of the session in which TELE4911 is taken.

TELE4914 Group Thesis Part A
School of Electrical Eng and Telecommunications
Staff Contact: School Office
UOC3 HPW4 S1 S2
Prerequisite/s: ELEC3017 and 132 units of credit

The group thesis 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 subject 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 siminar as part of the requirements for TELE4914.

TELE4915 Group Thesis Part B
School of Electrical Eng and Telecommunications
Staff Contact: School Office
UOC9 HPW10 S1 S2
Prerequisite/s: TELE4914

Group Thesis Part B typically involves the theoretical development or modelling of work completed in Part A. A written project report must be submitted on each project by Tuesday of Week 14 of the session in which TELE4915 is undertaken.

THFI1002 Reading Performance
School of Theatre, Film and Dance
Staff Contact: E Scheer
UOC6 HPW3 S2
Excluded: THFI1000, THFI1001

Examines a range of performance practices in theatre, film, video and dance, to providing an introduction to different ways of theorising and analysing performance and performing bodies.

THFI2010 Comedy and Power
School of Theatre, Film and Dance
Staff Contact: J McCallum
UOC6 HPW3 S2
Prerequisite/s: THST1101 or FILM1101 or DANC1103 or THFI1002 or 48 units in credit in Arts and Social Science

Studies stand-up, group and sketch-based comedy in live performance and on television since the 1950s, incorporating selected examples from Australia, New Zealand, USA, Canada and the UK.

THFI3900 Interpreting the Theatrical Past
School of Theatre, Film and Dance
Staff Contact: J Davis
UOC6 HPW3 S2
Prerequisite/s: THST1101 or FILM1101 or DANC1103 or THFI1002 plus 36 units of credit in Arts and Social Sciences at credit grade or better

The course introduces students to current historiographical issues in theatre. Through a series of case studies, drawn from classical and popular forms of theatre and performance, it encourages students to engage with innovatory approaches to the theatrical past.

THFI3901 Problems in Film History
School of Theatre, Film and Dance
Staff Contact: D Davis
UOC6 HPW3 S2
Prerequisite/s: 24 units of credit in DANC/FILM/THST/THFI at an average of credit grade or better

Analyses and critiques various models or paradigms of film history. Reviews the debates over competing historical accounts of technological invention and innovation in early cinema; the coming of sound; the roles played by psychoanalysis, Marxism, formalism and feminism in historical explanation. Students are introduced to institutional and economic models; auteurism; and ideology and histories of style. Emphasis is on the ways research questions and methods determine the shape of historical narratives about cinema.

THFI3902 Performance and Performativity
School of Theatre, Film and Dance
Staff Contact: E Scheer
UOC6 HPW3 S2
Prerequisite/s: 24 units of credit in DANC/FILM/THST/THFI at an average of credit grade or better

Examines the relations between theories of action and text in terms of social performance and literary performativity. Considers contemporary debates concerning the power of words to cause offence or to inspire actions in the world and the implications of these ideas in terms of social and screen/stage dramas.

THFI3903 Issues in Contemporary Film Theory
School of Theatre, Film and Dance
Staff Contact: L Trahair
UOC6 HPW3 S2
Prerequisite/s: 24 units of credit in DANC/FILM/THST/THFI at an average of credit grade or better

Focuses on specific debates in contemporary film theory. Topics will vary from year to year. Issues addressed: psychoanalysis and cinema, feminist film theory and practice: and theories of film time. The class will be structured as a reading group and undertake critical analyses of key texts in contemporary film debates.

THFI4000 Theatre Film and Dance Honours (Research) Full-Time
School of Theatre, Film and Dance
Staff Contact: L Trahair
Enrolment requires school approval
UOC24 S1 S2
Prerequisite/s: 54 units of credit in THFI/THST/DANC 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 dance or in theatre/film, theatre/dance or film/dance. In addition to seminar and practical project/thesis work, students are required to attend and contribute to regular thesis workshops.

THFI4050 Theatre Film & Dance Honours (Research) Part-Time
School of Theatre, Film and Dance
Staff Contact: L Trahair
Enrolment requires school approval
UOC12 S1 S2
Prerequisite/s: 54 units of credit in THFI/THST/DANC 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 dance or in theatre/film, theatre/dance or film/dance. In addition to seminar and practical project/thesis work, students are required to attend and contribute to regular thesis workshops.

THFI4500 Combined Theatre and Film Studies Honours (Research) Full-Time
School of Theatre, Film and Dance
Staff Contact: L Trahair
Enrolment requires school approval
UOC12 S1 S2
Prerequisite/s: 48 units of credit in THFI/THST/DANC at 70% including THFI3902 and THFI3903 and permission from head of school

Students who have 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.

THFI4550 Combined Theatre and Film Studies Honours (Research) Part-Time
School of Theatre, Film and Dance
Staff Contact: L Trahair
Enrolment requires school approval
UOC6 S1 S2
Prerequisite/s: 48 units of credit in THFI/THST/DANC at 70% including THFI3902 and THFI3903 and permission from head of school

Students who have 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.

THST1101 Introduction to Theatre
School of Theatre, Film and Dance
Staff Contact: J Davis
UOC6 HPW3 S1
Excluded: THFI1000, THFI1001

Introduces the basic principles of and analytic vocabulary for the study of theatrical performance.

THST2102 Shakespeare, His Contemporaries and the Actor
School of Theatre, Film and Dance
Staff Contact: J Golder
UOC3 HPW3.5 S2
Prerequisite/s: THST1101 or FILM1101 or DANC1103 or THFI1002
Excluded: THST2113

Considers staging and performance practices in the Elizabethan/Jacobean theatre, with special concentration on the craft and profession of the actor. Attention will be given to contemporary playtexts that dramatise actors in rehearsal and performance.

Note/s: Offered in first part of session.

THST2106 The Rise of the Modern Theatre Movement
School of Theatre, Film and Dance
Staff Contact: J Davis
UOC3 HPW3 S1
Prerequisite/s: THST1101 or FILM1101 or DANC1103 or THFI1002
Excluded: THST2111

Examines some of the major forces in modern theatre from the growth of realism to the early 20th century. Topics: innovations in playwriting, stage design, theatre technology, performance style and directing, changing views on the nature and role of theatre.

Note/s: Offered in second part of session.

THST2107 Melodrama and Popular Culture
School of Theatre, Film and Dance
Staff Contact: J Davis
UOC3 HPW3.5 S1
Prerequisite/s: THST1101 or FILM1101 or DANC1103 or THFI1002
Excluded: THST2111

Studies nineteenth-century melodrama with a strong emphasis on its performative and social contexts and its influence on film.

Note/s: Offered in first part of session.

THST2111 Revolution and Change: Theatre in Nineteenth & Twentieth Century
School of Theatre, Film and Dance
Staff Contact: J Davis
UOC6 HPW3.5 S1
Prerequisite/s: THST1101 or FILM1101 or DANC1103 or THFI1002
Excluded: THST2105, THST2106, THST2107, THST2183

Studies European theatre, commencing with the rise of melodrama in the aftermath of the French Revolution, the influence of Romanticism and the development of Realism and Naturalism, with particular reference to the English, French and Scandinavian stages.

THST2113 The Shakespearean Actor on stage and off
School of Theatre, Film and Dance
Staff Contact: J Golder
UOC6 HPW3 S2
Prerequisite/s: THST1101 or FILM1101 or DANC1103 or THFI2002
Excluded: THST2102

Considers developments in staging and performance practices in the Elizabethan and Jacobean theatre, with special reference to the craft and profession of the actor, as both creative artist, and sharing member in a joint-stock company. Taking Shakespeare's work and career as its central focus, seeks to discover 'what the actor did onstage' (acting style/s and performance conventions) in the light of such matters as company organisation, casting, doubling of roles, public and private theatre architecture and stage practices. Includes practical workshops on various aspects of the Elizabethan actor's craft.

THST2135 Production Exercise
School of Theatre, Film and Dance
Staff Contact: C Grant
UOC6 S1 S2
Prerequisite/s: THST1101 or FILM1101 or DANC1103 or THFI1002

Practical work on a theatrical presentation iwthin the School aimed at providing direct experience of the production process and its evaluation.

Note/s: Before enrolling in this course students must study the detailed course outline available from the School of Theatre, Film and Dance and complete a Production Selection Form. Students should note that rehearsals will normally take place in February, with performances in Week 2 of Session 1.

THST2137 Workshop Exercise
School of Theatre, Film and Dance
Staff Contact: C Grant
UOC6 HPW5 S2
Prerequisite/s: THST1101 or FILM1101 or DANC1103 or THFI1002

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.

THST2142 Improvisation and the Actor
School of Theatre, Film and Dance
Staff Contact: J Davis
UOC6 HPW4 S1
Prerequisite/s: THST1101 or FILM1101 or DANC1103 or THFI1002 or DANC1002 or 48 units of credit in Arts and Social Sciences

Studies the creation of performance pieces through actor improvisation, with reference to the place of such activity in modern political, community and image-based theatre. Regular practical workshops are an essential part of this course.

THST2145 Writing for Performance
School of Theatre, Film and Dance
Staff Contact: C Grant
UOC6 HPW3 S1
Prerequisite/s: THST1101 or FILM1101 or DANC1103 or THFI1002 or DANC1002 or 48 units of credit in Arts and Social Sciences

An introduction to writing for a performance space, with special focus on the writer and her/his material. Practical exercises and discussion which develop some strategies for approaching writing for live performance.

THST2147 The Performance Text: Theory and Practice
School of Theatre, Film and Dance
Staff Contact: C Grant
UOC6 HPW3 S2
Prerequisite/s: THST1101 or FILM1101 or DANC1103 or THFI1002 or DANC1002 or 48 units of credit in Arts and Social Sciences

A study of the theory and practice of dramatic writing, which extends and develops THST2145 Writing for Performance. The course involves a practical scriptwriting workshop and includes extensive critical analysis.

THST2149 Performance Making
School of Theatre, Film and Dance
Staff Contact: C Grant
UOC6 HPW3 S1
Prerequisite/s: THST1101 or FILM1101 or DANC1103 or THFI1002 or DANC1002 or 48 units of credit in Arts and Social Sciences

Explores performer/artist-generated and community-orientated 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.

THST2150 Performance Space: Performance Reception
School of Theatre, Film and Dance
Staff Contact: J Golder
UOC6 HPW3 S2
Prerequisite/s: THST1101 or FILM1101 or DANC1103 or THFI1002 or DANC1002 or 48 units of credit in Arts and Social Sciences

Studies performance space, both interior and exterior, and the audience profile and reception within selected spaces. The course will be based around selected case studies (both historical and modern) and will include fieldwork in contemporary Sydney theatres.

THST2161 Contemporary Theatre
School of Theatre, Film and Dance
Staff Contact: School Office
UOC6 HPW3 S1
Prerequisite/s: THST1101 or FILM1101 or DANC1103 or THFI1002 or DANC1002 or 48 units of credit in Arts and Social Sciences

Studies recent developments in theatre and drama, in various countries, over the last 40 years.

THST2163 Staging Australia
School of Theatre, Film and Dance
Staff Contact: J McCallum
UOC6 HPW3 S1
Prerequisite/s: THST1101 or FILM1101 or DANC1103 or THFI1002 or DANC1002 or 48 units of credit in Arts and Social Sciences

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.

THST2190 Gender and Performance
School of Theatre, Film and Dance
Staff Contact: School Office
UOC6 HPW3 S1
Prerequisite/s: THST1101 or FILM1101 or DANC1103 or THFI1002 or DANC1002 or 48 units of credit in Arts and Social Sciences

Women in the performing arts from the late nineteenth century to the present; suffragette drama; women playwrights in Europe, America and Australia; women performers and directors; and the rise of feminist theatre, including rituals and performance art.

WOMS1001 Introduction to Feminism
Faculty of Arts and Social Sciences
Staff Contact: H Bowen Raddeker
UOC6 HPW3 S2

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.

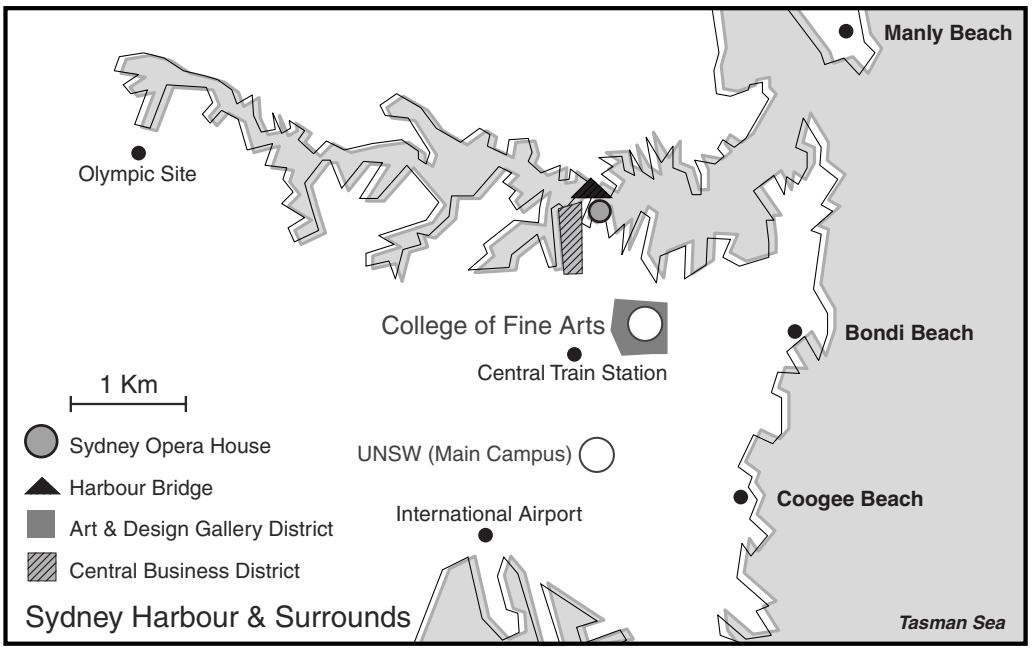
WOMS4500 Combined Women's Studies Honours (Research) Full-Time
Faculty of Arts and Social Sciences
Staff Contact: H Bowen Raddeker
Enrolment requires school approval
UOC12 S1 S2
Prerequisite/s: 48 units of credit, including 6 Level 1 in WOMS at credit level and permission from the Co-ordinator

Students are required to complete coursework nominated by the Women's Studies Co-ordinator. The Women's 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.

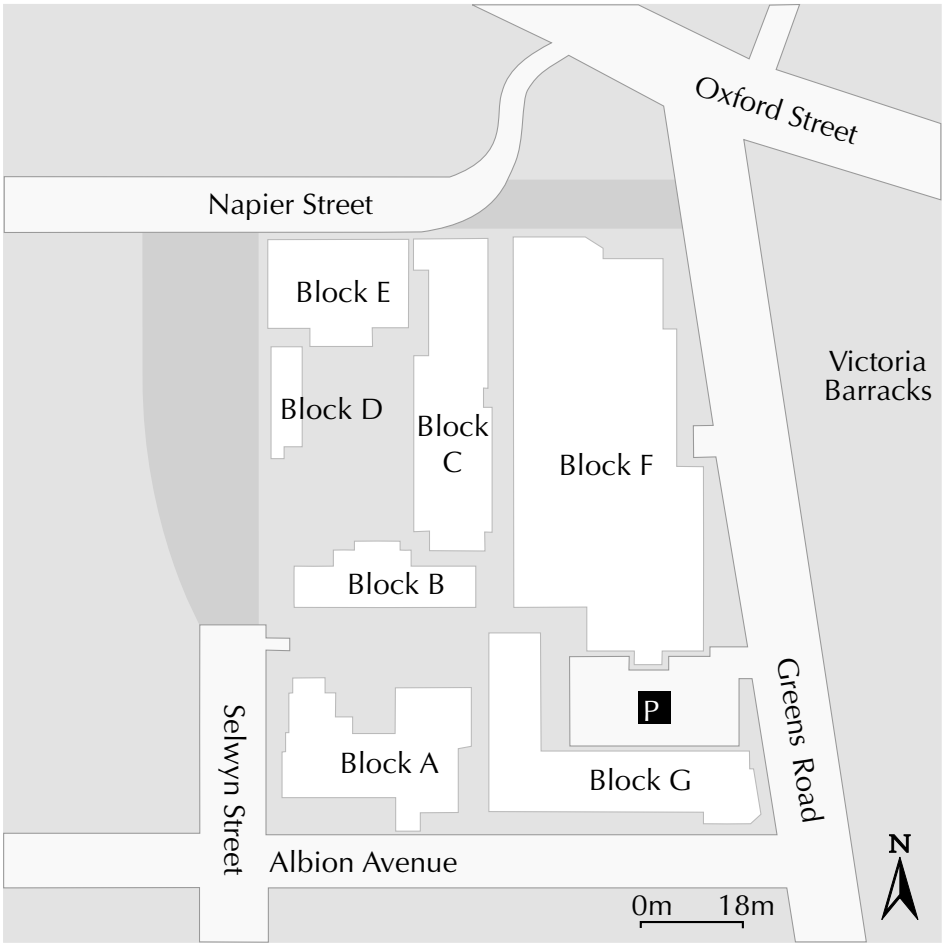
WOMS4550 Combined Women's Studies Honours (Research) Part-Time
Faculty of Arts and Social Sciences
Staff Contact: H Bowen Raddeker
Enrolment requires school approval
UOC6 S1 S2
Prerequisite/s: 48 units of credit, including 6 Level 1 in WOMS at credit level and permission from the Co-ordinator

Students are required to complete coursework nominated by the Women's Studies Co-ordinator. The Women's 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.

COFA Campus Location



Paddington



The University of New South Wales • Kensington Campus

Theatres

Applied Science Theatre **F11**
Athol Lykke Theatre **C27**
Biomedical Theatres **E27**
Central Lecture Block (CLB) **E19**
Clancy Auditorium **C24**
Classroom Block *(Western Grounds)* **H3**
Fig Tree Theatre **B14**
Hefffron Theatres *(Dwyer, Mellor, Murphy, Nyholm, Smith)* **E12**
Io Myers Studio **D9**
Keith Burrows Theatre **J14**
Macauley Theatre **E15**
Mathews Theatres **D23**
Parade Theatre **E3**
Physics Theatre **K14**
Rex Vowels Theatre **F17**
Science Theatre **F13**
Webster Theatres **G15**

Buildings

AGSM **G27**
Applied Science **F10**
Arcade **D24**
Barker Apartments **N13**
Basser College **C18**
Baxter College **D14**
Biological Sciences **D26**
Blockhouse **G6**
Chancellery **C22**
Civil Engineering **H22**
Dalton **F12**
Electrical Engineering **G17**
Goldstein College **D16**
Goodsell **F20**
Golf House **A27**
Heffron **E12**
International House **C6**
Kensington Colleges *(Office)* **C17**
Library *(University)* **E21**
Library Stage 2 **F21**
Mechanical Engineering **J17**
Main **K15**
Mathews **F23**
Morven Brown **C20**
Myers, Sir Rupert **M15**
New College **L6**
Newton **J12**
NIDA **D2**
Parking Station (Barker Street) **N18**
Parking Station (Botany Street) **H25**
Pavilions, The **E24**
Philip Baxter College **D14**
Quadrangle **E15**
Red Centre **H13**
Roundhouse **E6**
Sam Cracknell Pavilion **H8**
Samuels **F25**
Shalom College **N9**
Squarehouse **E4**
The Scientia **G19**
University Regiment **J2**
Vallentine Annexe **H22**
Wallace Wurth School of Medicine **C27**
Warrane College **M7**
Webster, Sir Robert **G14**
Willis Annexe **J18**

Faculty Offices

Arts and Social Sciences **C20**
Australian Graduate School of Management AGSM **G27**
Built Environment **H13**
Commerce and Economics **F20**
Engineering **K17**
Law (Library Stage 2) **F21**
Medicine **B27**
Science **D26**

School Offices

Accounting **E15**
Anatomy **B27**
Applied Bioscience **D26**
Architecture Program **H13**
Banking and Finance **E15**
Biochemistry and Molecular Genetics **D26**
Biological Science **D26**
Building Construction Management Program **H13**
Business Law and Taxation **E15**
Chemical Engineering and Industrial Chemistry **F10**
Chemistry **E12**
Civil and Environmental Engineering **H20**
Community Medicine **D26**
Computer Science and Engineering **K17**
Economics **F20**
Education Studies **F23**
Electrical Engineering and Telecommunications **G17**
English **C20**
Geography **F10**
Geology **F10**
Geomatic Engineering **G17**
Health Services Management **F25**
History **C20**
Industrial Design Program **H13**
Industrial Relations and Organisational Behaviour **F20**
Information, Archive and Library Studies **F23**
Information Systems **E15**
Interior Architecture Program **H13**
International Business **E15**
Landscape Architecture Program **H13**
Law (Library Stage 2) **F21**
Marketing **F20**
Materials Science and Engineering **E8**
Mathematics **H13**
Mechanical and Manufacturing Engineering **J17**
Media and Communications **G15**
Medical Education **C27**
Microbiology and Immunology **D26**
Mining Engineering **K15**
Modern Language Studies **C20**
Music and Music Education **G15**
Optometry and Vison Science **M15**
Paediatrics **C27**
Pathology **C27**
Petroleum Engineering **D12**
Philosophy **C20**
Physics **K15**
Physiology and Pharmacology **C27**
Planning and Urban Development Program **H13**
Political Science **C20**
Psychology **F23**
Safety Science **B11a**
Science and Technology Studies **C20**
Social Science and Policy **C20**
Social Work **F23**
Sociology **C20**
Theatre Film and Dance **G14**

Services

Aboriginal Student Centre **A29**
Access Scheme – Equity and Diversity Unit **E15**
Accommodation– Housing Office **E15**
Admissions and Enrolment – Student Centre **C22**
Biomedical Library **F23**
Campus Conferencing **C22**
Campus Services **B14a**
Cashier **C22**
Careers and Employment Office **E15**
Chaplains **E4**
Child Care Centres -
- House at Pooh Corner **N8**
- Kangas House **O14**
- Tiggers/Honey Pot – 34 Botany St.

Co-op program **M15**
CONTACT **E15**
Counselling Service **E15**
Equity and Diversity Unit **E15**
Facilities Department **C22**
Graduate Programs in Business Technology **J12**
Health Service **E15**
Housing Office **E15**
Human Resources **C22**
Law Library **F21**
NewSouthQ Student Centre **C22**
Public Affairs and Development **C22**
Publishing and Printing Services **C22**
Religious Services **E4**
Research Office **M15**
Roundtable Conferencing and Catering **E4**
SECURITY /Lost Property/Parking **H13**
Sports Association **H8**
Student Centre **C22**
Student Guild **E15**
Student Recruitment Office **C22**
Unisearch Limited **M15**
University Gymnasium **B5**
University Union
- Blockhouse **G6**
- Roundhouse **E6**
- Squarehouse **E4**

UNSW Bookshop **E15**
UNSW International **H13**