UNSW

THE UNIVERSITY OF NEW SOUTH WALES

Postgraduate Handbook

2006

Disclaimer

The information contained in this Handbook is indicative only. While the University of New South Wales has attempted to make the information in this Handbook as accurate as possible, the information is intended for personal and/or educational use only and is provided in good faith without any express or implied warranty. There is no guarantee given as to the accuracy or currency of any individual item in this Handbook. Persons accessing this Handbook who require confirmation of any information should refer to the section of the University responsible for the information. The University does not accept responsibility for any loss or damage occasioned by use of the information contained in this Handbook.

Information provided about programs, plans, courses, staffing, procedures and services is an expression of intent only and is not to be taken as a firm offer of undertaking. The University reserves the right to discontinue or vary programs, plans, courses, staffing, procedures, services or other arrangements at any time without notice and at its discretion. The University reserves the right to impose limitations on enrolment in any course. While the University will try to avoid or minimise any inconvenience, changes may also be made to programs, plans, courses, procedures, services and staffing after enrolment.

Copyright Notice

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

The address of the University of New South Wales is:

The University of New South Wales
UNSW SYDNEY 2052 AUSTRALIA

Telephone: (02) 9385 1000
Facsimile: (02) 9385 2000
Email: records.admin@unsw.edu.au
http://www.unsw.edu.au

Designed, published and printed by Publishing & Printing Services,
The University of New South Wales

CRICOS Provider Code No. 00098G

ISSN 1445-663X

UNSW Postgraduate Handbook

Contents

Introduction 1

General University Rules and Student Information 2

Academic Calendar for 2006 3

Faculties

Faculty of Arts and Social Sciences
- A Message from the Dean 51
- Faculty Information and Assistance 52
- Program and Course Information 53

Faculty of the Built Environment
- A Message from the Dean 85
- Faculty Information and Assistance 85
- Program and Course Information 86

College of Fine Arts
- A Message from the Dean 98
- Faculty Information and Assistance 99
- Program and Course Information 100

Faculty of Commerce and Economics
- A Message from the Dean 116
- Faculty Information and Assistance 116
- Program and Course Information 117

Faculty of Engineering
- A Message from the Dean 132
- Faculty Information and Assistance 133
- Program and Course Information 134

Faculty of Law
- A Message from the Dean 176
- Faculty Information and Assistance 177
- Program and Course Information 178
- **Atax (Australian Taxation Studies Program)** 187
- Information and Assistance 187
- Program and Course information 188

Faculty of Medicine
- A Message from the Dean 196
- Faculty Information and Assistance 197
- Program and Course Information 197

Faculty of Science
- A Message from the Dean 222
- Faculty Information and Assistance 223
- Program and Course Information 224

Institute of Environmental Studies
- Program and Course Information 254

Undergraduate Course Descriptions
- 2006 UNSW courses by course code 257

Glossary 407

Maps
- College of Fine Arts, Paddington 409
- University of New South Wales, Kensington Campus 410

Introduction

Introduction

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

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

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

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

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

Further Information

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

www.handbook.unsw.edu.au

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

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

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

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

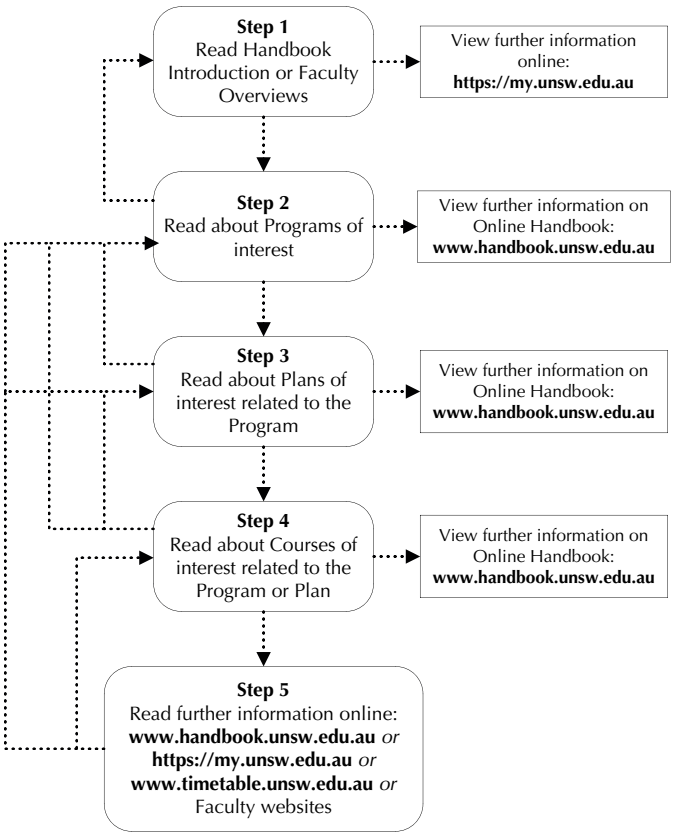
Students interested in studying at the Australian Defence Force Academy (UNSW@ADFA) should obtain a copy of the ADFA Handbook: (+61 2) 6268 6000 or www.unsw.adfa.edu.au/student/handbook/index.html

Key to Abbreviations Used in this Book:

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

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

How to Read the Handbook – Navigation Guide



General University Rules & Student Information

Contents

Academic Calendar for 2006 3
Important Dates 4
Schedule of Postgraduate Programs 5
Tuition Fee Schedule 17
UNSW Student Central (Student Enquiries) 23

Admission Requirements and Procedures

Admission Enquiries 23
Admission Procedures 23
Entry Requirements 23
English Language Requirements 23
Non-Award Enrolment 23
Postgraduate Coursework Advanced Standing, Credit Transfer, and Articulation Guidelines 24

Student Fees

Commonwealth Support 24
Student Activity Fees 26
UNSW Fee Policy: Local Students 27
UNSW Fee Policy: International Students 28
Other Fees and Charges 29
Sponsored or Assisted Students 30
Debts 30

Enrolment Rules and Procedures

Enrolment 30
Variations in Enrolment (includes Discontinuation and Program Leave) 31

Progression Rules and Procedures

Attendance at Classes 31
Plagiarism 31
Academic and Student Misconduct 32
Academic Standing 34
Assessment 35
Examinations 35
Postgraduate Research Students 35
Special Consideration - Illness and Misadventure 35
Student Contact Details 36
Student ID Card 37
Graduation 37

Information Technology Rules and Procedures

Introduction 37
UniPass 37
ELISE (Enabling Library and Information Skills for Everyone) 37
Email Policy 37
IT Requirements for UNSW Students 37
Rules for the Use of Computing and Electronic Communications Facilities by Students 37
Website Policy 38

Other University Policies and Procedures

Access to Assessment Information and Freedom of Information 38
Assessment Policy 39
1. Introduction 39
2. Timing and Weight of Assessments 39
3. Assessing Students' Progress 40
4. Special Consideration 43
5. Ethical Use of Scholarly Materials 43
6. Appeals Against Decisions Affecting Standing or Ability to Progress 43
7. Rights and Responsibilities 43
8. Discontinuation and Effective Feedback 44
Fees for Goods and Services Incidental to Studies 44
Copyright 45
Equity and Diversity 45
Occupational Health and Safety 46
Guidelines and Procedures for the Resolution of Academic Grievances and Disputes 46
Student Discrimination and Harassment Grievance Policy and Procedures 47
UNSW Student Services: Privacy Code of Practice 47

Government Policies

Health Related Programs, 49
Education Programs 49
Working with Children 49
International Students (ESOS Act) 49

Student Services and Resources

The UNSW Library 49
The Learning Centre 49
University Counselling Service and COMPASS Programs 49
Careers and Employment 50
Disability Services 50
Equity and Diversity Unit 50
IT Service Desk 50
Prizes 50
Scholarships 50
Student Representatives 50
UNSW Bookshop 50

Academic Calendar for 2006

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

Faculties Other than Medicine, AGSM and University College, ADFA

Summer Session	**2006**
Summer Session (9 weeks)	12 Dec 2005 to 23 Dec 2005
Xmas Recess	24 Dec 2005 to 2 Jan 2006
Summer Session continues	3 Jan 2006 to 17 Feb 2006
Session 1	
Session 1 (14 weeks)	27 Feb 2006 to 13 April 2006
Mid-session recess	14 April 2006 to 23 April 2006
Session 1 continues	24 April 2006 to 9 June 2006
Study Period	10 June 2006 to 15 June 2006
Examinations	16 June 2006 to 4 July 2006
Mid-year recess	5 July 2006 to 23 July 2006
Session 2	
Session 2 (14 weeks)	24 July 2006 to 22 Sept 2006
Mid-session recess	23 Sept 2006 to 2 Oct 2006
Session 2 continues	3 Oct 2006 to 3 Nov 2006
Study Period	4 Nov 2006 to 9 Nov 2006
Examinations	10 Nov 2006 to 28 Nov 2006

Public Holidays

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

Faculty of Medicine

	2006
Medicine I, II	
Teaching Period 1	27 Feb to 28 Apr
Mid-Session Break	14 Apr to 23 Apr
Recess	1 May to 7 May
Teaching Period 2	8 May to 30 Jun
Mid-Year Break	3 Jul to 23 Jul
Teaching Period 3	24 Jul to 15 Sep
Recess	18 Sep to 2 Oct
Teaching Period 4	3 Oct to 24 Nov
Medicine III	
Teaching Period 1	27 Feb to 28 Apr
Mid-Session Break	14 Apr to 23 Apr
Study and Examination Period	1 May to 14 May
Teaching Period 2	15 May to 7 Jul
Recess	10 Jul to 23 Jul
Teaching Period 3	24 Jul to 15 Sep
Recess	18 Sep to 2 Oct
Teaching Period 4	3 Oct to 24 Nov
Medicine IV	
Summer Teaching Period	16 Jan to 10 Mar
Teaching Period 1	13 Mar to 12 May
Mid-Session Recess	14 Apr to 23 Apr
Teaching Period 2	15 May to 7 Jul
Mid-Year Break	10 Jul to 23 Jul
Teaching Period 3	24 Jul to 15 Sep
Recess	18 Sep to 2 Oct
Teaching Period 4	3 Oct to 24 Nov
Medicine V	
Summer Teaching Period	16 Jan to 10 Mar
Teaching Period 1	13 Mar to 12 May
Mid-Session Recess	14 Apr to 23 Apr
Teaching Period 2	15 May to 7 Jul
Mid-Year Break	10 Jul to 23 Jul
Teaching Period 3	24 Jul to 15 Sep
Recess	18 Sep to 2 Oct
Teaching Period 4 (Elective)	3 Oct to 24 Nov
Medicine VI	
Teaching Period 1	Elective – variable dates
Teaching Period 2	20 Feb to 2 Apr
Recess	3 Apr to 9 Apr
Teaching Period 3	10 Apr to 21 May
Teaching Period 4	
Hospital Program	22 May to 2 Jul
Campus Program 2	3 Jul to 14 Jul
Recess	17 Jul to 23 Jul
Teaching Period 5	24 Jul to 3 Sep
Teaching Period 6	4 Sep to 13 Oct

Important Dates in 2006

January

W	4	UNSW Info Day

February

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

March

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

April

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

May

T	9	Publication of the provisional timetable for the June examinations
W	17	Last day for students to advise of examination clashes
T	30	Publication of the Final Timetable for the June examinations

June

F	16	Examinations begin for faculties other than Medicine, AGSM and University College, ADFA

July

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

August

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

September

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

October

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

November

F	10	Examinations begin for faculties other than Medicine, AGSM and University College, ADFA
T	28	Examinations end for faculties other than Medicine, AGSM and University College, ADFA

Schedule of UNSW Postgraduate Programs 2006

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

Please refer to '2006 Tuition Fee Schedule' which follows the 'Schedule of UNSW Postgraduate Programs 2006'.

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

Table Category	Description
Program	Name of degree program – also see Glossary.
Award	Degree/s awarded in this program – also see Glossary.
Code	Four digit program code.
Total UOC	Total units of credit required to complete program.
Type – R	Research program.
Type – CW	Coursework program.
2006 Entry	Program availability for students commencing in 2006.
Fee Category - C	Commonwealth Supported places available for this program.
Fee Category – R	Research Training Scheme places available for this program.
Fee Category – A	Local fee places available for this program. Please not that the availability of Local fee places for these programs is not guaranteed.
Fee Category – I	International fee places available for this program. Please note that the availability of International fee places for these programs is not guaranteed.

Program	Award	Program Code	Total UOC	Type		2006 Entry	Fee Category			
				R	CW		C	R	A	I
FACULTY OF ARTS & SOCIAL SCIENCES										
Education	EdD	1975	144	✓	✓	✓		✓		✓
Applied Ethics	PhD	1262	-	✓		✓		✓		✓
Australian Studies	PhD	1190	-	✓		✓		✓		✓
Chinese Studies	PhD	1225	-	✓		✓		✓		✓
Criminology	PhD	1297	-	✓		✓		✓		✓
Education	PhD	1970	-	✓		✓		✓		✓
English	PhD	1200	-	✓		✓		✓		✓
European Studies	PhD	1235	-	✓		✓		✓		✓
French	PhD	1210	-	✓		✓		✓		✓
German Studies	PhD	1231	-	✓		✓		✓		✓
Health, Sexuality and Culture	PhD	1215	-	✓		✓		✓		✓
History	PhD	1240	-	✓		✓		✓		✓
History and Philosophy of Science	PhD	1251	-	✓		✓		✓		✓
Indonesian Studies	PhD	1228	-	✓		✓		✓		✓
Japanese Studies	PhD	1221	-	✓		✓		✓		✓
Korean Studies	PhD	1223	-	✓		✓		✓		✓
Linguistics	PhD	1208	-	✓		✓		✓		✓
Media, Film and Theatre	PhD	1245	-	✓		✓		✓		✓
Modern Greek Studies	PhD	1238	-	✓		✓		✓		✓
Music	PhD	1280	-	✓		✓		✓		✓
Music Education	PhD	1281	-	✓		✓		✓		✓
Philosophy	PhD	1260	-	✓		✓		✓		✓
Politics and International Relations	PhD	1270	-	✓		✓		✓		✓
Professional Ethics	PhD	1265	-	✓		✓		✓		✓
Russian Studies	PhD	1291	-	✓		✓		✓		✓
Social Science and Policy	PhD	1295	-	✓		✓		✓		✓
Social Work	PhD	1980	-	✓		✓		✓		✓
Sociology and Anthropology	PhD	1300	-	✓		✓		✓		✓
Spanish and Latin Studies	PhD	1310	-	✓		✓		✓		✓
Theatre, Film and Dance	PhD	1181	-	✓				✓		✓
Women's and Gender Studies	PhD	1305	-	✓		✓		✓		✓

Program	Award	Program Code	Total UOC	Type		2006 Entry	Fee Category			
				R	CW		C	R	A	I
FACULTY OF ARTS & SOCIAL SCIENCES (continued)										
Arts	MA	2353	-	✓		✓		✓		✓
Education	MEd	2354	-	✓						
Educational Administration	MEdAdmin	2355	-	✓		✓		✓		✓
Music	MMus	2356	-	✓		✓		✓		✓
Music Education	MMusEd	2357	-	✓		✓		✓		✓
Social Science	MSocSc	2358	-	✓		✓		✓		✓
Social Work	MSW	2970	-	✓		✓		✓		✓
Arts	GradDipArts	5275	48	✓	✓	✓			✓	✓
Arts	MA	8225	48		✓	✓			✓	✓
Arts	GradDipArts	5225	32		✓	✓			✓	
Arts	GradCertArts	7325	16		✓	✓			✓	
Couple and Family Therapy	MA	8228	48		✓	✓			✓	
Couple and Family Therapy (exit program only)	GradDipArts	5559	32		✓	✓			✓	
Education	MEd	8910	48		✓	✓	✓			✓
Educational Administration	MEdAdmin	8960	48		✓	✓	✓			✓
Education (Secondary)	DipEd	5560	48		✓	✓	✓			✓
International Social Development	MIntSocDev	8938	48		✓					
International Social Development	GradDipIntSocDev	5556	32		✓					
Music	MMus	8226	48		✓	✓			✓	✓
Music	GradDipMus	5226	32		✓	✓			✓	
Music	GradCertMus	7326	16		✓	✓			✓	
Policy Studies	MPS	8248	48		✓	✓			✓	✓
Policy Studies	GradDip	5280	32		✓	✓			✓	
Policy Studies	GradCert	7348	16		✓	✓			✓	
Program Evaluation	GradCert	7347	16		✓	✓			✓	
Professional Ethics	MProfEthics	8227	48		✓	✓			✓	✓
Professional Ethics	GradDip	5295	32		✓	✓			✓	
Social Development	MSD	8939	48		✓	✓	✓			✓
Social Development	GradDipSocDev	5557	32		✓	✓	✓			
Social Development	GradCertSocDev	7349	16		✓	✓	✓			
FACULTY OF THE BUILT ENVIRONMENT										
Built Environment	PhD	1120	-	✓		✓		✓		✓
Architecture	MArch	2200	-	✓		✓		✓		✓
Architecture	MSc	2206	-	✓		✓		✓		✓
Building	MBuild	2210	-	✓		✓		✓		✓
Built Environment	MBEnv	2240	-	✓		✓		✓		✓
Landscape Architecture	MLArch	2220	-	✓		✓		✓		✓
Town Planning	MTP	2230	-	✓		✓		✓		✓
Town Planning	GradDip	5205	36	✓	✓	✓			✓	✓
Architecture	MArch	8142	48		✓	✓			✓	✓

Program	Award	Program Code	Total UOC	Type		2006 Entry	Fee Category			
				R	CW		C	R	A	I
FACULTY OF THE BUILT ENVIRONMENT (continued)										
Construction Management	MConstMgt	8125	48		✓				✓	✓
Construction Management (offshore program, Singapore)	MConstMgt	8126	48		✓	✓				✓
Construction Project Management in Professional Practice	MCPM (Prof Practice)	8124	72		✓	✓			✓	✓
Construction Project Management	MCPM	8123	48		✓	✓			✓	✓
Construction Project Management	GradCert CPM	7123	24		✓	✓			✓	✓
Industrial Design	MSc(IndDes)	8146	48		✓					
Property and Development	MPD	8127	72		✓	✓			✓	✓
Real Estate	MRE	8129	72		✓					
Sustainable Development	MBEnv(SustDev)	8132	72		✓	✓			✓	✓
Sustainable Development	GradDipBEnv	5132	48		✓	✓			✓	✓
Sustainable Development	GradCertBEnv	7332	24		✓	✓			✓	✓
Urban Development and Design	MUDD	8131	72		✓	✓			✓	✓
FACULTY OF THE COLLEGE OF FINE ARTS										
Art Education	PhD	1285	-	✓		✓		✓		✓
Art Theory	PhD	1286	-	✓		✓		✓		✓
Design	PhD	1288	-	✓		✓		✓		✓
Fine Arts	PhD	1287	-	✓		✓		✓		✓
Media Arts	PhD	1289	-	✓		✓		✓		✓
Art Administration	MArtAdmin(Hons)	2264	-	✓		✓		✓		✓
Art Education	MArtEd(Hons)	2255	-	✓		✓		✓		✓
Art Theory	MArtTh	2265	-	✓		✓		✓		✓
Design	MDes(Hons)	2266	-	✓		✓		✓		✓
Fine Arts	MFA	2245	-	✓		✓		✓		✓
Art	MArt	9301	48		✓					
Art	MArt	9307	72		✓	✓	✓			✓
Art (exit program only)	GradDip	5307	48		✓	✓	✓			✓
Art (exit program only)	GradCert	7307	24		✓	✓	✓			✓
Art Administration	MArtAdm	9302	72		✓	✓	✓			✓
Art Administration	GradDipArtAdmin	5302	48		✓	✓	✓			✓
Art Administration	GradCertArtAdmin	7302	24		✓	✓	✓			✓
Art and Design Education	MArtDesEd	9303	48		✓	✓	✓			✓
Art and Design Education (exit program only)	GradCert	7304	18		✓	✓	✓			✓
Design	MDes	9304	72		✓	✓	✓			✓
Design (offshore program, Singapore)	MDes	9305	72		✓	✓				✓
Design	GradDipDes	5724	48		✓	✓	✓			✓
Design	GradCertDes	7303	24		✓	✓	✓			✓
Digital Media	MDM	9308	72		✓	✓	✓			✓
Digital Media	GradDip	5308	48		✓	✓	✓			✓
Digital Media	GradCert	7308	24		✓	✓	✓			✓
FACULTY OF COMMERCE AND ECONOMICS										
Accounting	PhD	1521	-	✓		✓		✓		✓
Actuarial Studies	PhD	1545	-	✓		✓		✓		✓
Banking and Finance	PhD	1561	-	✓		✓		✓		✓

Program	Award	Program Code	Total UOC	Type		2006 Entry	Fee Category			
				R	CW		C	R	A	I
FACULTY OF COMMERCE AND ECONOMICS (continued)										
Business Law and Taxation	PhD	1535		✓		✓		✓		✓
Economics	PhD	1540		✓		✓		✓		✓
Industrial Relations and Organisational Behaviour	PhD	1601	-	✓				✓		✓
Information, Library and Archive Studies	PhD	1990	-	✓				✓		✓
Information Systems, Technology and Management	PhD	1525	-	✓		✓		✓		✓
International Business	PhD	1603	-	✓						
Marketing	PhD	1550	-	✓		✓		✓		✓
Organisation and Management	PhD	1605	-	✓		✓		✓		✓
Information Studies	MInfStud	2980		✓				✓		✓
Accounting	MCom(Hons)	2570	96	✓	✓					
Actuarial Studies	MCom(Hons)	2582	96	✓	✓					
Banking and Finance	MCom(Hons)	2574	96	✓	✓					
Econometrics	MCom(Hons)	2572	96	✓	✓					
Economics	MCom(Hons)	2571	96	✓	✓					
Human Resource Management	MCom(Hons)	2578	96	✓	✓					
Information Systems and Management	MCom(Hons)	2575	96	✓	✓					
Commerce and Economics	MPhil	2585	72	✓	✓	✓		✓		✓
Actuarial Studies	MActSt	8411	72		✓	✓			✓	✓
Business and Technology	MBT	8616	72		✓	✓			✓	✓
Business and Technology	GradDip	5457	48		✓	✓			✓	✓
Business and Technology	GradCert	7333	24		✓	✓			✓	
Commerce	MCom	8404	72		✓	✓			✓	✓
Commerce	GradDip	5391	48		✓	✓			✓	✓
Commerce	GradCertCom	7355	24		✓	✓			✓	✓
Economics	MEc	8412	48		✓	✓			✓	✓
Finance	MFin	8406	48		✓	✓			✓	✓
Financial Analysis	MFinAn	8413	48		✓	✓				✓
Information Systems	MIS	8407	48		✓	✓			✓	✓
Marketing	MM	8414	48		✓	✓			✓	✓
Professional Accounting	MProfAcc	8409	72		✓	✓			✓	✓
Professional Accounting (Extension)	MProfAcc (Extn)	8415	96		✓	✓			✓	✓
Technology Management	MTM	8007	48		✓	✓			✓	✓
FACULTY OF ENGINEERING										
Biomedical Engineering	PhD	1710	-	✓		✓		✓		✓
Chemical Engineering	PhD	1010	-	✓		✓		✓		✓
Civil and Environmental Engineering	PhD	1630	-	✓		✓		✓		✓
Computer Science and Engineering	PhD	1650	-	✓		✓		✓		✓
Electrical Engineering	PhD	1640	-	✓		✓		✓		✓

Program	Award	Program Code	Total UOC	Type		2006 Entry	Fee Category			
				R	CW		C	R	A	I
FACULTY OF ENGINEERING (continued)										
Food Science and Technology	PhD	1031	-	✓		✓		✓		✓
Industrial Chemistry	PhD	1016	-	✓		✓		✓		✓
Mechanical and Manufacturing Engineering	PhD	1662	-	✓		✓		✓		✓
Mining Engineering	PhD	1050	-	✓		✓		✓		✓
Petroleum Engineering	PhD	1017	-	✓		✓		✓		✓
Photovoltaic Engineering	PhD	1655	-	✓		✓		✓		✓
Surveying and Spatial Information Systems	PhD	1681	-	✓		✓		✓		✓
Biomedical Engineering	ME	2675	-	✓		✓		✓		✓
Chemical Engineering	ME	2150	-	✓		✓		✓		✓
Civil and Environmental Engineering	ME	2650	-	✓		✓		✓		✓
Computer Science and Engineering	ME	2665	-	✓		✓		✓		✓
Electrical Engineering	ME	2660	-	✓		✓		✓		✓
Mechanical and Manufacturing Engineering	ME	2692	-	✓		✓		✓		✓
Mining Engineering	ME	2180	-	✓		✓		✓		✓
Petroleum Engineering	ME	2156	-	✓		✓		✓		✓
Photovoltaic Engineering	ME	2655	-	✓		✓		✓		✓
Surveying and Spatial Information Systems	ME	2721	-	✓		✓		✓		✓
Biomedical Engineering	MSc	2795	-	✓		✓		✓		✓
Chemical Engineering	MSc	2010	-	✓		✓		✓		✓
Civil and Environmental Engineering	MSc	2750	-	✓		✓		✓		✓
Computer Science and Engineering	MSc	2765	-	✓		✓		✓		✓
Electrical Engineering	MSc	2760	-	✓		✓		✓		✓
Food Science and Technology	MSc	2031	-	✓		✓		✓		✓
Industrial Chemistry	MSc	2016	-	✓		✓		✓		✓
Mining Engineering	MSc	2060	-	✓		✓		✓		✓
Engineering	MPhil	2685	72	✓	✓	✓		✓		✓
Advanced Computing	GradCert	7344	24		✓	✓			✓	✓
Aluminium Smelting Technology	GradDip	5034	36		✓	✓			✓	✓
Aluminium Smelting Technology	GradCert	7334	24		✓	✓			✓	✓
Biomedical Engineering	MBiomedE	8660	72		✓	✓	✓			✓
Biomedical Engineering	MEngSc	8665	48		✓	✓			✓	✓
Biomedical Engineering	GradDip	5445	36		✓	✓			✓	✓
Civil Engineering	MEngSc	8612	48		✓	✓	✓			✓
Civil Engineering (external)	MEngSc	8617	48		✓	✓	✓			✓
Civil Engineering (offshore program, Singapore)	MEngSc	8607	48		✓	✓				✓
Civil Engineering	GradDip	5459	36		✓	✓	✓			✓
Civil Engineering (external)	GradDip	5454	36		✓	✓	✓			✓
Civil Engineering (offshore program, Singapore)	GradDip	5444	36		✓	✓				✓
Civil Engineering	GradCert	7336	24		✓	✓			✓	✓
Computer Science	MCompSc	8680	96		✓					
Computer Science	GradDip	5452	72		✓					
Computing	GradCert	7342	24		✓	✓	✓			✓

Program	Award	Program Code	Total UOC	Type		2006 Entry	Fee Category			
				R	CW		C	R	A	I
FACULTY OF ENGINEERING (continued)										
Computing and Information Technology	MCompIT	8682	96		✓	✓	✓			✓
Computing and Information Technology	GradDip	5432	72		✓	✓	✓			✓
Computer Science and Engineering	MEngSc	8685	48		✓					
Electrical Engineering	MEngSc	8501	48		✓	✓			✓	✓
Electrical Engineering	GradDip	5458	54		✓	✓			✓	✓
Environmental Engineering Science	MEnvEngSc	8615	48		✓	✓	✓			✓
Environmental Engineering Science (external)	MEnvEngSc	8618	48		✓	✓	✓			✓
Environmental Engineering	GradCert	7337	24		✓	✓			✓	✓
Food Science and Technology	MSc	8033	48		✓	✓			✓	✓
Food Technology	GradDip	5020	36		✓	✓			✓	✓
Food Science and Technology	GradCert	7310	18		✓	✓			✓	✓
Good Manufacturing Practice	GradCert	7710	24		✓	✓			✓	✓
Information Science	MInfSc	8508	72		✓					
Information Science	GradDipInfSc	5453	48		✓					
Information Technology	MIT	8684	48		✓	✓			✓	✓
Mechanical and Manufacturing Engineering	MEngSc	8710	48		✓	✓	✓			✓
Mechanical and Manufacturing Engineering (offshore program, Singapore)	MEngSc	8607	48		✓	✓				✓
Mechanical and Manufacturing Engineering	GradDip	5710	36		✓	✓	✓			✓
Mechanical and Manufacturing Engineering (offshore program, Singapore)	GradDip	5444	36		✓	✓				✓
Mine Ventilation	GradDip	5045	36		✓	✓			✓	✓
Mining Engineering	MEngSc	8055	48		✓	✓			✓	✓
Mining Engineering	GradDip	5040	36		✓	✓			✓	✓
Mining Engineering	GradCert	7335	24		✓	✓			✓	✓
Petroleum Engineering	MEngSc	8655	48		✓	✓			✓	✓
Petroleum Engineering	GradDip	5031	36		✓	✓			✓	✓
Petroleum Engineering	GradCert	7341	24		✓	✓			✓	✓
Photovoltaics and Solar Energy	MEngSc	8512	48		✓	✓			✓	✓
Process Engineering	MEngSc	8016	48		✓	✓			✓	✓
Remote Sensing	MEngSc	8641	48		✓					
Spatial Information	MEngSc	8652	48		✓	✓			✓	✓
Spatial Information	GradDip	5496	36		✓	✓			✓	✓
Surveying and Spatial Information Systems	MEngSc	8651	48		✓	✓			✓	✓
Telecommunications	MEngSc	8503	48		✓	✓			✓	✓
Telecommunications	GradDip	5448	54		✓	✓			✓	

Program	Award	Program Code	Total UOC	Type		2006 Entry	Fee Category			
				R	CW		C	R	A	I
FACULTY OF LAW										
Juridical Science	SJD	1740	-	✓	✓	✓		✓		✓
Law	PhD	1730	-	✓		✓		✓		✓
Taxation Studies	PhD	1745	-	✓		✓		✓		✓
Law	LLM	2440	-	✓		✓		✓		✓
Taxation	MTax	2455	-	✓		✓		✓		✓
Law	LLM	9200	48		✓	✓			✓	✓
Law	GradDip	5740	32		✓	✓			✓	✓
Law and Management	MLM	9210	60		✓	✓			✓	✓
Legal Studies	MLS	9220	48		✓	✓			✓	✓
Legal Studies	GradDipLS	5750	36		✓	✓			✓	✓
Applied Taxation	MAppTax	9260	48		✓	✓			✓	✓
Advanced Taxation	GradDipAdvTax	5540	36		✓	✓			✓	✓
International Taxation	MIntTax	9255	48		✓	✓			✓	✓
Taxation	MTax	9250	48		✓	✓			✓	✓
Taxation Studies	GradDipTaxStud	5541	60		✓	✓			✓	✓
FACULTY OF MEDICINE										
Anatomy	MD	0420	-	✓		✓		✓		
Community Medicine	MD	0430	-	✓		✓		✓		
Medicine	MD	0350 – 0353	-	✓		✓		✓		
Obstetrics and Gynaecology	MD	0830	-	✓		✓		✓		
Paediatrics	MD	0410	-	✓		✓		✓		
Pathology	MD	0360	-	✓		✓		✓		
Physiology and Pharmacology	MD	0370	-	✓		✓		✓		
Psychiatry	MD	0390	-	✓		✓		✓		
Rural Health	MD	0375	-	✓		✓		✓		
Surgery	MD	0400 – 0403	-	✓		✓		✓		
Anatomy	PhD	1750	-	✓		✓		✓		✓
Public Health and Community Medicine	PhD	1835	-	✓		✓				
Health Administration	PhD	1950	-	✓						
Medical Education	PhD	1841	-	✓						
Medicine	PhD	1770 – 1773	-	✓		✓		✓		✓
Obstetrics and Gynaecology	PhD	1820	-	✓		✓		✓		✓
Paediatrics	PhD	1830	-	✓		✓		✓		✓
Pathology	PhD	1780	-	✓		✓		✓		✓
Physiology and Pharmacology	PhD	1790	-	✓		✓		✓		✓
Psychiatry	PhD	1800	-	✓		✓		✓		✓
Public Health and Community Medicine	PhD	1835	-	✓		✓		✓		✓

Program	Award	Program Code	Total UOC	Type		2006 Entry	Fee Category			
				R	CW		C	R	A	I
FACULTY OF MEDICINE (continued)										
Rural Health	PhD	1795	-	✓		✓		✓		✓
Surgery	PhD	1810 – 1813	-	✓		✓		✓		✓
Anatomy	MSc	2800	-	✓		✓		✓		✓
Medicine	MSc	2820 – 2823	-	✓		✓		✓		✓
Obstetrics and Gynaecology	MSc	2830	-	✓		✓		✓		✓
Paediatrics	MSc	2805	-	✓		✓		✓		✓
Pathology	MSc	2840	-	✓		✓		✓		✓
Physiology and Pharmacology	MSc	2850	-	✓		✓		✓		✓
Psychiatry	MSc	2880	-	✓		✓		✓		✓
Rural Health	MSc	2835	-	✓		✓		✓		✓
Surgery	MSc	2875 – 2878	-	✓		✓		✓		✓
Health Administration	MHA	2960	-	✓		✓		✓		✓
Health Professions Education	MHPEd	2885	-	✓		✓		✓		✓
Medicine	MMed	2515	-	✓		✓		✓		✓
Public Health	MPH	2845	-	✓		✓		✓		✓
Surgery	MS	2860 – 2863	-	✓		✓		✓		✓
Clinical Education (external)	MClinEd	9050	72		✓	✓			✓	✓
Clinical Education (external)	GradDipClinEd	5501	40		✓	✓			✓	✓
Clinical Education (external)	GradCert	7376	20		✓	✓			✓	✓
Drug Development (external)	MMedSc	9060	72		✓	✓			✓	✓
Drug Development (external)	GradDipDD	5504	48		✓	✓			✓	✓
Drug Development (external)	GradCertDD	7370	24		✓	✓			✓	✓
Health Administration	MHA	8900	48		✓	✓	✓			✓
Health Services Management	MHSM	8941	48		✓	✓	✓			✓
Health Services Management	GradCertHSM	7360	24		✓	✓	✓			✓
Geriatrics (external)	MMed	9025	72		✓					
Geriatric Medicine (external)	GradDip	5506	48		✓					
Paediatrics	DipPaed	5500	24		✓	✓			✓	✓
Public Health	MPH	9045	48		✓	✓	✓			✓
Public Health	GradDipPH	5507	36		✓	✓	✓			✓
Public Health	GradCertPH	7368	24		✓	✓	✓			✓
Reproductive Medicine	MRMed	9065	48		✓	✓			✓	✓
Reproductive Medicine	GradDip	5508	36		✓	✓			✓	✓
Reproductive Medicine	GradCert	7379	24		✓	✓			✓	✓
Sports Medicine	MSpMed	9055	72		✓	✓			✓	✓
Sports Medicine	GradDipSpMed	5503	36		✓	✓			✓	✓
Sports Medicine	GradCertSpMed	7378	24		✓	✓			✓	✓
University Learning and Teaching (UNSW staff only)	GradCert	7375	16		✓	✓	✓			

Program	Award	Program Code	Total UOC	Type		2006 Entry	Fee Category			
				R	CW		C	R	A	I
FACULTY OF SCIENCE										
Applied Geology	PhD	1000	-	✓		✓		✓		✓
Aviation	PhD	1900	-	✓		✓		✓		✓
Biochemistry and Molecular Genetics	PhD	1410	-	✓		✓		✓		✓
Biological Science	PhD	1435	-	✓		✓		✓		✓
Biotechnology	PhD	1036	-	✓		✓		✓		✓
Chemistry	PhD	1870	-	✓		✓		✓		✓
Geography	PhD	1080	-	✓		✓		✓		✓
Materials Science and Engineering	PhD	1045	-	✓		✓		✓		✓
Mathematics	PhD	1880	-	✓		✓		✓		✓
Microbiology and Immunology	PhD	1440	-	✓		✓		✓		✓
Optometry	PhD	1860	-	✓		✓		✓		✓
Physics	PhD	1890	-	✓		✓		✓		✓
Psychology	PhD	1400	-	✓		✓		✓		✓
Safety Science	PhD	1665	-	✓		✓		✓		✓
Theoretical Physics	PhD	1891	-	✓		✓		✓		✓
Psychology (Clinical)	PhD MPsychol (Clin)	1404	-	✓	✓	✓		✓	✓	✓
Psychology (Forensic)	PhD MPsychol (For)	1405	-	✓	✓	✓		✓	✓	✓
Psychology (Organisational)	PhD MPsychol (Org)	1406	-	✓	✓	✓		✓	✓	✓
Materials Science and Engineering	ME	2175	-	✓		✓		✓		✓
Safety Science	ME	2695	-	✓		✓		✓		✓
Applied Geology	MSc	2000	-	✓						
Biochemistry and Molecular Genetics	MSc	2460	-	✓		✓		✓		✓
Biological Science	MSc	2485	-	✓		✓		✓		✓
Biotechnology	MSc	2036	-	✓		✓		✓		✓
Chemistry	MSc	2910	-	✓		✓		✓		✓
Geography	MSc	2040	-	✓		✓		✓		✓
Materials Science and Engineering	MSc	2055	-	✓		✓		✓		✓
Mathematics	MSc	2920	-	✓		✓		✓		✓
Microbiology and Immunology	MSc	2490	-	✓		✓		✓		✓
Optometry	MSc	2900	-	✓		✓		✓		✓
Physics	MSc	2930	-	✓		✓		✓		✓
Psychology	MSc	2450	-	✓		✓		✓		✓
Safety Science	MSc	2775	-	✓		✓		✓		✓
Theoretical Physics	MSc	2932	-	✓		✓		✓		✓
Chemistry	GradDip(Research)	5647	48	✓	✓	✓	✓			✓
Optometry	GradDip(Research)	5523	48	✓	✓	✓			✓	✓
Biochemistry and Molecular Genetics	GradDip	5345	48	✓	✓	✓			✓	✓
Biological Science	GradDip	5350	48	✓	✓	✓			✓	✓
Microbiology and Immunology	GradDip	5355	48	✓	✓	✓			✓	✓
Physical Oceanography	GradDip	5528	48	✓	✓	✓	✓			✓
Physics	GradDip	5533	48	✓	✓	✓			✓	✓
Physics Research Techniques	GradDip	5663	48	✓	✓	✓			✓	✓
Psychology	GradDip	5330	48	✓	✓	✓			✓	✓
Aviation	MScTech	8738	48		✓	✓			✓	✓
Aviation Management	GradDip	5678	36		✓	✓			✓	✓
Aviation Management	GradCert	7448	18		✓	✓			✓	✓
Biopharmaceuticals	MSc	8049	48		✓	✓			✓	✓
Biopharmaceuticals (offshore program, Hong Kong)	MSc	8039	48		✓	✓				✓

Program	Award	Program Code	Total UOC	Type		2006 Entry	Fee Category			
				R	CW		C	R	A	I
FACULTY OF SCIENCE (continued)										
Biotechnology	MSc	8048	48		✓	✓			✓	✓
Biotechnology	GradDip	5015	36		✓	✓			✓	✓
Chemical Analysis and Laboratory Management	MScTech	8708	48		✓	✓	✓			✓
Chemical Analysis and Laboratory Management	GradDip	5648	36		✓	✓	✓			✓
Chemical Analysis and Laboratory Techniques	GradCert	7428	18		✓	✓	✓			✓
Computation	MScTech	8705	48		✓	✓	✓			✓
Computation	GradDip	5645	36		✓	✓	✓			✓
Conservation Biology	MConBio	8745	48		✓	✓			✓	✓
Engineering Materials	MScTech	8715	48		✓	✓			✓	✓
Environmental Science	MScTech	8735	48		✓	✓	✓			✓
Environmental Science	GradDip	5675	36		✓	✓	✓			✓
Environmental Science	GradCert	7445	18		✓	✓	✓			✓
Ergonomics	MScTech	8729	72		✓	✓	✓			✓
Ergonomics	GradDip	5669	48		✓	✓	✓			✓
Ergonomics	GradCert	7439	24		✓	✓	✓			✓
Fire and Explosion Safety Management	MScTech	8736	48		✓		✓			✓
Fire and Explosion Safety Management	GradDip	5676	36		✓		✓			✓
Geographic Information Systems	MScTech	8711	48		✓					
Groundwater Studies	MScTech	8702	48		✓	✓			✓	✓
Industrial Safety	MScTech	8727	48		✓	✓			✓	✓
Mathematics	MScTech	8718	48		✓	✓	✓			✓
Occupational Health and Safety	MScTech	8733	72		✓	✓	✓			✓
Occupational Health and Safety Management	GradCert	7443	24		✓					
Occupational Medicine	MScTech	8734	48		✓	✓			✓	✓
Occupational Medicine	GradDip	5674	36		✓	✓			✓	✓
Optoelectronics and Photonics	MScTech	8722	48		✓	✓			✓	✓
Optoelectronics and Photonics	GradDip	5662	36		✓	✓			✓	✓
Optoelectronics and Photonics	GradCert	7432	18		✓	✓			✓	✓
Optometry	MOptom	8760	48		✓	✓			✓	✓
Optometry	GradDip	5665	36		✓	✓			✓	✓
Optometry	GradCert	7435	18		✓	✓			✓	✓
Psychology (Clinical)	MPsychol(Clin)	8256	96		✓	✓	✓			✓
Psychology (Forensic)	MPychol(For)	8257	96		✓	✓	✓			✓
Psychology (Organisational)	MPsychol(Org)	8258	96		✓	✓	✓			✓
Remote Sensing	MScTech	8713	48		✓					
Remote Sensing	GradDip	5693	36		✓	✓			✓	✓

Program	Award	Program Code	Total UOC	Type		2006 Entry	Fee Category			
				R	CW		C	R	A	I
FACULTY OF SCIENCE (continued)										
Risk Management	MScTech	8728	72		✓	✓			✓	✓
Risk Management	GradDip	5668	48		✓	✓	✓			✓
Risk Management	GradCert	7438	24		✓	✓	✓			✓
Safety Science	MSafetySc	8671	96		✓	✓	✓			✓
Safety Science	GradDip	5672	48		✓	✓	✓			✓
Safety Science	GradCert	7442	24		✓	✓			✓	✓
Spatial Information	MScTech	8714	48		✓	✓	✓			✓
Statistics	MStats	8750	72		✓	✓	✓			✓
Statistics	GradDip	5659	48		✓	✓	✓			✓
INSTITUTE OF ENVIRONMENTAL STUDIES										
Environmental Management	MEM	8619	72		✓	✓	✓			✓
Environmental Management	GradDip	5499	48		✓	✓	✓			✓
Environmental Management	GradCert	7339	24		✓	✓	✓			✓
AUSTRALIAN GRADUATE SCHOOL OF MANAGEMENT										
Refer to the Australian Graduate School of Management for the tuition fee schedule.										
Management	PhD	1350	-	✓	✓	✓			✓	✓
Business Administration – Full Time	MBA	8350	84		✓	✓			✓	✓
Business Administration (Executive)	MBA (Executive)	8355	84		✓	✓			✓	✓
Change Management	GradCert	7315	24		✓	✓			✓	✓
Management	GradDipMgmt	5950	48		✓	✓			✓	✓
Management	GradCert	7316	24		✓	✓			✓	✓
UNIVERSITY COLLEGE, AUSTRALIAN DEFENCE FORCE ACADEMY										
Information Technology	IT.D	9920	144	✓	✓	✓			✓	✓
Aerospace Engineering	PhD	1663	-	✓		✓		✓		✓
Chemistry	PhD	1871	-	✓		✓		✓		✓
Civil Engineering	PhD	1631	-	✓		✓		✓		✓
Computer Science	PhD	1885	-	✓		✓		✓		✓
Economics and Management	PhD	1541	-	✓		✓		✓		✓
Electrical Engineering	PhD	1643	-	✓		✓		✓		✓
English	PhD	1201	-	✓		✓		✓		✓
Geography and Oceanography	PhD	1081	-	✓		✓		✓		✓
History	PhD	1241	-	✓		✓		✓		✓
Mathematics and Statistics	PhD	1881	-	✓		✓		✓		✓
Mechanical Engineering	PhD	1661	-	✓		✓		✓		✓
Physics	PhD	1892	-	✓		✓		✓		✓
Politics	PhD	1321	-	✓		✓		✓		✓
English	MA(Hons)	2281	-	✓						
Arts	MA	2405	-	✓	✓	✓		✓		✓
Aerospace Engineering	ME	2693	-	✓		✓		✓		✓
Civil Engineering	ME	2651	-	✓		✓		✓		✓

Program	Award	Program Code	Total UOC	Type		2006 Entry	Fee Category			
				R	CW		C	R	A	I
UNIVERSITY COLLEGE, AUSTRALIAN DEFENCE FORCE ACADEMY (continued)										
Electrical Engineering	ME	2663	-	✓		✓		✓		✓
Mechanical Engineering	ME	2691	-	✓		✓		✓		✓
Chemistry	MSc	2911	-	✓		✓		✓		✓
Computer Science	MSc	2925	-	✓		✓		✓		✓
Geography and Oceanography	MSc	2041	-	✓		✓		✓		✓
Mathematics and Statistics	MSc	2921	-	✓		✓		✓		✓
Physics	MSc	2931	-	✓		✓		✓		✓
Aeronautical Engineering	MPhil	2227	72	✓	✓	✓		✓		✓
Arts	MPhil	2225	72	✓	✓	✓		✓		✓
Civil Engineering	MPhil	2227	72	✓	✓	✓		✓		✓
Electrical Engineering	MPhil	2228	72	✓	✓	✓		✓		✓
Information Technology	MPhil	2228	72	✓	✓	✓		✓		✓
Management Studies	MPhil	2226	72	✓	✓	✓		✓		✓
Mechanical Engineering	MPhil	2227	72	✓	✓	✓		✓		✓
Science	MPhil	2229	72	✓	✓	✓		✓		✓
Arts	MA	8175	48		✓	✓			✓	✓
Arts	GradDipArts	5855	36		✓	✓			✓	✓
Arts	GradCertArts	7385	24		✓	✓			✓	✓
Defence Studies	MDefStud	9904	48		✓	✓			✓	✓
Defence Studies	MDefStud	9902	48		✓					
Defence Studies	GradDipDefStud	5914	36		✓	✓			✓	✓
Defence Studies	GradDipDefStud	5912	36		✓					
Defence Studies	GradCertDefStud	7384	24		✓	✓			✓	✓
Engineering Science	MEngSc	8569	48		✓	✓			✓	✓
Engineering Science	MEngSc	5868	48		✓	✓			✓	✓
Engineering Science	GradDipEngSc	5869	36		✓	✓			✓	✓
Engineering Science	GradDip	5888	36		✓					
Engineering Science	GradCertEngSc	7387	24		✓					
Engineering Science	GradCert	7388	24		✓					
Information Technology	MSc	8565	48		✓	✓			✓	✓
Information Technology	GradDip	5865	36		✓					
Information Technology	GradCert	7397	24		✓					
Management Studies	MMgtStud	8398	48		✓	✓			✓	✓
Management Studies	MMgtStud	8396	48		✓					
Management Studies	GradDipMgtStud	5823	36		✓	✓			✓	✓
Management Studies	GradDipMgtStud	5821	36		✓					
Management Studies	GradCertEngSc	7383	24		✓	✓			✓	✓
Management Studies	GradCertEngSc	7391	24		✓					
Operations Research and Statistics	MSc	8559	48		✓	✓			✓	✓
Operations Research and Statistics	GradDipORS	5841	36		✓					
Operations Research and Statistics	GradCertORS	7395	24		✓	✓			✓	✓
Science	MSc	8562	48		✓	✓			✓	✓
Science	GradDipSc	5882	36		✓	✓			✓	✓
Science	GradCertSc	7382	24		✓	✓			✓	✓

2006 Tuition Fee Schedule

Identification of Courses and Course Fees 2006

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

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

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

1. A four character alphabetical prefix is used to indicate the subject areas. This usually correlates with the authority offering the course (normally a School of the University), but in some cases identifies subject specialisations or cross-disciplinary subject areas.

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

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

Course Prefixes and Associated Fees Per Unit of Credit

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

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

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

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

For Example: An International student is enrolling in a Faculty of Commerce and Economics course, ACCT5910, which has a value of 6 units of credit and the course is classified as postgraduate.

The fee for this course will be 6 x $455 = $2730.00

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

2006 Tuition Fee Schedule

			Course Classification		
			Postgraduate		**Research**
			Student Classification		
			Postgraduate	**Postgraduate**	**Research**
Course Details			**International Fee**	**Local Fee**	**International Fee**
Faculty and Course Prefixes	**Organisational Unit**	**Course ID Range (where applicable)**	**Fee Band per unit of credit**		
Faculty of Arts and Social Sciences					
ARTS	Faculty of Arts and Social Sciences		350	281	350
ASIA	Faculty of Arts and Social Sciences		350	281	350
AUST	Faculty of Arts and Social Sciences		350	281	350
CHIN	Department of Chinese and Indonesian Studies		350	281	350
COMD	Faculty of Arts and Social Sciences		350	281	350
CRIM	School of Social Science and Policy		350	281	350
DANC	School of Media, Film and Theatre		350	281	350
EDST	School of Education		350	281	350
ENGL	School of English		350	281	350
EURO	Faculty of Arts and Social Sciences		350	281	350
FREN	Department of French		350	281	350
GENT	Faculty of Arts and Social Sciences		na	na	na
GERS	School of Modern Language Studies		350	281	350
GLST	Faculty of Arts and Social Sciences		350	281	350
GREK	School of Modern Language Studies		350	281	350
HIST	School of History		350	281	350
HPSC	School of History and Philosophy of Science		350	281	350
INDO	Department of Chinese and Indonesian Studies		350	281	350
INST	Faculty of Arts and Social Sciences		350	281	350
INTD	Faculty of Arts and Social Sciences		350	281	350
IRSH	Faculty of Arts and Social Sciences		350	281	350
ITAL	Faculty of Arts and Social Sciences		350	281	350

Course Details Faculty and Course Prefixes	Organisational Unit	Course ID Range (where applicable)	Postgraduate International Fee	Postgraduate Local Fee	Research International Fee
			Fee Band per unit of credit		
JAPN	Department of Japanese and Korean Studies		350	281	350
JWST	School of Politics and International Relations		350	281	350
KORE	Department of Japanese and Korean Studies		350	281	350
LATN	School of Modern Language Studies		350	281	350
LING	Department of Linguistics		350	281	350
MDCM	School of Media, Film and Theatre		350	281	350
MEFT	School of Media, Film and Theatre		na	281	na
MODL	School of Modern Language Studies		350	281	350
MUSC	School of Music and Music Education		350	281	350
MUSI	School of Music and Music Education		350	281	350
PECO	School of Social Science and Policy		350	281	350
PHIL	School of Philosophy		350	281	350
POLS	School of Politics and International Relations		350	281	350
PORT	School of Modern Language Studies		350	281	350
RUSS	School of Modern Language Studies		350	281	350
SLSP	School of Social Science and Policy		350	281	350
SOCA	School of Sociology & Anthropology		350	281	350
SOCF	School of Social Work		na	337	na
SOCW	School of Social Work		350	281	350
SPAN	Department of Spanish and Latin American Studies		350	281	350
WOMS	Faculty of Arts and Social Sciences		350	281	350
Australian Graduate School of Management					
MNGT	Australian Graduate School of Management	Refer to Australian Graduate School of Management for Tuition Fee Schedule			
Faculty of the Built Environment					
ARCH	School of the Built Environment (Architecture)		400	311	400
BENV	School of the Built Environment		400	311	400
BLDG	School of the Built Environment (Building)		400	311	400
CONS	School of the Built Environment (Building Construction Management)		400	311	400
GENR	The Faculty of Built Environment		na	na	na
GEOH	School of the Built Environment		400	311	400
GSBE	School of the Built Environment		400	311	400
HERI	School of the Built Environment		400	311	400
IDES	School of the Built Environment (Industrial Design)		400	311	400
INTA	School of the Built Environment (Interior Architecture)		400	311	400
LAND	School of the Built Environment (Landscape Architecture)		400	311	400
PLAN	School of the Built Environment (Planning and Urban Development)		400	311	400
REST	School of the Built Environment (Building Construction Management)		400	311	400

Course Details Faculty and Course Prefixes	Organisational Unit	Course ID Range (where applicable)	Postgraduate International Fee	Postgraduate Local Fee	Research International Fee
			Fee Band per unit of credit		
SUSD	School of the Built Environment (Sustainable Development)		400	311	400
UDES	School of the Built Environment		400	311	400
Faculty of the College of Fine Arts					
COFA	College of Fine Arts		400	311	400
GEND	College of Fine Arts		na	na	na
SAED	School of Art Education		400	311	400
SAHT	School of Art History and Theory		400	311	400
SART	School of Art		400	311	400
SDES	School of Design Studies		400	311	400
SOMA	School of Design Studies		400	311	400
Faculty of Commerce & Economics					
ACCT	School of Accounting		455	337	350
ACTL	School of Economics (Actuarial Studies)		455	337	350
COMM	Faculty of Commerce and Economics		455	337	350
ECOH	School of Economics		455	337	350
ECON	School of Economics		455	337	350
FINS	School of Banking and Finance		455	337	350
GBAT	Business and Technology Programs		455	337	350
GENC	Faculty of Commerce and Economics		na	na	na
HOSP	School of Marketing		455	337	350
IBUS	School of International Business		455	337	350
IMGT	School of Information Systems, Technology and Management		455	337	350
INFS	School of Information Systems, Technology and Management		455	337	350
IROB	School of Industrial Relations and Organisational Behaviour		455	337	350
LEGT	School of Business Law and Taxation		455	337	350
LIBS	School of Information Systems, Technology and Management		455	337	350
MARK	School of Marketing		455	337	350
MFIN	School of Banking and Finance		455	337	na
MGMT	Faculty of Commerce and Economics		455	337	350
SERV	School of Marketing		455	337	350
TAHM	School of Marketing		455	337	350
Faculty of Engineering					
AERO	School of Mechanical and Manufacturing Engineering		455	337	490
AVEN	School of Mechanical and Manufacturing Engineering		455	337	490
BINF	School of Computer Science and Engineering		455	337	490
BIOM	Graduate School of Biomedical Engineering		455	337	490
CEIC	School of Chemical Engineering and Industrial Chemistry		455	337	490
CHEN	School of Chemical Engineering and Industrial Chemistry		455	337	490
COMP	School of Computer Science and Engineering		455	337	490

Course Details Faculty and Course Prefixes	Organisational Unit	Course ID Range (where applicable)	Postgraduate International Fee	Postgraduate Local Fee	Research International Fee
			Fee Band per unit of credit		
CVEN	School of Civil and Environmental Engineering		455	337	490
ELEC	School of Electrical Engineering and Telecommunications		455	337	490
FUEL	School of Chemical Engineering and Industrial Chemistry		455	337	490
FOOD	School of Chemistry		455	337	490
GENE	Faculty of Engineering		na	na	na
GMAT	School of Surveying and Spatial Information Systems		455	337	490
GSOE	Graduate School of Engineering		455	337	490
INDC	School of Chemical Engineering and Industrial Chemistry		455	337	490
MANF	School of Mechanical and Manufacturing Engineering		455	337	490
MECH	School of Mechanical and Manufacturing Engineering		455	337	490
MINE	School of Mining Engineering		455	337	490
MINP	School of Chemical Engineering and Industrial Chemistry		455	337	490
MNNG	School of Mining Engineering		na	403	na
MTRN	School of Mechanical and Manufacturing Engineering		455	337	490
NAVL	School of Mechanical and Manufacturing Engineering		455	337	490
PHTN	School of Electrical Eng and Telecommunications		455	337	490
POLY	School of Chemical Engineering and Industrial Chemistry		455	337	490
PTRL	School of Petroleum Engineering		455	337	490
SENG	School of Computer Science & Engineering		455	337	490
SOLA	Centre for Photovoltaic Engineering		455	337	490
TELE	School of Electrical Engineering and Telecommunications		455	337	490
Faculty of Law					
ATAX	Faculty of Law (Taxation)		400	311	350
GENL	Faculty of Law		na	na	na
GENQ	Faculty of Law (Taxation)		na	na	na
LAWS	School of Law		400	311	350
LAWX	School of Law		400	311	350
Faculty of Medicine					
ANAT	School of Medical Sciences		455	337	490
ANAM	School of Medical Sciences		na	na	na
CMED	School of Public Health & Community Medicine		na	na	na
CMED	School of Public Health & Community Medicine	9539 to 9550	400	311	na
GENM	Faculty of Medicine		na	na	na
HESC	School of Medical Sciences		na	na	na
MDCN	School of Medicine		na	na	490
MDSG	Faculty of Medicine		na	na	na
MEDM	School of Medicine		na	na	na
MFAC	Faculty of Medicine		na	na	490

Course Details Faculty and Course Prefixes	Organisational Unit	Course ID Range (where applicable)	Postgraduate International Fee	Postgraduate Local Fee	Research International Fee
			Fee Band per unit of credit		
OBST	School of Women's and Children's Health		na	na	490
PAED	School of Women's and Children's Health		na	337	490
PATH	School of Medical Sciences		na	na	490
PATM	School of Medical Sciences		na	na	na
PHCM	School of Public Health & Community Medicine		400	281	na
PHCM	School of Public Health & Community Medicine	0006 0007 9001 9002 9200 9201 9300 9301 9506	na	na	350
PHCM	School of Public Health & Community Medicine	9003 9004 9801	na	na	490
PHPH	School of Medical Sciences		na	na	na
PHPH	School of Medical Sciences	5401 5411 5420 5421 5431 5440 5441 5450 5451 5453 5470 5510 5530 5571 5581 5591 5611 5621 5631 5711	350	337	na
PHPH	School of Medical Sciences	5461 5471 5481 5491 5501 5511 5521 5531 8006 9100 to 9119 9122 9123 9171 9172 9120 9121 9999	455	337	na
PHPM	School of Medical Sciences		na	na	na
PROR	School of Medical Sciences		na	na	na
PSCY	School of Psychiatry		na	na	490
PSYM	School of Psychiatry		na	na	na
SURG	School of Surgery		na	na	490
SWCH	School of Women's and Children's Health		400	281	na
Faculty of Science					
AVIA	Department of Aviation		455	311	490
BEES	School of Biological, Earth and Environmental Sciences		455	311	490
BIOC	School of Biotechnology and Biomolecular Science		455	311	490
BIOD	School of Biotechnology and Biomolecular Science		455	311	490
BIOS	School of Biological, Earth and Environmental Sciences		455	311	490
BSSM	Faculty of Science		455	311	490
BIOT	School of Biotechnology and Biomolecular Science		455	311	490
CHEM	School of Chemistry		455	311	490
ENVS	Faculty of Science		455	311	490
FMAT	School of Mathematics		455	337	na
GENS	Faculty of Science		na	na	na
GENB	Faculty of Science		na	na	na
GEOG	School of Biological, Earth and Environmental Sciences		455	311	490
GEOH	School of Biological, Earth and Environmental Sciences		400	311	400
GEOL	School of Biological, Earth and Environmental Sciences		455	311	490
GEOS	School of Biological, Earth and Environmental Sciences		455	311	490
INOV	Faculty of Science		455	311	490

Course Details Faculty and Course Prefixes	Organisational Unit	Course ID Range (where applicable)	Postgraduate International Fee	Postgraduate Local Fee	Research International Fee
			Fee Band per unit of credit		
LIFE	Faculty of Science		455	311	490
MATH	School of Mathematics		455	311	490
MATS	School of Materials Science and Engineering		455	311	490
MICM	School of Biotechnology and Biomolecular Science		455	311	490
MICR	School of Biotechnology and Biomolecular Science		455	311	490
MSCI	Centre for Marine and Coastal Studies		455	311	490
NANO	School of Materials Science and Engineering		455	311	490
OCEA	School of Mathematics (Oceanography)		455	311	490
OPTM	School of Optometry and Vision Science		455	311	490
PHYS	School of Physics		455	311	490
PSYC	School of Psychology		455	311	490
SAFE	School of Safety Science		455	311	490
SCIF	Faculty of Science		455	311	490
SCOM	Faculty of Science		455	311	490
SESC	School of Safety Science		455	311	490
VISN	School of Optometry and Vision Science		455	na	na
University College - Australian Defence Force Academy					
ACHM	Chemistry		400	311	400
ACIV	Civil Engineering		400	311	400
ACSC	Computer Science		400	311	400
AECM	Economics & Mgt		400	311	400
AELE	Electrical Engineering		400	311	400
AENG	English		400	311	400
AGOC	Geography & Oceanography		400	311	400
AHIS	History		400	311	400
AIND	Indonesian		400	311	400
AINT	University College (Interdisciplinary)		400	311	400
AMAT	Mathematics		400	311	400
AMEC	Mechanical Engineering		400	311	400
APHY	Physics		400	311	400
APOL	Politics		400	311	400
ZBUS	School of Business		400	311	400
ZPEM	School of Physical, Environmental & Mathematical Sciences		400	311	400
ZITE	School of Information Technology & Electrical Engineering		400	311	400
ZACM	School of Aerospace, Civil & Mechancial Engineering		400	311	400
ZHSS	School of Humanities & Social Sciences		400	311	400
ZINT	University College (Interdisciplinary)		400	311	400
ZIND	School of Humanities & Social Sciences		400	311	400
Non Faculty Specific					
ATSI	Nura Gili (Indigenous Programs)		350	281	na
GENX	Nura Gili (Indigenous Programs)		na	na	na
IEST	Institute of Environmental Studies		455	311	na

UNSW Student Central (Student Enquiries)

UNSW Student Central (Student Enquiries) is the public face of the University's student administration. It provides advice and assistance in relation to admission procedures and queries of an academic or administrative nature.

UNSW Student Central is located on the lower ground floor of the Chancellery, open 8.30am – 5.30pm Mondays, Tuesdays, and Thursdays, 10.00am – 5.00pm on Wednesdays, and 8.30am – 5.00pm on Fridays.

Information regarding fees, online enrolment, policies and procedures is also available on the web at: **https://my.unsw.edu.au**

Admission Requirements and Procedures

Admission Enquiries

The Student Recruitment Office (Kensington Campus) is the initial referral point for **local students** for information on postgraduate coursework programs, admission requirements and enrolment procedures. The office is located in Rm LG20, The Chancellery Building and is open from 9am-5pm, Monday to Friday. Tel: (+61 2) 9385 1844/1866/2413, email: studentrecruitment@unsw.edu.au

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

Information for prospective postgraduate research students can be found at **www.unsw.edu.au/futurestudents/research** and on the relevant faculty website.

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

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

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

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

Admission Procedures

The procedures for applying to UNSW will vary, depending on whether you are a Local or International applicant:

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

Local Applicants

Local applicants can apply for most postgraduate coursework and research programs online at: **https://apply.unsw.edu.au.**

For the majority of online applications, the application fee is $50.00 (payable by credit card) while the application fee for paper applications is $100.00.

(1) Postgraduate Coursework Programs:

Paper application forms for postgraduate coursework programs can be downloaded from the website at: **www.unsw.edu.au/futureStudents/postgradCourse/sad/how2apply.html** or contact the Student Recruitment Office, Lower Ground Floor, the Chancellery, telephone (02) 9385 1844. You must include certified copies of your documents with your application. Please refer to the website for closing dates.

(2) Postgraduate Research Programs:

Local postgraduate research applicants should first refer to the web at **www.unsw.edu.au/futurestudents/research** for information on how to locate a suitable supervisor, how to apply and scholarship opportunities. Prospective students are strongly advised to make contact with potential supervisors before applying for research study at UNSW.

Paper application forms can be downloaded from **www.unsw.edu.au/futureStudents/postgradResearch/res/localappform.pdf** or are available from the Graduate Research School (GRS) or the relevant faculty or school. The GRS is located in the Rupert Myers Building, telephone (02) 9385 1804, email thesis@unsw.edu.au.

International Applicants

International applicants can apply for most postgraduate coursework and research programs online at: **https://apply.unsw.edu.au**

For the majority of online applications, the application fee is $50.00 (payable by credit card) while the application fee for paper applications is $100.00 in most cases.

Entry Requirements

Postgraduate Coursework Programs

For the majority of programs, the requirement for study at postgraduate level in coursework is a completed undergraduate degree in a relevant field of study. The undergraduate degree must be from a recognised tertiary institution. Competition for places is keen and admission is subject to selection. However, applicants with a good first degree have excellent prospects of admission.

Some programs also have additional selection requirements such as admissions test, CV, portfolio and work experience. Refer to the School website for more information

Postgraduate Research Programs

Prospective local and international research students should check with the relevant school and/or faculty for specific entry requirements for the research program for which you are intending to apply.

As a general guide, the UNSW entry requirements for research programs are as follows:

Masters by Research (MRes): A candidate for the degree should have been awarded an appropriate degree of Bachelor from UNSW or a qualification considered equivalent from another university or tertiary institution at a level acceptable to the Research Committee or Higher Degree Committee of the appropriate Faculty or Board. A candidate for the degree should be able to display some evidence of prior research experience.

Doctor of Philosophy (PhD): A candidate for the degree shall have been awarded an appropriate degree of Bachelor with Honours from UNSW or a qualification considered equivalent from another university or tertiary institution at a level acceptable to the Research Committee or Higher Degree Committee of the appropriate Faculty or Board. In exceptional cases, an applicant who submits evidence of such other academic and professional qualifications as may be approved by the Committee may be permitted to enrol for the degree.

English Language Requirements

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

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

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

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

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

Non-Award Enrolment

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

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

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

A **cross-institutional** enrolment is where the student enrols in a course at UNSW for credit towards an award at another Australian tertiary institution in which the student is concurrently enrolled. Before an application for cross-institutional enrolment can be approved, the student must submit both the **home institution's written confirmation that the course applied for will be credited towards award requirements and a certified copy of the student's complete academic transcript**. Postgraduate students undertaking courses from programs, whether cross-institutional or non-award, may be liable for tuition fees even though they may be liable for Student Contributions at their home institution. Postgraduate cross-institutional students may apply for FEE-HELP if eligible. International students are permitted to enrol on a cross-institutional basis, and are charged tuition fees for their courses.

Rules and Guidelines

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

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

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

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

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

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

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

Fees

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

Application Procedures

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

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

Postgraduate Coursework Advanced Standing, Credit Transfer and Articulation Guidelines

The following guidelines apply to credit granted in postgraduate coursework degrees, diplomas or certificates.

1. A postgraduate coursework student may be granted credit by the program authority. The credit granted must be consistent with the Guidelines detailed below. Any credit granted must also be consistent with the rules governing progression within the program as determined by the relevant Faculty.

2.(a) At least 50% of program requirements must be completed at UNSW for the award of a UNSW postgraduate coursework degree or diploma. Advanced Standing to a maximum of 50% of UNSW program requirements may be granted for completed or partially completed postgraduate awards from UNSW or from another institution. When considering the granting of advanced standing on the basis of previous postgraduate study at another institution, the program authority must take into account the quality of the institution and the quality, level and content of postgraduate courses previously undertaken. A Faculty Standing Committee may, for a particular program, determine the maximum advanced standing at less than 50% of program requirements.

(b) A postgraduate coursework certificate student enrolling in a program that requires a total of 24 or more units of credit may be granted credit to a maximum of 50% of program requirements. No credit will be granted where program requirements are less than 24 units of credit.

3. Some postgraduate programs include preliminary courses similar in content to undergraduate courses, and provide exemption from these courses for students with the appropriate undergraduate background. In such programs, a postgraduate coursework student may be granted credit on the basis of a completed undergraduate degree but must complete a program of study equivalent to one year of full-time study or 48 units of credit.

The following guidelines apply to credit granted in postgraduate articulated programs.

4. A postgraduate coursework student admitted to a UNSW articulated program is eligible for credit based on Guidelines 1, 2 and 3 above at the time of initial enrolment in the articulated sequence.

5.(a) A postgraduate coursework student enrolled in an articulated program may apply to progress from Graduate Certificate to Graduate Diploma to Masters level with full credit for courses completed in earlier programs in the sequence, provided that the earlier awards are not formally conferred.

(b) For progression of students who did not qualify for direct entry into a higher level program at initial enrolment in the sequence, a Faculty Standing Committee may stipulate a particular performance level (e.g. credit average) in early programs in the articulated sequence. Students not meeting this performance level would be awarded the Graduate Certificate or Diploma for which they have completed requirements, and would apply for entry into the higher program under Guideline 2(a) above.

(c) A Faculty Standing Committee may determine that applications for progression through a particular articulated program sequence will be refused if a substantial time period (normally greater than 6 years) has elapsed since completion of requirements for the earlier award.

6. A postgraduate coursework student who chooses to have the Graduate Certificate or Diploma formally conferred and then wishes to undertake further study in the articulated program sequence, either immediately or after a period of absence, is subject to the Guidelines outlined above in 2(a).

Student Fees

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

Commonwealth Support

Commonwealth Supported Places (Formerly HECS)

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

There are three classes of Commonwealth Supported Students:

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

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

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

Student Contributions

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

Student Contribution Ranges

For post-2005 students, higher education providers determine student contribution amounts for each unit of study within ranges set by the

Commonwealth. The Commonwealth permits Higher Education Providers to set student contribution rates within a range from $0 to 125% of the Commonwealth's rate. In June 2004 the UNSW Council approved the University setting its higher education student contribution rates for all courses as follows:

2005: 100% of the indexed indicative Commonwealth rate

2006: 125% of the indexed indicative Commonwealth rate

2007: 125% of the indexed indicative Commonwealth rate

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

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

Student Learning Entitlement

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

Eligibility for Loans and Discounts

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

If you enrol in a Commonwealth supported place, you **must complete** a '*Request for Commonwealth Support and HECS-HELP'* application on or before the relevant census date. There are two types of '*Request for Commonwealth Support and HECS-HELP'* application: One is for new students commencing their course of study from 1 January 2005; the other is for pre-2005 HECS students who are continuing with the course of study they began prior to 1 January 2005.

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

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

Provision of your Tax File Number (TFN)

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

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

Students who Commenced Studies before 2005 (Pre-2005 Students)

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

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

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

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

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

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

Student Contribution Amounts 2006

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

For pre-2005 HECS students who began their program **before 1 January 1997**, the Student Contribution for 2006 is $2,943. The pre-1997 rate is indexed each year.

Calculating Student Contribution Amounts and EFTSL

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

Calculating EFTSL for a course

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

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

Eligibility for HECS-HELP assistance

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

Commonwealth supported students who are eligible for HECS-HELP can either:

- pay their student contribution amount up-front and receive a 20% HECS-HELP discount, or
- defer payment, request a HECS-HELP loan and pay later through the tax system.

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

Student Contribution Rate Table - 2006

Student Contribution Band	Student Contribution – Post-2005 Students (including those commencing in 2005 and 2006)	Student Contribution – Pre-2005 Enrolled Commonwealth Supported HECS Students
Band 1 (humanities, behavioural science, social studies, foreign languages, visual and performing arts)	$4,899	$3,920
Band 2 (accounting, administration, economics, commerce, mathematics, statistics, computing, built environment, health, engineering, science, surveying, agriculture)	$6,979	$5,583
Band 3 (law, dentistry, medicine, veterinary science)	$8,170	$6,535
National Priorities (education, nursing)	$3,920	$3,920

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

FEE-HELP

- FEE-HELP is a new loan program that assists eligible fee-paying students to pay their tuition fees at eligible higher education providers. Australian citizens and holders of a permanent humanitarian visa are eligible for FEE-HELP assistance.
- Under FEE-HELP, students can borrow up to a maximum of $50, 950 (indexed each year) over their lifetime.
- Undergraduate FEE-HELP loans are subject to a 20% loan fee.

OS-HELP

- OS-HELP is a new loan program that assists eligible undergraduate students who wish to study overseas for one or two study periods. It assists these students with payment of their tuition fees at eligible higher education providers. Australian citizens and holders of a permanent humanitarian visa are eligible for OS-HELP assistance.
- Under OS-HELP, students can borrow up to $5,095 per study period for one or two study periods of overseas study.
- OS-HELP loans are subject to a 20% loan fee.

Commonwealth Assistance Notice

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

If you are a Commonwealth supported student, your CAN will include the following information:

- the units of study for which you have received Commonwealth assistance
- your student contribution amounts
- your Student Learning Entitlement (SLE) usage
- the amount of any up-front payments you have made
- your HECS-HELP assistance.

If you have applied for FEE-HELP, your CAN will include the following information:

- tuition fees for your unit(s)
- units of study for which you have received FEE-HELP
- amount of any up-front payments you have made
- loan fee for undergraduate units of study

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

Payment of Fees

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

Students with An Existing HECS or PELS Debt

HECS or PELS Debts

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

Repayment Thresholds

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

Bonus for Voluntary Repayments

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

Bankruptcy Rules

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

Student Activity Fees

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

Total Activity Fee charged per semester

(incl. Miscellaneous Student Activity Fee and GST)

Kensington Students

full-time students: $257.80
part-time students: $205.00

COFA Students

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

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

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

Kensington Campus:

University Union per semester subscription:

full-time students: $137.50
part-time students: $103.40

Sports Association per semester subscription:

full-time students: $44.00
part-time students: $33.00

Student Guild per semester subscription:

full-time students: $36.30
part-time students: $28.60

College of Fine Arts:

College of Fine Arts Students' Association per semester subscription:

full-time students: $136.40
part-time students: $85.80

GST (Good and Services Tax)

The Australian Government has determined that a Goods and Services Tax (GST) of 10% applies to most goods and services and anything else consumed in Australia. Certain exceptions include most education courses provided by the University. If you are enrolled in an award program you will not be liable for the GST.

However subscriptions for membership of the Students' Union, Guild and Sports Association are not part of the academic award program and these fees are therefore subject to GST.

b) **2006 Miscellaneous Activity Fee:**

This fee is used to finance expenses generally of a capital nature relating to student activities and includes an allocation for insurance cover for students. Funds are allocated for projects approved by the University Council.

Kensington: $40.00 per session
College of Fine Arts: $40.00 per session

1.2 Exemption from Student Activity Fees

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

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

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

(2) Students enrolled in programs classified as external or who are enrolling in programs where for a semester or semesters the formal academic requirements are undertaken at a part of the University away from their campus such as a teaching hospital or field station or at another tertiary institution or elsewhere, are exempt from all Semester

Subscriptions but not the Miscellaneous Activity Fee. Students who consider themselves eligible for a Semester Subscription fee concession on the basis of external study should contact their Program Authority in the first instance.

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

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

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

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

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

1.3 Refund of Student Activity Fees Paid

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

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

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

UNSW Fee Policy: Local Students

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

Acceptance of an Offer of Admission

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

Fees Payable

Tuition Fees:

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

Non-Award, Cross-Institutional and Voluntary Course Fees:

Fees are charged for non-award enrolment in a course, and for enrolment in a cross-institutional course. Fees are charged according to the classification of the course (Undergraduate, Postgraduate, Research). See the '2006 Tuition Fee Schedule' in this Handbook for a list of a complete schedule of tuition fees.

Student Activity Fees:

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

Calculation of tuition fees:

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

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

Payment of fees:

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

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

Non-Payment of Fees:

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

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

Refund of Fees Paid

(1) Refund of Deposit

Where a student is required to make an initial deposit to confirm her/his place in a program, the deposit is non-refundable.

(2) Refund of Program Fees –New Students

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

(3) Refund of Program Fees Paid – Re-Enrolling Students:

For re-enrolling students, if notice of discontinuation of course is received on or after the census date of a new academic semester, no refund of tuition fees paid for that semester will be made. In such instances, the student will incur and retain a liability for that semester's fees regardless of whether or not fees have been paid.

(4) Refund of Program Fees - Non-Award Enrolment

If notice of discontinuation of a course is lodged on or before the census date for that semester, a full refund of the fee for the course will be made.

A student will incur and retain liability for the course fee, regardless of whether the fee has been paid, if notice of discontinuation is not lodged before the census date for that semester.

In the case of a course(s) conducted outside the normal semester format, such as those conducted in summer or winter semesters, a refund will only be made if notice of discontinuation is lodged before the commencement of the course.

(5) Refund of Program Fees Paid – Special Cases:

A refund may be granted to a student unable to notify the Registrar in writing by the dates required, provided evidence is supplied that the student had ceased attendance by the census date, and was unable to notify the Registrar or reasons beyond her/his control. A refund may be granted in cases where the applicant is unable to commence or continue in the program because of documented illness or misadventure.

A postgraduate student who submits a project report or thesis for examination by the census date for that semester will not be liable for fees in that semester.

Commonwealth Assistance Notice (CAN)

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

The Commonwealth Assistance Notice (CAN) is issued to Commonwealth Supported and FEE-HELP students only.

Relevant Dates

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

Disclaimer

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

UNSW Fee Policy: International Students

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

Acceptance of an Offer of Admission

Tuition Fee Deposit: International students wishing to accept an offer of admission to a program must pay a deposit fee to secure their place. Places in programs will be allocated in order of receipt of the deposit. The balance of tuition fees for the first session of the program is payable according to the payment guidelines on the fees statement issued after enrolment. External or offshore students and some government-sponsored students have different deposit requirements, as detailed in the offer letter.

Student Visa: On receipt of the deposit and, if appropriate, the health insurance payment, the University will issue an Electronic Confirmation of Enrolment for Overseas Students (e-COE) form which a student requires in order to apply for a student visa for travel to, and temporary residence in, Australia.

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

Fee Charges and Payments

Fees Payable

(1)Tuition Fees:

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

(2) Student Activity Fees:

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

(3) Health Insurance:

It is a requirement of the Australian Government that student visa holders are covered by medical insurance (Overseas Student Health Cover, OSHC) for the duration of their study in Australia. Students must ensure that they have made arrangements for their OSHC when accepting their offer of a place. OSHC can initially be paid for a minimum period of 12 months or for the duration of the student's program*. Students who pay for a minimum of 12 months are responsible for renewing their health cover directly with either the University's Preferred Provider for medical insurance for international students or other approved provider, when their initial cover expires. OSHC charges are regularly reviewed and charges quoted on the UNSW offer letter are subject to change.

Students should be aware that the duration of cover might be shorter than anticipated, should an increase in the charge occur after the offer letter has been sent. Students on external/distance education programs and not residing in Australia are not required to pay OSHC. Similarly, students who do not need a student visa to study in Australia are not required to pay OSHC

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

(4) Calculation of Tuition Fees:

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

(5) Full-Time Program Study Requirement:

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

(6) Payment of Tuition Fees & Student Activity Fees:

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

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

(7) Non-Payment of Fees:

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

Fee Variations (including Change of Residency)

Permanent Resident Status:

If a student obtains Australian permanent residency before enrolling in the program, or prior to the census date of the session of first enrolment in that program, the offer of a place (or the enrolment) as an international student will lapse. The student will then be considered for admission as a local student.

The Department of Science, Education and Training (DEST) guidelines clearly state that all students must finalise enrolment issues (including permanent residency status) by the relevant census date. There is no provision to extend the census date deadlines.

Students must provide proof of residency on or before the relevant session census date in order to be assessed for admission as a local student and be eligible for the local tuition rate. Students who receive their residency on or prior to the relevant session census date but fail to provide the University with a certified copy of their evidence until after the census date will remain liable for the international tuition rate for the remainder of the session.

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

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

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

Repeated Courses:

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

Non-Award Course Enrolment:

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

Graduate students completing a thesis or project report:

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

Refund of Fees Paid

(1) Withdrawal Prior to Enrolment (Refund of all fees paid less administrative charge of $500):

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

(2) Commencing Students - Withdrawal By Census Date (Refund of all fees paid less administrative charge of $1000):

Students who withdraw from the program prior to the census date in their commencing session will receive a refund of all fees paid less an administrative charge of $1,000.

(3) Commencing Students - Withdrawal After Census Date (No refund):

Students who withdraw after the census date in their commencing session will not receive a refund for fees paid unless they have also paid fees for a full year, in which case, fees paid for the second session will be refunded in full.

(4) Re-enrolling Students - Withdrawal By Census Date (Refund of all fees paid):

Students who withdraw from the program prior to the census date of that session will receive a refund of all fees paid for the session.

(5) Re-enrolling Students - Withdrawal After Census Date (No Refund):

Students who withdraw from the program after the census date will not receive a refund of fees paid unless they have also paid fees for a full year, in which case, fees paid for the second session will be refunded in full.

(6) Illness and Misadventure:

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

(7) Students Not Permitted to Continue:

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

(8) Refunds for Tuition Fees Paid:

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

(9) Difficulties with Payment:

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

(10) OSHC

Students who decide not to enrol with the University will be eligible for a full refund of any OSHC paid. The refund will be issued by the University, if the payment has not been sent to the OSHC Provider. However, students will be responsible for contacting the Provider directly, if the payment has been sent and processed.

Students who enrol with the University, but who decide to withdraw, should be aware that they are required to pay a minimum of 3 months cover, and this will be deducted from any refund.

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

Relevant Dates

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

Disclaimer

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

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

Other Fees and Charges

Special Examination Fees

Examinations conducted in special circumstances for each course: $85

Other Charges

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

Penalty Fees

(1) Failure to lodge enrolment or pay fees* according to enrolment procedure: $100

(2) Late enrolment penalty for re-enrolling students: enrolment in Week 1 of Session 1 or later: $250

(3) Reinstatement of enrolment fee: $250

(4) A penalty fee of $250 will be incurred by a student when a result is returned for a course which is not included in the student's enrolment program.

Penalties (1) and (2) may accumulate.

** Fees include Student Activity Fees, fees levied for voluntary enrolment, non-award enrolment, international student fees, tuition fees for postgraduate and undergraduate programs, and up-front Student Contribution liability.*

Sponsored or Assisted Students

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

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

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

Debts

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

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

Enrolment Rules and Procedures

Enrolment

All students must re-enrol each year for the full academic year. Students who fail to enrol in accordance with advertised procedures or who enrol after the nominated date will incur a penalty fee.

By enrolling, students incur Student Activity Fees, tuition fee charges or liability under the Student Contribution Scheme.

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

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

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

1 New Postgraduate Enrolments

Successful applicants will be required to complete enrolment on the web via myUNSW and to complete any other procedures required by their program office before the start of session. Different enrolment procedures may apply in some programs, particularly some distance or alternative mode programs. In these instances, students should follow the instructions sent to them by email or letter. Enrolment other than in accordance with the procedure set out in this section may incur a penalty.

2 Re-enrolling Postgraduate Students

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

Research Students: Students enrolled in research programs will receive re-enrolment instructions in December for the following year.

3. Re-enrolment Deadlines and Penalties

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

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

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

(1) On the recommendation of the program authority, the Registrar may impose a penalty fee of $100 on students who fail to enrol in accordance with their program office's instructions. Circumstances under which the penalty may be imposed include:

- failure to re-enrol by the deadline set by the University or the student's program office;
- failure to attend the program office to enrol on or by the published date where this is a requirement of enrolment for the program.

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

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

4. Summer Session Enrolments

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

5. Restrictions on Re-enrolling

Students whose progress is deemed to be unsatisfactory should follow the written instructions they have received from the Registrar.

6. Multiple Enrolment

The University has laid down the following rules on multiple enrolments:

(1) No person shall be permitted to enrol in a degree, diploma or certificate course at the University of New South Wales at the same time as he/she is enrolled for any other degree, diploma or certificate in the University or at any other tertiary institution, except with the approval of the faculty or faculties concerned.

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

7. Non-Award Enrolment

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

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

8. Final Dates for Enrolling in Courses

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

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

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

The University has set deadlines for the payment of all fees that are set out below. Students who do not pay all fees by the due date may

be disenrolled. Students who are permitted to be reinstated following disenrolment will be required to pay a penalty fee of $250 plus all outstanding fees before reinstatement.

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

Session 1

Session 1 Student Activity Fees, Student Contributions and tuition fees:

Friday 3 March 2006

Session 2

Session 2 Student Activity Fees, Student Contributions and tuition fees:

Friday 28 July 2006

Variations in Enrolment (Including Discontinuation and Program Leave)

1. Variation of enrolment

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

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

2. Variation of Summer Session Enrolment

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

3. Discontinuation of Program

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

4. Discontinuation of Courses

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

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

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

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

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

5. Program Leave

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

The following procedures apply:

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

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

6. Resumption of Program

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

If students have not obtained leave of absence from their program and have not been enrolled in the program over the past twelve months or more, they should apply for re-admission to the program through the Admissions Office by the appropriate closing date.

Progression Rules and Procedures

Attendance at Classes

Students are expected to be regular and punctual in attendance at all classes in the courses in which they are enrolled. All applications for exemption from attendance at classes of any kind must be made in writing to the Registrar.

In the case of illness or of absence due to other unavoidable causes students may be excused by the Registrar for non-attendance at classes for a period of not more than one month or, on the recommendation of the Dean of the appropriate faculty, for a longer period.

Absence from Classes

Explanations of absences from classes, or requests for permission to be absent from forthcoming classes, should be addressed to the Registrar and, where applicable, should be accompanied by a medical certificate. If examinations or other forms of assessment have been missed, this should be stated in the application.

If students attend less than eighty per cent of their possible classes they may be refused final assessment.

Plagiarism

What is Plagiarism?

Plagiarism is the presentation of the thoughts or work of another as one's own.[1] Examples include:

- direct duplication of the thoughts or work of another, including by copying work, or knowingly permitting it to be copied. This includes copying materials, ideas or concepts from a book, article, report or other written document (whether published or unpublished), composition, artwork, design, drawing, circuitry, computer program or software, website, Internet, other electronic resource, or another person's assignment without appropriate acknowledgement;
- paraphrasing another person's work with very minor change keeping the meaning, form and/or progression of ideas of the original;
- piecing together sections of the work of others into a new whole;
- presenting an assessment item as independent work when it has been produced in whole or part in collusion with other people, for example, another student or tutor; and;
- claiming credit for a proportion of work contributed to a group assessment item that is greater than that actually contributed.[2]

Submitting an assessment item that has already been submitted for academic credit elsewhere may be considered plagiarism.

Knowingly permitting your work to be copied by another student may also be considered plagiarism.

Note that an assessment item produced in oral, not written, form, or involving a live presentation, may similarly contain plagiarised material.

The inclusion of the thoughts or work of another with attribution appropriate to the academic discipline does not amount to plagiarism.

[1]Based on that proposed to the University of Newcastle by the St James Ethics Centre. Used with kind permission from the University of Newcastle.

[2]Adapted with kind permission from the University of Melbourne.

UNSW Policy on Plagiarism

At UNSW plagiarism is considered to be a form of academic misconduct and is viewed very seriously. UNSW is committed to helping students understand the conventions which govern academic communication to assist them avoid action which may result in academic misconduct.

In the interests of maintaining high standards in scholarship and research, the University reminds students that when they are writing essays, theses, and assessment items of any nature, they are ethically bound to refrain from plagiarism in all its forms. Students are advised to inform themselves about University policies and practices concerning assessment and Academic Misconduct (including plagiarism). Wherever possible, students should also take up those opportunities provided to them by the University to improve their academic and/or information literacy.

The UNSW Approach to Student Plagiarism

The UNSW approach to plagiarism is educative. The University wishes to foster a culture of learning informed by values of integrity and honesty and all staff and students are encouraged to consider their rights and responsibilities as set out in this Handbook.

UNSW is also committed to providing a consistent, fair and equitable approach to managing student plagiarism. It is therefore expected that Faculties and Schools will strive to ensure the fair, consistent and equitable treatment of students when handling student plagiarism, and adopt relevant policy, procedures and guidance provided by the University. It is also expected that staff will be conscientious in their evaluation of students' work and the identification of cases of possible plagiarism. All Faculties and Schools will provide students with discipline-specific examples of good and bad academic practice according to the conventions of the discipline, and provide specific advice regarding those techniques that will be required of students whilst studying at UNSW.

UNSW has published an e-document handbook for students, *Guidelines and Rules on Student Plagiarism*, which contains detailed information on UNSW's policy, approach and resources for students. UNSW has also developed an online information literacy tutorial (ELISE) to assist students. See *Further Information* below

The Learning Centre

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

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

Further Information

Learning Centre's Plagiarism and Academic Integrity website: **www.lc.unsw.edu.au/plagiarism/index.html**

Guidelines and Rules on Student Plagiarism – Handbook for Students – online at: **www.lc.unsw.edu.au/plagiarism/link.html**

ELISE online information literacy tutorial see *ELISE* under *Information Technology Rules and Procedures* in this Handbook and online at: **https://my.unsw.edu.au/student/atoz/ELISE.html**

Student Misconduct Rules see *Academic Misconduct and Student Misconduct* in this Handbook and online at: **https://my.unsw.edu.au/student/academiclife/assessment/StudentMisconductRules.html**

Assessment Policy, including Ethical Use of Scholarly Materials, see *Assessment Policy* in this Handbook and online at: **https://my.unsw.edu.au/student/academiclife/assessment/AssessmentPolicyIndex.html**

Academic Misconduct and Student Misconduct

1. Introduction

Students and staff are governed by the normal laws that regulate our daily lives. However, 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 also 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 is commited to helping students understand the conventions which govern academic communication and thereby to avoid action which may result in academic misconduct. Students are also advised to refer to Section 5 of the Assessment Policy (Ethical Use of Scholarly Materials) for further University policy advice as to the ethical use of scholarly materials, in addition to Section 7 (Rights and Responsibilities) which includes reference to the Rights and Responsibilities of the University, staff and student in this regard.

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 UNSW Student Services.

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 that 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 that 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

Plagiarism is the presentation of the thoughts or work of another as one's own. See *Plagiarism* in this Handbook for further information.

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 presented work where you have "sourced" the information, ideas and facts etc.

The basic principles are that you should not attempt to pass off the work of another person as your own, and it should be possible for a reader to check the information and ideas that you have used by going to the original source material. Acknowledgment should be sufficiently accurate to enable the source to be located speedily. If you are unsure whether, or how, to make an acknowledgment consult your lecturer.

The following are some examples of breaches of these principles:

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

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

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

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

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

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

2.3.2 Unauthorised materials in exams

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

The following are examples of materials which would be regarded as unauthorised (and if not specified as being permitted in the examination):

(a) A bag, writing paper, blotting paper, manuscript or book, other than the specified material;

(b) A mobile telephone brought into the examination room must be switched off and placed under the candidate's seat for the duration of the examination;

(c) Written or printed notes of any kind or size;

(d) Writing on the hand or any other part of the body;

(e) Writing on a ruler or any other instrument;

(f) A calculator or hand-held computer where these are not permitted or where calculators are supplied by the University for the examination.

It does not matter whether or not the notes or writing are relevant to the exam. It does not matter that the notes are inside your pocket or a closed pencil case. It also does not matter that writing on the body is illegible. It is academic misconduct simply to be in possession of such notes and writing, or to have writing on your body, in the first place.

There are simple steps that you can take to ensure they do not infringe the University's rules for examinations:

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

2.4 Penalties

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

2.5 Breach of Discipline and Misconduct in Assessment Procedures

The University has detailed procedures for dealing with allegations or complaints of academic misconduct. Please contact UNSW Student Central or refer to the following website: **https://my.unsw.edu.au/student/academiclife/asessment/BreachDisciplineMisconductProcedures.html**

3. Student Misconduct

3.1 University Rules and Codes of Conduct

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

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

3.2 What is student misconduct?

Student misconduct of a kind that impairs the reasonable freedom of other persons to pursue their studies or research or to participate in the life of the University includes such activity as:

(a) breach of any rule relating to student conduct in the University;

(b) conduct which unduly disrupts or interferes with a class, a meeting or any other official activity within the University;

(c) conduct detrimental to University property, such as stealing, destroying or deliberately damaging laboratory equipment;

(d) stealing, destroying, impairing the accessibility of, or defacing any part of the University Library collection;

(e) using University computing or communications facilities in a manner which is illegal or which will be detrimental to the rights and properties of others;

(f) acting so as to cause students or staff or other persons within the University to fear for their personal safety;

(g) refusing or failing to identify oneself truthfully when so required by a member of the academic staff or other officer of the University.

3.3 Penalties

The following penalties may apply:

(a) A student who commits a breach of the University parking rules or damages University property (including, but not limited to fittings, fixtures, equipment, facilities, trees, plants, shrubs, and lawns) shall be guilty of a breach of discipline and shall be liable for the payment to the University of a fine not exceeding $1,000 and/or the cancellation of her or his parking permit.

(b) A student who misuses University Library facilities, or computing or communications facilities, shall be guilty of a breach of discipline and shall be liable for the payment to the University of a fine not exceeding $1,000 and/or restriction or withdrawal of borrowing or access privileges.

(c) Fines and other penalties may only be imposed under these rules by the Registrar, Chief Information Officer, or a person who holds a written delegation from either officer so authorising her or him.

(d) It shall not be necessary for the University to prove in any case that it has suffered financial or actual loss.

(e) The University may withhold any benefit (including any degree, diploma or result) from a student until any penalty imposed under these rules has been discharged.

(f) Students adversely affected by determinations made and penalties imposed under this rule may appeal to the Vice-Chancellor. The appeal must be in writing and lodged within fourteen days of the student receiving notification of the adverse determination. Such notification shall include notice of the student's right of appeal. In all other respects, action under this rule is final.

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

3.4 Student Misconduct Procedures

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

Academic Standing

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

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

Academic Standing for Postgraduate Students

Since postgraduate students are already experienced in university-level study and postgraduate coursework programs are normally of shorter duration than undergraduate programs, postgraduate coursework students are expected to complete program requirements with very few failures. A student who has no failures in the current session is assigned Good Standing. Otherwise his or her Standing is assigned on the basis of the total number of units passed and failed over all sessions up to and including the current session, as outlined in the table below.

In exceptional circumstances a student's academic advisor, in consultation with the program authority, may alter the student's standing, usually to replace exclusion by probation.

Academic Standing – Re-Enrolment Appeal Procedures

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

(1) Students who are suspended or excluded from a program have the right 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.

Academic Standing - Re-admission After Exclusion

Students who are excluded must re-apply for re-admission. All postgraduate students re-apply through the Admissions Office of the University. Applications should include evidence that the factors that contributed to the earlier failure no longer apply and any action taken to demonstrate the students' ability to resume studies.

Table 1: Academic Standing for Postgraduate Coursework Students

Total Units Passed	Total Units Failed	Academic Standing	Implications for the Student
Any	None	Good Standing	None
Fewer than 48	16 or fewer	Probation	Required to consult assigned advisor
Fewer than 48	More than 16	Exclusion	Excluded for four standard sessions (two years)
48 or more	18 or fewer	Probation	Required to consult assigned advisor
48 or more	More than 18	Exclusion	Excluded for four standard sessions (two years)

Assessment

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

Assessment of Progress

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

Results of Assessment

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

Passes are graded as follows:

High Distinction: an outstanding performance

Distinction: a superior performance

Credit: a good performance

Pass: an acceptable level of performance

Satisfactory: satisfactory completion of a course for which graded passes are not available

Pass Conceded: this may be granted provided that the overall performance is considered to warrant such a concession. A Pass Conceded in a course will allow progression to another course for which the former course is a prerequisite.

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

Notification of Results

Assessment results are available on the web via **https://my.unsw.edu.au**. A Student ID and UniPass are required to use these services.

Review of Results

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

A review of result may take one of two forms:

(1) Checking that all marks have been included in the final composite mark.

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

Examinations

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

It is inadvisable for students to make any vacation travel arrangements within the examination period until dates for all assessment requirements have been finalised.

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

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

Clash of examinations: Students must advise UNSW Student Central of any clash in examinations as soon as the provisional timetable is released.

The following website provides important information about the rules and procedures governing examinations at UNSW. It is the students' responsibility to be aware of these rules and procedures: **https://my.unsw.edu.au/student/academiclife/assessment/examinations/examinations.html**

Postgraduate Research Students

There are a number of issues which concern postgraduate research students. These include

- supervision
- review of progress
- thesis submission and examination
- intellectual property, safety and ethical issues

Information about the roles and responsibilities of the University, the faculty, school, supervisor and student in relation to the candidature of research students may be found in the booklet *Guidelines for the Supervision of Postgraduate Research*. These guidelines are also available at: **https://my.unsw.edu.au/student/research/SupervisionAndGoodPractice.html**

Special Consideration – Illness and Misadventure

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

Students should note that merely submitting a request for Consideration does not automatically mean they will be granted additional assessment, nor that they will be awarded an amended result. For example, if a student has a poor record of attendance or performance throughout a session/year in a course, the student 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 students will also need to follow.

It sometimes happens that a student may encounter a situation that 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 advisor 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 that may affect your ability to continue your studies.

How to apply for Consideration

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

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

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

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

Applications are accepted only in the following circumstances:

1. Where academic work has been hampered to a substantial degree by illness or other cause. Except in unusual circumstances a problem involving only three consecutive days or a total of five days within the teaching period of a session is not considered sufficient grounds for an application.

2. The circumstances have to be unexpected and beyond your control. Students are expected to give priority to their University study commitments and any absence must clearly be for circumstances beyond your control. Work commitments are not considered a justification.

3. An absence from an examination should be supported by a medical certificate or other document that clearly indicates you were unable to be present.

4. A student absent from an examination or who attends an examination and wants to request special consideration is normally required to provide a medical certificate dated the same day as the examination.

5. An application for special consideration has to be provided within three working days of the assessment to which it refers. In exceptional circumstances an application may be accepted outside the three-day limit.

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

(1) the assessment task/s for which you are seeking consideration

(2) the dates/deadlines associated with these tasks

(3) the basis of your request i.e. the nature of your misadventure, illness, etc.

(4) the date/s on which you were seen by the professional/authority providing your official documentation

(5) the date of the illness or misadventure or the dates of the period of time of the illness or misadventure

(6) the professional's/authority's assessment of the severity of your illness or misadventure and opinion of the likely effect on your capacity to undertake the assessment task/s concerned.

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

For causes other than sickness, (e.g. road accident, court hearing, or death of a relative) written evidence (e.g. a police report, a court summons, or a death certificate) instead of the documentation required in 6 above is acceptable (i.e. Section B of the Consideration form need not be completed).

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

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

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

You also need to follow any local procedures of the relevant course or program authority. You will have been informed of these procedures by the course authority or faculty representative in the course brochure/ information sheet made available to you upon commencement of the course or program. For example, as well as submitting your application through UNSW Student Central, the course authority may require you to contact them.

If you need advice about any of the policies or procedures relating to Consideration contact UNSW Student Central.

What happens after you make the application

If your application meets the University's criteria for acceptance, it is stamped, a copy is taken and the original is returned to you. Only documentation that meets the requirements listed above will be accepted. No consideration will be given when the condition or event is not related to performance or is considered not to be serious.

Details, including the summary information provided by you, are made available to the relevant course authority/faculty. The University's procedures ensure that confidentiality of this information is maintained.

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

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

1. Your performance in other items of assessment in the course.

2. The severity of the event.

3. Academic standing in other courses and in the program.

4. History of previous applications for special consideration.

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

What outcomes you can expect

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

1. No action.

2. Additional assessment or a supplementary examination. Additional assessment may take a different form from the original assessment. If you are granted additional assessment, the original assessment may be ignored at the discretion of the course authority. Consequently, a revised mark based on additional assessment may be greater or less than the original mark.

3. Marks obtained for completed assessment tasks may be aggregated or averaged to achieve a percentage.

4. The deadline for assessment may be extended.

5. Discontinuation from the course. This is unlikely to occur after an examination or final assessment has taken place.

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

Formal end of session examinations

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

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

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

Class tests, laboratory examinations, vivas

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

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.

Student Contact Details

It is essential that students maintain current email and postal addresses. The University cannot accept responsibility if official communications fail to reach students who have not amended their postal and/or email address

as soon as possible after any change of postal and/or email address. See also *Email Policy* in this Handbook.

Student ID Card

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

(1) The card must be carried at the University and shown on request. It must be presented when borrowing from the University libraries, when using library facilities and when applying for concessions. The card is encoded by University Security to allow building access.

(2) The card is not transferable.

(3) The student to whom the card has been issued must notify the University Security (*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 each year.

(5) The cardholder accepts responsibility for all library books issued on his/her card and agrees to return books by the due date.

(6) If the card is damaged or becomes otherwise unusable, it is the cardholder's responsibility to seek replacement.

(7) The card always remains the property of the University and must be returned to it when the holder leaves the University.

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

Graduation

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

The University usually holds graduation ceremonies in the following periods:

March/May: All degrees and diplomas

June/July: Overseas graduation ceremonies in Hong Kong and Singapore/ Kuala Lumpur. (No ceremony will be held in Kuala Lumour in 2006).

September/October: All degrees and diplomas

December: University College, Australian Defence Force Academy. Undergraduate and research degrees within the Faculty of Medicine.

Updated graduation information is posted on the myUNSW website each session before results for that session are released.

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

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

Information Technology Rules and Procedures

Introduction

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

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

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

UniPass

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

ELISE (Enabling Library and Information Skills for Everyone)

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

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

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

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

Email Policy

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

All students have a central email address of the form z1234567, where '1234567' is the student number. It is a **requirement** that all students read email that is sent to this address, as it may contain vital administrative or teaching material **not provided any other way**. If a student uses an email account other than the centrally provided UniMail account, the student **must** arrange to forward UniMail to an account that they do use.

For the complete policy on electronic mail, please see:
www.its.unsw.edu.au/policies/policies_home.html

IT Requirements for UNSW Students

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

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

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

While at UNSW, students are responsible for ensuring that their use of computing and communications facilities is ethical and lawful. They are responsible for ensuring that their actions are not detrimental to the property of the University and the rights of others. The following rules, which have been made by Council under the University's Student Misconduct Rules, apply across all UNSW facilities. In certain local systems, additional restrictions may apply. The manager of 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.

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:

(1) all networked services and computer hardware and software, owned, leased or used under licence by the University including the University's academic and administrative systems;

(2) computing facilities maintained by other bodies but available for use through an agreement or agreements with UNSW; and

(3) all other computing facilities, wherever situated, where access is by means of UNSW-provided services.

1.4 "University" means the University of New South Wales.

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

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

2. Legal framework

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

3. Access

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

3.2 Students are entirely responsible for their own accounts and any actions or materials resulting from any use of their accounts.

3.3 The University reserves the right to withdraw the availability of any computing or communications facility without notice.

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

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

4. Non-permitted uses

The following uses and/or activities are not permitted:

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

4.2 Any commercial purpose.

4.3 UNSW facilities are not to be used for:

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

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

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

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

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

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

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

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

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

- generating excessive load, use of storage capacity, network traffic, etc.;
- physically damaging or adjusting the equipment. Any such tampering, vandalism, theft or wilful and/or reckless damage may be referred to the police;
- introducing viruses or other software components designed to interfere with the normal operation of a system;
- deleting, adding or modifying information relevant to the system's operation;
- obtaining extra resources without authorisation;
- excessive printing;
- creating excessive network links.

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

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

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

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

5. Copyright and licences

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

6. Security

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

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

7. Related Documents

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

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

8. Breaches

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

9. Schedule of Fines

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

Website Policy

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

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

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

Other University Policies and Procedures

Access to Assessment Information and Freedom of Information

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

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

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

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

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

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

6. In the case of the examination of theses and project reports, the examiners' report should be released to the student, following determination of the 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 UNSW Student Central (Student Enquiries), the UNSW Freedom of Information Officer (+61 2) 9385 2860 or the web at: **www.infonet.unsw.edu.au/admin/pmu/foi.htm**

Assessment Policy

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

1. Introduction

1.1 Principles underlying assessment

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

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

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

1.2 Assessment in relation to course development and teaching methods

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

For English language requirements and assumed knowledge, please refer to the 'Admission Requirements and Procedures' entry in this Handbook.

2. Timing and Weight of Assessments

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

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

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

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

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

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

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

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

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

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

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

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

- the weight of each task in contributing to the overall mark;
- the formulas or rules used to determine the overall mark;
- minimum standards that are applied to specific assessment tasks, and the consequences if such standards are not met (including failure to submit particular tasks);
- rules regarding penalties applied to late submissions; and

- precise details of what is expected in terms of presentation of work for assessment. Emphasis should be placed on appropriate referencing conventions and requirements, on the degree of cooperation permitted between students, and on what constitutes plagiarism and the consequences of committing it.

3. Assessing Students' Progress

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

3.1 Conduct of examinations and of other forms of assessment

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

Assessment should be anonymous where this is consistent with the learning outcomes of the course. Schools should develop and inform students of their policy in regard to anonymous assessment. The policy should indicate conditions under which anonymous assessment will normally be applied. In anonymous assessment, the student's ID number only should appear on the work submitted for marking. The number is subsequently paired with the name of the student when the mark is recorded. In other cases, for example class presentations, individual viva voce assessment and small size classes, anonymous marking will not be possible.

Students with disabilities, in certain circumstances, may be eligible for alternative provisions for assessments or examinations. Provisions for school or faculty-based assessments should be arranged with the relevant academic staff member or school administrative officer, in conjunction with the Equity Officer, Disability. Provisions for the end of session examinations should be arranged with the Equity Officer, Disability, who will liaise with the Examinations Section. Information on equity issues at UNSW is located at **www.equity.unsw.edu.au**

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

3.1.1 Scheduling assessment and examinations

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

3.1.2 Group-based assessment

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

3.1.3 Viva voce assessments

Wherever students are required to complete an oral assessment task, more than one examiner should normally be present. Each examiner must record, independently, their comments and recommended mark. Any assessment task that involves some kind of performance (for example, dance or musical recital) should, in addition, be video or audiotape recorded. Clinical assessments are excluded from these requirements.

3.1.4 Class participation

The criteria to be used for evaluating class participation marks should be set out in the course handout that is distributed at the beginning of the course. Wherever possible, students should be informed of their result before the end of the session, and provided with the opportunity to discuss their result with the lecturer involved, should they wish to do so. The assigning of marks for class participation should not unfairly disadvantage any group of students, and the proportion of marks assigned to class participation should take the following issues into account:

- The method of delivery of the course (a course taught in concentrated mode would be expected to have a different class participation format from a course taught across 14 weeks).
- The contribution required by the students.

3.1.5 Undergraduate material in postgraduate coursework courses

Where undergraduate material is included in a postgraduate coursework course there must be a clear statement in the course handout on the manner in which it will be taught and assessed and how this will differ from the delivery and assessment in the corresponding undergraduate course(s).

3.2 Finalisation of results of assessment

At the end of each assessment period, each course authority must provide the Registrar with a single result for each student enrolled in the course for which he or she is responsible. The final result in most courses is expected to take the form of an integer mark, ranging from 0 to 100 (inclusive). A symbol may be used along with the mark, but only in cases where the grade is not determined from the mark itself can a symbol be used instead of a mark.

Except where program-specific rules for weighting have been approved, the Registrar then determines for each undergraduate and postgraduate student a weighted average mark (or WAM) that quantifies a student's overall performance throughout his or her program of study. The WAM is calculated first, by weighting each result by the units of credit associated with the course, and second, by dividing the weighted sum by the total number of units of credit.

3.2.1 Stages in the finalisation of results

There are two stages in the finalisation of the results that are provided to the Registrar.

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

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

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

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

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

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

marks returned by the course convenor, they should advise the convenor on the action taken and the reasons.

3.2.2 Graded passes

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

85-100	High Distinction	HD	Outstanding performance
75-84	Distinction	DN	Superior performance
65-74	Credit	CR	Good performance
50-64	Pass	PS	Acceptable performance

3.2.3 Unsatisfactory failure

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

3.2.4 Ungraded pass/fail

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

3.2.5 Grade only

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

3.2.6 Composite marks below 50

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

3.2.7 Pass Conceded

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

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

- the mark is 48 or 49 and the student's term WAM is at least 53;
- the mark is 46 or 47 and the student's term WAM is at least 55;
- the student's cumulative WAM prior to the start of the current session is at least 55; or
- the student is a potential graduand with no failures in the current term (see also 3.2.22).

However, a returned grade of UF cannot be converted into PC without reference to the course authority; and a student who has previously been awarded PCs for courses totalling 18 units of credit or more shall not normally be awarded further PCs.

Whenever a Faculty Assessment Review Group decides not to award a PC in accordance with the standard concession algorithm, that decision should be able to be justified.

3.2.8 Failure

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

3.2.9 Withheld results

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

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

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

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

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

3.2.10 Finalising withheld results

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

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

The deadlines for finalising withheld results are:

Session 1: the first Friday in August

Session 2: the second Friday in February

Summer Session: the third Friday in February

Winter Session: the third Friday in August.

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

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

3.2.11 Other symbols

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

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

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

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

NF The student has been permitted, because of special circumstances, to withdraw from the course without failure. No result is recorded on the official transcript.

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

3.2.12 Distribution of marks

The two principal approaches to the award of grades are referred to as the standards-referencing approach (in which students' achievements are evaluated against some pre-determined criteria) and the norm-referencing approach (that assesses students in comparison with their peers or relevant cohort). Over a period of years, the distribution of marks in large classes has shown a consistency across all courses. Patterns of distribution for the current session and for previous sessions are available

from the Registrar. In small classes, and in courses and programs with high entrance qualifications, an increased percentage of higher marks may occur. A similar shift in the distribution of marks typically occurs in later years of most degree programs. Course authorities and course convenors are advised not to pass or fail any given percentage of students, but should be prepared to give reasons for a distribution pattern that differs from that which is consistently found in the particular course.

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

3.2.13 Time for marking

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

3.2.14 Submission of results

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

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

3.2.15 Students not formally enrolled in a course

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

3.2.16 Confidentiality

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

3.2.17 Student access to examination scripts

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

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

3.2.18 Release of results

Final composite marks are released to students on the web and at the Registrar's discretion may be released in other formats.

3.2.19 Retention of assessment information

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

3.2.20 Casual teaching staff

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

3.2.21 Review of results

Students who believe that there has been an error in the calculation of their final mark may apply for a review of their result. The review may take the form of:

- either an administrative check that all marks have been included in the final composite mark; or
- an academic re-assessment of a piece of work.

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

3.2.22 Additional assessment for potential graduands

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

3.2.23 Supplementary assessment

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

3.2.24 Discontinuation of courses

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

3.2.25 Degrees with Merit/Distinction

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

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

3.2.26 Award of Honours

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

3.2.27 Award of the University Medal

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

Recommendations for the award of a University Medal are forwarded directly from the Faculty Assessment Review Groups for the approval of the University Medal Committee as the final authority for the awarding

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

3.3 Academic Standing

Please refer to the entry 'Academic Standing' in this Handbook.

4. Special Consideration

Please refer to the entry 'Special Consideration' in this Handbook.

5. Ethical Use of Scholarly Materials

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

The University is committed to assisting students to understand the conventions which govern academic communication and thereby to avoid action which may result in academic misconduct. The following statement on the ethical use of scholarly materials by students writing theses, essays and assignments should be brought to the attention of all students.

The University seeks to enable students to acquire theoretical and practical knowledge that is both trustworthy and verifiable. The writing of research-based theses, essays and assignments is one way in which students approach this goal. These writings, in part, report on the creation of new insights and knowledge. In short, they represent scholarly work.

To maintain standards in scholarship requires a commitment to scholarly values. Among such values is the adherence to ethical behaviour. Many aspects of ethical behaviour come together in the process of research and, in particular, in the use of scholarly materials. In the interests of maintaining high standards in scholarship and research, the University reminds students that when they are writing essays, theses, and assignments, they are ethically bound:

5.1 to cite the published (including, where relevant, the electronically published) source, to acknowledge the originator of substantial ideas upon which they are building their work, and to acknowledge quotations by the use of quotation marks;

5.2 to refer to or use unpublished scholarly materials only with the consent of their originator, and to acknowledge the source of the materials if that consent is given;

5.3 to refrain from plagiarism with its multiple facets as defined in the Student Guide and in the section 'Academic Misconduct and Student Misconduct' earlier in this Handbook.

5.4 to ensure that their use of scholarly materials does not result in obstructing access by others, in particular, where such materials are held within the University by a library or research centre;

5.5 to represent faithfully the views of authors cited and not to misrepresent authors' views either by partial or censored quotation, or by quotation out of context, or by misleading commentary;

5.6 to seek access only to scholarly materials to which they know they are entitled or authorised, and not to attempt to access such material to which they know they are not entitled or authorised (for example, by computer hacking);

5.7 to respect the rights of other authors and to refrain from tampering with digital records (whether in text, image, sound, or other format) over which the originator has copyright and/or has asserted the moral rights of ownership; and

5.8 to refrain from manipulating digital records (whether in text, image, sound, or other format), whether in their original context or in a different context, so as to mislead their audience.

Academic misconduct falls into three main categories:

- misconduct concerning examinations;
- misconduct through misrepresentation such as falsifying documentation, and
- misconduct concerning academic works.

While the University has extensive information on the myUNSW on all aspects of academic misconduct, course convenors have a particular responsibility to inform students in the course handout what is expected of them in terms of appropriate referencing conventions and what may constitute legitimate collaboration within the assessment goals of the course.

Information on plagiarism should emphasise that it is the action of taking and using as one's own the thoughts or writings of another without acknowledgement including:

- where paragraphs, sentences, a single sentence or significant part of a sentence which are copied directly, are not enclosed in quotation marks and appropriately footnoted;
- where direct quotations are not used, but ideas or arguments are paraphrased or summarised, and the source of the material is not acknowledged either by footnoting or other reference within the text of the paper; and
- where an idea, which appears elsewhere in print, film or electronic medium, is used or developed without reference being made to the author or the source of the idea.

The consequences of academic misconduct range from a reduction in marks, failure in the course and/or exclusion from the University for a period from one session to permanent exclusion. The resolution of the University Council which sets down how allegations of student misconduct, including academic misconduct, are to be resolved is at: **www.infonet.unsw.edu.au/poldoc/stumis.htm**

See *Academic Misconduct and Student Misconduct* in this Handbook for a complete statement on academic misconduct.

6. Appeals Against Decisions Affecting Standing or Ability to Progress

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

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

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

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

Separate appeal procedures exist under the Managing Student Progress policy and the Student Misconduct policy. The full policy is located at: **https://my.unsw.edu.au/student/atoz/Grievance.html** In this Handbook, refer to section 'Guidelines and Procedures for the Resolution of Academic Grievances and Disputes'.

7. Rights and Responsibilities

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

7.1 Responsibilities of the University

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

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

7.2 Rights and responsibilities of students

Students have a right to:

- be treated fairly and consistently in all aspects of assessment policy and practice;
- be informed of all aspects of assessment policies and practices in each course, including the criteria to be met and penalties for breaches, and in a format appropriate to students with a disability;
- the timely return of the results of assessments with appropriate and effective feedback;
- information which allows them to calibrate their own performance against the criteria for each course and the performance of other students;
- review their examination scripts and other forms of summative assessment (except those saved for reuse in subsequent testing) for the duration of the script retention period;
- have access to their student file; and to
- be informed of appeal processes, and time limits, and appeal against academic decisions made on the basis of flawed processes.

Students have a responsibility to:

- ensure that they are properly enrolled, otherwise they may be refused assessment;
- behave ethically and appropriately, avoiding any action or behaviour which would unfairly disadvantage or advantage either themselves or another student;
- be aware that a major objective of assessment is the promotion of learning rather than the achievement of grades;
- use assessments to help them develop strategies for self-assessment;
- be aware of the rules of progression and the requirements for the award of the degree, diploma or certificate;
- inform themselves about assessment policies and practices, including the University policies about academic honesty, legitimate cooperation, plagiarism and cheating, and the timely submission of work;
- be aware of the means for seeking assistance and advice on assessment within the school and the University;
- ensure that they understand the requirements for examinations and other assessment tasks;
- ensure that submitted assessment tasks are their own work except when they acknowledge shared ownership of a group project;
- notify staff as early as possible if difficulties arise with the timing or other requirements of assessment tasks;
- advise schools or faculties as appropriate of any substantial absence and be aware of the appropriate use of medical and other certificates in applications for special consideration;
- ensure that they understand the advantages and possible adverse implications of discontinuation or withdrawal;
- seek the advice of the course authority if they believe the proposed assessment method for a particular unit to be unfair;
- comply with requirements in relation to attendance, completion of work, and utilisation of support facilities. It is important to note that if students attend less than 80 percent of their possible classes, they may be refused final assessment;
- seek feedback on the assessment of their work and advice on how to remedy weaknesses in learning skills and examination technique if necessary;
- seek early resolution, through the Head of School or nominee, over any problem in their working relationship with a staff member;
- inform themselves of appropriate appeal processes; and to
- inform the EO Disability and/or the school/faculty in a timely manner if they require alternative examination or assessment arrangements.

8. Discontinuation and Effective Feedback

The discontinuation without failure date for students withdrawing from courses is half the session plus one week. The discontinuation without failure date for whole year courses is the Session 2 census date. Students are financially liable for all courses in which they are enrolled as at the relevant census date.

Students who are thinking of discontinuing should be provided with effective feedback by the end of week 8. This may take one of the following forms:

1. an assessment task to be completed by the end of week 7 and marked and available for collection by week 8;

2. an online test to be available through the mycourse@unsw.edu.au link. This may be a self-assessment task or an assessment task marked by the relevant school. This test should be listed in the course handout as a study mechanism and have directions for the students wishing to access it; or

3. a formal meeting with the lecturer or tutor.

Effective feedback should correspond to the purpose for which it is intended, which might include advice on whether the student should continue in the course. However, some students might discontinue for reasons unrelated to effective feedback.

Fees for Goods and Services Incidental to Studies

Under the provisions of the Higher Education Support Act 2003 (HESA), Commonwealth supported students and local fee-paying students can usually complete the requirements of their program without the imposition of fees that are additional to student contribution amounts or tuition fees.

Generally, where materials or services are a required part of a program, the University (described in the Act as a provider) cannot levy fees unless the material or service, or an alternative, is also available free to students.

For example, course materials such as course outlines must be free to students and access to computers or other online resources must be available to students at no additional charge. For full details see 'Circumstances in which providers must not levy fees' below.

Students can be charged certain fees, including incidental fees, where the material or service is not essential to the students' program of study or, the material or service is an alternate form of a material or service provided free of charge.

For example, charges can be levied for lecture notes or audio tapes of a lecture that is available free to students and charges can be levied for internet and computer access to material outside course/program requirements and also for graduation ceremonies. For full details see 'Circumstances in which providers may levy fees' below.

Students can also be charged fines or penalties, provided that the charge is levied principally as a disincentive and not in order to raise revenue or cover administrative costs.

Circumstances in which providers may levy fees

In accordance with chapter 12 of the Commonwealth Grant Scheme Guidelines, a provider may charge a student for a good or service related to the provision of their course if one of the following criteria applies:

1. The fee is for a good or service that is not essential to the course of study.

For example:

- access to internet and computer facilities (except where these are required as part of a course);
- printing of notes from the internet or disks; and
- graduation ceremonies in cases where students are not required to attend the ceremony in order to obtain their award.

2. The fee is for an alternative form or alternative forms of access to a good or service that is an essential component of a course but is otherwise made readily available at no additional charge by the provider.

For example:

- lecture notes or tapes, provided that lectures are available to students free of charge;

- electronic provision of essential information if the information is also readily available free of charge in another form (eg. in the university library); and
- reading material, such as anthologies of required readings, provided that these texts are also available free of charge.

3. The fee is for an essential good or service that the student has the choice of acquiring from a supplier other than the provider and is for:

- equipment or items that become the physical property of the student and that are not consumed during the course of study; or *For example:* artwork; fabric for sewing class; first aid courses; police clearance checks; musical instruments; protective clothing or footwear; stethoscopes; dance shoes; and reference texts.
- food, transport and accommodation costs associated with the provision of field trips.

4. The fee is a fine or penalty, provided that the charge is levied principally as a disincentive and not in order to raise revenue or cover administrative costs.

For example:

- fines or penalties for late enrolments, late variations to enrolments, late withdrawals from a course, and late payment of charges, student contribution amounts and tuition fees;
- review of grade if a student has already passed the course but is seeking to improve their grade; and
- a charge for an assessment of prior learning in circumstances where a person has not applied for entry to the institution.

Circumstances in which providers must not levy fees

Providers must not charge students for a good or service which is required for a course of study unless that good or service, or an alternative to it, is also available to students at no additional charge.

For example:

- course materials, such as:subject outlines; - reading lists; - tutorial or seminar topics and problems; - assignment and essay questions; and- requirements and guidelines for the presentation of work;
- access to library books, periodicals and manuals;
- clinic, laboratory or workshop materials such as anaesthetics, chemicals, filters, fuel, fertilisers, animal feed or crops used in practical sessions or research;
- access to computers or other online resources;
- recognition of prior learning if the student is enrolled with the provider or the student is applying for enrolment (including auditions);
- equipment and manuals which a professional in the field would not be required to own, such as: - fixtures in a clinic, laboratory or workshop; or - large items of equipment and relevant workshop manuals required for their use;
- admissions services;
- examinations or assessments, including practical assessment, for example, which requires the services of musical accompanists;
- reassessment of results where a student has failed an assessment and thereby failed a subject or unit; and
- mailing charges associated with distance education.

Copyright

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

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

Under the provisions of the *Copyright Act 1968* (as amended), students are permitted to make single copies of literary, dramatic, musical or artistic works provided they are required for research or study purposes and provided they do not comprise more than a reasonable portion of the work. As a guide, a reasonable portion is regarded as:

- not more than 10% of a literary work of not less than 10 pages, or one chapter;
- one article from a periodical or two or more articles if they relate to the same subject matter.

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

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

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

Equity and Diversity

Equity and Diversity Policy Statement

The University of New South Wales is committed to the goals of equal opportunity and affirmative action in education and employment. It aims to provide a study and work environment for staff and students that fosters fairness, equity, and respect for social and cultural diversity, and that is free from unlawful discrimination, harassment and vilification as determined by legislation and by University Council[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 Statement, the University has a number of other policies to help make it a safe, equitable and fair environment for all students and staff. These policies include:

- Equal Opportunity in Education Policy;
- Anti-Racism Policy;
- HIV and other Blood Borne Infections Policy;
- Policies and Guidelines: Students with Disabilities;
- Code of Practice: Students with Disabilities;
- Discrimination and Harassment Grievance Procedures for Students

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

Occupational Health and Safety

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

OHS Guidelines

- Students should discuss the safety implications of any project or experiment that they are planning with their supervisor or demonstrator and complete risk assessments before commencing the work. Be aware of recommendations for the safe use, transport, storage, and disposal of the materials being used. Students should have access to, and read thoroughly, the Material Safety Data Sheets for any chemicals they may use and operating instructions for plant and equipment. Special requirements and training apply to students undertaking work with radioactive substances, ionising radiation apparatus, lasers or genetically manipulated organisms. Students need to read the AS/NZS 2243 series on Safety in Laboratories and comply with their requirements. Students performing high risk activities as defined by Appendix D of AS 2243.1, should not work alone. Additional requirements may apply to students working with animals, microorganisms and or human tissue particularly concerning immunisations prior to hospital placements or laboratory work.
- OHS Policy guidelines are available on the Risk Management Unit website: **www.riskman.unsw.edu.au**
- Students need to be aware of the OHS Policy guidelines that relate to their area of study including policies on OHS accountability, hazardous substances, bio-safety, carcinogens gene technology, fieldwork, plant safety and radiation safety.

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

- The Occupational Health, Safety and Environment section in the Risk Management Unit organises and participates in orientation and training courses for students throughout the year via the schools. Students are encouraged to attend these sessions. Undergraduate and postgraduate student representatives are nominated for the school OHS committees and Level 1 OHS committee.
- Students working at night on campus are advised to use the Unibeat service arranged by phoning Security on 9385 6000 to accompany 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. Students may only work after hours in accordance with school policy.
- All students have obligations as 'persons' under Sections 21, 24 & 25 of the *Occupational Health and Safety Act 2000* and *OHS Regulation 2001*. It is essential students read their legal obligations, which can be found at the website **www.austlii.edu.au** under 'Cases and Legislation: NSW', 'NSW Consolidated Acts' and 'NSW Consolidated Regulations'.

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

Guidelines and Procedures for the Resolution of Academic Grievances and Disputes

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

Guidelines

The University is committed to providing a harmonious work and study environment, and will seriously listen to complaints and resolve them

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

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

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

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

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

Procedures

Step 1

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

Step 2

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

Step 3

If the matter is not satisfactorily resolved at this stage, the student should refer the grievance to the Registrar.

Except when insufficient or unfounded reasons have been given by the student to support the complaint, the Registrar will take the complaint in writing, inform the respondent officially, commence an investigation, including reference to the Dean or Presiding Member of the faculty, and give an answer (including reasons) normally within 7 days.

Step 4

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

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

If the matter has already been considered by the USC, PCC or COR, this appeal will be heard by an Appeal Sub-Committee of the Academic Board, empanelled for the purpose by the President of the Board. The President will appoint as Chair of the Appeal Sub-Committee a member of the Academic Board.

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

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

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

Each stage is to be handled expeditiously.

Student Discrimination and Harassment Grievance Policy and Procedures

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

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

UNSW Student Services: Privacy Code of Practice

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

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

Personal Information Collected

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

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

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

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

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

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

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

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

Use and Disclosure of Personal Information

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

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

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

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

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

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

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

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

Your Responsibilities

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

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

Control Over your Personal Information (myUNSW)

As a student, you are able to view and update much of your personal and enrolment data through myUNSW.

myUNSW enables you to:

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

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

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

If You Fail to Meet Your Responsibilities

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

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

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

If We Fail to Meet Our Responsibilities

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

Security of Personal Information

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

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

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

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

Access to Personal Information

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

Further Information

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

Government Policies

Health-related Programs

Criminal record checks:

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

Infectious diseases:

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

Education Programs

Criminal record checks:

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

Working with Children

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

International Students (ESOS Act)

The *Education Services for Overseas Students (ESOS) Act 2000* is Commonwealth Government legislation that ensures providers of education and training are regulated in the delivery of education services to international students.

All providers and programs available to international students are required to be registered on the Commonwealth Register of Institutions and Courses for Overseas Students (CRICOS). A National Code of Practice has been established which provides for consistent standards for the registration and conduct of registered providers and the conduct of persons who deliver educational services on behalf of registered providers.

The Act also provides for obligations and restrictions on students to comply with the conditions of their student visa. Under the Act, the University is required to monitor and report on some of these conditions to the Department of Immigration, Multicultural and Indigenous Affairs (DIMIA).

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

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

Student Resources

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

The University Library

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

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

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

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

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

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

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

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 expectations. Workshop topics include reading and note taking, essay and report writing, critical thinking, oral presentations and avoiding plagiarism.

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 drafts of their assignments..

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 Learning Centre also has a well-stocked library with study skills and language and communication materials, dictionaries, audio and videotapes available for short-term loan.

The Learning Centre is located on Level 2, Library Tower, telephone (02) 9385 3890, website **www.lc.unsw.edu.au**

University Counselling Service and Compass Programs

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

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

Appointments on the Kensington campus are available between 9am and 5pm. The Counselling Service is located on the 2nd Floor, East Wing Quadrangle Building. Appointments can be made by visiting the service or telephoning (02) 9385 5418. Telephone counselling appointments and before/after hours appointments can be negotiated.

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

Careers and Employment

Careers and Employment offers the following services:

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

Contact Careers and Employment, Level 2, East Wing, Quadrangle Building. Opening hours Monday to Friday 9am-5pm. Telephone (02) 9385 5429, fax (02) 9385 6145, email careers@unsw.edu.au, website: **www.careers.unsw.edu.au**

Disability Services

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

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

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

Equity and Diversity Unit

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

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

You are welcome to contact the Unit at any time to talk confidentially about any issues relating to equity and diversity in your study. The Equity and Diversity Unit is located at Level 9, Applied Science Building, telephone (02) 9385 4734, email equity-diversity@unsw.edu.au.

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

IT Service Desk

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

The IT Service Desk provides support and technical advice on:

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

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

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

Prizes

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

Scholarships

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

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

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

Student Representatives

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

UNSW Bookshop

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

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

Faculty of Arts and Social Sciences

A Message from the Dean

Welcome to postgraduate study in the Faculty of Arts and Social Sciences at the University of New South Wales. Whether you are intending to undertake postgraduate research work, are seeking professional qualifications or are pursuing a specially cherished interest through a coursework program, I hope and expect that you will find your postgraduate study in the Faculty a stimulating and exciting experience.

The Faculty prides itself on the quality of the research supervision it provides for its PhD and Masters by Research students and aims to ensure that students have access to the facilities they require to achieve to the best of their abilities and to interact with fellow research students in seminars and workshops. A state-of-the-art Research Laboratory provides study spaces with networked computers, printers and private note storage areas for in-coming Research postgraduates. Individual Schools also offer accommodation and computing facilities. Funds are also available to support research costs and conference attendance. The Faculty offers around thirty different programs in its PhD and Masters by Research programs, covering all of the disciplines of the Faculty and some interdisciplinary programs.

Postgraduate coursework opportunities range from Graduate Certificate through Graduate Diploma to Masters degrees and from interest driven programs in the MA to such specialist fields as Applied Linguistics, International Relations and Media, Performance and Education. Professionally oriented programs are offered in such fields as the Master of Educational Administration and the Master of Professional Ethics.

I wish you an enjoyable and fruitful period of postgraduate study in the Faculty.

Annette Hamilton
Dean
Faculty of Arts and Social Sciences

Contents

Faculty Information and Assistance

Who Can Help? 52
Admission 52
Advanced Standing 52
Course Descriptions 52
Faculty Computing Facilities 52
Faculty Timetable 52
The Learning Centre 52
Program Leave 52
Progression 52
Re-enrolment Procedures 52

Summary of Programs

Doctor of Philosophy (PhD) 52
Masters by Research 53
Graduate Diploma in Arts by Research 53
Master of Arts by Coursework 53
Graduate Diploma in Arts by Coursework 53
Graduate Certificate in Arts by Coursework 53
Master of Education and Educational Administration Degrees 54
Diploma in Education (Secondary) 54
Master Degrees in Music & Music Education 54
Master of Policy Studies 54
Graduate Diploma and Certificate in Policy Studies 54
Graduate Certificate in Program Evaluation 54
Master of Professional Ethics 54
Graduate Diploma in Professional Ethics 54
Masters Degrees and Graduate Diplomas in Social Work 54

Program Rules and Information – Research Degrees

Doctor of Philosophy 54
1975 Doctor of Education 56
2353 Master of Arts by Research 57
2354 Master of Education by Research 58
2355 Master of Educational Administration by Research 59
2356 Master of Music by Research 60
2357 Master of Music Education by Research 61
2358 Master of Social Science by Research 61
2970 Master of Social Work by Research 62

Program Rules and Information – Coursework Degrees

8225 Master of Arts 63
5225 Graduate Diploma in Arts 64
7325 Graduate Certificate in Arts 65
8228 Master of Arts in Couple and Family Therapy 65
8910 Master of Education 66
8960 Master of Educational Administration 67
5560 Diploma in Education (Secondary) 67
8226 Master of Music 68
5226 Graduate Diploma in Music 69
7326 Graduate Certificate in Music 69
8248 Master of Policy Studies 70
5280 Graduate Diploma in Policy Studies 70
7348 Graduate Certificate in Policy Studies 71
7347 Graduate Certificate in Program Evaluation 72
8227 Master of Professional Ethics 72
5295 Graduate Diploma in Professional Ethics 73
8939 Master of Social Development 74
5557 Graduate Diploma in Social Development 75
7349 Graduate Certificate in Social Development 75
5275 Graduate Diploma in Arts by Research 75

Plan Rules and Information

Applied Ethics 76
Asian Studies 77
Chinese-English Translation and Interpreting 77
Chinese Studies 77
Cognitive Science 77
Development Studies 78
English 78
Environmental Studies 79
International Relations 80
Interpreting & Translation Studies 80
Japanese Applied Linguistics 81
Korean Applied Linguistics 82
Linguistics 82
Media, Performance and Education 83
Philosophy 83
Science, Technology and Society 84

Faculty Information and Assistance

Who Can Help?

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, Email: artsunsw@unsw.edu.au. Advanced standing, exemption and leave forms are available from the Office. The Office is normally open for enquiries 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 **www.arts.unsw.edu.au** which provides information to prospective students as well as course information for current students.

Admission

Applicants for admission to all postgraduate programs can apply directly to the University using the UNSW Apply Online service: **https://apply.unsw.edu.au**

Alternatively, a paper-based application, available from the Faculty of Arts and Social Sciences Office, can be submitted. Application forms should be returned to The University of New South Wales, UNSW Sydney NSW 2052 Australia.

Advanced Standing

Students seeking advanced standing must submit documentary evidence of courses completed on admission 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 6 years previously.

Course Descriptions

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

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. Access to email and the Internet is available. Further information can be obtained from the Technical Resources Centre, Room 105, Morven Brown Building.

Faculty Timetable

The postgraduate timetable for Arts and Social Sciences courses will be available on the web at **www.arts.unsw.edu.au** in November. Students 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.

The Learning Centre

The Learning Centre at UNSW offers support to Arts and Social Sciences PhD and Masters by Research students with academic writing and academic English. Students may consult staff at the Learning Centre to discuss drafts of their chapters or proposals. Dr Sue Starfield, the Director of the Centre, also offers weekly academic English workshops, specifically for international PhD and research Masters students. For further information, please contact Dr Starfield at:

The Learning Centre
Level 2, Library Building
The University of New South Wales
Sydney NSW 2052
Tel: (02) 9385 3369
Email: s.starfield@unsw.edu.au

Program Leave

A postgraduate research student may normally be granted up to two semesters of leave during their period of candidature for a particular degree. This period may be exceeded where a case is established to the satisfaction of the Research Committee that leave is appropriate on health, compassionate or other grounds accepted by the Committee.

Postgraduate coursework students whose progress is satisfactory may apply for leave of absence from their studies for no more than two semesters.

Progression

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.

Coursework students who fail to complete at least 16 units of credit or fail a course in any session may be required to 'show cause' as to why they should be permitted to proceed with their studies.

Research students' progress is reviewed each session and is overseen by the Faculty's Research Committee.

Re-enrolment Procedures

All re-enrolling postgraduate coursework students are expected to re-enrol via the web. Room G63 in the Morven Brown Building is available to students in the Faculty for enrolment purposes.

Re-enrolling research students should contact the Faculty's Research Office, Room 304B, Morven Brown Building, for details in November.

Summary of Programs

The Faculty of Arts and Social Sciences offers a wide range of opportunities for postgraduate study, both by coursework and research, professional and interest driven, full-time and part-time.

At the graduate level the degrees of Doctor of Philosophy, Doctor of Education, Master of Arts, Master of Education, Master of Educational Administration, Master of Music, Master of Music Education, Master of Policy Studies, Master of Professional Ethics, Master of Social Development and Master of Social Work are offered. In addition, the Faculty offers Graduate Diplomas in Arts (Research and Coursework), Education, Music, Policy Studies, Professional Ethics and Social Development and Graduate Certificates in Arts, Music, Policy Studies, Program Evaluation and Social Development.

To enter one of the postgraduate coursework programs in the Faculty, whether at Certificate, Diploma or Masters level, an applicant is normally required to have completed a relevant undergraduate degree. In some cases an applicant may be admitted who submits evidence of other academic or professional qualifications which satisfy the Faculty as appropriate.

Entry to the Masters by Research requires a good Honours degree in an appropriate discipline or a relevant Bachelor together with acceptable professional experience. Entry to the PhD and EdD programs requires a good Honours degree or its equivalent.

Doctor of Philosophy (PhD)

The degree of Doctor of Philosophy is offered in the Faculty of Arts and Social Sciences in the following schools/departments/programs:

Program	
1262	Applied Ethics
1190	Australian Studies
1225	Chinese Studies
1297	Criminology
1970	Education
1200	English
1211	Environmental Policy and Management
1235	European Studies
1210	French
1231	German Studies
1215	Health, Sexuality and Culture
1240	History
1251	History and Philosophy of Science
1228	Indonesian Studies
1212	International Studies and Global Transformations
1221	Japanese Studies
1223	Korean Studies
1208	Linguistics
1245	Media, Film and Theatre
1238	Modern Greek Studies
1280	Music
1281	Music Education

1260	Philosophy
1270	Politics and International Studies
1265	Professional Ethics
1291	Russian Studies
1295	Social Science and Policy
1980	Social Work
1300	Sociology and Anthropology
1310	Spanish and Latin American Studies
1305	Women's Studies

Enrolment in more than one school/department/program is also possible.

Masters by Research

Master of Arts	Program 2353
Master of Education	Program 2354
Master of Educational Administration	Program 2355
Master of Music	Program 2356
Master of Music Education	Program 2357
Master of Social Science	Program 2358
Master of Social Work	Program 2970

These are Masters programs which are research degrees involving three courses and a research thesis or project. The degree is completed in four sessions (full-time). It is designed for students wishing to engage in serious research but not able to devote the three years required to complete a PhD or with a research project which does not lend itself to that level of extended treatment. Clear indication of potential to undertake research is required, either through a relevant Honours degree or through a period of professional work following a relevant undergraduate degree.

Successful completion may be used as an entry path to PhD study.

Contacts for PhD and Masters by Research

Applied Ethics	Dr Catherine Mills Email: catherine.mills@unsw.edu.au
Australian Studies	Dr Elizabeth McMahon Email: e.mcmahon@unsw.edu.au
Chinese Studies	Dr Jon von Kowallis Email: j.kowallis@unsw.edu.au
Cognitive Science	Dr Peter Slezak Email: p.slezak@unsw.edu.au
Education	Dr John McCormick Email: j.mccormick@unsw.edu.au
English	Dr Anne Brewster Email: a.brewster@unsw.edu.au
European Studies	Professor John Milfull Email: j.milfull@unsw.edu.au
French	Dr Maurice Blackman Email: m.blackman@unsw.edu.au
German Studies	A/Professor Gerhard Fischer Email: g.fischer@unsw.edu.au
Greek	Dr Eleni Amvrazi Email: e.amvrazi@unsw.edu.au
History	Dr Mina Roces Email: m.roces@unsw.edu.au
History and Philosophy of Science	Dr Nicolas Rasmussen Email: nicolas.rasmussen@unsw.edu.au
Indonesian Studies	A/Professor David Reeve Email: d.reeve@unsw.edu.au
Japanese & Korean Studies	Dr Gregory Evon Email: g.evon@unsw.edu.au
Linguistics	Dr Rod Gardner Email: rod.gardner@unsw.edu.au
Media, Film & Theatre	A/Professor Gay Hawkins Email: mdcm@unsw.edu.au
Music and Music Education	A/Professor Robert Walker Email: aw@unsw.edu.au
Philosophy	A/Professor Damian Grace Email: d.grace@unsw.edu.au
Politics & International Relations	Dr Sarah Maddison Email: s.maddison@unsw.edu.au Dr Elizabeth Thurbon Email: e.thurbon@unsw.edu.au
Professional Ethics	School of Philosophy Email: philosophy@unsw.edu.au
Russian Studies	Dr Ludmila Stern Email: l.stern@unsw.edu.au
Social Science & Policy	Professor Janet Chan Email: j.chan@unsw.edu.au
Social Work	Dr Carmen Moran Email: c.moran@unsw.edu.au
Sociology & Anthropology	Ms Maria Markus Email: m.markus@unsw.edu.au Dr Jocelyn Pixley Email: j.pixley@unsw.edu.au
Spanish & Latin American Studies	Dr Diana Palaversich Email: d.palaversich@unsw.edu.au
Women's & Gender Studies	Dr Elizabeth McMahon Email: e.mcmahon@unsw.edu.au

Graduate Diploma in Arts by Research

The Graduate Diploma in Arts by Research (program **5275**) is offered by schools and approved disciplinary programs in the Faculty of Arts and Social Sciences. It is designed primarily to enable students with substantial concentration in an area of study in an undergraduate or postgraduate coursework degree to achieve a qualification to meet the requirements for entry to postgraduate research programs in the Faculty.

The Diploma involves the writing of a 15 – 20,000 word research thesis under supervision and the completion of two session length courses. The program is undertaken on a full-time basis over one year or two years part-time. Appropriately qualified applicants may seek advanced standing for the coursework components of the program only.

Master of Arts by Coursework (MA)

The program for the Master of Arts degree by coursework (program **8225**) in the Faculty of Arts and Social Sciences offers the following areas of study:

Applied Ethics
Asian Studies
Chinese-English Translation and Interpreting
Chinese Studies
Cognitive Science
Couple and Family Therapy (program **8228**)
Creative Writing (School of English)
Development Studies (School of Social Science and Policy)
English
International Relations
Interpreting & Translation Studies (School of Modern Language Studies)
Japanese Applied Linguistics
Korean Applied Linguistics
Linguistics, Applied
Linguistics, TESOL
Media, Performance and Education
Science, Technology and Society (School of History & Philosophy of Science)

Graduate Diploma in Arts by Coursework (GradDipArts)

The program for the Graduate Diploma in Arts (program **5225**) in the Faculty of Arts and Social Sciences offers the following areas of study:

Applied Ethics
Asian Studies
Chinese-English Translation and Interpreting
Chinese Studies
Cognitive Science
Creative Writing (School of English)
Development Studies (School of Social Science and Policy)
English
International Relations
Interpreting & Translation Studies (School of Modern Language Studies)
Japanese Applied Linguistics
Korean Applied Linguistics
Linguistics, Applied
Linguistics, TESOL
Media, Performance and Education
Philosophy
Science, Technology and Society (School of History & Philosophy of Science)

Graduate Certificate in Arts by Coursework (GradCertArts)

The program for the Graduate Certificate in Arts (program **7325**) in the Faculty of Arts and Social Sciences offers the following areas of study:

Chinese-English Translation and Interpreting
Chinese Studies
Cognitive Science
Creative Writing (School of English)

Development Studies (School of Social Science and Policy)
English
Environmental Policy (School of History & Philosophy of Science)
International Relations
Interpreting (School of Modern Language Studies)
Japanese Applied Linguistics
Korean Applied Linguistics
Linguistics, Applied
Linguistics, TESOL
Science, Technology and Society (School of History & Philosophy of Science)
Translation (School of Modern Language Studies)

Master of Education and Educational Administration Degrees

The Master of Education by coursework (program **8910**) is designed for educationists who wish to study education at an advanced level to enhance their professional development. The Master of Education in Applied Linguistics by coursework (program **8910**) is designed to provide those working or intending to work in TEFL/TESL or TESOL with a vocationally relevant degree.

The Master of Educational Administration by coursework (program **8960**) is a specialist program designed to equip current and aspiring administrators to manage education at all levels in government and independent schools, school systems, universities, TAFE and other educational organisations.

Diploma in Education (Secondary)

The Diploma in Education (program **5560**) is designed to give professional training to graduate students in secondary school level teacher education. The program is undertaken on a full-time basis over one year or part-time over one-and-a-half or two years.

Masters Degrees in Music and Music Education

A coursework degree, graduate diploma and graduate certificate in Music and Music Education will offer flexible possibilities for postgraduate students.

Master of Music by Coursework (MMus)

The MMus coursework degree (program **8226**) involves the successful completion of six session-length courses. Courses can be taken in any combination of options.

Graduate Diploma in Music (GradDipMus)

Four session-length courses from the Master of Music list are required for the Graduate Diploma in Music (program **5226**).

Graduate Certificate in Music (GradCertMus)

Two session-length courses from the Master of Music list are required for the Graduate Certificate in Music (program **7326**).

Master of Policy Studies
Graduate Diploma and Certificate in Policy Studies
Graduate Certificate in Program Evaluation

The Master of Policy Studies (program **8248**) is offered by the School of Social Science and Policy. It is designed to prepare students for effective participation and leadership in problem solving and policy making in a variety of organisational contexts, and for work which requires analytical skills and a practical appreciation of the processes of policy making and implementation. In addition to a common core curriculum, students complete three specialised electives.

The degree is open to graduates in any field who have significant work experience in an area appropriate to the degree program. In exceptional circumstances, applicants may be admitted without a first degree but with general and professional attainments acceptable to the School.

The Graduate Diploma (program **5280**), Graduate Certificate in Policy Studies (program **7348**) and Graduate Certificate in Program Evaluation (program **7347**) are also offered. For details, see the relevant entry in the 'Program Rules and Information' section of this Handbook.

Master of Professional Ethics
Graduate Diploma in Professional Ethics

While open to anyone with an interest in the area, these programs (Master of Professional Ethics, program **8227** and the Graduate Diploma in Professional Ethics, program **5295**) have been devised as a response to pressing demands from two quarters: first, from professionals and the professions, who wish to ensure high standards of ethical practice, and to complement the requirements of legal regulation with those of coherent and consistent moral positions; second, from public demand and expectation of higher standards of accountability and responsible conduct from the professions and their practitioners.

The Master degree and Graduate Diploma are both offered in distance education mode as well as on-campus.

Masters Degrees and Graduate Diplomas in Social Work

The Master of Social Work (Research), program **2970**, is a research degree that requires a candidate to demonstrate his or her ability to undertake research by the submission of a thesis.

The School of Social Work also offers articulated postgraduate programs in Couple and Family Therapy and Social Development. For information on the Couple and Family Therapy program, refer to the program entry for **8228** Master of Arts in Couple and Family Therapy.

The overall goal of the Social Development programs (**8939**, **5557** and **7349**) is to offer graduate degrees in social development practice with an international focus. By the end of the program, candidates can expect to have substantial knowledge and a range of skills related to the planning, delivery and evaluation of programs relevant to international social community development and aid work, refugee and immigrant resettlement. The program is based on a social justice philosophy, a human rights framework and a community development approach.

Program Rules and Information – Research Degrees

Doctor of Philosophy

PhD

The degree of Doctor of Philosophy is offered in the Faculty of Arts and Social Sciences in the following programs:

1262	Applied Ethics
1190	Australian Studies
1225	Chinese Studies
1297	Criminology
1970	Education
1200	English
1235	European Studies
1210	French
1231	German Studies
1215	Health, Sexuality and Culture
1240	History
1251	History & Philosophy of Science
1228	Indonesian Studies
1221	Japanese Studies
1223	Korean Studies
1208	Linguistics
1245	Media, Film and Theatre
1238	Modern Greek Studies
1280	Music
1281	Music Education
1260	Philosophy
1270	Politics & International Relations
1265	Professional Ethics
1291	Russian Studies
1295	Social Science and Policy
1980	Social Work
1300	Sociology
1310	Spanish & Latin American Studies
1305	Women's Studies

Program Description

The Doctor of Philosophy (PhD) degree is offered in all faculties of the University of New South Wales and encourages initiative and originality in research. Candidates should make a significant contribution to knowledge in their field.

As a general guide, the UNSW entry requirements for the degree of Doctor of Philosophy are as follows:

- A candidate for the degree shall have been awarded an appropriate degree of Bachelor with Honours from the University of New South Wales or a qualification considered equivalent from another university or tertiary institution at a level acceptable to the Research Committee of the Faculty.

- Candidates may be admitted to the PhD program after one year's full-time enrolment in a Masters by Research program, with the approval of the Faculty Postgraduate Affairs Committee.
- In exceptional cases an applicant who submits evidence of such other academic and professional qualifications as may be approved by the Committee may be permitted to enrol for the degree.

However, as each faculty manages its own PhD programs, prospective local and international research students should check with the Faculty and/or School for specific entry requirements.

English language requirements also apply. Please refer to the UNSW website: **www.unsw.edu.au/futureStudents/postgradResearch/res/fspgrengreqpolicy.html**

Program Objectives and Learning Outcomes

The Doctor of Philosophy (PhD) degree encourages initiative and originality in research. Students will make a significant contribution to knowledge in their field and will be competent to carry out research in their chosen area.

Program Structure

This program involves a minimum of three years full-time study. Students undertake supervised research leading to the production of the thesis.

The length of a doctoral thesis normally should not exceed 100,000 words of text and should be submitted for examination within 4 years of full-time study.

Academic Rules

1. The degree of Doctor of Philosophy may be awarded by the Council on the recommendation of the Research Committee of the appropriate faculty or board (hereinafter referred to as the Committee) to a candidate who has made an original and significant contribution to knowledge.

Qualifications

2. (1) A candidate for the degree shall have been awarded an appropriate degree of Bachelor with Honours from the University of New South Wales or a qualification considered equivalent from another university or tertiary institution at a level acceptable to the Committee.

(2) In exceptional cases an applicant who submits evidence of such other academic and professional qualifications as may be approved by the Committee may be permitted to enrol for the degree.

(3) If the Committee is not satisfied with the qualifications submitted by an applicant the Committee may require the applicant to undergo such assessment or carry out such work as the Committee may prescribe, before permitting enrolment as a candidate for the degree.

Enrolment

3. (1) An application to enrol as a candidate for the degree shall be lodged with the Registrar at least one month prior to the date at which enrolment is to begin.

(2) In every case before making the offer of a place the Committee shall be satisfied that initial agreement has been reached between the *School and the applicant on the topic area, supervision arrangements, provision of adequate facilities and any coursework to be prescribed and that these are in accordance with the provisions of the guidelines for promoting postgraduate study within the University.

(3) The candidate shall be enrolled either as a full-time or a part-time student.

(4) A full-time candidate will present the thesis for examination no earlier than three years and no later than five years from the date of enrolment and a part-time candidate will present the thesis for examination no earlier than four years and no later than six years from the date of enrolment, except with the approval of the Committee.

(5) The candidate may undertake the research as an internal student i.e. at a campus, teaching hospital, or other research facility with which the University is associated, or as an external student not in attendance at the University except for periods as may be prescribed by the Committee.

(6) An internal candidate will normally carry out the research on a campus or at a teaching or research facility of the University except that the Committee may permit a candidate to spend a period in the field, within another institution or elsewhere away from the University provided that the work can be supervised in a manner satisfactory to the Committee. In such instances the Committee shall be satisfied that the location and period of time away from the University are necessary to the research program.

(7) The research shall be supervised by a supervisor and where possible a co-supervisor who are members of the academic staff of the School or under other appropriate supervision arrangements approved by the Committee. Normally an external candidate within another organisation or institution will have a co-supervisor at that institution.

Progression

4. The progress of the candidate shall be considered by the Committee following report from the School in accordance with the procedures established within the School and previously noted by the Committee.

(i) The research proposal will be reviewed as soon as feasible after enrolment. For a full-time student this will normally be during the first year of study, or immediately following a period of prescribed coursework. This review will focus on the viability of the research proposal.

(ii) Progress in the course will be reviewed within twelve months of the first review. As a result of either review the Committee may cancel enrolment or take such other action as it considers appropriate. Thereafter, the progress of the candidate will be reviewed annually.

Thesis

5. (1) On completing the program of study a candidate shall submit a thesis embodying the results of the investigation.

(2) The candidate shall give in writing to the Registrar two months notice of intention to submit the thesis.

(3) The thesis shall comply with the following requirements:

(a) it must be an original and significant contribution to knowledge of the subject;

(b) the greater proportion of the work described must have been completed subsequent to enrolment for the degree;

(c) it must be written in English except that a candidate in the Faculty of Arts and Social Sciences may be required by the Committee to write a thesis in an appropriate foreign language;

(d) it must reach a satisfactory standard of expression and presentation;

(e) it must consist of an account of the candidate's own research but in special cases work done conjointly with other persons may be accepted provided the Committee is satisfied about the extent of the candidate's part in the joint research.

(4) The candidate may not submit as the main content of the thesis any work or material which has previously been submitted for a university degree or other similar award but may submit any work previously published whether or not such work is related to the thesis.

(5) Four copies of the thesis shall be presented in a form which complies with the requirements of the University for the preparation and submission of theses for higher degrees.

(6) It shall be understood that the University retains the four copies of the thesis submitted for examination and is free to allow the thesis to be consulted or borrowed. Subject to the provisions of the Copyright Act, 1968, the University may issue the thesis in whole or in part, in photostat or microfilm or other copying medium.

Examination

6. (1) There shall be not fewer than three examiners of the thesis, appointed by the Committee, at least two of whom shall be external to the University.

(2) At the conclusion of the examination each examiner shall submit to the Committee a concise report on the thesis and shall recommend to the Committee that one of the following:

(a) The thesis merits the award of the degree.

(b) The thesis merits the award of the degree subject to minor corrections as listed being made to the satisfaction of the head of school.

(c) The thesis requires further work on matters detailed in my report. Should performance in this further work be to the satisfaction of the higher degree Committee, the thesis would merit the award of the degree.

(d) The thesis does not merit the award of the degree in its present form and further work as described in my report is required. The revised thesis should be subject to re-examination.

(e) The thesis does not merit the award of the degree and does not demonstrate that resubmission would be likely to achieve that merit.

(3) If the performance in the further work recommended under (2)(c) above is not to the satisfaction of the Committee, the Committee may permit the candidate to submit the thesis for re-examination as determined by the Committee within a period determined by it but not exceeding eighteen months.

(4) After consideration of the examiners' reports and the results of any further examination of the thesis, the Committee may require the candidate to submit to written or oral examination before recommending whether or not the candidate be awarded the degree. If it is decided that the candidate be not awarded the degree, the Committee shall determine whether or not the candidate be permitted to resubmit the thesis after a further period of study and/or research.

Fees

7. A candidate shall pay such fees as may be determined from time to time by the Council.

** 'School' is used here and elsewhere in these conditions to mean any teaching unit authorised to enrol research students and includes a department where that department is not within a school, a centre given approval by the Academic Board to enrol students, and an interdisciplinary unit within a Faculty and under the control of a Dean of a Faculty. Enrolment is permitted in more than one such teaching unit.*

Further Information

If you are considering applying for a PhD at UNSW you will need to make contact with the relevant school or faculty. This is necessary in order to establish that your research interests and those of the school and faculty are aligned, and that there is a suitable supervisor for your particular area of research.

Prospective students are strongly advised to make contact with potential supervisors before applying for research study at the University.

Please refer to the relevant school and department home page for contact details (via **www.unsw.edu.au**).

Please refer to the UNSW website for further information on how to apply, scholarships, English language requirements, thesis preparation and other research related matters: **www.unsw.edu.au/futurestudents/research**

1975 Doctor of Education

EdD

Coordinator: John McCormick
Email: j.mccormick@unsw.edu.au

Program Description

The Doctor of Education program serves the needs of top-level education professionals who wish to consolidate their theoretical understandings and to apply these in educational practice.

Entry requirements are completion of a Master degree with Honours in Education, a Master of Education, Master of Educational Administration, Master of Education in Teaching, Master of Higher Education or an appropriate degree of Bachelor with Honours in Education or a related discipline. Evidence of a capacity to conduct research is essential.

Program Objectives and Learning Outcomes

The aim of the Doctor of Education program is to serve the needs of top-level education professionals who wish to consolidate, refine and expand their theoretical understandings and to apply these in educational practice. The orientation of the program is therefore towards the improvement of professional practice by the application of research findings to the problems, issues and development of teaching, learning, and educational management and politics.

Program Structure

Candidates are required to complete five coursework components, normally including two research methodology courses, plus a thesis. The EdD degree may be completed over 3 years full-time or 6 years part-time.

Doctor of Education Courses

EDST5015	Modes of Thought and their Instructional Implications	S1 & S2
EDST5031	Research Methods 1	S1 & S2
EDST5032	Research Methods 2	S1 & S2
EDST5801	EdD Project	S1 & S2

Academic Rules

1. The degree of Doctor of Education may be awarded by the Council on the recommendation of the Research Committee of the Faculty of Arts and Social Sciences (hereinafter referred to as the Committee) to a candidate who has completed a specified program of advanced study and demonstrated ability to conduct research by the submission of a thesis embodying the results of a substantial original investigation.

Qualifications

2. (1) (a) A candidate for the degree shall have been awarded a Master degree with Honours in Education, Master of Education, Master of Educational Administration, Master of Education in Teaching, Master of Higher Education or an appropriate degree of Bachelor with Honours or a qualification considered equivalent from another university or tertiary institution at a level acceptable to the Committee; and

(b) have completed at least three years' professional experience in a branch of education, or in some other area that is judged by the Committee to be appropriate; and

(2) In exceptional cases an applicant who submits evidence of such other academic and professional qualifications as may be approved by the Committee may be permitted to enrol for the degree.

Enrolment and Progression

3. (1) An application to enrol as a candidate for the degree shall be made on the prescribed form which shall be lodged with the Registrar.

(2) In every case before making the offer of a place the Committee shall be satisfied that initial agreement has been reached between the School of Education and the applicant on the topic area, provision of adequate facilities and any course work to be prescribed, and that these are in accordance with the guidelines for promoting postgraduate study within the University.

4. (1) A candidate for the degree shall be required:

(a) to undertake a course of study in which the candidate shall be required to pass, at a standard acceptable to the Committee, such courses as may be required;

(b) to undertake a substantial original investigation on an approved topic;

The candidate may also be required to undergo such assessment and perform such other work as may be prescribed by the Committee.

(2) The investigation shall be carried out under the direction of a supervisor and where possible a co-supervisor appointed from among the members of the academic staff of the school or under other appropriate supervision arrangement approved by the Committee.

(3) (a) An approved candidate shall be enrolled as a full-time or part-time student.

(b) No candidate shall be awarded the degree until the elapse of six academic sessions from the date of enrolment in the case of a full-time candidate, or twelve academic sessions in the case of a part-time candidate.

(c) The Committee may in special circumstances approve other variations to the period of study.

5. The progress of the candidate shall be considered by the Committee following report from the School in accordance with the procedures established within the School and previously noted by the Committee.

(i) The research proposal for the thesis will be reviewed as soon as feasible after the completion of the course work. This review will focus on the viability of the research proposed.

(ii) Progress in the course will be reviewed within twelve months after the first review. As a result of either review, the Committee may cancel enrolment or take such other action as is considers appropriate. Thereafter, the progress of the candidate will be reviewed annually.

Thesis

6. (1) On completing the program of study a candidate shall submit a thesis embodying the results of the investigation.

(2) The candidate shall give in writing to the Registrar two months' notice of intention to submit the thesis.

(3) The thesis shall present an account of the candidate's own research. In special cases work done jointly with other persons may be accepted, provided the Committee is satisfied about the extent of the candidate's part in the joint research.

(4) Four copies of the thesis shall be presented in a form which complies with the requirements of the University for the preparation and submission of theses for higher degrees.

(5) It shall be understood that the University retains the four copies of the thesis submitted for examination and is free to allow the thesis to be consulted or borrowed. Subject to the provisions of the Copyright Act 1968, the University may issue the thesis in whole or in part, in photostat or microfilm or any other copying medium.

Examination

7. (1) There shall be no fewer than three examiners of the thesis, at least two of whom shall be external to the University, who shall be appointed by the Committee.

(2) At the conclusion of the examination each examiner shall submit to the Committee a concise report on the thesis and shall recommend to the Committee that:

(a) the thesis be noted as satisfactory; or

(b) the thesis be noted as satisfactory subject to specified minor corrections being made to the satisfaction of the head of school; or

(c) the thesis requires further work on questions posed in the report. Should performance in this further work be to the satisfaction of the Committee, the thesis would be noted as satisfactory; or

(d) the thesis be noted as unsatisfactory, but the candidate be permitted to resubmit the thesis in a revised form after a further period of study and/or research. The revised thesis should be subject to reexamination: or

(e) the thesis be noted as unsatisfactory. The thesis does not demonstrate that resubmission would be likely to achieve a satisfactory result.

(3) If the performance at the further work recommended under (2)(c) above is not to the satisfaction of the Committee, the Committee may permit the candidate to re-present the same thesis and submit to further examination as determined by the Committee within a period specified by it but not exceeding one year.

(4) The Committee shall, after consideration of the examiners' reports and any further reports on the thesis it sees fit to obtain and the results of any further examination and of the prescribed course of study, recommend whether or not the candidate be awarded the degree. If it is decided that the candidate be not awarded the degree the Committee shall determine whether or not the candidate may resubmit the thesis after a further period of study and/or research.

Fees

8. A candidate shall pay fees as may be determined from time to time by the Council.

2353 Master of Arts by Research

MA

Typical Duration
2 years

Minimum UOC for Award
96 units of credit

Typical UOC per Session
24 units of credit

Program Description

The Master of Arts by Research degree program involves the completion of three courses, a thesis proposal and a research thesis or project. The degree is completed in either three or four sessions (full-time). It is designed for students wishing to engage in serious research but not able to devote the three years required to complete a PhD or with a research project which does not lend itself to that level of extended treatment. Clear indication of potential to undertake research is required, either through a relevant Honours degree or through a period of professional work following a relevant undergraduate degree.

Program Objectives and Learning Outcomes

The Master of Arts by Research degree program is designed for students wishing to engage in serious research. It involves the completion of three courses, a thesis proposal and a research thesis or project which encourages initiative and originality in research.

Program Structure

A full-time student in the program would normally enrol in three coursework courses (in consultation with their supervisor) in the first session of study. The second session of study involves the completion of a thesis proposal. Year 2 of study concentrates on the completion of a 30,000 word thesis.

Optional courses for Postgraduate Research students in the Faculty of Arts and Social Sciences:

Interdisciplinary Faculty Courses

ARTS5020	Oral History and the Interview
ARTS5021	Medicine, the Body and Society
ARTS5022	Qualitative Research Methods
ARTS5023	Quantitative Social Analysis
ARTS5024	Thesis Writing for Arts and Social Sciences Research Students
ARTS5026	Theories of Community and Difference
ARTS5027	Utopianism
ARTS5028	The Mechanisms and Traumas of Social Change
ARTS5060	Developing a Research Proposal

Health, Sexuality and Culture

ARTS5040	Bodies, Habits and Pleasures
ARTS5041	Researching Sex and Drugs A
ARTS5042	Researching Sex and Drugs B

International Studies and Global Transformations

ARTS5050	International Studies and Theories of Global Transformations
ARTS5051	Global Political Economy, International Development and Human Security
ENGL5035	Writing Diaspora
PHIL5010	Cosmopolitanism, Citizenship and Sovereignty

Environmental Policy and Management

ARTS5029	Natural Resources Policy Management
ARTS5035	Structured Reading Program A
ARTS5036	Structured Reading Program B

Academic Rules

1. The degree of Master of Arts by Research may be awarded by the Council on the recommendation of the Research Committee of the Faculty of Arts and Social Sciences (hereinafter referred to as the Committee) to a candidate who has satisfactorily completed a program of advanced study.

Qualifications

2. (1) A candidate for the degree shall:

(a) have been awarded an appropriate degree of Bachelor with Honours from the University of New South Wales at a standard not below Honours Class 2 or a qualification considered equivalent from another university or tertiary institution; *or*

(b) have been awarded an appropriate award of Graduate Certificate at an average of Distinction from the University of New South Wales or a qualification considered equivalent from another university or tertiary institution; *or*

(c) have had at least two years professional experience of a kind acceptable to the Committee AND have been awarded an appropriate degree of Bachelor from the University of New South Wales or a qualification considered equivalent from another university or tertiary institution, *and*

(i) satisfy the Committee that the qualification is at a level and of a character indicating research potential; *or*

(ii) submit other evidence satisfying the Committee of their research potential.

(2) In exceptional cases an applicant who submits evidence of such other academic and professional qualifications as may be approved by the Committee may be permitted to enrol for the degree.

(3) If the Committee is not satisfied with the qualifications submitted by an applicant, the Committee may require the applicant to undergo such assessment or carry out such work as the Committee may prescribe, before permitting enrolment.

Enrolment and Progression

3. (1) An application to enrol as a candidate for the degree shall be made on the prescribed form which shall be lodged with the Registrar at least two calendar months before the commencement of the session in which enrolment is to begin.

(2) To qualify for the award of the degree a candidate shall:

(a) undertake such formal courses and pass such assessment as prescribed;

(b) obtain 24 units of credit in approved coursework; and

(c) 24 units of credit for a thesis proposal;

(d) 48 units of credit through the submission of a thesis or project report demonstrating the capacity to conduct, under supervision, an original investigation on an approved topic;

(e) the research thesis or project report shall be completed in no fewer than two and no more than four sessions for a full-time candidate, or no

fewer than four and no more than eight sessions in the case of a part-time candidate.

(3) No candidate shall be awarded the degree until the lapse of a minimum of three academic sessions from the date of enrolment in the case of a full-time candidate or six sessions in the case of a part-time candidate.

Examination

4.There shall be not fewer than two examiners of the thesis or project report, at least one of whom shall be external to the University unless the Committee is satisfied that this is not practicable.

Fees

5. A candidate shall pay such fees as may be determined from time to time by the Council.

Further Information

Successful completion may be used as an entry path to PhD study.

2354 Master of Education by Research

MEd

Typical Duration
2 years

Minimum UOC for Award
96 units of credit

Typical UOC per Session
24 units of credit

Coordinator: John McCormick
Email: j.mccormick@unsw.edu.au

Program Description

The Master of Education by Research is suited to the needs of professionals requiring some further research training and experience who are unable to devote the three or more years required to complete a PhD program. Candidates would normally have completed an undergraduate degree in Education at Honours level but those who have undertaken a Master degree in Education by coursework with superior results may be eligible for admission.

Program Objectives and Learning Outcomes

Students who complete the Master of Education by Research program will be competent to carry out research in their chosen area and to advise others on research matters.

Program Structure

Candidates are required to complete three coursework components relevant to their area of research and a thesis. The coursework components are selected after consultation with the supervisor. The program takes two years full-time or four years part-time. Courses offered by the School of Education in 2006 are:

EDST5101	Introduction to Design and Analysis	S1
EDST5103	Multivariate Design and Analysis	S2
EDST5120	Qualitative Research Methodology	S1
EDST5201	Philosophical Issues in Education	S2
EDST5204	History and Philosophy in Science Education	S2
EDST5303	Human Cognitive Architecture	S1
EDST5306	Child Growth and Development	S1
EDST5307	Mental Processes and Instructional Procedures	S2
EDST5314	Stress Management Research and Practice in the Workplace	S1
EDST5320	Individual Differences and Education	S1
EDST5321	Motivation in Educational Settings	S2
EDST5323	Psycholinguistics	S1
EDST5324	Research in Technology and Language Skills	S2
EDST5432	Administrative & Organisational Behaviour	S2
EDST5433	Organisation Theory in Education	S1
EDST5436	Development and Evaluation of Educational Programs	S1
EDST5438	Leadership Theory, Research and Practice	S2
EDST5445	Supervised Fieldwork	S1 & S2
EDST5450	Work Motivation in Educational and Training Organisations	S1
EDST5451	Politics of Education	S2
EDST5607	Research on the Teaching and Learning of Mathematics	S2
EDST5608	Effective Teaching and Effective Schools	S2
EDST5800	Current Issues in the Education of Intellectually Gifted Children	S1 & S2
EDST5803	Development and Evaluation of Educational Programs for Intellectually Gifted Children	S2
EDST5806	Catering for the Effective Needs of Intellectually Gifted Children	S1
EDST5888	Project	X1 & S1 & X2 & S2

Optional courses for Postgraduate Research students in the Faculty of Arts and Social Sciences:

Interdisciplinary Faculty Courses

ARTS5020	Oral History and the Interview
ARTS5021	Medicine, the Body and Society
ARTS5022	Qualitative Research Methods
ARTS5023	Quantitative Social Analysis
ARTS5024	Thesis Writing for Arts and Social Sciences Research Students
ARTS5026	Theories of Community and Difference
ARTS5027	Utopianism
ARTS5028	The Mechanisms and Traumas of Social Change
ARTS5060	Developing a Research Proposal

Master of Education by Research in Applied Linguistics

Coordinators:
John McCormick, Email: j.mccormick@unsw.edu.au
Barbara Mullock, Email: b.mullock@unsw.edu.au

This is a cross-disciplinary program (program **2354**, plan code **EDSTNR2354**) run by the School of Education and the Department of Linguistics. Students are required to complete a 30,000 word thesis (which may be supervised in either the School of Education or the Department of Linguistics depending on the topic and available expertise) and to take three courses, as follows: one compulsory course on research methods, plus two electives (one from Linguistics and one from Education).

Compulsory Course on Research Methods

Either		
EDST5101	Introduction to Design and Analysis	S1
or		
EDST5120	Qualitative Research Methodology	S1

Elective Courses in Linguistics

LING5000	Special Project in Applied Linguistics	S1 & S2
LING5001	Second Language Acquisition	S1 & S2
LING5002	Language Teaching Methodology	S1 & S2
LING5003	Testing and Evaluation	S1 & S2
LING5004	Curriculum Design	S1 & S2
LING5005	The Structure of English	S1
LING5007	Translation: Theory and Practice	S2
LING5011	Functional Grammar	S2
LING5012	Language and Mind	S2
LING5015	Functional Discourse Analysis	S1
LING5020	Adult Language Learning and Teaching	S1
LING5021	Language for Specific Purposes	S2
LING5023	Analysing Spoken Discourse	S1

Elective Courses in Education

Students may choose any one of the Master of Education courses offered in the School of Education.

Academic Rules

1. The degree of Master of Education by Research may be awarded by the Council on the recommendation of the Research Committee of the Faculty of Arts and Social Sciences (hereinafter referred to as the Committee) to a candidate who has satisfactorily completed a program of advanced study.

Qualifications

2. (1) A candidate for the degree shall:

(a) have been awarded an appropriate degree of Bachelor with Honours from the University of New South Wales at a standard not below Honours Class 2 or a qualification considered equivalent from another university or tertiary institution; *or*

(b) have been awarded an appropriate award of Graduate Certificate at an average of Distinction from the University of New South Wales or a qualification considered equivalent from another university or tertiary institution; *or*

(c) have had at least two years professional experience of a kind acceptable to the Committee AND have been awarded an appropriate degree of

Bachelor from the University of New South Wales or a qualification considered equivalent from another university or tertiary institution, *and*

(i) satisfy the Committee that the qualification is at a level and of a character indicating research potential; *or*

(ii) submit other evidence satisfying the Committee of their research potential.

(2) In exceptional cases an applicant who submits evidence of such other academic and professional qualifications as may be approved by the Committee may be permitted to enrol for the degree.

(3) If the Committee is not satisfied with the qualifications submitted by an applicant, the Committee may require the applicant to undergo such assessment or carry out such work as the Committee may prescribe, before permitting enrolment.

Enrolment and Progression

3. (1) An application to enrol as a candidate for the degree shall be made on the prescribed form which shall be lodged with the Registrar at least two calendar months before the commencement of the session in which enrolment is to begin.

(2) To qualify for the award of the degree a candidate shall:

(a) undertake such formal courses and pass such assessment as prescribed;

(b) obtain 24 units of credit in approved coursework; and

(c) 24 units of credit for a thesis proposal;

(d) 48 units of credit through the submission of a thesis or project report demonstrating the capacity to conduct, under supervision, an original investigation on an approved topic;

(e) the research thesis or project report shall be completed in no fewer than two and no more than four sessions for a full-time candidate, or no fewer than four and no more than eight sessions in the case of a part-time candidate.

(3) No candidate shall be awarded the degree until the lapse of a minimum of three academic sessions from the date of enrolment in the case of a full-time candidate or six sessions in the case of a part-time candidate.

Examination

4.There shall be not fewer than two examiners of the thesis or project report, at least one of whom shall be external to the University unless the Committee is satisfied that this is not practicable.

Fees

5. A candidate shall pay such fees as may be determined from time to time by the Council.

2355 Master of Educational Administration by Research

MEdAdmin

Typical Duration
2 years

Minimum UOC for Award
96 units of credit

Typical UOC per Session
24 units of credit

Coordinator: John McCormick
Email: j.mccormick@unsw.edu.au

Program Description

The Master of Educational Administration by Research is suited to the needs of professionals requiring some further research training and experience who are unable to devote the three or more years required to complete a PhD program. Candidates would normally have completed an undergraduate degree at Honours level but those who have undertaken a Master degree in Educational Administration by coursework with superior results may be eligible for admission.

Program Objectives and Learning Outcomes

Students who complete the Master of Educational Administration by Research program will be competent to carry out research in their chosen area.

Program Structure

Candidates are required to complete three coursework components relevant to their area of research and a thesis. The coursework components are selected after consultation with the supervisor. The program takes two years full-time or four years part-time. Courses offered by the School of Education in 2006 are:

EDST5101	Introduction to Design and Analysis	S1
EDST5103	Multivariate Design and Analysis	S2
EDST5120	Qualitative Research Methodology	S1
EDST5201	Philosophical Issues in Education	S2
EDST5204	History and Philosophy in Science Education	S2
EDST5303	Human Cognitive Architecture	S1
EDST5306	Child Growth and Development	S1
EDST5307	Mental Processes and Instructional Procedures	S2
EDST5314	Stress Management Research and Practice in the Workplace	S1
EDST5320	Individual Differences and Education	S1
EDST5321	Motivation in Educational Settings	S2
EDST5323	Psycholinguistics	S1
EDST5324	Research in Technology and Language Skills	S2
EDST5432	Administrative & Organisational Behaviour	S2
EDST5433	Organisation Theory in Education	S1
EDST5436	Development and Evaluation of Educational Programs	S1
EDST5438	Leadership Theory, Research and Practice	S2
EDST5445	Supervised Fieldwork	S1 & S2
EDST5450	Work Motivation in Educational and Training Organisations	S1
EDST5451	Politics of Education	S2
EDST5607	Research on the Teaching and Learning of Mathematics	S2
EDST5608	Effective Teaching and Effective Schools	S2
EDST5800	Current Issues in the Education of Intellectually Gifted Children	S1 & S2
EDST5803	Development and Evaluation of Educational Programs for Intellectually Gifted Children	S2
EDST5806	Catering for the Effective Needs of Intellectually Gifted Children	S1
EDST5888	Project	X1 & S1 & X2 & S2

Optional courses for Postgraduate Research students in the Faculty of Arts and Social Sciences:

Interdisciplinary Faculty Courses

ARTS5020	Oral History and the Interview
ARTS5021	Medicine, the Body and Society
ARTS5022	Qualitative Research Methods
ARTS5023	Quantitative Social Analysis
ARTS5024	Thesis Writing for Arts and Social Sciences Research Students
ARTS5026	Theories of Community and Difference
ARTS5027	Utopianism
ARTS5028	The Mechanisms and Traumas of Social Change
ARTS5060	Developing a Research Proposal

Academic Rules

1. The degree of Master of Educational Administration by Research may be awarded by the Council on the recommendation of the Research Committee of the Faculty of Arts and Social Sciences (hereinafter referred to as the Committee) to a candidate who has satisfactorily completed a program of advanced study.

Qualifications

2. (1) A candidate for the degree shall:

(a) have been awarded an appropriate degree of Bachelor with Honours from the University of New South Wales at a standard not below Honours Class 2 or a qualification considered equivalent from another university or tertiary institution; *or*

(b) have been awarded an appropriate award of Graduate Certificate at an average of Distinction from the University of New South Wales or a qualification considered equivalent from another university or tertiary institution; *or*

(c) have had at least two years professional experience of a kind acceptable to the Committee AND have been awarded an appropriate degree of Bachelor from the University of New South Wales or a qualification considered equivalent from another university or tertiary institution, *and*

(i) satisfy the Committee that the qualification is at a level and of a character indicating research potential; *or*

(ii) submit other evidence satisfying the Committee of their research potential.

(2) In exceptional cases an applicant who submits evidence of such other academic and professional qualifications as may be approved by the Committee may be permitted to enrol for the degree.

(3) If the Committee is not satisfied with the qualifications submitted by an applicant, the Committee may require the applicant to undergo such assessment or carry out such work as the Committee may prescribe, before permitting enrolment.

Enrolment and Progression

3. (1) An application to enrol as a candidate for the degree shall be made on the prescribed form which shall be lodged with the Registrar at least two calendar months before the commencement of the session in which enrolment is to begin.

(2) To qualify for the award of the degree a candidate shall:

(a) undertake such formal courses and pass such assessment as prescribed;

(b) obtain 24 units of credit in approved coursework; and

(c) 24 units of credit for a thesis proposal;

(d) 48 units of credit through the submission of a thesis or project report demonstrating the capacity to conduct, under supervision, an original investigation on an approved topic;

(e) the research thesis or project report shall be completed in no fewer than two and no more than four sessions for a full-time candidate, or no fewer than four and no more than eight sessions in the case of a part-time candidate.

(3) No candidate shall be awarded the degree until the lapse of a minimum of three academic sessions from the date of enrolment in the case of a full-time candidate or six sessions in the case of a part-time candidate.

Examination

4.There shall be not fewer than two examiners of the thesis or project report, at least one of whom shall be external to the University unless the Committee is satisfied that this is not practicable.

Fees

5. A candidate shall pay such fees as may be determined from time to time by the Council.

2356 Master of Music by Research

MMus

Typical Duration
2 years

Minimum UOC for Award
96 units of credit

Typical UOC per Session
24 units of credit

Coordinator: Dr Christine Logan
Email: c.logan@unsw.edu.au

Program Description

The Master of Music by Research degree program involves the completion of three courses, a thesis proposal and a research thesis or project. The degree is completed in four sessions (full-time). It is designed for students wishing to engage in serious research but not able to devote the three years required to complete a PhD or with a research project which does not lend itself to that level of extended treatment. Clear indication of potential to undertake research is required, either through a relevant Honours degree or through a period of professional work following a relevant undergraduate degree.

Program Objectives and Learning Outcomes

The Master of Music by Research degree program is designed for students wishing to engage in serious research and students who complete the program will be competent to carry out research in their chosen area.

Program Structure

A full-time student in the program would normally enrol in three coursework courses (in consultation with their supervisor) in the first session of study. The second session of study involves the completion of a thesis proposal.

Year 2 of study concentrates on the completion of a 30,000 word thesis.

Optional courses for Postgraduate Research students in Music, 2006:

MUSC5120	Psychology of Music Teaching and Learning
MUSC5122	Research in Music Education
MUSC5132	Musical Beliefs: Contemporary and Ancient
MUSC5135	Bach and the Baroque
MUSC5136	Music, Musicology and Imperial Encounter
MUSC5137	Western Art Musics and Popular Musics

Special programs in Music (consult School of Music and Music Education)

Optional courses for Postgraduate Research students in the Faculty of Arts and Social Sciences:

Interdisciplinary Faculty Courses

ARTS5020	Oral History and the Interview
ARTS5021	Medicine, the Body and Society
ARTS5022	Qualitative Research Methods
ARTS5023	Quantitative Social Analysis
ARTS5024	Thesis Writing for Arts and Social Sciences Research Students
ARTS5026	Theories of Community and Difference
ARTS5027	Utopianism
ARTS5028	The Mechanisms and Traumas of Social Change
ARTS5060	Developing a Research Proposal

Academic Rules

1. The degree of Master of Music by Research may be awarded by the Council on the recommendation of the Research Committee of the Faculty of Arts and Social Sciences (hereinafter referred to as the Committee) to a candidate who has satisfactorily completed a program of advanced study.

Qualifications

2. (1) A candidate for the degree shall:

(a) have been awarded an appropriate degree of Bachelor with Honours from the University of New South Wales at a standard not below Honours Class 2 or a qualification considered equivalent from another university or tertiary institution; *or*

(b) have been awarded an appropriate award of Graduate Certificate at an average of Distinction from the University of New South Wales or a qualification considered equivalent from another university or tertiary institution; *or*

(c) have had at least two years professional experience of a kind acceptable to the Committee AND have been awarded an appropriate degree of Bachelor from the University of New South Wales or a qualification considered equivalent from another university or tertiary institution, *and*

(i) satisfy the Committee that the qualification is at a level and of a character indicating research potential; *or*

(ii) submit other evidence satisfying the Committee of their research potential.

(2) In exceptional cases an applicant who submits evidence of such other academic and professional qualifications as may be approved by the Committee may be permitted to enrol for the degree.

(3) If the Committee is not satisfied with the qualifications submitted by an applicant, the Committee may require the applicant to undergo such assessment or carry out such work as the Committee may prescribe, before permitting enrolment.

Enrolment and Progression

3. (1) An application to enrol as a candidate for the degree shall be made on the prescribed form which shall be lodged with the Registrar at least two calendar months before the commencement of the session in which enrolment is to begin.

(2) To qualify for the award of the degree a candidate shall:

(a) undertake such formal courses and pass such assessment as prescribed;

(b) obtain 24 units of credit in approved coursework; and

(c) 24 units of credit for a thesis proposal;

(d) 48 units of credit through the submission of a thesis or project report demonstrating the capacity to conduct, under supervision, an original investigation on an approved topic;

(e) the research thesis or project report shall be completed in no fewer than two and no more than four sessions for a full-time candidate, or no fewer than four and no more than eight sessions in the case of a part-time candidate.

(3) No candidate shall be awarded the degree until the lapse of a minimum of three academic sessions from the date of enrolment in the case of a full-time candidate or six sessions in the case of a part-time candidate.

Examination

4.There shall be not fewer than two examiners of the thesis or project report, at least one of whom shall be external to the University unless the Committee is satisfied that this is not practicable.

Fees

5. A candidate shall pay such fees as may be determined from time to time by the Council.

Further Information

Successful completion may be used as an entry path to PhD study.

2357 Master of Music Education by Research

MMusEd

Typical Duration
2 years

Minimum UOC for Award
96 units of credit

Typical UOC per Session
24 units of credit

Coordinator: Associate Professor Robert Walker
Email: aw@unsw.edu.au

Program Description

The Master of Music Education by Research degree program involves the completion of three courses, a thesis proposal and a research thesis or project. The degree is completed in four sessions (full-time). It is designed for students wishing to engage in serious research but not able to devote the three years required to complete a PhD or with a research project which does not lend itself to that level of extended treatment. Clear indication of potential to undertake research is required, either through a relevant Honours degree or through a period of professional work following a relevant undergraduate degree.

Program Objectives and Learning Outcomes

The Master of Music Education by Research degree program is designed for students wishing to engage in serious research and students who complete the program will be competent to carry out research in their chosen area.

Program Structure

A full-time student in the program would normally enrol in three coursework courses (in consultation with their supervisor) in the first session of study. The second session of study involves the completion of a thesis proposal.

Year 2 of study concentrates on the completion of a 30,000 word thesis.

Optional courses for Postgraduate Research students in Music, 2006:

MUSC5120	Psychology of Music Teaching and Learning
MUSC5122	Research in Music Education
MUSC5132	Musical Beliefs: Contemporary and Ancient
MUSC5135	Bach and the Baroque
MUSC5136	Music, Musicology and Imperial Encounter
MUSC5137	Western Art Musics and Popular Musics

Special programs in Music (consult School of Music and Music Education)

Optional courses for Postgraduate Research students in the Faculty of Arts and Social Sciences:

Interdisciplinary Faculty Courses

ARTS5020	Oral History and the Interview
ARTS5021	Medicine, the Body and Society
ARTS5022	Qualitative Research Methods
ARTS5023	Quantitative Social Analysis
ARTS5024	Thesis Writing for Arts and Social Sciences Research Students
ARTS5026	Theories of Community and Difference
ARTS5027	Utopianism
ARTS5028	The Mechanisms and Traumas of Social Change
ARTS5060	Developing a Research Proposal

Academic Rules

1. The degree of Master of Music Education by Research may be awarded by the Council on the recommendation of the Research Committee of the Faculty of Arts and Social Sciences (hereinafter referred to as the Committee) to a candidate who has satisfactorily completed a program of advanced study.

Qualifications

2. (1) A candidate for the degree shall:

(a) have been awarded an appropriate degree of Bachelor with Honours from the University of New South Wales at a standard not below Honours Class 2 or a qualification considered equivalent from another university or tertiary institution; *or*

(b) have been awarded an appropriate award of Graduate Certificate at an average of Distinction from the University of New South Wales or a qualification considered equivalent from another university or tertiary institution; *or*

(c) have had at least two years professional experience of a kind acceptable to the Committee AND have been awarded an appropriate degree of Bachelor from the University of New South Wales or a qualification considered equivalent from another university or tertiary institution, *and*

(i) satisfy the Committee that the qualification is at a level and of a character indicating research potential; *or*

(ii) submit other evidence satisfying the Committee of their research potential.

(2) In exceptional cases an applicant who submits evidence of such other academic and professional qualifications as may be approved by the Committee may be permitted to enrol for the degree.

(3) If the Committee is not satisfied with the qualifications submitted by an applicant, the Committee may require the applicant to undergo such assessment or carry out such work as the Committee may prescribe, before permitting enrolment.

Enrolment and Progression

3. (1) An application to enrol as a candidate for the degree shall be made on the prescribed form which shall be lodged with the Registrar at least two calendar months before the commencement of the session in which enrolment is to begin.

(2) To qualify for the award of the degree a candidate shall:

(a) undertake such formal courses and pass such assessment as prescribed;

(b) obtain 24 units of credit in approved coursework; and

(c) 24 units of credit for a thesis proposal;

(d) 48 units of credit through the submission of a thesis or project report demonstrating the capacity to conduct, under supervision, an original investigation on an approved topic;

(e) the research thesis or project report shall be completed in no fewer than two and no more than four sessions for a full-time candidate, or no fewer than four and no more than eight sessions in the case of a part-time candidate.

(3) No candidate shall be awarded the degree until the lapse of a minimum of three academic sessions from the date of enrolment in the case of a full-time candidate or six sessions in the case of a part-time candidate.

Examination

4.There shall be not fewer than two examiners of the thesis or project report, at least one of whom shall be external to the University unless the Committee is satisfied that this is not practicable.

Fees

5. A candidate shall pay such fees as may be determined from time to time by the Council.

Further Information

Successful completion may be used as an entry path to PhD study.

2358 Master of Social Science by Research

MSocSc

Typical Duration
2 years

Minimum UOC for Award
96 units of credit

Typical UOC per Session
24 units of credit

Coordinator: Dr Alan Morris
Email: a.morris@unsw.edu.au
Website: http://slsp.arts.edu.au/courses_study/postgraduate_research.html

Program Description

The Master of Social Science by Research degree program involves the completion of three courses, a thesis proposal and a research thesis or project. The degree is completed in either three or four sessions (full-time). It is designed for students wishing to engage in serious research but not able to devote the three years required to complete a PhD or with a research project which does not lend itself to that level of extended treatment. Clear indication of potential to undertake research is required, either through a relevant Honours degree or through a period of professional work following a relevant undergraduate degree.

Program Objectives and Learning Outcomes

The Master of Social Science by Research degree program is designed for students wishing to engage in serious research and students who complete the program will be competent to carry out research in their chosen area.

Program Structure

A full-time student in the program would normally enrol in three coursework courses (in consultation with their supervisor) in the first session of study. The second session of study involves the completion of a thesis proposal.

Year 2 of study concentrates on the completion of a 30,000 word thesis.

Optional courses for Postgraduate Research students in the Faculty of Arts and Social Sciences:

Interdisciplinary Faculty Courses

ARTS5020	Oral History and the Interview
ARTS5021	Medicine, the Body and Society
ARTS5022	Qualitative Research Methods
ARTS5023	Quantitative Social Analysis
ARTS5024	Thesis Writing for Arts and Social Sciences Research Students
ARTS5026	Theories of Community and Difference
ARTS5027	Utopianism
ARTS5028	The Mechanisms and Traumas of Social Change
ARTS5060	Developing a Research Proposal

Academic Rules

1. The degree of Master of Social Science by Research may be awarded by the Council on the recommendation of the Research Committee of the Faculty of Arts and Social Sciences (herein after referred to as the Committee) to a candidate who has satisfactorily completed a program of advanced study.

Qualifications

2. (1) A candidate for the degree shall:

(a) have been awarded an appropriate degree of Bachelor with Honours from the University of New South Wales at a standard not below Honours Class 2 or a qualification considered equivalent from another university or tertiary institution; *or*

(b) have been awarded an appropriate award of Graduate Certificate at an average of Distinction from the University of New South Wales or a qualification considered equivalent from another university or tertiary institution; *or*

(c) have had at least two years professional experience of a kind acceptable to the Committee AND have been awarded an appropriate degree of Bachelor from the University of New South Wales or a qualification considered equivalent from another university or tertiary institution, *and*

(i) satisfy the Committee that the qualification is at a level and of a character indicating research potential; *or*

(ii) submit other evidence satisfying the Committee of their research potential.

(2) In exceptional cases an applicant who submits evidence of such other academic and professional qualifications as may be approved by the Committee may be permitted to enrol for the degree.

(3) If the Committee is not satisfied with the qualifications submitted by an applicant, the Committee may require the applicant to undergo such assessment or carry out such work as the Committee may prescribe, before permitting enrolment.

Enrolment and Progression

3. (1) An application to enrol as a candidate for the degree shall be made on the prescribed form which shall be lodged with the Registrar at least two calendar months before the commencement of the session in which enrolment is to begin.

(2) To qualify for the award of the degree a candidate shall:

(a) undertake such formal courses and pass such assessment as prescribed;

(b) obtain 24 units of credit in approved coursework; and

(c) 24 units of credit for a thesis proposal;

(d) 48 units of credit through the submission of a thesis or project report demonstrating the capacity to conduct, under supervision, an original investigation on an approved topic;

(e) the research thesis or project report shall be completed in no fewer than two and no more than four sessions for a full-time candidate, or no fewer than four and no more than eight sessions in the case of a part-time candidate.

(3) No candidate shall be awarded the degree until the lapse of a minimum of three academic sessions from the date of enrolment in the case of a full-time candidate or six sessions in the case of a part-time candidate.

Examination

4.There shall be not fewer than two examiners of the thesis or project report, at least one of whom shall be external to the University unless the Committee is satisfied that this is not practicable.

Fees

5. A candidate shall pay such fees as may be determined from time to time by the Council.

Further Information

Successful completion may be used as an entry path to PhD study.

2970 Master of Social Work by Research

MSW

Typical Duration
2 years

Minimum UOC for Award
96 units of credit

Typical UOC per Session
24 units of credit

Program Description

For the award of MSW by Research a candidate is required to demonstrate his or her ability to undertake research by the submission of a thesis embodying the results of an original investigation.

Applicants are normally required to have a BSW from UNSW or equivalent and have had at least two years professional experience. Applications are also considered from those with an appropriate degree at an acceptable level and with two years' work experience in the human services.

Program Objectives and Learning Outcomes

The Master of Social Work by Research degree program is designed for students wishing to engage in serious research and students who complete the program will be competent to carry out research in their chosen area.

Program Structure

Students may be enrolled full-time or part-time; internal or external. Full-time students have between 1 to 2 years, and part-time students have between 1 to 3 years to complete the degree. Each student has a supervisor, and progress is reviewed annually.

The program requires research by the submission of a thesis.

Academic Rules

1. The degree of Master of Social Work by Research may be awarded by the Council on the recommendation of the Research Committee of the Faculty of Arts and Social Sciences (hereinafter referred to as the Committee) to a candidate who has demonstrated ability to undertake research by the submission of a thesis embodying the results of an original investigation.

Qualifications

2. (1) A candidate for the degree shall:

(a) have been awarded the degree of Bachelor of Social Work from the University of New South Wales or a qualification considered equivalent

from another university or tertiary institution at a level acceptable to the Committee; and

(b) have had at least two years' professional experience of a kind acceptable to the Committee;

or

(a) have been awarded an appropriate degree at a level acceptable to the Committee;

(b) have had at least two years' work experience in the human services of a kind acceptable to the Committee.

(2) In exceptional cases an applicant who submits evidence of such other academic and professional qualifications as may be approved by the Committee may be permitted to enrol for the degree.

(3) If the Committee is not satisfied with the qualifications submitted by an applicant the Committee may require the applicant to undergo such assessment or carry out such work as the Committee may prescribe, before permitting enrolment.

Enrolment and Progression

3. (1) An application to enrol as a candidate for the degree shall be made on the prescribed form which shall be lodged with the Registrar at least two calendar months before the commencement of the session in which enrolment is to begin.

(2) In every case, before permitting a candidate to enrol, the Head of the School of Social Work shall be satisfied that adequate supervision and facilities are available.

(3) An approved candidate shall be enrolled in one of the following categories:

(a) full-time attendance at the University;

(b) part-time attendance at the University;

(c) external - not in regular attendance at the University and using research facilities external to the University.

(4) A candidate shall be required to undertake an original investigation on an approved topic and undertake such formal subjects and pass such assessment as prescribed. The candidate is also required to undergo such assessment and perform such other work as is prescribed by the Committee.

(5) The work shall be carried out under the direction of a supervisor appointed from the full-time academic members of the University staff.

(6) The progress of a candidate shall be reviewed annually by the Committee following a report by the candidate, the supervisor and the head of the school and as a result of such review the Committee may cancel enrolment or take such other action as it considers appropriate.

(7) No candidate shall be awarded the degree until the lapse of a minimum of three academic sessions from the date of enrolment in the case of a full-time candidate or six sessions in the case of a part-time or external candidate.

(8) A full-time candidate for the degree shall present for examination not later than four academic sessions from the date of enrolment. A part-time or external candidate for the degree shall present for examination not later than eight academic sessions from the date of enrolment. In special cases an extension of these times may be granted by the Committee.

Thesis

4. (1) On completing the program of study a candidate shall submit a thesis embodying the results of the investigation.

(2) The candidate shall give in writing to the Registrar two months notice of intention to submit the thesis.

(3) The thesis shall present an account of the candidate's own research. In special cases work done conjointly with other persons may be accepted, provided the Committee is satisfied about the extent of the candidate's part in the joint research.

(4) The candidate may also submit any work previously published whether or not such work is related to the thesis.

(5) Three copies of the thesis shall be presented in a form which complies with the requirements of the University for the preparation and submission of theses for higher degrees.

(6) It shall be understood that the University retains the three copies of the thesis submitted for examination and is free to allow the thesis to be consulted or borrowed. Subject to the provisions of the Copyright Act, 1968, the University may issue the thesis in whole or in part, in photostat or microfilm or other copying medium.

Examination

5. (1) There shall be not fewer than two examiners of the thesis, appointed by the Committee, at least one of whom shall be external to the University unless the Committee is satisfied that this is not practicable.

(2) At the conclusion of the examination each examiner shall submit to the Committee a concise report on the thesis and shall recommend to the Committee that:

(a) the candidate be awarded the degree without further examination; or

(b) the candidate be awarded the degree without further examination subject to minor corrections as listed being made to the satisfaction of the head of the school; or

(c) the candidate be awarded the degree subject to a further examination on questions posed in the report, performance in this further examination being to the satisfaction of the Committee; or

(d) the candidate be not awarded the degree but be permitted to resubmit the thesis in a revised form after a further period of study and/or research; or

(e) the candidate be not awarded the degree and be not permitted to resubmit the thesis.

(3) If the performance at the further examination recommended under (2)(c) above is not to the satisfaction of the Committee, the Committee may permit the candidate to re-present the same thesis and submit to further examination as determined by the Committee within a period specified by it but not exceeding eighteen months.

(4) The Committee shall, after consideration of the examiners' reports, the results in the prescribed course of study, and the results of any further examination, recommend whether or not the candidate may be awarded the degree. If it is decided that the candidate be not awarded the degree the Committee shall determine whether or not the candidate may resubmit the thesis after a further period of study and/or research.

Fees

6. A candidate shall pay such fees as may be determined from time to time by the Council.

Program Rules and Information – Coursework Degrees

8225 Master of Arts

MA

Typical Duration
1 year

Minimum UOC for Award
48 units of credit

Typical UOC per Session
24 units of credit

Program Description

The Master of Arts is made up of postgraduate courses that extend and deepen students' existing skills, knowledge and understanding in professionally relevant fields of study, as well as teaching advanced skills in research and analytical thinking. It is equally suitable for people wishing to switch to an academic or professional field different from the one they studied at undergraduate level. The MA can serve as a pathway to higher degree research for students who have not completed a four year BA(Honours) with a research component in the relevant area of study.

Applied Ethics (School of Philosophy)
Asian Studies
Chinese-English Translation and Interpreting
Chinese Studies
Cognitive Science
Creative Writing (School of English)
Development Studies (School of Social Science & Policy)
English
International Relations
Interpreting & Translation Studies (School of Modern Language Studies)
Japanese Applied Linguistics
Korean Applied Linguistics
Linguistics, Applied
Linguistics, TESOL
Media, Performance and Education

Science, Technology & Society (School of History & Philosophy of Science)

For more information about areas of specialisation, please refer to **Plan Rules and Information** in the following section.

Program Objectives and Learning Outcomes

Students studying the Master of Arts degree will extend their existing knowledge or update their skills in a selected area.

Program Structure

Six courses (48 units of credit) within a selected program need to be completed to satisfy the requirements for the award of the degree.

You must enrol in at least one course in each session. Progress will be reviewed at the end of each session, and students who have completed less than 8 units of credit or failed a course may be required to "show cause" why they should be permitted to continue.

For details of plan requirements, please refer to the relevant entry in **Plan Rules and Information** in the following section.

Academic Rules

1. (1) The degree of Master of Arts may be awarded by the Council to a candidate who has satisfactorily completed a program of advanced study.

(2) Candidates may proceed to the degree through part-time or full-time study.

Qualifications

2. (1) A candidate for the degree shall have been awarded an appropriate degree of Bachelor from the University of New South Wales or a qualification considered equivalent from another tertiary institution at a level acceptable to the Standing Committee of the Faculty of Arts and Social Sciences (hereinafter referred to as the Committee).

(2) In exceptional cases, an applicant who submits evidence of such other academic and professional qualifications as may be approved by the Committee may be admitted to candidature for the degree.

(3) If the Committee is not satisfied with the qualifications submitted by an applicant the Committee may require the applicant to undergo such assessment or carry out such work as it may prescribe before permitting enrolment.

Enrolment and Progression

3. (1) An application to enrol as a candidate for the degree shall be made on the prescribed form which shall be lodged with the Registrar at least two calendar months before the commencement of the session in which enrolment is to begin.

(2) To qualify for the award of the degree, candidates must obtain over a period of study of not less than two sessions (full-time) or three sessions (part-time), six courses in one of the majors offered within the Master of Arts program. The maximum period of candidature shall be four academic sessions from the date of enrolment for a full-time candidate and eight sessions for a part-time candidate. In special cases an extension of these times may be granted by the Committee.

(3) A student enrolling in a course must satisfy the prerequisite or corequisite requirements of that course. These requirements may be waived at the discretion of the Head of the School/Department/Unit concerned.

(4) The progress of a candidate shall be reviewed annually by the Committee, and as a result of the review the Committee may cancel enrolment or take such other action as it considers appropriate.

Fees

4. Candidates shall pay such fees as may be determined from time to time by Council.

5225 Graduate Diploma in Arts

GradDipArts

Minimum UOC for Award
32 units of credit

Program Description

The program for the Graduate Diploma in Arts (program **5225**) in the Faculty of Arts and Social Sciences offers the following areas of study:

Applied Ethics (School of Philosophy)
Asian Studies
Chinese-English Translation and Interpreting
Chinese Studies
Cognitive Science
Creative Writing (School of English)
Development Studies (School of Social Science & Policy)
English
International Relations
Interpreting & Translation Studies (School of Modern Language Studies)
Japanese Applied Linguistics
Korean Applied Linguistics
Linguistics, Applied
Linguistics, TESOL
Media, Performance and Education
Philosophy
Science Technology & Society (School of History & Philosophy of Science)

For more information about areas of specialisation, please refer to **Plan Rules and Information** in the following section.

Program Objectives and Learning Outcomes

The Graduate Diploma is made up of postgraduate courses that extend and deepen students' existing skills, knowledge and understanding in professionally relevant fields of study, as well as teaching advanced skills in research and analytical thinking. It is equally suitable for people wishing to switch to an academic or professional field different from the one they studied at undergraduate level. The Diploma can serve as a pathway to higher degree research for students who have not completed a four year BA (Honours) degree with a research component in the relevant area of study.

Program Structure

The Graduate Diploma in Arts is available in a number of disciplines. Students are required to enrol in one of the programs and to complete four courses from the listed options.

For more information about areas of specialisation, please refer to **Plan Rules and Information** in the following section.

The minimum period of enrolment for the Graduate Diploma is two sessions. The maximum period of enrolment is four sessions. You must enrol in at least one course each session. Progress will be reviewed at the end of each session and students who have completed less than 8 units of credit or failed a course may be required to "show cause" why they should be permitted to continue.

Academic Rules

1. (1) The Graduate Diploma in Arts may be awarded by the Council to a candidate who has satisfactorily completed a program of advanced study.

(2) Candidates may proceed to the Graduate Diploma through part-time or full-time study.

Qualifications

2. (1) A candidate for the Graduate Diploma shall have been awarded an appropriate degree of Bachelor from the University of New South Wales or a qualification considered equivalent from another university or tertiary institution at a level acceptable to the Standing Committee of the Faculty of Arts and Social Sciences (hereinafter referred to as the Committee).

(2) In exceptional cases, an applicant who submits evidence of such other academic or professional qualifications as may be approved by the Committee may be permitted to enrol for the Graduate Diploma.

(3) If the Committee is not satisfied with the qualifications submitted by an applicant the Committee may require the applicant to undergo such assessment or carry out such work as the Committee may prescribe, before permitting enrolment.

Enrolment and Progression

3. (1) An application to enrol as a candidate for the Graduate Diploma shall be made on the prescribed form which shall be lodged with the Registrar at least two calendar months before the commencement of the session in which enrolment is to begin.

(2) To qualify for the award of the Graduate Diploma, candidates must obtain over a period of study of not less than two sessions, four courses in one of the majors offered within the Graduate Diploma in Arts. The maximum period of candidature shall be four academic sessions from the date of enrolment. In special cases an extension of these times may be granted by the Committee.

(3) A student enrolling in a course must satisfy the prerequisite or corequisite requirements in that course, which may include undergraduate

study. These requirements may be waived at the discretion of the Head of the School/Department/Unit concerned.

(4) The progress of a candidate shall be reviewed annually by the Committee and as a result of the review the Committee may cancel enrolment or take such other action as it considers appropriate.

Fees

4. Candidates shall pay such fees as may be determined from time to time by the Council.

7325 Graduate Certificate in Arts

GradCertArts

Minimum UOC for Award
16 units of credit

Program Description

The program for the Graduate Certificate in Arts (program **7325**) in the Faculty of Arts and Social Sciences offers the following areas of study:

Chinese-English Translation and Interpreting
Chinese Studies
Cognitive Science
Creative Writing (School of English)
Development Studies (School of Social Science & Policy)
English
Environmental Policy
International Relations
Interpreting (School of Modern Language Studies)
Japanese Applied Linguistics
Korean Applied Linguistics
Linguistics, Applied
Linguistics, TESOL
Science, Technology & Society (School of History & Philosophy of Science)
Translation (School of Modern Language Studies)

For more information about areas of specialisation, please refer to **Plan Rules and Information** in the following section..

Program Objectives and Learning Outcomes

The Graduate Certificate is made up of postgraduate courses that extend and deepen students' existing skills, knowledge and understanding in professionally relevant fields of study, as well as teaching advanced skills in research and analytical thinking. It is equally suitable for people wishing to switch to an academic or professional field different from the one they studied at undergraduate level. The Graduate Certificate can serve as a pathway to higher degree research for students who have not completed a four year BA(Honours) with a research component in the relevant area of study.

Program Structure

The Graduate Certificate in Arts is available in a number of disciplines. Students are required to enrol in one of the areas of study and to complete two courses from the listed options.

For more information about areas of specialisation, please refer to **Plan Rules and Information** in the following section..

The minimum period of enrolment is one session and the maximum period three sessions. You must enrol in at least one course in each session.

Academic Rules

1. The Graduate Certificate in Arts may be awarded by the Council to a candidate who has satisfactorily completed a program of advanced study.

Qualifications

2. (1) A candidate for the Graduate Certificate shall have been awarded an appropriate degree of Bachelor from the University of New South Wales or a qualification considered equivalent from another university or tertiary institution at a level acceptable to the Standing Committee of the Faculty of Arts and Social Sciences (hereinafter referred to as the Committee).

(2) In exceptional cases, an applicant who submits evidence of such other academic or professional qualifications as may be approved by the Committee may be permitted to enrol for the Graduate Certificate.

(3) If the Committee is not satisfied with the qualifications submitted by an applicant, the Committee may require the applicant to undergo such assessment or carry out such work as the Committee may prescribe, before permitting enrolment.

Enrolment and Progression

3. (1) An application to enrol as a candidate for the Graduate Certificate shall be made on the prescribed form which shall be lodged with the Registrar at least two calendar months before the commencement of the session in which enrolment is to begin.

(2) To qualify for the award of the Graduate Certificate, candidates must obtain over a period of study of no less than one session, two courses offered within the Graduate Certificate program. The maximum period of candidature shall be three academic sessions from the date of enrolment. In special cases an extension of the times may be granted by the Committee.

(3) A student enrolling in a course must satisfy the prerequisite or corequisite requirements in that course. These requirements may be waived at the discretion of the Head of the School/Department/Unit concerned.

(4) The progress of a candidate shall be reviewed annually by the Committee and as a result of the review the Committee may cancel enrolment or take such other action as it considers appropriate.

Fees

4. Candidates shall pay such fees as may be determined from time to time by the Council.

8228 Master of Arts in Couple and Family Therapy

MA

Typical Duration
2 years (only offered on a part-time basis)

Minimum UOC for Award
48 units of credit

Coordinator: Carmel Flaskas, School of Social Work
Email: c.flaskas@unsw.edu.au

Program Description

The MA in Couple and Family Therapy is a 2-year part-time program taught jointly by the School of Social Work and the clinical training organisation Relationships Australia (NSW).

Students enrol for first year courses in the Masters Articulation Program at Relationships Australia (NSW), and complete the second year courses at UNSW.

Please note that the intake for this program occurs every 2nd year.

Program Objectives and Learning Outcomes

The Masters program is an interdisciplinary clinical training program that prepares counselling professionals for specialist practice in the field of couple and family therapy. The program of study emphasises theory and clinical studies in couple and family therapy and research issues related to this field.

Program Structure

Students are required to complete 6 courses (48 units of credit) over 2 years.

Year 1 - Masters Articulation Program at Relationships Australia

Session 1

SOCF5001	Theory of Couple & Family Therapy	4 UOC
SOCF5002	Clinical Studies A	8 UOC

Session 2

SOCF5003	Clinical Studies B	12 UOC

Year 2 - UNSW

Session 1

SOCF5004	Contemporary Theory Issues 8 UOC	
SOCF5005	Research Issues	4 UOC

Session 2

SOCF5006	Clinical Studies C	12 UOC

Note: Some courses are subject to prerequisite and corequisite requirements. All courses are dependent on staff availability and student enrolments.

Admission Requirements

Admission is limited and competitive; the selection process uses both written applications and interviews. Applications close at the end of

October in the year preceding a scheduled intake. Admission requirements include an approved Bachelor degree, professional training and two years professional experience in counselling.

8910 Master of Education

MEd

Typical Duration
1 year

Minimum UOC for Award
48 units of credit

Typical UOC per Session
24 units of credit

Coordinator: Putai Jin
Email: p.jin@unsw.edu.au

Program Description

The one-year Master of Education degree is designed for educationalists who wish to study education at an advanced level to enhance their professional development. The program is suitable for teachers, trainers in industry and commerce, adult educators and other professionals, but does not provide a qualification in pre-service education.

The program offers two areas of specialisation: Education and Applied Linguistics.

Program Objectives and Learning Outcomes

By the end of the program, candidates of the Master of Education degree can expect to have gained substantial knowledge and a range of skills related to the field of education.

Program Structure

Specialisation in Education (program **8910**, plan code **EDSTAS8910**)

The degree (program **8910**, plan code **EDSTAS8910**) consists of courses to the value of 48 units of credit (normally six courses). Students may choose some courses from the Master of Educational Administration program and may, with the approval of the Head of School, select Master's level courses to the value of 16 units of credit (normally 2 courses) from those offered by other schools in the Faculty or by any faculty within the University of New South Wales, or may receive credit for courses of comparable standard successfully completed within UNSW or another recognised institution.

Elective Courses in Education

EDST5101	Introduction to Design and Analysis	S1
EDST5103	Multivariate Design and Analysis	S2
EDST5120	Qualitative Research Methodology	S1
EDST5201	Philosophical Issues in Education	S2
EDST5204	History and Philosophy in Science Education	S2
EDST5303	Human Cognitive Architecture	S1
EDST5306	Child Growth and Development	S1
EDST5307	Mental Processes and Instructional Procedures	S2
EDST5314	Stress Management Research and Practice in the Workplace	S1
EDST5320	Individual Differences and Education	S1
EDST5321	Motivation in Educational Settings	S2
EDST5323	Psycholinguistics	S1
EDST5324	Research in Technology and Language Skills	S2
EDST5432	Administrative & Organisational Behaviour	S2
EDST5433	Organisation Theory in Education	S1
EDST5436	Development and Evaluation of Educational Programs	S1
EDST5438	Leadership Theory, Research and Practice	S2
EDST5445	Supervised Fieldwork in Educational Administration	S1 & S2
EDST5450	Work Motivation in Educational and Training Organisations	S1
EDST5451	Politics of Education	S2
EDST5607	Research on the Learning and Teaching of Mathematics	S2
EDST5608	Effective Teaching and Effective Schools	S2
EDST5800	Current Issues in the Education of Intellectually Gifted Children	S1 & S2
EDST5803	Development and Evaluation of Educational Programs for Intellectually Gifted Children	S2
EDST5806	Catering for the Affective Needs of Intellectually Gifted Children	S1
EDST5888	Project	X1 & S1 & X2 & S2

Specialisation in Applied Linguistics (program **8910**, plan code **EDSTNS8910**)

Coordinators:
Putai Jin, Email: p.jin@unsw.edu.au
Barbara Mullock, Email: b.mullock@unsw.edu.au

This specialisation (program **8910**, plan code **EDSTNS8910**) is a cross-disciplinary program in Education and Applied Linguistics designed to provide those working or intending to work in TEFL/TESL or TESOL (teachers, curriculum designers, educational administrators, etc.) with a vocationally relevant degree which combines theory and practice. Students are required to complete six courses: LING5020 plus two electives from Linguistics and three electives from Education.

Core Course in Linguistics

LING5020	Adult Language Learning and Teaching	S1

Elective Courses in Linguistics

LING5000	Special Project in Applied Linguistics	S1 & S2
LING5001	Second Language Acquisition	S1 & S2
LING5002	Language Teaching Methodology	S1 & S2
LING5003	Testing and Evaluation	S1 & S2
LING5004	Curriculum Design	S1 & S2
LING5005	The Structure of English	S1
LING5007	Translation: Theory and Practice	S2
LING5011	Functional Grammar	S2
LING5012	Language and Mind	S2
LING5015	Functional Discourse Analysis	S1
LING5021	Language for Specific Purposes	S2
LING5023	Analysing Spoken Discourse	S1

Elective Courses in Education

Students may choose any three of the Master of Education courses offered in the School of Education.

Note: Not all courses are available in any given year. Consult the School for timetable details. Course descriptions may be found in the back of this Handbook.

Academic Rules

1. The degree of Master of Education at Pass level may be awarded by the Council to a candidate who has satisfactorily completed a program of advanced study.

Qualifications

2. (1) A candidate for the degree shall:

(a) have been awarded an appropriate degree of Bachelor from the University of New South Wales or a qualification considered equivalent from another university or tertiary institution at a level acceptable to the Standing Committee of the Faculty of Arts and Social Sciences (hereinafter referred to as the Committee); and

(b)(i) have been awarded a Diploma in Education from the University of New South Wales or a qualification considered equivalent from another university or tertiary institution at a level acceptable to the Committee, or

(ii) have had at least one year's practical experience in an area relevant to the study of education of a kind acceptable to the Committee.

(2) In exceptional cases an applicant who submits evidence of such other academic and professional qualifications as may be approved by the Committee may be permitted to enrol for the degree.

(3) If the Committee is not satisfied with the qualifications submitted by an applicant the Committee may require the applicant to undergo such assessment or carry out such work as the Committee may prescribe, before permitting enrolment.

Enrolment and Progression

3. (1) An application to enrol as a candidate for the degree shall be made on the prescribed form which shall be lodged with the Registrar at least two calendar months before the commencement of the session in which enrolment is to begin.

(2) To qualify for the award of the degree candidates must obtain over a period of study of no less than two sessions (full-time) or three sessions (part-time) 48 units of credit. The maximum period of candidature shall be four academic sessions from the date of enrolment for a full-time candidate and eight sessions for a part-time candidate. In special cases an extension of these times may be granted by the Committee.

(3) A student enrolling in a course must satisfy the prerequisite and corequisite requirements in that course. These requirements may be

waived at the discretion of the Head of the School/Department/Unit concerned.

(4) The progress of a candidate shall be reviewed at least once annually by the Committee and as a result of the review the Committee may cancel enrolment or take such other action as it considers appropriate.

Fees

4. A candidate shall pay such fees as may be determined from time to time by the Council.

Further Information

Entry requirements are a completed Bachelor degree and either teacher education qualifications or at least one year of experience in education or training.

8960 Master of Educational Administration

MEdAdmin

Typical Duration
1 year

Minimum UOC for Award
48 units of credit

Typical UOC per Session
24 units of credit

Coordinator: John McCormick
Email: j.mccormick@unsw.edu.au

Program Description

The Master of Educational Administration degree by coursework (program **8960**, plan code **EDSTCS8960**) is a specialist program designed to equip current and aspiring administrators to manage education at schools and other educational organisations.

Program Objectives and Learning Outcomes

By the end of the program, students should be equipped to manage education at all levels in government and independent schools, school systems, universities, TAFE and other educational and training organisations.

Program Structure

Candidates for the degree are required to take courses to the value of 48 units of credit (6 courses) including one compulsory core course. A minimum of three elective courses must be chosen from those offered in the Master of Educational Administration program. Up to two non-MEd Admin electives may be chosen from the MEd program.

Subject to the discretion of the Head of School, students may choose up to two of their electives (16 units of credit) from Master's level courses offered by other schools in the Faculty of by other faculties within the University of New South Wales.

Compulsory Core Course

EDST5433	Organisation Theory in Education	S1

Elective Courses

EDST5314	Stress Management Research and Practice in the Workplace	S1
EDST5432	Administrative & Organisational Behaviour	S2
EDST5436	Development and Evaluation of Educational Programs	S1
EDST5438	Leadership Theory, Research and Practice	S2
EDST5445	Supervised Fieldwork in Educational Administration	S1 & S2
EDST5450	Work Motivation in Educational and Training Organisations	S1
EDST5451	Politics of Education	S2
EDST5608	Effective Teaching and Effective Schools	S2
EDST5888	Project	X1 & S1 & X2 & S2

Academic Rules

1. The degree of Master of Education at Pass level may be awarded by the Council to a candidate who has satisfactorily completed a program of advanced study.

Qualifications

2. (1) A candidate for the degree shall:

(a) have been awarded an appropriate degree of Bachelor from the University of New South Wales or a qualification considered equivalent from another university or tertiary institution at a level acceptable to the Standing Committee of the Faculty of Arts and Social Sciences (hereinafter referred to as the Committee); and

(b)(i) have been awarded a Diploma in Education from the University of New South Wales or a qualification considered equivalent from another university or tertiary institution at a level acceptable to the Committee, or

(ii) have had at least one year's practical experience in an area relevant to the study of education of a kind acceptable to the Committee.

(2) In exceptional cases an applicant who submits evidence of such other academic and professional qualifications as may be approved by the Committee may be permitted to enrol for the degree.

(3) If the Committee is not satisfied with the qualifications submitted by an applicant the Committee may require the applicant to undergo such assessment or carry out such work as the Committee may prescribe, before permitting enrolment.

Enrolment and Progression

3. (1) An application to enrol as a candidate for the degree shall be made on the prescribed form which shall be lodged with the Registrar at least two calendar months before the commencement of the session in which enrolment is to begin.

(2) To qualify for the award of the degree candidates must obtain over a period of study of no less than two sessions (full-time) or three sessions (part-time) 48 units of credit. The maximum period of candidature shall be four academic sessions from the date of enrolment for a full-time candidate and eight sessions for a part-time candidate. In special cases an extension of these times may be granted by the Committee.

(3) A student enrolling in a course must satisfy the prerequisite and corequisite requirements in that course. These requirements may be waived at the discretion of the Head of the School/Department/Unit concerned.

(4) The progress of a candidate shall be reviewed at least once annually by the Committee and as a result of the review the Committee may cancel enrolment or take such other action as it considers appropriate.

Fees

4. A candidate shall pay such fees as may be determined from time to time by the Council.

5560 Diploma in Education (Secondary)

DipEd

Typical Duration
1 year

Minimum UOC for Award
48 units of credit

Typical UOC per Session
24 units of credit

Coordinator: Dr Paul Ayres, School of Education
Email: p.ayres@unsw.edu.au

Program Description

The Diploma is a one-year program available to graduates of UNSW or other approved universities where their previous studies meet entry prerequisites for the selected specialisation/s. Part-time study is also available.

Teaching Specialisations

The program requires students to study in either one double method (teaching specialisation) or two single method courses. Students must meet entry requirements to undertake their preferred teaching method/s. These prerequisites normally involve at least a major sequence (three consecutive years of study) in the main teaching method and a minor sequence (two years of study) in the second teaching method (if applicable).

Double Method Courses

English
Mathematics
Science

Single Method Courses

English, Literacy/ESL (English as a Second Language)
Drama
History, Geography, Economics/Business Studies, Junior HSIE
French, German, Spanish, Chinese, Japanese
Computing Studies

Students who wish to specialise in Economics/Business Studies only at senior level should also enrol in Junior HSIE.

Prospective Mathematics and Science teachers select only one double method. Prospective English teachers can select English as a double or single method. Other prospective teachers select two single method courses.

Program Objectives and Learning Outcomes

The program is designed to give a professional training to graduate students in secondary school level teacher education.

The Diploma in Education is recognised as a teaching qualification in both government and non-government schools in New South Wales and in most other states in Australia. It is also widely accepted as a qualification overseas.

Program Structure

Students are required to undertake the following compulsory core courses plus two elective courses and appropriate method course/s relevant to the discipline/s in which they anticipate teaching. The methods cover the curriculum and instructional material for Years 7-12.

Core Courses

EDST4093	Special Education	(3 UOC)
EDST4094	Teaching Experience	(15 UOC)
EDST4095	Gifted and Talented Education	(3 UOC)
EDST4092	Computer Skills for Teachers	(3 UOC)

Plus two elective courses and appropriate method course/s.

Note: A block of teaching practice (40 days) is an essential component of the second session.

Full-time students will do two electives in S1 unless they choose EDST2030 in S2; part-time students may choose an elective in S2 provided they are not doing practicum (EDST4094).

Course Descriptions

For details of all courses, please refer to Course Descriptions in the Undergraduate Handbook.

Further Information

Before commencing teaching practice, students will be required to sign the mandatory *Working with Children Check*. It is also a requirement that a check of police records be conducted for all education students applying for employment as a teacher with the NSW Department of Education and Training. Students wishing to be employed by the NSW DET should have their undergraduate degrees assessed by the Department of Education and Training (see **www.det.nsw.edu.au/employment/teachnsw/index.htm**).

8226 Master of Music

MMus

Typical Duration
1 year

Minimum UOC for Award
48 units of credit

Typical UOC per Session
24 units of credit

Coordinator: Dr Christine Logan
Email: c.logan@unsw.edu.au

Program Description

The Master of Music coursework program involves the successful completion of six session-length courses. Courses can be taken in any combination of options. Within these options there is a wide range of topics to cater to most musical vocations. Also, these options can be tailored to meet the special needs of musicians teaching in secondary schools or who are involved in the organisation and direction of musical practice and performance in schools or the community.

Program Objectives and Learning Outcomes

The aim of this program is to give students the opportunity to experience a range of music courses which provide the flexibility to pursue either a musicological, music educational, or ethnomusicological direction. The Master of Music provides students with a broad range of musical knowledge with emphases on their fields of interest. Such interests may lie in the fields of Australian music, music pedagogy, world music, music history and the study of music performance. Courses are presented in both practical and theoretical formats.

Program Structure

The Master of Music coursework program (program **8226**, plan code **MUSCAS8226**) involves the successful completion of six session-length courses. Courses can be taken in any combination of options. Not all options will be available in any given year. Please consult the School for a list. Special programs are also available.

MUSC5120	Psychology of Music Teaching & Learning
MUSC5122	Research in Music Education
MUSC5132	Musical Beliefs: Contemporary and Ancient
MUSC5135	Bach and the Baroque
MUSC5136	Music, Musicology and the Imperial Encounter
MUSC5137	Western Art Musics and Popular Musics

Student may apply to complete a special program including topics in any of the following:

An Ethnomusicological Exploration of Australian Traditional and Popular Music
Challenge of Ethnomusicology
Traditional Australian Aboriginal and Contemporary Australian Music
Renaissance Society in Its Music
Sound Recordings as a Chronicle of Performance Style
Analytic Techniques
Tonal Expansion and Atonality in Music 1900-1920
Creativity in Music
Curriculum in Music Education
Australian Music in the Twentieth Century
Musical Performance: Learning Theory and Pedagogy
Transcription, Notation and Analysis of Non-Western Music
The History of Performing Eighteenth Century Music (Late Baroque/ Classical)
Research in Music Studies
Research in Performance Studies
What's "World" about World Music
Mozart the Dramatist

Enquiries should be directed to the Postgraduate Coordinator.

Academic Rules

1. (1) The degree of Master of Music (MMus) may be awarded by the Council to a candidate who has satisfactorily completed a program of advanced study.

(2) Candidates may proceed to the degree through part-time or full-time study.

Qualifications

2. (1) A candidate for the degree shall have been awarded an appropriate music degree at Bachelor level from the University of New South Wales or a qualification considered equivalent from another university or tertiary institution at a level acceptable to the Standing Committee of the Faculty of Arts and Social Sciences (hereinafter referred to as the Committee).

(2) In exceptional cases, an applicant who submits evidence of such other academic or professional qualifications as may be approved by the Committee may be permitted to enrol for the degree.

(3) If the Committee is not satisfied with the qualifications submitted by an applicant the Committee may require the applicant to undergo such assessment or carry out such work as the Committee may prescribe, before permitting enrolment.

Enrolment and Progression

3. (1) An application to enrol as a candidate for the degree shall be made on the prescribed form which shall be lodged with the Registrar at least two calendar months before the commencement of the session in which enrolment is to begin.

(2) To qualify for the award of the degree, candidates must obtain over a period of study of not less than two sessions (full-time) or four sessions (part-time), six session-length courses in the Master of Music. The maximum period of candidature shall be four academic sessions from the date of enrolment for a full-time candidate and eight sessions for a part-time candidate. In special cases an extension of these times may be granted by the Committee.

(3) A student enrolling in a course must satisfy the prerequisite or corequisite requirements of that course. These requirements may be waived at the discretion of the Head of the School.

(4) The progress of a candidate shall be reviewed annually by the Committee and as a result of the review the Committee may cancel enrolment or take such other action as it considers appropriate.

Fees

4. Candidates shall pay such fees as may be determined from time to time by the Council.

5226 Graduate Diploma in Music

GradDipMus

Minimum UOC for Award
32 units of credit

Coordinator: Dr Christine Logan
Email: c.logan@unsw.edu.au

Program Description

The Graduate Diploma in Music is a two-session part-time program which allows students to undertake courses from the Master of Music program.

Program Objectives and Learning Outcomes

The Graduate Diploma is generally an exit point for those who, for various reasons, are unable to complete the Master's program. Such reasons might include difficulties in coping with the program or a sudden work transfer interstate or overseas. Please state clearly in your initial application your reasons for applying for enrolment in the Graduate Diploma, as preference is given to students enrolling in the Master's program for quota reasons.

Program Structure

Four session-length courses from the Master of Music list are required for the Graduate Diploma in Music (program **5226**, plan code **MUSCAS5226**):

MUSC5120	Psychology of Music Teaching & Learning
MUSC5122	Research in Music Education
MUSC5132	Musical Beliefs: Contemporary and Ancient
MUSC5135	Bach and the Baroque
MUSC5136	Music, Musicology and the Imperial Encounter
MUSC5137	Western Art Musics and Popular Musics

Academic Rules

1. (1) The Graduate Diploma in Music may be awarded by the Council to a candidate who has satisfactorily completed a program of advanced study.

(2) Candidates may proceed to the Graduate Diploma through part-time or full-time study (program 5226).

Qualifications

2. (1) A candidate for the Graduate Diploma shall have been awarded an appropriate music degree at Bachelor level from the University of New South Wales or a qualification considered equivalent from another university or tertiary institution at a level acceptable to the Standing Committee of the Faculty of Arts and Social Sciences (hereinafter referred to as the Committee).

(2) In exceptional cases, an applicant who submits evidence of such other academic and professional qualifications as may be approved by the Committee may be permitted to enrol for the Diploma.

(3) If the Committee is not satisfied with the qualifications submitted by an applicant the Committee may require the applicant to undergo such assessment or carry out such work as the Committee may prescribe, before permitting enrolment.

Enrolment and Progression

3. (1) An application to enrol as a candidate for the diploma shall be made on the prescribed form which shall be lodged with the Registrar at least two calendar months before the commencement of the session in which enrolment is to begin.

(2) To qualify for the award of the diploma, candidates must obtain over a period of study of not less than two sessions, four courses in one of the programs offered within the Graduate Diploma in Music. The maximum period of candidature shall be four academic sessions from the date of enrolment. In special cases an extension of these times may be granted by the Committee.

(3) A student enrolling in a course must satisfy the prerequisite or corequisite requirements in that course, which may include undergraduate study. These requirements may be waived at the discretion of the Head of the School/Department/Unit concerned.

(4) The progress of a candidate shall be reviewed annually by the Committee and as a result of the review the Committee may cancel enrolment or take such other action as it considers appropriate.

Fees

4. Candidates shall pay fees as may be determined from time to time by the Council.

Admission Requirements

Qualification for entry to the program is an appropriate music degree at Bachelor level from an approved university or tertiary institution. In exceptional circumstances, an applicant who submits evidence of other academic or professional qualifications may be admitted.

7326 Graduate Certificate in Music

GradCertMus

Minimum UOC for Award
16 units of credit

Coordinator: Dr Christine Logan
Email: c.logan@unsw.edu.au

Program Description

The Graduate Certificate in Music allows students to undertake two session-length courses from the Master of Music Program.

Program Objectives and Learning Outcomes

The Graduate Certificate is generally an exit point for those, who for various reasons, are unable to complete the Master's program. Such reasons may include difficulties in coping with the program or a sudden work transfer interstate or overseas. Please state clearly in your initial application your reasons for applying for enrolment in the Graduate Certificate, as preference is given to students enrolling in the Master's program for quota reasons.

Program Structure

Two session-length courses from the Master of Music list are required for the Graduate Certificate in Music (program **7326**, plan code **MUSCAS7326**):

MUSC5120	Psychology of Music Teaching & Learning
MUSC5122	Research in Music Education
MUSC5132	Musical Beliefs: Contemporary and Ancient
MUSC5135	Bach and the Baroque
MUSC5136	Music, Musicology and the Imperial Encounter
MUSC5137	Western Art Musics and Popular Musics

Academic Rules

1. The Graduate Certificate in Music may be awarded by the Council to a candidate who has satisfactorily completed a program of advanced study.

Qualifications

2. (1) A candidate for the Certificate shall have been awarded an appropriate music degree at Bachelor level from the University of New South Wales or a qualification considered equivalent from another university or tertiary institution at a level acceptable to the Standing Committee of the Faculty of Arts and Social Sciences (hereinafter referred to as the Committee).

(2) In exceptional cases, an applicant who submits evidence of such other academic and professional qualifications as may be approved by the Committee may be permitted to enrol for the Certificate.

(3) If the Committee is not satisfied with the qualifications submitted by an applicant, the Committee may require the applicant to undergo such assessment or carry out such work as the Committee may prescribe, before permitting enrolment.

Enrolment and Progression

3. (1) An application to enrol as a candidate for the Graduate Certificate shall be made on the prescribed form which shall be lodged with the Registrar at least two calendar months before the commencement of the session in which enrolment is to begin.

(2) To qualify for the award of the Graduate Certificate, candidates must obtain over a period of study of not less than one session, two courses offered within the Graduate Certificate in Music program. The maximum period of candidature shall be three academic sessions. In special cases, an extension of these times may be granted by the Committee.

(3) A student enrolling in a course must satisfy the prerequisite and corequisite requirements in that course. These requirements may be waived at the discretion of the Head of the School/Department/Unit concerned.

(4) The progress of a candidate shall be reviewed annually by the Committee and as a result of the review the Committee may cancel enrolment or take such other action as it considers appropriate.

Fees

4. Candidates shall pay such fees as may be determined from time to time by the Council.

Admission Requirements

Qualification for entry to the program is an appropriate music degree at Bachelor level from an approved university or tertiary institution. In exceptional circumstances, an applicant who submits evidence of other academic or professional qualifications may be admitted.

8248 Master of Policy Studies

MPS

Typical Duration
1 year

Minimum UOC for Award
48 units of credit

Typical UOC per Session
24 units of credit

Coordinator: Christopher Walker, School of Social Science & Policy
Email: c.walker@unsw.edu.au
Website: http://slsp.arts.unsw.edu.au/courses_study/postgraduate_policy.html

Program Description

The graduate program in Policy Studies applies a social science perspective to questions of policy and policy management. Students acquire a solid grounding in policy analysis and the policy process, specialise in a field of applied policy studies, and then complete a Policy Project.

The Master of Policy Studies is a coursework degree (program **8248**, plan code **SLSPBS8248**) that takes two sessions full-time or four sessions part-time to complete. There are four compulsory and two elective courses in the program.

Program Objectives and Learning Outcomes

The program prepares students for work which requires analytical skills and a practical appreciation of the processes of policy-making and implementation. The program is oriented to the practice of policy, and students are required to have relevant work experience. This may be in the public sector, unions, business organisations or community bodies.

Program Structure

Core Courses

SLSP5001	Policy Analysis	8 UOC
SLSP5002	Information & Research for Policy	8 UOC
SLSP5004	Policy and Organisations	8 UOC
SLSP5092	Policy Project	8 UOC

Electives

Students should select courses to the value of 16 units of credit from the following list. Not all courses listed will be offered each year; the School tries to match its offerings to student preferences. The Coordinator of the Policy Studies Program can, subject to the approval of the course provider, approve different combinations of other electives to meet the needs of individual students. Students must consult with the course coordinator prior to enrolling in 4 or 6 unit of credit courses outside the Faculty of Arts and Social Sciences as they may be required to undertake additional units of credit (SLSP5050 or ARTS5030) that set additional work to complete the requirements of their program.

Policy Management

PHIL5403	Ethics in Organisations	8 UOC
SLSP5017	Policy and Advocacy	8 UOC

Program Evaluation and Policy

EDST5436	Development & Evaluation of Educational Programs	8 UOC
SLSP5501	Theory of Program Evaluation	8 UOC
SLSP5502	Program Evaluation Practice	8 UOC
SOCW7855	Program Design and Evaluation	8 UOC

International Development Policy

SLSP5015	International Development Policy	8 UOC
SOCW7850	Issues & Policy in Social Development	8 UOC
SOCW7858	ISD Project	8 UOC
SOCW7851	Community Development	8 UOC
SOCW7852	Politics of International Aid	8 UOC

International Relations Policy

POLS5100	Issues in Australian Public Policy	8 UOC
POLS5120	The International System	8 UOC
POLS5121	International Institutions	8 UOC
POLS5122	International Political Economy	8 UOC
POLS5154	International Business and Politics	8 UOC

Social and Public Policy

ATAX0301	Tax Policy	6 UOC
BENV7715	Social Planning	6 UOC
PHCM9381	Policy Studies (Health)	4 UOC
PHCM9471	Comparative Health Care Systems	6 UOC

Environmental Policy

BENV7721	Planning and Land Policy	6 UOC
HPSC5002	Environment, Sustainability and Development	8 UOC
HPSC5500	Society, Environmental Policy & Sustainability	8 UOC
HPSC5510	Risk Policy	8 UOC
HPSC5520	Environmental Management	6 UOC

Academic Rules

1. (1) The degree of Master of Policy Studies may be awarded by the Council to a candidate who has satisfactorily completed a program of advanced study.

(2) Candidates may proceed to the degree through part-time or full-time study.

Qualifications

2. (1) A candidate for the degree shall have been awarded an appropriate degree of Bachelor from the University of New South Wales or a qualification considered equivalent from another tertiary institution at a level acceptable to the Standing Committee of the Faculty of Arts and Social Sciences (hereinafter referred to as the Committee).

(2) In exceptional cases, an applicant who submits evidence of such other academic and professional qualifications as may be approved by the Committee may be admitted to candidature for the degree.

(3) If the Committee is not satisfied with the qualifications submitted by an applicant the Committee may require the applicant to undergo such assessment or carry out such work as it may prescribe before permitting enrolment.

Enrolment and Progression

3. (1) An application to enrol as a candidate for the degree shall be made on the prescribed form which shall be lodged with the Registrar at least two calendar months before the commencement of the session in which enrolment is to begin.

(2) To qualify for the award of the degree, candidates must obtain over a period of study of not less than two sessions (full-time) or three sessions (part-time), six courses offered within the Master of Policy Studies program. The maximum period of candidature shall be four academic sessions from the date of enrolment for a full-time candidate and eight sessions for a part-time candidate. In special cases an extension of these times may be granted by the Committee.

(3) A student enrolling in a course must satisfy the prerequisite or corequisite requirements of that course. These requirements may be waived at the discretion of the Head of School/Department/Unit concerned.

(4) The progress of a candidate shall be reviewed annually by the Committee, and as a result of the review the Committee may cancel enrolment or take such other action as it considers appropriate.

Fees

4. Candidates shall pay such fees as may be determined from time to time by Council.

Admission Requirements

Applicants should hold a Bachelor degree in any field from an approved university or college of advanced education and have significant work experience in an area appropriate to the degree program. An exception to the degree requirement may be made if the applicant has general and professional experience acceptable to the School. Note that students whose first language is not English may need to meet an English proficiency requirement.

5280 Graduate Diploma in Policy Studies

GradDip

Minimum UOC for Award
32 units of credit

Coordinator: Christopher Walker, School of Social Science & Policy
Email: c.walker@unsw.edu.au
Website: http://slsp.arts.unsw.edu.au/courses_study/postgraduate_policy.html

Program Description

The graduate program in Policy Studies applies a social science perspective to questions of policy and policy management. Students acquire a solid grounding in policy analysis and the policy process.

Program Objectives and Learning Outcomes

The program prepares students for work which requires analytical skills and a practical appreciation of policy-making and implementation. The program is oriented to the practice of policy, and students are required to have relevant work experience. This may be in the public sector, unions, business organisations or community bodies.

Program Structure

The Graduate Diploma in Policy Studies (program **5280**, plan code **SLSPBS5280**) requires students to complete two core courses of the Master of Policy Studies program plus two approved electives.

Core Courses

SLSP5001	Policy Analysis	8 UOC
SLSP5002	Information & Research for Policy	8 UOC

Elective Courses

Policy Management

PHIL5403	Ethics in Organisations	8 UOC
SLSP5004	Policy and Organisations	8 UOC
SLSP5017	Policy and Advocacy	8 UOC

Program Evaluation and Policy

EDST5436	Development & Evaluation of Educational Programs	8 UOC
SLSP5501	Theory of Program Evaluation	8 UOC
SLSP5502	Program Evaluation Practice	8 UOC
SOCW7855	Program Design and Evaluation	8 UOC

International Development Policy

SLSP5015	International Development Policy	8 UOC
SOCW7850	Issues & Policy in Social Development	8 UOC
SOCW7851	Community Development	8 UOC
SOCW7852	Politics of International Aid	8 UOC
SOCW7858	ISD Project	8 UOC

International Relations Policy

POLS5100	Issues in Australian Public Policy	8 UOC
POLS5120	The International System	8 UOC
POLS5121	International Institutions	8 UOC
POLS5122	International Political Economy	8 UOC
POLS5154	International Business and Politics	8 UOC

Social and Public Policy

ATAX0301	Tax Policy	6 UOC
BENV7715	Social Planning	6 UOC
PHCM9381	Policy Studies (Health)	4 UOC
PHCM9471	Comparative Health Care Systems	6 UOC

Environmental Policy

BENV7721	Planning and Land Policy	6 UOC
HPSC5002	Environment, Sustainability and Development	8 UOC
HPSC5500	Society, Environmental Policy & Sustainability	8 UOC
HPSC5510	Risk Policy	8 UOC
HPSC5520	Environmental Management	6 UOC

Academic Rules

1. A Graduate Diploma may be awarded by the Council to a candidate who has satisfactorily completed a program of advanced study.

Qualifications

2. (1) A candidate for the Graduate Diploma shall have been awarded an appropriate degree of Bachelor from the University of New South Wales or a qualification considered equivalent from another university or tertiary institution at a level acceptable to the Standing Committee of the Faculty of Arts and Social Sciences (hereinafter referred to as the Committee).

(2) An applicant who submits evidence of such other academic or professional attainments as may be approved by the Committee may be permitted to enrol for the diploma.

(3) If the Committee is not satisfied with the qualifications submitted by the applicant the Committee may require the applicant to undergo such assessment or carry out such work as the Committee may prescribe, before permitting enrolment.

Enrolment and Progression

3. (1) An application to enrol as candidate shall be made on the prescribed form which shall be lodged with the Registrar at least two calendar months before the commencement of the session in which enrolment is to begin.

(2) A candidate for the diploma shall be required to undertake such formal courses and pass such assessment as prescribed.

(3) The progress of a candidate shall be reviewed at least once annually by the Committee and as a result of its review the Committee may cancel enrolment or take such other action as it considers appropriate.

(4) No candidate shall be awarded the diploma until the lapse of two academic sessions from the date of enrolment in the case of a full-time candidate or four sessions in the case of a part-time candidate. The maximum period of candidature shall be four academic sessions from the date of enrolment for a full-time candidate and six sessions for a part-time candidate. In special cases an extension of these times may be granted by the Committee.

Fees

4. A candidate shall pay such fees as may be determined from time to time by the Council.

Admission Requirements

Applicants should hold a Bachelor degree in any field from an approved university or college of advanced education and have significant work experience in an area appropriate to the degree program. An exception to the degree requirement may be made if the applicant has general and professional experience acceptable to the School. Note that students whose first language is not English may need to meet an English proficiency requirement.

7348 Graduate Certificate in Policy Studies

GradCert

Minimum UOC for Award
16 units of credit

Coordinator: Christopher Walker, School of Social Science & Policy
Email: c.walker@unsw.edu.au
Website: http://slsp.arts.unsw.edu.au/courses_study/postgraduate_policy.html

Program Description

The graduate program in Policy Studies applies a social science perspective to questions of policy and policy management. Students acquire a solid grounding in policy analysis and the policy process.

Program Objectives and Learning Outcomes

The program prepares students for work which requires analytical skills and a practical appreciation of the processes of policy-making and implementation. The program is oriented to the practice of policy, and students are required to have relevant work experience. This may be in the public sector, unions, business organisations or community bodies.

Program Structure

Students qualify for the award of Graduate Certificate in Policy Studies (program **7348**, plan code **SLSPBS7348**) by completing the two core courses of the Master of Policy Studies program:

SLSP5001	Policy Analysis
SLSP5002	Information and Research for Policy

Academic Rules

1. The Graduate Certificate in Policy Studies may be awarded by the Council to a candidate who has satisfactorily completed a program of advanced study.

Qualifications

2. (1) A candidate for the Graduate Certificate shall have been awarded an appropriate degree of bachelor from the University of New South Wales or a qualification considered equivalent from another university or tertiary institution at a level acceptable to the Standing Committee of the Faculty of Arts and Social Sciences (hereinafter referred to as the Committee).

(2) In exceptional cases, an applicant who submits evidence of such other academic and professional qualifications as may be approved by the Committee may be permitted to enrol for the Graduate Certificate.

(3) If the Committee is not satisfied with the qualifications submitted by an applicant the Committee may require the applicant to undergo such assessment or carry out such work as the Committee may prescribe, before permitting enrolment.

Enrolment and Progression

3. (1) An application to enrol as a candidate for the Graduate Certificate shall be made on the prescribed form which shall be lodged with the Registrar at least two calendar months before the commencement of the session in which enrolment is to begin.

(2) To qualify for the award of the Graduate Certificate, candidates must obtain over a period of study of not less than one session, two courses offered within the Graduate Certificate program. The maximum period of candidature shall be three academic sessions from the date of commencement. In special cases an extension of these times may be granted by the Committee.

(3) A student enrolling in a course must satisfy the prerequisite or corequisite requirements in that course. These requirements may be waived at the discretion of the Head of the School/Department/Unit concerned.

(4) The progress of a candidate shall be reviewed annually by the Committee and as a result of the review the Committee may cancel enrolment or take such action as it considers appropriate.

Fees

4. Candidates shall pay such fees as may be determined from time to time by the Council.

Admission Requirements

Applicants should hold a Bachelor degree in any field from an approved university or college of advanced education and have significant work experience in an area appropriate to the degree program. An exception to the degree requirement may be made if the applicant has general and professional experience acceptable to the School. Note that students whose first language is not English may need to meet an English proficiency requirement.

7347 Graduate Certificate in Program Evaluation

GradCert

Minimum UOC for Award
16 units of credit

Coordinator: Prof Ralph Hall, School of Social Science and Policy
Email: r.hall@unsw.edu.au
Tel: (02) 9385 2427
Website: http://slsp.arts.unsw.edu.au/courses_study/postgraduate_policy.html

Program Description

This program provides students with knowledge of current approaches to evaluation of programs and with skills in conducting them.

Applicants should hold a Bachelor's degree in any field from an approved university or college of advanced education and have significant work experience in an area appropriate to the degree program.

Program Objectives and Learning Outcomes

By the end of this program, candidates will have a greater knowledge of current approaches to the evaluation of programs and have gained skills in conducting them.

Program Structure

The Graduate Certificate in Program Evaluation (program **7347**, plan code **SLSPDS7347**) consists of the following two courses:

SLSP5501	Theory of Program Evaluation
SLSP5502	Program Evaluation Practice

Academic Rules

1. The Graduate Certificate may be awarded by the Council to a candidate who has satisfactorily completed a program of advanced study.

Qualifications

2. (1) A candidate for the Graduate Certificate shall have been awarded an appropriate degree of Bachelor from the University of New South Wales or a qualification considered equivalent from another university or tertiary institution at a level acceptable to the Standing Committee of the Faculty of Arts and Social Sciences (hereinafter referred to as the Committee).

(2) In exceptional cases, an applicant who submits evidence of such other academic and professional qualifications as may be approved by the Committee may be permitted to enrol for the Graduate Certificate.

(3) If the Committee is not satisfied with the qualifications submitted by an applicant, the Committee may require the applicant to undergo such assessment or carry out such work as the committee may prescribe, before permitting enrolment.

Enrolment and Progression

3. (1) An application to enrol as a candidate for the Graduate Certificate shall be made on the prescribed form which shall be lodged with the Registrar at least two calendar months before the commencement of the session in which enrolment is to begin.

(2) To qualify for the award of the Graduate Certificate, candidates must obtain over a period of study of no less than one session, two courses offered within the Graduate Certificate program. The maximum period of candidature shall be three academic sessions from the date of enrolment. In special cases an extension of the times may be granted by the Committee.

(3) A student enrolling in a course must satisfy the prerequisite and corequisite requirements in that course. These requirements may be waived at the discretion of the Head of the School/Department/Unit concerned.

(4) The progress of a candidate shall be reviewed annually by the Committee and as a result of the review the Committee may cancel enrolment or take such other action as it considers appropriate.

Fees

4. Candidates shall pay such fees as may be determined from time to time by the Council.

Admission Requirements

Applicants should hold a Bachelor degree in any field from an approved university or college of advanced education and have significant work experience in an area appropriate to the degree program. Applicants who have completed at least one year (or equivalent) of appropriate study beyond the first degree may be admitted with a lesser work experience requirement.

In exceptional circumstances, applicants may be admitted without a first degree but with general and professional attainments acceptable to the Faculty.

8227 Master of Professional Ethics

MProfEthics

Typical Duration
1 year

Minimum UOC for Award
48 units of credit

Typical UOC per Session
24 units of credit

Coordinator: A/Prof Stephen Cohen
Email: s.cohen@unsw.edu.au

Program Description

While open to anyone with an interest in the area, this program has been devised as a response to pressing demands from two quarters: first, from professionals, the professions and business, who wish to ensure high standards of ethical practice, and to complement the requirements of legal regulation with those of coherent and consistent moral positions; second, from public demand and expectation of higher standards of accountability and responsible conduct from business and the professions and their practitioners.

The program (program **8227**, plan code **PHILBS8227**) is offered through the School of Philosophy. The program accepts part-time and full-time enrolments and is available by distance-mode as well as on-campus.

Program Objectives and Learning Outcomes

The objective of the program is to make students aware of contextual and theoretical frameworks in which ethical issues in business and the professions arise and to equip them to deal systematically with such issues. It allows students the opportunity to reflect on important

ethical issues which occur in business and the professions, as well as on particular ethical issues which occur in their own fields of experience and expertise.

Program Structure

Core courses

Students must enrol in the following core courses:

PHIL5400	Moral Theory and Moral Reasoning
PHIL5401	The Professions and Society
PHIL5402	Ethical Issues in Business and the Professions
PHIL5403	Ethics in Organisations

and any one of the following courses:

SLSP5001	Policy Analysis
SLSP5002	Information and Research for Policy
PHIL5404	Supervised Readings in Professional and Applied Ethics

or any of the electives approved for the Master of Policy Studies

and either one of the following courses:

PHIL5405	Applied Ethics Project
PHIL5406	Research Project in Applied Ethics

Students ordinarily complete the core courses in one year, and their electives in either one or two additional sessions. The program allows for mid-year entry.

Academic Rules

1. The degree of Master of Professional Ethics may be awarded by the Council to a candidate who has satisfactorily completed a program of advanced study.

Candidates may proceed to the degree through part-time or full-time study.

Qualifications

2. (1) A candidate for the degree shall have been awarded an appropriate degree of Bachelor from the University of New South Wales or a qualification considered equivalent from another tertiary institution at a level acceptable to the Standing Committee of the Faculty of Arts and Social Sciences (hereinafter referred to as the Committee).

(2) In exceptional cases, an applicant who submits evidence of such other academic and professional qualifications as may be approved by the Committee may be admitted to candidature for the degree.

(3) If the Committee is not satisfied with the qualifications submitted by an applicant the Committee may require the applicant to undergo such assessment or carry out such work as it may prescribe before permitting enrolment.

Enrolment and Progression

3. (1) An application to enrol as a candidate for the degree shall be made on the prescribed form which shall be lodged with the Registrar at least two calendar months before the commencement of the session in which enrolment is to begin.

(2) To qualify for the award of the degree, candidates must obtain over a period of study of not less than two sessions (full-time) or three sessions (part-time), six courses offered within the Master of Professional Ethics program. The maximum period of candidature shall be four academic sessions from the date of enrolment for a full-time candidate and eight sessions for a part-time candidate. In special cases an extension of these times may be granted by the Committee.

(3) An applicant seeking advanced standing in the Master of Professional Ethics must submit in writing to the Faculty a statement of the subjects concerned and the remaining subjects he/she wishes to complete within the Faculty. Faculty shall then determine the number of units of credit (if any) to be granted and the remainder of the applicant's program within the Faculty.

(4) The progress of a candidate shall be reviewed annually by the Committee, and as a result of the review the Committee may cancel enrolment or take such other action as it considers appropriate.

Fees

4. Candidates shall pay such fees as may be determined from time to time by Council.

Admission Requirements

The normal qualification for entry is a Bachelor degree or its equivalent from a recognised institution of higher education. Professional experience may be taken into account in cases where an applicant does not possess the appropriate tertiary qualification.

5295 Graduate Diploma in Professional Ethics

GradDipProfEthics

Minimum UOC for Award
32 units of credit

Coordinator: A/Prof Stephen Cohen
Email: s.cohen@unsw.edu.au

Program Description

This program is offered through the School of Philosophy. While open to anyone with an interest in the area, the program has been devised as a response to pressing demands from two business quarters: first, from professionals, the professions and business, who wish to ensure high standards of ethical practice, and to complement the requirements of legal regulation with those of coherent and consistent moral positions; second, from public demand and expectation of higher standards of accountability and responsible conduct from business and the professions and their practitioners. The Graduate Diploma (program **5295**, plan code **PHILBS5295**) articulates into the Masters program. Both programs accept part-time and full-time enrolments and can be completed in one or two years. The program is available by distance mode and on campus.

Program Objectives and Learning Outcomes

The objective of the program is to make students aware of contextual and theoretical frameworks in which ethical issues in business and the professions arise and equip students to deal systematically with such issues. Allows students the opportunity to reflect on important ethical issues which occur in business and the professions, as well as on particular ethical issues which occur in their own fields of experience and expertise.

Program Structure

Students intending to complete the program in one year enrol in PHIL5400 and PHIL5401 in Session 1, and PHIL5402 and PHIL5403 in Session 2.

Students intending to complete the program over 2 years (4 sessions) enrol in PHIL5400 in Session 1, PHIL5402 in Session 2, PHIL5401 in Session 3 and PHIL5403 in Session 4.

Mid-year entry to the program is allowed.

Students must complete the following courses:

PHIL5400	Moral Theory and Moral Reasoning
PHIL5401	The Professions and Society
PHIL5402	Ethical Issues in Business and the Professions
PHIL5403	Ethics in Organisations

Each course is one session (14 weeks) in length, with 2 hours class contact per week per course (for the on-campus mode of delivery).

Important note: Although the program is not available in the on-campus mode for international students, it is available in distance mode.

Academic Rules

1. A Graduate Diploma may be awarded by the Council to a candidate who has satisfactorily completed a program of advanced study.

Qualifications

2. (1) A candidate for the Graduate Diploma shall have been awarded an appropriate degree of Bachelor from the University of New South Wales or a qualification considered equivalent from another university or tertiary institution at a level acceptable to the Standing Committee of the Faculty of Arts and Social Sciences (hereafter referred to as the Committee).

(2) An applicant who submits evidence of such other academic or professional attainments as may be approved by the Committee may be permitted to enrol for the diploma.

(3) If the Committee is not satisfied with the qualifications submitted by the applicant the Committee may require the applicant to undergo such assessment or carry out such work as the Committee may prescribe, before permitting enrolment.

Enrolment and Progression

3. (1) An application to enrol as candidate shall be made on the prescribed form which shall be lodged with the Registrar at least two calendar months before the commencement of the session in which enrolment is to begin.

(2) A candidate for the diploma shall be required to undertake such formal courses and pass such assessment as prescribed.

(3) The progress of a candidate shall be reviewed at least once annually by the Committee and as a result of its review the Committee may cancel enrolment or take such other action as it considers appropriate.

(4) No candidate shall be awarded the diploma until the lapse of two academic sessions from the date of enrolment. The maximum period of candidature shall be four academic sessions from the date of enrolment. In special cases an extension of these times may be granted by the Committee.

Fees

4. A candidate shall pay such fees as may be determined from time to time by the Council.

Admission Requirements

The normal qualification for entry is a Bachelor degree or its equivalent from a recognised institution of higher education. Professional experience may be taken into account in cases where an applicant does not possess the appropriate tertiary qualification.

8939 Master of Social Development

MSD

Typical Duration
1 year

Minimum UOC for Award
48 units of credit

Typical UOC per Session
24 units of credit

Coordinator: Dr Eileen Baldry, School of Social Work
Email: e.baldry@unsw.edu.au

Program Description

This program is offered by the School of Social Work and provides postgraduate preparation for education and service in social development. It includes study in social and community development theory and practice, social policy in development, program management and evaluation and specialised studies in international, community and refugee development.

Program Objectives and Learning Outcomes

The program is designed to address the continuing education needs of specialists in social development as well as to provide a general orientation to social and community development for professionals wanting to enter the field.

Program Structure

The Master of Social Development is offered full-time and part-time, with a minimum length of 1 full-time year. The elective projects may be completed off-shore. The program is divided into two components. These are:

Core courses: 24 UOC
Mixture of core and elective courses: 24 UOC

Core Courses

Full-time students must complete the following three core courses as foundations for the rest of their study:

Session 1

SOCW7850	Issues & Policy in Social Development	8 UOC
SOCW7851	Social & Community Development	8 UOC
SOCW7855	Program Design and Evaluation	8 UOC

Students may take one of the following Social Development program plans:

1. International Social Development

The Master of Social Development in International Social Development (program **8939**, plan code **SOCWES8939**) comprises a total of 48 units of credit of core and elective courses.

Session 1

SOCW7850	Issues & Policy in Social Development	8 UOC
SOCW7851	Social & Community Development	8 UOC
SOCW7855	Program Design and Evaluation	8 UOC

Plus

Session 2

SOCW7852	Politics of International Aid (Core)	8 UOC

And two courses (or 16 UOC) from the elective list below.

Session 2

SOCW7853	Community Education Strategies	8 UOC
SOCW7856	Program Management	8 UOC
SOCW7857	Refugees and Forced Migration	8 UOC

or

Session 1 & 2 (offered in both sessions)

SOCW7858	ISD Project	8 UOC

And, if only one of the above is chosen, students may select a relevant course or courses equivalent to 8 UOC from other Masters programs in the Schools of Social Science and Policy, Public Health and Community Medicine, Law, International Relations, or other Faculty or School with appropriate postgraduate programs.

Electives must be approved by the Coordinator to ensure that a cohesive selection, relevant to the plan, is undertaken.

2. Community Development

The Master of Social Development in Community Development (program **8939**, plan code **SOCWFS8939**) aims to offer a graduate degree in social development practice with an international focus. It comprises a total of 48 units of credit of core and elective courses.

Session 1

SOCW7850	Issues & Policy in Social Development	8 UOC
SOCW7851	Social & Community Development	8 UOC
SOCW7855	Program Design and Evaluation	8 UOC

Plus

Session 2

Relevant electives equivalent to 24 UOC. Electives may be chosen from the Schools of Social Work, Social Science and Policy, Public Health and Community Medicine, Faculty of the Built Environment, Law, Nura Gili (Indigenous Programs) or other Schools with appropriate postgraduate programs.

or

Session 1 & 2 (offered in both sessions)

SOCW7859 Community Development Project may also be taken as an elective.

Electives must be approved by the program Coordinator to ensure that a cohesive selection, relevant to the plan, is undertaken.

3. Refugees and Forced Migration

The Master of Social Development in Refugees and Forced Migration (program **8939**, plan code **SOCWGS8939**) comprises a total of 48 units of credit of core and elective courses.

Session 1

SOCW8750	Issues & Policy in Social Development	8 UOC
SOCW7851	Social & Community Development	8 UOC
SOCW7855	Program Design and Evaluation	8 UOC

Plus

Session 2

SOCW7857	Refugees and Forced Migration (core)	8 UOC

And relevant electives equivalent to 16 UOC from the following:

SOCW7880	Refugee Women, Sexual Violence & International Protection	8 UOC
SOCW7881	Resettlement as an International Protection Tool	8 UOC

Session 1 & Session 2 (offered in both sessions)

SOCW7882	Refugee & Forced Migration Project	8 UOC

Other relevant Masters courses from the Schools of Social Science and Policy, Public Health and Community Medicine, Faculty of the Built Environment, Law, International Relations or other Schools with appropriate post-graduate programs.

Electives must be approved by the program Coordinator to ensure that a cohesive selection, relevant to the plan, is undertaken.

Admission Requirements

A Bachelor degree with a Credit average from UNSW or equivalent and one year's experience in a relevant field are required. A letter expressing interest and background and a CV are required also.

5557 Graduate Diploma in Social Development

GradDipSocDev

Minimum UOC for Award
32 units of credit

Coordinator: Dr Eileen Baldry, School of Social Work
Email: e.baldry@unsw.edu.au

Program Description

This program is offered by the School of Social Work and provides postgraduate preparation for education and service in social development. It includes study in social and community development theory and practice, social policy in development, program management and evaluation and specialised studies in international, community and refugee development.

Program Objectives and Learning Outcomes

The program is designed to address the continuing education needs of specialists in social development as well as to provide a general orientation to social and community development for professionals wanting to enter the field.

Program Structure

The Graduate Diploma in Social Development requires the completion of a total of 32 units of credit of core and elective courses. Students may take one of the Social Development program plans listed below:

1. International Social Development

The Graduate Diploma of Social Development in International Social Development (program **5557**, plan code **SOCWES5557**) - It requires a total of 32 units of credit of core and elective courses.

Session 1

SOCW7850	Issues & Policy in Social Development (core)	8 UOC
SOCW7851	Social & Community Development (core)	8 UOC

Plus

Session 2

Electives equivalent to 16 UOC from any of the following listed for the plan being undertaken, subject to the Coordinator's approval.

SOCW7852	Politics of International Aid	8 UOC
SOCW7853	Community Education Strategies	8 UOC
SOCW7856	Program Management	8 UOC
SOCW7857	Refugees and Forced Migration	8 UOC
SOCW7858	ISD Project	8 UOC

or

Only offered in Session 1

SOCW7855	Program Design and Evaluation	8 UOC

2. Community Development

The Graduate Diploma of Social Development in Community Development (program **5557**, plan code **SOCWFS5557**) - It requires the completion of a total of 32 units of credit of core and elective courses.

Session 1

SOCW7850	Issues & Policy in Social Development (core)	8 UOC
SOCW7851	Social & Community Development (core)	8 UOC

Plus

Session 2

Electives equivalent to 16 UOC from any of the following listed for the plan being undertaken, subject to the Coordinator's approval.

SOCW7853	Community Education Strategies	8 UOC
SOCW7856	Program Management	8 UOC
SOCW7859	Community Development Project	8 UOC

or

Only offered in Session 1

SOCW7855	Program Design and Evaluation	8 UOC

3. Refugees and Forced Migration

The Graduate Diploma of Social Development in Refugees and Forced Migration (program **5557**, plan code **SOCWGS5557**). It requires the completion of a total of 32 units of credit of core and elective courses.

Session 1

SOCW7850	Issues & Policy in Social Development (core)	8 UOC
SOCW7851	Community Development (core)	8 UOC

Elective Courses

Electives equivalent to 16 UOC from any of the following listed for the plan being undertaken, subject to the Coordinator's approval.

SOCW7857	Refugees and Forced Migration	8 UOC
SOCW7880	Refugee Women, Sexual Violence & International Protection	8 UOC
SOCW7881	Resettlement as an International Protection Tool	8 UOC
SOCW7882	Refugee & Forced Migration Project	8 UOC

or

Only offered in Session 1

SOCW7855	Program Design and Evaluation	8 UOC

Admission Requirements

A Bachelor degree with a Credit average from UNSW or equivalent and one year's experience in a relevant field are required. A letter expressing interest and background and a CV are required also.

7349 Graduate Certificate in Social Development

GradCertSocDev

Minimum UOC for Award
16 units of credit

Coordinator: Dr Eileen Baldry, School of Social Work
Email: e.baldry@unsw.edu.au

Program Description

This program is offered by the School of Social Work and provides postgraduate preparation for education and service in social development. It includes study in social and community development theory and practice, social policy in development, program management and evaluation and specialised studies in international, community and refugee development.

Program Objectives and Learning Outcomes

The program is designed to address the continuing education needs of specialists in social development as well as to provide a general orientation to social and community development for professionals wanting to enter the field.

Program Structure

The Graduate Certificate in Social Development (program **7349**, plan code **SOCWHS7349**) requires the completion of a total of 16 units of credit of core and elective courses. The Graduate Certificate does not provide the depth available in either the Master or the Diploma to warrant offering a specific plan. Thus it will be a Graduate Certificate in Social Development.

Session 1

SOCW7851	Community Development	8 UOC

Elective courses

And **only one** of the following:

Session 1

SOCW7850	Issues & Policy in ISD	8 UOC
SOCW7855	Program Design and Evaluation	8 UOC

Session 2

SOCW7853	Community Education Strategies	8 UOC
SOCW7856	Program Management	8 UOC

Admission Requirements

A Bachelor degree with a Credit average from UNSW or equivalent and one year's experience in a relevant field are required. A letter expressing interest and background and a CV are required also.

5275 Graduate Diploma in Arts by Research

GradDipArts

Typical Duration
1 year

Minimum UOC for Award
48 units of credit

Typical UOC per Session
24 units of credit

Program Description

The Graduate Diploma in Arts by Research is offered by schools and approved disciplinary programs in the Faculty of Arts and Social Sciences. It is designed primarily to enable students with substantial concentration in an area of study in an undergraduate or postgraduate coursework degree to achieve a qualification to meet the requirements for entry to postgraduate research programs in the Faculty.

Program Objectives and Learning Outcomes

The Graduate Diploma in Arts by Research degree will enable students with substantial concentration in an area of study to be competent in carrying out research in their chosen area. Students will have achieved a qualification to meet the requirements for entry to postgraduate research programs in the Faculty.

Program Structure

The Diploma involves the writing of a 15 - 20,000 word research thesis under supervision and the completion of two-session length courses. The program is undertaken on a full-time basis over one year or two years part-time. Appropriately qualified applicants may seek advanced standing for the coursework components of the program only.

Academic Rules

1. The Graduate Diploma in Arts by Research may be awarded by the Council on the recommendation of the Research Committee of the Faculty of Arts and Social Sciences (hereinafter referred to as the Committee) to a candidate who has satisfactorily completed a program of advanced study that includes the submission of a research report embodying the results of an original investigation and the completion of prescribed coursework.

Qualifications

2. (1) A candidate for the Graduate Diploma shall have been awarded an appropriate degree of Bachelor from the University of New South Wales or a qualification considered equivalent from another university or tertiary institution at a standard judged by the Committee to be equivalent to that required for entry into the undergraduate honours year in a course offered by the Faculty of Arts and Social Sciences.

(2) an applicant who submits evidence of such other academic and professional attainment, as may be approved by the Committee, may be permitted to enrol for the Diploma.

Enrolment and Progression

3. (1) An application to enrol as a candidate for the diploma shall be made on the prescribed form which shall be lodged with the Registrar at least two calendar months before the commencement of the session in which enrolment is to begin.

(2) In every case before making the offer of a place, the Committee shall be satisfied that initial agreement has been reached between the School, or teaching unit authorised to enrol research students, and the applicant on the topic area, supervision arrangements, provision of adequate facilities and any coursework to be prescribed and that these are in accordance with the provisions of the guidelines for promoting postgraduate study within the University.

(3) The normal duration of the program is two academic sessions from the date of enrolment in the case of a full-time candidate or four sessions in the case of a part-time candidate. In special circumstances a variation of these times may be approved by the Head of School/Unit.

(4) A candidate shall be enrolled as an internal student, i.e. undertake the research at a campus or research facility with which the University is associated except that the Committee may permit the candidate to spend a period in the field, within another institution or elsewhere away from the University provided that the work can be supervised in a manner satisfactory to the Committee. In such circumstances the Committee shall be satisfied that the location and period of time away from the University are necessary for the research program.

Research Report

4. On completing the course of study a candidate shall submit to the School/Unit a research report embodying the results of the original investigation and which shall present an account of the candidate's own research.

Coursework

5. The School/Unit shall specify, at the time of the candidate's acceptance into the program, any courses to be undertaken and the level of achievement required in each of the courses. It is normally required that the candidate complete two 8 units of credit courses at the level of achievement specified.

6. Applicants with appropriate backgrounds at undergraduate or postgraduate coursework levels may be granted advanced standing for all or part of the coursework. No advanced standing may be granted for the thesis component of the course. Advanced standing will not be granted for work completed more than six years before the date of admission of the applicant.

Plan Rules and Information

The following **plans** are available in programs **8225**, **5225** and **7325** offered by the Faculty of Arts and Social Sciences.

Applied Ethics

Available: MA; GradDipArts
Coordinator: Dr Catherine Mills, School of Philosophy
Email: catherine.mills@unsw.edu.au

Master of Arts

The MA in Applied Ethics (program **8225**, plan code **PHILDS8225**) is designed to allow for study and inquiry into a variety of areas in applied ethics. It is designed for graduates from any discipline who have an interest in this general area. It provides the opportunity for students to choose areas for inquiry within the broad context of applied ethics. It also offers the opportunity for students to establish a grounding in important elements of theoretical ethics, if they wish to do so.

The entrance requirement is an undergraduate (pass) degree of good quality in any field. The MA in Applied Ethics can be taken full-time or part-time. Students are required to complete six courses: two core courses, plus at least two courses from Group 1 electives and a maximum of two courses from Group 2 electives. Not all of the courses listed below are on offer every year.

Core courses

Either

PHIL5400	Moral Theory and Moral Reasoning	*or*
PHIL5006	Developments in Moral Philosophy	

and

PHIL5405	Applied Ethics Project	*or*
PHIL5406	Research Project in Applied Ethics	

Group 1 Electives

PHIL5501	Issues in Environmental Ethics
PHIL5502	Contemporary Bioethics
PHIL5503	Organisational Ethics: Public and Private
PHIL5504	Ethics and Biotechnology
PHIL5402	Ethical Issues in Business and the Professions
PHIL5404	Supervised Readings in Professional and Applied Ethics

Group 2 Electives

PHIL5008	Themes in Social and Political Philosophy
PHIL5010	Cosmopolitanism, Citizenship and Sovereignty
HPSC5002	Environment, Sustainability and Development
HPSC5120	Issues in the History of Life Sciences and Biotechnology
HPSC5130	History and Politics of Medicine and Health
HPSC5500	Society, Environmental Policy and Sustainability

Students may also choose an elective from the Master of Policy Studies program as a course in this program.

Graduate Diploma in Arts

The Graduate Diploma in Arts in Applied Ethics (program **5225**, plan code **PHILDS5225**) is designed to allow for study and inquiry into a variety of areas in applied ethics. It is designed for graduates from any discipline who have an interest in this general area. It provides the opportunity for students to choose areas for inquiry within the broad context of applied ethics. It also offers the opportunity for students to establish a grounding in important elements of theoretical ethics, if they wish to do so.

The entrance requirement is an undergraduate (pass) degree of good quality in any field. The Graduate Diploma in Arts in Applied Ethics can be completed over one or two years. Students are required to complete four courses: one core course, plus at least two courses from Group 1 electives and a maximum of one course from Group 2 electives. Not all of the courses listed below are on offer every year.

Core courses

Either

PHIL5400	Moral Theory and Moral Reasoning	*or*
PHIL5006	Developments in Moral Philosophy	

Group 1 Electives

PHIL5501	Issues in Environmental Ethics
PHIL5502	Contemporary Bioethics
PHIL5503	Organisational Ethics: Public and Private
PHIL5504	Ethics and Biotechnology
PHIL5402	Ethical Issues in Business and the Professions
PHIL5404	Supervised Readings in Professional and Applied Ethics

Group 2 Electives

PHIL5008	Themes in Social and Political Philosophy
PHIL5010	Cosmopolitanism, Citizenship and Sovereignty
HPSC5002	Environment, Sustainability and Development
HPSC5120	Issues in the History of Life Sciences and Biotechnology
HPSC5130	History and Politics of Medicine and Health
HPSC5500	Society, Environmental Policy and Sustainability

Students may also choose an elective from the Master of Policy Studies program as a course in this program.

Asian Studies

Available: MA; GradDipArts
Coordinator: Dr Julia Yonetani, Department of Japanese and Korean Studies
Email: j.yonetani@unsw.edu.au

Master of Arts

The Master of Arts in Asian Studies degree (program **8225**, plan code **ASIAAS8225**) combines area specialisation with an interdisciplinary approach towards Asia. It is designed for graduates who wish to extend their understanding of contemporary Asian societies and cultures by focusing on comparative and cross-regional aspects. The program is suitable for people involved in, or wishing to enter, careers such as education, journalism, government and professional or commercial areas with organisations working with Asian countries.

Students enrolled in the Asian Studies program must complete 48 units of credit in courses offered in the program. Each session-length course is worth 8 units of credit. For students with special interests, the coordinator can approve courses in other postgraduate programs to be substituted for courses listed below.

Courses

ASIA5100	Research Project	S1 & S2
ASIA5200	Reading Project (Asian Studies)	S1 & S2
CHIN5000	China's Provinces	S2
CHIN5906	Chinese Business & Management	S1
INDO5002	Politics and Society in Indonesia	S1
KORE5001	Korea's Place in East Asia	S1
LAWS4120	Themes in Asian and Comparative Law	S1
PHIL5011	Themes in Chinese Philosophy	S2
POLS5127	China & Asia-Pacific Security	S1

Graduate Diploma in Arts

Students enrolled in the Asian Studies Graduate Diploma in Arts (program **5225,** plan code **ASIAAS5225**) must complete 32 units of credit in courses offered in the program. These do not include ASIA5100 Research Project and ASIA5200 Reading Program.

Chinese-English Translation and Interpreting

Available: MA; GradDipArts; GradCertArts
Coordinator: Dr Yong Zhong
Email: y.zhong@unsw.edu.au

The Master of Arts by coursework in Chinese-English Translation and Interpreting (program **8225**, plan code **CHINDS8225**) provides an applied education in the skills involved in Chinese-English translation and interpreting for students wishing to enter a professional career in these fields. Students enrolling in this program are required to have third year-level proficiency in Chinese.

Students must complete six courses, including the two core courses, to qualify for the MA, and four courses, including CHIN5900 and CHIN5901, to qualify for the Graduate Diploma (program 5225, plan code CHINDS5225). They may graduate with a Graduate Certificate (program 7325, plan code CHINDS7325) after the successful completion of the two core courses CHIN5900 and CHIN5901. Students who wish to upgrade their generic skills are strongly recommended to include MODL5100 in their program.

Core Courses

CHIN5900	Chinese-English Translation Project	S1
CHIN5901	Chinese-English Professional Interpreting	S2

Electives

CHIN5905	Chinese Sociolinguistics	S1
CHIN5909	Chinese for Commercial Use	S2
CHIN5910	Chinese Poetry and Poetics: Theories of Translation	S1 & S2
CHIN5911	Major Chinese-English Translation Project	S1 & S2
CHIN5912	Australian Chinese Communications in Documents	S1
CHIN5915	Chinese Autobiography	S2
CHIN5916	Chinese Discourse Analysis	S2
MODL5100	Foundations and Principles of Translation and Interpreting	S1

Chinese Studies

Available: MA; GradDipArts; GradCertArts
Coordinator: Dr Jon von Kowallis
Email: j.kowallis@unsw.edu.au

The Master of Arts in Chinese Studies (program **8225**, plan code **CHINAS8225**) provides an interdisciplinary approach to the study of modern and contemporary China and advanced Chinese language usage. It is intended for students who wish to deepen their understanding of Chinese society and culture and their skills in Chinese language for professional or academic purposes.

Prerequisites

Students enrolling in this program are required to have third year-level proficiency or equivalent in Chinese and a BA with a major in an area of Chinese studies, preferably at Credit level or above. Qualifications from other appropriately qualified people will be considered on an individual basis.

Program Requirements

Students are required to undertake six courses, including four core courses, to qualify for the MA, and four courses, including three core courses, to qualify for the Graduate Diploma (program **5225**, plan code **CHINAS5225).** They may graduate with a Graduate Certificate (program **7325**, plan code **CHINAS7325**) after the successful completion of two core courses.

Core Courses

CHIN5000	China's Provinces	S2
CHIN5905	Chinese Sociolinguistics	S2
CHIN5906	Chinese Business and Management	S1
CHIN5910	Chinese Poetry and Poetics: Theories of Translation	S1 & S2
CHIN5915	Chinese Autobiography	S2

Electives

ATAX0426	Taxation and Investment Regulation in China#	S1
LAWS4120	Themes in Asian and Comparative Law	S1
PHIL5011	Themes in Chinese Philosophy	S1
POLS5127	China and Asia-Pacific Security	S2

 # Students taking this elective will also need to enrol in ARTS5030 Linkage Project 1.

Cognitive Science

Available: MA; GradDipArts; GradCertArts
Coordinator: Dr Peter Slezak, School of History and Philosophy of Science
Email: p.slezak@unsw.edu.au

Cognitive Science has recently emerged as an exciting and fruitful domain of scientific inquiry in which there has been a convergence of a number of disciplines including artificial intelligence, psychology, philosophy, linguistics and neuroscience. Since the revolutionary developments in these fields during the 1950s and 1960s, there has come to be a broad consensus that the problems of mind, language, knowledge and perception do not belong exclusively to any one discipline, but fall to all of them. The Master of Arts in Cognitive Science (program **8225**, plan code **HPSCBS8225**) has been established with a view to providing a comprehensive perspective on Cognitive Science, in the same interdisciplinary spirit which is characteristic of the field.

Students must complete all six courses to qualify for the MA, and four courses to qualify for the Graduate Diploma (program **5225**, plan code **HPSCBS5225**), including HPSC5200 and excluding HPSC5020. They may graduate with a Graduate Certificate (program **7325,** plan code **HPSCBS7325**) after the successful completion of two courses, including HPSC5200 and excluding HPSC5020.

Courses

EDST5303	Human Cognitive Architecture	S1
HPSC5020	Supervised Reading Program	S1 & S2
HPSC5200	Foundations of Cognitive Science	S1
HPSC5210	Philosophical Issues in Cognitive Science	S2
LING5012	Language and Mind	S2
PHIL5206	Artificial Intelligence and Computer Science	S1

Development Studies

Available: MA; GradDip; GradCertArts
Coordinator: A/Prof Michael Johnson
Email: michael.johnson@unsw.edu.au

The postgraduate coursework programs in Development Studies apply a social science and humanities perspective to questions of social, economic and political development. Students acquire a solid grounding of knowledge in the core program of the nature of poverty, inequality and the other development challenges in the developing world and the theories, policies and practices developed to address it. The core courses are supported by a program of electives covering the areas of Development Management; Asia-Pacific Regional Studies; Political Economy and the Environment; Humanities, Human Rights and Politics in which they can specialise. The programs prepare students for work that requires analytical skills and a practical appreciation of the processes of development, development policy and implementation.

Master of Arts

The Master of Arts in Development Studies (program **8225**, plan code **COMDBS8225**) is a coursework degree and requires 48 units of credit. It takes two sessions full-time or four sessions part-time. Three core courses and three elective courses must be selected from the areas of specialisation offered.

Graduate Diploma

The Graduate Diploma in Development Studies (program **5225,** plan code **COMDBS5225**) requires the completion of two core courses in the Development Studies program and two approved elective courses (totalling 32 units of credit). Students in the Master of Arts in Development Studies who complete the requirements of the Graduate Diploma in Development Studies may graduate in that program.

Graduate Certificate

Students who complete two core courses (16 units of credit) qualify for the Graduate Certificate in Development Studies (program **7325,** plan code **COMDBS7325**).

Eligibility for Admission

Applicants should normally hold a three-year Bachelor's degree in any discipline. In exceptional circumstances, applicants may be admitted without a first degree but with general and professional attainments acceptable to the Faculty.

Core Courses

The Master of Arts in Development Studies requires students to select three of the core courses and the Graduate Diploma and Graduate Certificate students must select two of the 8 unit of credit core courses listed below.

POLS5122	The International Political Economy	S2
SLSP5001	Policy Process	S1
SLSP5002	Information and Research for Policy	S1
SLSP5015	International Development Policy	S1
SOCW7850	Issues and Policy in Social Development	S1
SOCW7852	Politics of International Aid	S2

Electives

The Master of Arts in Development Studies requires the completion of three elective courses from one of the following focus areas or two courses from a focus area and one from Asia Pacific Regional Studies. The Graduate Diploma in Development Studies requires the completion of two courses from the one of the following focus areas or one course from a focus area and one from Asia Pacific Regional Studies. Not all courses will be offered each year. The Coordinator can approve courses in other postgraduate programs related to students' field of interest to be substituted for the courses listed here. Students should note some elective courses offered outside the Faculty of Arts and Social Sciences (e.g. ATAX, BENV, GEOH, MGMT, SAHT courses) account for less than 8 units of credit and an additional 2 units of credit linkage course(s) (SLSP5050, ARTS5030, ARTS5031) may be required to complete the requirements of the program.

Development Management

GEOH9011	Environmental Impact Assessment
GEOH9018	Transport Applications of GIS
MGMT5702	International Employment Relations
MGMT5949	International Human Resource Management
SLSP5004	Policy and Organisations
SLSP5016	Social Policy
SLSP5017	Policy Advocacy
SLSP5501	Theory of Program Evaluation
SLSP5502	The Practice of Program Evaluation
SOCA5010	Pacific Islands Fieldwork
SOCW7851	Social and Community Development
SOCW7855	Program Design and Evaluation
SOCW7856	Program Management in Social Development

Political Economy and the Environment

BENV7704	Principles of Political Economy
BENV7714	The Economics of Cities
HPSC5002	Environment, Sustainability and Development
HPSC5500	Society, Environmental Policy and Sustainability
PHIL5402	Ethical Issues in Business and the Professions
PHIL5503	Organisational Ethics: Public and Private
POLS5121	International Institutions

Humanities, Human Rights and Politics

ENGL5031	Post Colonial Representations
PHIL5010	Cosmopolitanism, Citizenship and Sovereignty
POLS5125	The Politics of International Law
POLS5126	Nationalism and Ethnicity in International Relations
SAHT9131	Visual and Museum Cultures in the Asia-Pacific Region
SOCW7852	Politics of International Aid
SOCW7857	Refugees and Forced Migration

Asia Pacific Regional Studies

ATAX0326	Taxation and Investment Regulation in China
BENV7190	People and Urban Space
CHIN5000	China's Provinces
CHIN5906	Chinese Business and Management
HPSC5600	Environment and Development in the Asia Pacific
INDO5002	Politics and Society in Indonesia
POLS5108	Regional Orders in the Asia Pacific
POLS5127	China and Asia Pacific Security
POLS5156	The International Political Economy of East Asian Development

Additional electives may be selected with the permission of the School, Department or Program offering the selected courses and the Coordinator.

English

Available: MA; GradDipArts; GradCertArts in English; Creative Writing
Head of School: A/Prof Sue Kossew
School Office: Room 145, Morven Brown Building
Tel: (02) 9385 2298 **Fax:** (02) 9385 1047
Email: english@unsw.edu.au

Through the Masters, Graduate Diploma and Graduate Certificate programs in English or Creative Writing, the School of English offers a flexible and articulated sequence of postgraduate coursework degrees. Students who successfully complete studies for the Graduate Certificate or Graduate Diploma may apply to upgrade to the full Masters program. At the same time, the Graduate Diploma and Graduate Certificate provide possible exit points for students who find they are unable to complete the full MA program due to changing commitments at work or at home.

Prerequisites

The normal requirement for entry to the MA, GradDipArts, and GradCertArts within the School of English is a BA with a major in English or in a related area, preferably at Credit level or higher. The School particularly encourages applications from primary and secondary teachers. Our program includes new courses which deal directly with material relevant to the new HSC English curriculum. Applicants for the Creative Writing programs whose undergraduate degree is not in English may be requested to provide samples of their creative writing. Applicants whose first language is not English may be required to provide a sample of their critical writing in English. Applications from other appropriately qualified people to any of our programs will be considered on an individual basis. Entry to individual courses may be permitted at the discretion of the Head of School.

Master of Arts in English

The Master of Arts in English (program **8225**, plan code **ENGLAS8225**) aims to provide an opportunity for further coursework study of current critical issues or special interest areas in English. The program includes courses which deal directly with material relevant to the new HSC English curriculum.

Students undertaking the MA program must complete 48 units of credit in English, made up of two core courses (ENGL5001 Introduction to Literary and Critical Theory and ENGL5521 Issues in Literary History), plus 32 units of credit from the elective courses below. All courses are worth 8 units of credit and are of one session's duration. The MA courses may be taken as a full-time program over one year (6 hours per week over 2 sessions) or as a part-time program over two or three years.

Core Courses

ENGL5001	Introduction to Literary and Critical Theory	S1
ENGL5521	Issues in Literary History	S2

Elective Courses

ENGL5000	Individual Reading Program	S1 & S2
ENGL5009	Shakespeare and Revenge	S2
ENGL5029	Poetry Between the Wars	S2
ENGL5305	Literary Controversies	S1

Approved Elective Courses

Approved elective courses may be taken from outside the program from the following list subject to School approval (only two courses may be taken):

ENGL5300	Poetry Plus	S1
ENGL5301	Innovative Fiction	S2
ENGL5302	Intergeneric Writing	S2

Graduate Diploma in Arts in English

The Graduate Diploma in English (program **5225**, plan code **ENGLAS5225**) aims to introduce greater flexibility in the range of articulated courses offered in English and to make available a vocationally relevant degree enabling students to upgrade their knowledge and skills. To complete the program, students are required to take 2 core courses plus 2 elective courses from those offered in the MA program. Students who successfully complete the 4 courses may apply to upgrade to enrolment in the Master of Arts degree. They would then need to complete a further 2 courses. The Graduate Diploma also provides a possible exit point for students who find they are unable to complete the MA (Pass) program due to changing commitments at work or at home.

Core Courses

ENGL5001	Introduction to Literary and Critical Theory	S1
ENGL5521	Issues in Literary History	S2

Elective Courses

ENGL5000	Individual Reading Program	S1 & S2
ENGL5009	Shakespeare and Revenge	S2
ENGL5029	Poetry Between the Wars	S2
ENGL5305	Literary Controversies	S1

Approved Elective Courses

Approved elective courses may be taken from outside the program from the following list subject to School approval (only two courses may be taken):

ENGL5300	Poetry Plus	S1
ENGL5301	Innovative Fiction	S2
ENGL5302	Intergeneric Writing	S2

Graduate Certificate in Arts in English

The Graduate Certificate in English (program **7325**, plan code **ENGLAS7325**) aims to make available a vocationally relevant certificate enabling students to upgrade their knowledge and skills. To complete the program, students are required to take two courses, one of which must be a core course. The certificate is offered 4 hours per week over one session or 2 hours per week over two sessions. Students who successfully complete the 2 courses may apply to upgrade to enrolment in either the Graduate Diploma (requiring completion of a further 2 courses) or the Master of Arts degree (requiring a further 4 courses). The Graduate Certificate also provides a possible exit point for students who find they are unable to complete the MA (Pass) or Graduate Diploma programs due to changing commitments at work or at home.

Core Courses

ENGL5001	Introduction to Literary and Critical Theory	S1
ENGL5521	Issues in Literary History	S2

Elective Courses

ENGL5000	Individual Reading Program	S1 & S2
ENGL5009	Shakespeare and Revenge	S2
ENGL5029	Poetry Between the Wars	S2
ENGL5305	Literary Controversies	S1

Master of Arts in Creative Writing

The School of English offers a coursework program, which leads to the award of Master of Arts in Creative Writing (program **8225**, plan code **ENGLCS8225**). The program is distinctive for the wide range of opportunities it offers, and for its adventurous and contemporary thrust. While many creative writing programs are based on the standardisation of genres of writing, our program encourages students to cross genres and to link creative writing with both relevant theory and other art forms. The program is also unusual because it encourages students to experiment with new technologies, such as hypertext, and to submit work, if they wish, in forms other than the written page.

Program requirements

Students undertaking the MA in Creative Writing must complete 48 units of credit. The program of study will normally be constituted as 6 session-length courses. These must be successfully completed over no fewer than two sessions by full-time students or four sessions by part-time students. The MA in Creative Writing consists of four core Creative Writing courses plus two electives from other MA courses offered by the School. The maximum period of candidature for full-time students is two sessions; for part-time students it is generally six sessions. Each course is taught in a two-hour seminar per week.

Core Course

ENGL5300	Poetry Plus	S1
ENGL5301	Innovative Fiction	S2
ENGL5302	Intergeneric Writing	S2
ENGL5303	Writing Workshop	S1

Elective Courses

Approved elective courses from outside the program:

ENGL5000	Individual Reading Program	S1 & S2
ENGL5001	Introduction to Literary and Critical Theory	S1
ENGL5009	Shakespeare and Revenge	S2
ENGL5029	Poetry Between the Wars	S2
ENGL5305	Literary Controversies	S1
ENGL5521	Issues in Literary History	S2

Graduate Diploma in Arts in Creative Writing

In the Graduate Diploma in Creative Writing (program **5225**, plan code **ENGLCS5225**), students take 4 courses from those offered in the MA in Creative Writing program. Students who have successfully completed the requirements for the Graduate Diploma in Creative Writing may apply to upgrade to the Master of Arts program in Creative Writing, requiring completion of a further 2 courses. The Graduate Diploma also provides a possible exit point for students who find they are unable to complete the MA (Pass) program due to changing commitments at work or at home.

The 32 units of credit are made up of the 4 core courses:

ENGL5300	Poetry Plus	S1
ENGL5301	Innovative Fiction	S2
ENGL5302	Intergeneric Writing	S2
ENGL5303	Writing Workshop	S1

Graduate Certificate in Arts in Creative Writing

In the Graduate Certificate in Creative Writing (program **7325**, plan code **ENGLCS7325**), students undertake 2 courses from those offered in the MA and Graduate Diploma in Creative Writing programs. Students who have successfully completed the requirements for the Graduate Certificate in Creative Writing may apply to upgrade to either the Graduate Diploma in Creative Writing (requiring a further 2 courses) or the Master of Arts program in Creative Writing (requiring a further 4 courses). The Graduate Certificate also provides a possible exit point for students who find they are unable to complete the MA (Pass) program due to changing commitments at work or at home.

The 16 units of credit may be taken from the following:

ENGL5300	Poetry Plus	S1
ENGL5301	Innovative Fiction	S2
ENGL5302	Intergeneric Writing	S2
ENGL5303	Writing Workshop	S1

Environmental Studies

Available: GradCertArts
Coordinators:
Dr Stephen Healy, School of History & Philosophy of Science

Room: LG11, Morven Brown Building
Tel: (02) 9385 1597
Email: s.healy@unsw.edu.au

Dr Paul Brown, School of History & Philosophy of Science
Room: LG16, Morven Brown
Tel: (02) 9385 1497
Email: paul.brown@unsw.edu.au

This Graduate Certificate (program **7325,** plan code **HPSCFS7325**) is designed for graduates wishing to learn more about the social and political context of environmental policy making and management. It is highly relevant for those already working in these areas of government or the private sector, and for teachers, educational planners and community service coordinators. Practitioners concerned with the built environment, such as architects and planners, will also benefit from the program.

Central concerns of the certificate are the rise of modern environmentalism, the concept and interpretation of ecological sustainability, and the assessment and management of technological risk.

The prescriptions of international treaties reflect the globalisation of environmental problems, yet the action which flows from these prescriptions requires action at the national and local level. Increasingly, managers and policy makers must respond using their understanding of ecological sustainability, taking account of a broad range of environmental, political and social matters. 'Sustainable Development' is characterised quite differently by various constituencies, putting an onus on decision makers to engage with participatory processes in order to reach agreement about how environmental management for sustainability should proceed.

With these matters in mind, the certificate aims to equip participants to analyse, negotiate and apply practical and scientific knowledge in the social and policy contexts of their professions.

Students considering enrolling in the Graduate Certificate might also wish to explore the possibility of enrolling in the MA by course work in Science Technology and Society, with a concentration on environmental studies.

Entry Requirements

The normal qualification for entry is a three-year degree, which can be in any discipline. In appropriate cases, relevant professional experience may be accepted in lieu of formal qualifications.

Course Structure

The certificate consists of two courses taken in order: HPSC5500 Society, Environmental Policy and Sustainability, and HPSC5510 Risk Policy, Decision Making and Communication.

Duration

Classes two hours per week over two fourteen-week sessions, in the timeslot 6-8 pm.

Courses

HPSC5500	Society, Environmental Policy and Sustainability	S1
HPSC5510	Risk Policy, Decision Making and Communication	S2

International Relations

Available: MA; GradDipArts; GradCertArts
Coordinator: Dr Ji You (Politics and International Relations)
Email: j.you@unsw.edu.au
Administration: Pat Hall-Ingrey
Tel: 93853786
Email: p.hall-ingrey@unsw.edu.au
Website: http://politics-ir.arts.unsw.edu.au

Master of Arts

The **MA program in International Relations** (program **8225**, plan code **POLSBS8225**) is a comprehensive approach to the key subject components which make up this now very significant sub-discipline. The subject matter is drawn from politics, economics, and history and the underlying theme is an understanding of global politics from both theoretical and practical perspectives.

Prerequisites: The normal requirement for admission to the International Relations program is an undergraduate degree in the social sciences or humanities, with performance at Credit level or better. Relevant work experience may be taken into account in cases where academic qualifications fall short of these requirements.

Program: Students must complete 48 units of credit made up as follows:

8 units of credit obtained from the compulsory course **POLS5120** (Monday or Tuesday evenings)
and
8 units of credit obtained from the following compulsory courses

POLS5122 The International Political Economy
or
POLS5125 The Politics of International Law

Note: Either POLS5122 or POLS5125 can be taken as an elective, if not selected as a compulsory course.

32 units of credit obtained from any four of the elective courses listed below, including POLS5122 International Political Economy **or** POLS5125 The Politics of International Law.

8 of these 32 elective units of credit may, with the permission of the MA Coordinator, be obtained from courses outside the program but within the Faculty.

Each semester-length course, which is worth 8 units of credit, involves participating in one two-hour lecture/seminar each week for fourteen weeks and undertaking a class test and writing a substantial major research essay. Part-time students are not permitted to enrol in elective courses unless they have completed or are enrolled in at least one of the compulsory courses.

Compulsory Courses

POLS5120	The International System	S1
POLS5125	The Politics of International Law	S2
or		
POLS5122	The International Political Economy	S2

Elective Courses

Not all of these may be offered in any one year and new or alternative courses may be offered – consult the Coordinator.

POLS5100	Issues in Australian Public Policy: Internship Program	S2
POLS5102	Australia in the World	S1
POLS5103	Law, War and Justice	S1
POLS5125	The Politics of International Law	S2
POLS5126	Nationalism and Ethnicity	S2
POLS5127	China and Asia-Pacific Security	S1
POLS5158	Theories of the Global Free Market & their Critics	S1
POLS5159	The Israeli Palestinian Conflict	S2
POLS5113	Research Project	S1 & S2

Graduate Diploma in Arts

Coordinator: Dr Ji You

Prerequisites: See prerequisites for the MA program in International Relations.

Program: Applicants are encouraged to enrol in the Masters program and to use the Graduate Diploma (program **5225**) as an exit point only for those who for various reasons are unable to complete the Masters. In order to obtain a Graduate Diploma in International Relations, students must complete 32 units of credit made up as follows:

8 units of credit obtained from POLS5120 and 8 units of credit obtained from either POLS5122 or POLS5125 and two of the International Relations electives.

Graduate Certificate in Arts

Coordinator: Dr Ji You

Prerequisites: See prerequisites for the MA program in International Relations.

Program: In order to obtain a Graduate Certificate in International Relations (program **7325**), students must complete 16 units of credit made up as follows:

8 units of credit obtained from POLS5120 the compulsory course and 8 units of credit obtained from one of the International Relations electives.

Interpreting & Translation Studies

Available: MA; GradDipArts; GradCertArts
Coordinator: Dr Ludmila Stern, School of Modern Language Studies
Email: l.stern@unsw.edu.au

Master of Arts

The Master of Arts by coursework in Interpreting & Translation Studies (MAITS) (program **8225**, plan code **MODLBS8225**) aims to prepare students for professional activities as translators and interpreters, as well as to equip them with research techniques in the area of translation and

interpreting. Courses in interpreting and translation are offered in English and the following languages: **French, German, Indonesian, Japanese, Korean, Russian and Spanish**.

The program is intended for students who have a BA or equivalent with a major in a language and who have native or near-native bilingual proficiency.

Students are required to complete six courses (totalling 48 units of credit): five core courses plus one elective course.

Core Courses

MODL5100	Foundations and Principles of Translation and Interpreting	S1
MODL5101	Translation 1	S1
MODL5103	Translation 2	S1
MODL5102	Consecutive Interpreting 1	S2
MODL5104	Consecutive Interpreting 2	S2

Elective Courses

MODL5105	Conference Interpreting	S2
MODL5106	Research Project	S1 or S2
MODL5107	Professional Practice in Interpreting and Translation	S2

Graduate Diploma in Arts

In the Graduate Diploma in Arts in Interpreting and Translation (program **5225**, plan code **MODLBS5225**) students take four courses from the MA in Interpreting and Translation Studies program. Students who have successfully completed the requirements for the Graduate Diploma may apply to upgrade to the Master of Arts in Interpreting and Translation Studies.

The 32 units of credit are made up of two core and two elective courses:

Core courses

MODL5103	Translation 2	S1
MODL5104	Consecutive Interpreting 2	S2

Elective courses

MODL5101	Translation 1	S1
or		
MODL5102	Consecutive Interpreting 1	S2
or		
MODL5107	Professional Practice in Interpreting and Translating	S2

Graduate Certificate in Arts in Translation

In the Graduate Certificate in Arts in Translation (program **7325**, plan code **MODLCS7325**) students take two courses from the MA in Interpreting and Translation Studies program. Students who have successfully completed the requirements for the Graduate Certificate may apply to upgrade to the Master of Arts or Graduate Diploma in Arts in Interpreting and Translation Studies.

The 16 units of credit are made up of one core and one elective course.

Core course

MODL5103	Translation 2	S1

Elective course

MODL5101	Translation 1	S1
or		
MODL5107	Professional Practice in Interpreting and Translating	S2

Graduate Certificate in Arts in Interpreting

In the Graduate Certificate in Arts in Interpreting (program **7325**, plan code **MODLDS7325**) students take two courses from the MA in Interpreting and Translation Studies program. Students who have successfully completed the requirements for the Graduate Certificate in Interpreting may apply to upgrade to the Master of Arts or Graduate Diploma in Arts in Interpreting and Translation Studies.

The 16 units of credit are made up of one core and one elective course.

Core course

MODL5104	Consecutive Interpreting 2	S2

Elective course

MODL5102	Consecutive Interpreting 1	S2
or		
MODL5107	Professional Practice in Interpreting and Translating	S2

Japanese Applied Linguistics

Available: MA; GradDipArts; GradCertArts
Coordinator: Dr Kazuhiro Teruya
Tel: (02) 9385 3735
Email: k.teruya@unsw.edu.au

Master of Arts

The Master of Arts in Japanese Applied Linguistics (program **8225**, plan code **JAPNFS8225**) aims to provide current and future teachers of the Japanese language and those who plan to pursue academic careers in Japanese applied linguistics with a well-founded basis and practical experience in the field.

The program draws from the existing expertise of both the Department of Linguistics and the Department of Japanese and Korean Studies to offer a unique opportunity to study Japanese linguistics and its application to teaching. Students enrolling in this program are required to have third year proficiency or equivalent in Japanese.

To be awarded the degree, students are required to complete six courses (totalling 48 units of credit): at least two JAPN courses from List A and up to two LING courses from List B, plus the remainder from List C. In fulfilling the requirements for LING courses students must use Japanese data or examples. The program may be taken full-time or part-time.

The MA includes at least 2 courses from List A:

List A

JAPN5001	Features of a Language: Japanese	S1
JAPN5002	Issues in Teaching Japanese as a Foreign Language	S1
JAPN5006	Japanese Sociolinguistics	S2
JAPN5018	Discourse and Society in Japan	S2
JAPN5020	Issues in Learning Japanese as a Foreign Language	S2

plus up to 2 courses from List B:

List B

LING5001	Second Language Acquisition	S1 & S2
LING5002	Language Teaching Methodology	S1 & S2
LING5003	Testing and Evaluation	S1 & S2
LING5004	Curriculum Design	S1 & S2
LING5012	Language and Mind	S2
LING5015	Functional Discourse Analysis	S1
LING5020	Adult Language Learning and Teaching	S1
LING5021	Language for Specific Purposes	S2
LING5023	Analysing Spoken Discourse	S1

plus the remainder from List C:

List C

JAPN5000	Special Project	S1 & S2
JAPN5001	Features of a Language: Japanese	S1
JAPN5002	Issues in Teaching Japanese as a Foreign Language	S1
JAPN5003	Japanese In-Country Research Project I	S1 & S2
JAPN5004	Japanese In-Country Research Project II	S1 & S2
JAPN5006	Japanese Sociolinguistics	S2
JAPN5007	Creative Reading and Writing A	S1
JAPN5008	Creative Reading and Writing B	S2
JAPN5011	Japanese Teaching Practicum	S1 & S2
JAPN5015	Research Methods in Japanese Studies	S1
JAPN5018	Discourse and Society in Japan	S2
JAPN5019	Empowerment through Japanese Grammar	S1
JAPN5020	Issues in Learning Japanese as a Foreign Language	S2

Graduate Diploma in Arts

The Graduate Diploma in Japanese Applied Linguistics (program **5225**, plan code **JAPNFS5225**) aims to provide current and future teachers of the Japanese language and those who plan to pursue academic careers in Japanese applied linguistics with a well-founded basis and practical experience in the field.

The program draws from the existing expertise of both the Department of Linguistics and the Department of Japanese and Korean Studies to offer a unique opportunity to study Japanese linguistics and its application to teaching.

Students enrolling in this program are required to have third year proficiency or equivalent in Japanese.

Students are required to complete four courses from the MA in Japanese Applied Linguistics program – two or more JAPN courses from List A and remaining from LING courses in List B.

Graduate Certificate in Arts

The Graduate Certificate in Japanese Applied Linguistics (program **7325**, plan code **JAPNFS7325**) aims to provide current and future teachers of the Japanese language and those who plan to pursue academic careers in Japanese applied linguistics with a well-founded basis and practical experience in the field.

The program draws from the existing expertise of both the Department of Linguistics and the Department of Japanese and Korean Studies to offer a unique opportunity to study Japanese linguistics and its application to teaching. Students enrolling in this course are required to have third year proficiency or equivalent in Japanese.

Students are required to complete two List A courses from the MA in Japanese Applied Linguistics program.

Korean Applied Linguistics

Available: MA; GradDipArts; GradCertArts
Coordinator: Dr Gi-Hyun Shin
Tel: (02) 9385 1731
Email: g.shin@unsw.edu.au

Master of Arts

The Master of Arts in Korean Applied Linguistics (program **8225**, plan code **KORECS8225**) aims to provide current and future teachers of the Korean language and those who plan to pursue academic careers in Korean applied linguistics with a well-founded basis and practical experience in the field.

The program draws from the existing expertise of both the Department of Linguistics and the Department of Japanese and Korean Studies to offer a unique opportunity to study Korean linguistics and its application to teaching. Students enrolling in this program are required to have third year proficiency or equivalent in Korean.

To be awarded the degree, students are required to complete six courses (totalling 48 units of credit) from the list including **KORE5006** and **KORE5007** and **two** LING courses. In fulfilling the requirements for LING courses, students must use Korean data or examples. The program may be taken full-time or part-time.

Course List

KORE5000	Special Project	S1 & S2
KORE5001	Korea's Place in East Asia	S1
KORE5002	Creative Reading and Writing A	S1
KORE5003	Creative Reading and Writing B	S2
KORE5004	Korean In-Country Project I	S1
KORE5005	Korean In-Country Project II	S2
KORE5006	Workshop in Teaching Korean	S2
KORE5007	Insights into the Korean Language	S1
KORE5008	Korean Teaching Practicum	S1 & S2
KORE5009	Research Methods in Korean Studies	S1
LING5002	Language Teaching Methodologies	S1 & S2
LING5003	Testing and Evaluation	S1 & S2
LING5004	Curriculum Design	S1 & S2
LING	other courses also available	

Graduate Diploma in Arts

Students who enrol in this program (**5225**, plan code **KORECS5225**) need to complete KORE5006 and KORE5007 and two other courses from the course list.

Graduate Certificate in Arts

Students who enrol in this program (**7325**, plan code **KORECS7325**) need to complete the two courses: KORE5006 and KORE5007.

Linguistics

Available: MA; GradDipArts; GradCertArts in Applied Linguistics and TESOL
Coordinators: Dr Rod Gardner (S1), Dr Barbara Mullock (S2)
Email: lingquiries@unsw.edu.au

Master of Arts in Applied Linguistics

The MA program in Applied Linguistics (program **8225**, plan code **LINGBS8225**) aims to provide those who work or plan to work in a language-related area (teachers of English as a second or foreign language or of a language other than English, translators and interpreters, curriculum designers, and other language professionals) with a vocationally relevant degree which will enable them to refresh and upgrade their knowledge and skills.

Applicants require a relevant undergraduate degree (normally with specialisation in Linguistics, English, or another language), with preference given to applicants with relevant work experience.

The program may be taken full-time over two semesters or part-time over a period of no less than three semesters and no more than six semesters. Students are required to complete six courses.

Courses

LING5000	Special Project in Applied Linguistics	S1 & S2
LING5001	Second Language Acquisition	S1 & S2
LING5002	Language Teaching Methodology	S1 & S2
LING5003	Testing and Evaluation	S1 & S2
LING5004	Curriculum Design	S1 & S2
LING5005	The Structure of English	S1
LING5007	Translation: Theory and Practice	S2
LING5011	Functional Grammar	S2
LING5012	Language and Mind	S2
LING5015	Functional Discourse Analysis	S1
LING5020	Adult Language Learning and Teaching	S1
LING5021	Language for Specific Purposes	S2
LING5023	Analysing Spoken Discourse	S1

Approved elective courses from outside the program

One approved elective course may be taken from outside the program from the following list:

JAPN5001	Features of a Language: Japanese	S1
JAPN5002	Issues in Teaching Japanese as a Foreign Language	S1
JAPN5006	Japanese Sociolinguistics	S2
JAPN5018	Discourse and Society in Japan	S2
JAPN5020	Issues in Learning Japanese as a Foreign Language	S2

Graduate Diploma in Arts in Applied Linguistics

The Graduate Diploma in Applied Linguistics (program **5225**, plan code **LINGBS5225**) aims to provide those who work or plan to work in a language-related area (teachers of English as a second or foreign language or of a language other than English, translators and interpreters, curriculum designers, and other language professionals) with a vocationally relevant degree which will enable them to refresh and upgrade their knowledge and skills.

Applicants require a relevant undergraduate degree (normally with specialisation in Linguistics, English, or another language), with preference given to applicants with relevant work experience.

The Diploma is offered both full-time (4 hours per week over 2 semesters) or part-time (over 3 or 4 semesters). Students are required to complete four courses.

Courses

LING5000	Special Project in Applied Linguistics	S1 & S2
LING5001	Second Language Acquisition	S1 & S2
LING5002	Language Teaching Methodology	S1 & S2
LING5003	Testing and Evaluation	S1 & S2
LING5004	Curriculum Design	S1 & S2
LING5005	The Structure of English	S1
LING5007	Translation: Theory and Practice	S2
LING5011	Functional Grammar	S2
LING5012	Language and Mind	S2
LING5015	Functional Discourse Analysis	S1
LING5020	Adult Language Learning and Teaching	S1
LING5021	Language for Specific Purposes	S2
LING5023	Analysing Spoken Discourse	S1

Graduate Certificate in Arts in Applied Linguistics

The Graduate Certificate in Applied Linguistics (program **7325**, plan code **LINGBS7325**) aims to provide those who work or plan to work in a language-related area (teachers of English as a second or foreign language or of a language other than English, translators and interpreters, curriculum designers, and other language professionals) with a vocationally relevant degree which enables them to refresh and upgrade their knowledge and skills.

Applicants require a relevant undergraduate degree (normally with specialisation in Linguistics, English, or another language), with preference given to applicants with relevant work experience.

The Certificate is offered 4 hours per week over 1 semester or 2 hours per week over 2 semesters. Students are required to complete two courses as listed in the Graduate Diploma in Applied Linguistics program.

Master of Arts in TESOL

The MA program in TESOL (program **8225**, plan code **LINGCS8225**) aims to provide those who work or plan to work in the teaching of English to speakers of other languages (including teachers, curriculum designers,

language testers, education administrators, etc.) with a vocationally relevant degree which will enable them to refresh and upgrade their knowledge and skills.

Applicants require a relevant undergraduate degree (normally with specialisation in Linguistics, English, or another language), with preference given to applicants with relevant work experience.

The program may be taken full-time over two semesters or part-time over a period of no less than three semesters and no more than six semesters. Students are required to complete three core courses plus 3 electives as listed below:

Core Courses

LING5002	Language Teaching Methodology	S1 & S2
LING5003	Testing and Evaluation	S1 & S2
LING5004	Curriculum Design	S1 & S2

Elective Courses

LING5001	Second Language Acquisition	S1
LING5005	The Structure of English	S1
LING5011	Functional Grammar	S2
LING5020	Adult Language Learning and Teaching	S1
LING5021	Language for Specific Purposes	S2
LING5023	Analysing Spoken Discourse	S1
LING5050	Special Project in TESOL	S1 & S2

Graduate Diploma in Arts in TESOL

The Graduate Diploma in TESOL (program **5225**, plan code **LINGCS5225**) aims to provide those who work or plan to work in the teaching of English to speakers of other languages (including teachers, curriculum designers, language testers, education administrators, etc.) with a vocationally relevant degree which will enable them to refresh and upgrade their knowledge and skills.

Applicants require a relevant undergraduate degree (normally with specialisation in Linguistics, English, or another language), with preference given to applicants with relevant work experience.

The program may be taken full-time over two semesters or part-time over a period of no less than three semesters and no more than six semesters. Students are required to complete two core courses plus 2 electives as listed below:

Core Courses

LING5002	Language Teaching Methodology	S1 & S2
LING5004	Curriculum Design	S1 & S2

Elective Courses

LING5001	Second Language Acquisition	S1
LING5003	Testing and Evaluation	S1 & S2
LING5005	The Structure of English	S1
LING5011	Functional Grammar	S2
LING5020	Adult Language Learning and Teaching	S1
LING5021	Language for Specific Purposes	S2
LING5023	Analysing Spoken Discourse	S1
LING5050	Special Project in TESOL	S1 & S2

Graduate Certificate in Arts in TESOL

The Graduate Certificate TESOL (program **7325**, plan code **LINGCS7325**) aims to provide those who work or plan to work in the teaching of English to speakers of other languages (including teachers, curriculum designers, language testers, education administrators, etc.) with a vocationally relevant degree which will enable them to refresh and upgrade their knowledge and skills.

Applicants require a relevant undergraduate degree (normally with specialisation in Linguistics, English, or another language), with preference given to applicants with relevant work experience.

The certificate is offered 4 hours per week over 1 semester or 2 hours per week over 2 semesters. Students are required to complete two core courses as listed in the Graduate Diploma in Arts in TESOL program.

Master of Education (Applied Linguistics)

A cross-disciplinary program is also available in Applied Linguistics and Education (for details, see the Education section of this Handbook).

Further details may be obtained from the Linguistics Handbook available from the Department of Linguistics or the Postgraduate Administrative Assistant (lingquiries@unsw.edu.au).

Media, Performance and Education

Available: MA; GradDipArts
Coordinator: Professor Philip Bell
Administrative Assistant: Jennifer Beale
Tel: (02) 9385 4856 **Fax:** (02) 9385 6812
Email: mft@unsw.edu.au
Website: http://media.arts.unsw.edu.au

Master of Arts

The Master of Arts in Media, Performance and Education (program **8225**, plan code **MEFTES8225**) aims to provide teachers of secondary school curricula with relevant, current knowledge and creative production skills in one or more of: Media and Education; Theatre/performance and Education; Dance Education; Film and Education.

Four courses in each of these four specialisations are taught in a fixed pattern over each two-year period. Each of the four foci includes at least two production/practice courses and at least two that directly address relevant New South Wales Department of Education curricula.

Students will generally enrol in four courses from one specialisation, and two from the other fields, to complete their Master of Arts, or in four only for the Graduate Diploma.

Courses

Most courses consist of weekly seminars or workshops, held in the evening over a single session (14 weeks). All courses carry a weighting of 8 units of credit.

Media Education

MEFT5100	Teaching Media: Word and Image	S1
MEFT5101	Teaching Media: Audiences and Genres*	
MEFT5102	News and Documentary Media*	
MEFT5103	Computer Media and Education	S2

Film Education

MEFT5200	Film and the Curriculum*	
MEFT5201	Teaching Cinema: Genres and Movements*	
MEFT5202	Video Production in Education	S2
MEFT5203	Teaching Cinema: Film History and Aesthetics	S1

Theatre and Performance Education

MEFT5300	Teaching Drama	S1
MEFT5301	Australian Drama and Theatre*	
MEFT5302	Making Performance	S2
MEFT5303	Approaching the Play Text*	

Dance Education

MEFT5400	Approaches to Teaching Dance	S1
MEFT5401	Dance Performance	S2
MEFT5402	Dance Technology Project*	
MEFT5403	Teacher as Choreographer in an Educational Setting*	

**Not offered in 2006.*

Graduate Diploma in Arts

To complete the Graduate Diploma in Media, Performance and Education (program **5225,** plan code **MEFTES5225**), students enrol in four courses, at least 2 from one of the specialisations listed above and the remaining courses from one of the other fields. See areas above.

Philosophy

Available: GradDipArts
Coordinator: A/Professor Damian Grace
Email: d.grace@unsw.edu.au

Graduate Diploma in Arts

The Graduate Diploma in Arts in Philosophy (program **5225**, plan code **PHILAS5225**) is designed to provide knowledge and skills in philosophy for graduates from other disciplines or, for those with some philosophy in an undergraduate degree, it provides the opportunity to extend and upgrade their existing knowledge base. In some cases, if other criteria are met, the diploma can provide the basis for undertaking research in philosophy (via the Graduate Diploma in Arts by Research).

The entrance requirement is an undergraduate (pass) degree of good quality in any field. Students can complete the diploma in one year but normally complete in two years. Students are required to complete 4 of the courses listed below:

PHIL5002	Themes in the History of Philosophy	S1 & S2
PHIL5004	Contemporary Epistemology and Metaphysics	S1
PHIL5005	Directions in European Philosophy	S1 & S2
PHIL5006	Developments in Moral Philosophy	S1
PHIL5007	Issues in Philosophy of Mind	S1 & S2
PHIL5008	Themes in Social and Political Philosophy	S1
PHIL5009	Advanced Study Project	S1 & S2
PHIL5010	Cosmopolitanism, Citizenship and Sovereignty	S2
PHIL5011	Themes in Chinese Philosophy	S2
PHIL5206	Artificial Intelligence and Computer Science	S1

Science, Technology and Society

Available: MA; GradDipArts; GradCertArts
Coordinator: Dr Nicolas Rasmussen, School of History and Philosophy of Science
Email: nicolas.rasmussen@unsw.edu.au

The programs in Science, Technology and Society are offered through the School of History and Philosophy of Science and reflect the wide scope of the modern discipline of History and Philosophy of Science [HPS]. This includes not only the foundational HPS areas of history and philosophy of science, technology and medicine; but also the study of contemporary science, technology, environment and society, involving issues about the social shaping and social and ethical impacts of modern science and technology, the politics of environmental controversy, and the assessment and management of technological risk. A wide choice of courses allows students to design a program of study suited to their interests and aims.

Students interested in the traditional HPS areas will engage with some of the deepest intellectual and cultural issues of modern times. These include, amongst others: the nature, dynamics and future of modern science; philosophical foundations of science; relations of science to religion; comparative development of science and technology in the West and other cultures and civilisations past and present; and the shaping of science, past and present, by intellectual, institutional, economic and political contexts.

Students interested in the newer domains of HPS, dealing with contemporary science, technology, environment and society, will find there more applied, interdisciplinary, and problem oriented approaches, engaging contemporary questions about technology and social change, the politics of medicine and health, the place of science and technology in a globalised world economy, as well as the social and political context of environmental policy making and management. These courses are particularly relevant to those working in related areas in government or the private sector. They are also suitable for those with technical and scientific training who want to broaden their approaches, as well as environmental education practitioners, managers in industry and government, and practitioners concerned with the built environment and urban development.

Students must complete six of the courses listed below, including at least either HPSC5001 or HPSC5002, to qualify for the Master of Arts in Science, Technology and Society (program **8225**, plan code **HPSCDS8225**). Eight units of credit (one standard course) may, with the permission of the Program Coordinator, be obtained from courses outside this program, but within the Faculty. For the Graduate Diploma (program **5225**, plan code **HPSCDS5225**), students must complete four of the courses listed below, including at least either HPSC5001 or HPSC5002. For the Graduate Certificate (program **7325**, plan code **HPSCDS7325**), students must complete two of the courses listed below, including at least either HPSC5001 or HPSC5002. Exemption from the Compulsory Course requirement may be granted by the Program Coordinator to suitably qualified candidates.

Compulsory Courses

HPSC5001	Introduction to History and Philosophy of Science	S1
HPSC5002	Environment, Sustainability and Development	S1

Elective Courses

HPSC5010	Key Themes in the History of Science	S2
HPSC5020	Supervised Reading Program*	S1 & S2
HPSC5120	Issues in the History of Life Sciences & Biotechnology	S2
HPSC5130	History & Politics of Medicine & Health	S1
HPSC5200	Foundations of Cognitive Science	S1
HPSC5210	Philosophical Issues in Cognitive Science	S2
HPSC5300	History of Technology: Concepts & Cases	S2
HPSC5500	Society, Environmental Policy & Sustainability	S1
HPSC5510	Risk Policy, Decision Making & Communication	S2
HPSC5600	Environment and Development in the Asia Pacific	S2

**Only available as part of the MA, and then only by permission of the Head of School.*

Faculty of the Built Environment

A Message from the Dean

Welcome to the Faculty of Built Environment (FBE) at UNSW. I hope you find the information in this Handbook helpful in understanding the programs offered in our Faculty. The structure of FBE is unique in Australia in the range of disciplines it offers including Architecture, Building, Industrial Design, Interior Architecture, Landscape Architecture and Planning & Urban Development. FBE is structured to encourage synergy between the disciplines and flexibility for students in the range of courses they can take. Students have the opportunity to gain both expertise in their chosen disciplines and to become familiar with the concepts and ideas of the other disciplines in the Faculty. In reading this Handbook you will discover the wide range of courses on offer.

The undergraduate and postgraduate programs offered by the Faculty are well established and well regarded by employers. Each program integrates the academic knowledge and practical skills required for professional practice.

The Faculty offers both postgraduate coursework and research degrees. Details are contained in this Handbook.

Around 20 per cent of our students are international students. FBE has a reputation for the excellence of its staff and students and is professionally recognised nationally and internationally. The Faculty receives strong industry support and extensive international academic links provide opportunities for exchange and collaboration in learning and research.

If you have further questions after reading through this Handbook, please do not hesitate to obtain advice from your lecturers and from the Faculty administrative staff at all stages of your study. You may also wish to visit FBE's website at: **www.fbe.unsw.edu.au**

Peter A Murphy
Dean
Faculty of the Built Environment

Contents

Faculty Information and Assistance

Who Can Help? 85
The Faculty of Built Environment Website 85
Computing Information and Student Ownership of Personal Computers 85
Course Descriptions 86
Enrolment Procedures 86
Faculty of the Built Environment Resource Centre 86
Faculty Research Laboratories 86
Rules for Progression 86

Summary of Programs

Higher Degrees – Research 86
Higher Degrees – Coursework 86

Program Rules and Information - Research Degrees

1120 Doctor of Philosophy 86
2200 Master of Architecture 88
2206 Master of Science 89
2210 Master of Building 89
2220 Master of Landscape Architecture 89
2230 Master of Town Planning 89
2240 Master of the Built Environment 89

Program Rules and Information - Coursework Degrees

8142 Master of Architecture 89
8124 Master of Construction Project Management in Professional Practice 91
8123 Master of Construction Project Management 92
7123 Graduate Certificate in Construction Project Management 92
8127 Master of Property and Development 93
8131 Master of Urban Development and Design 94
8132 Master of the Built Environment (Sustainable Development) 95
5132 Graduate Diploma in Built Environment (Sustainable Development) 96
7332 Graduate Certificate in Built Environment (Sustainable Development) 97

Who Can Help?

If you require advice about enrolment, degree requirements, progression within programs, information and advice about course content and requirements, contact the Faculty Student Centre, Level 3, Red Centre Building.

To speak to the Associate Dean (Education), Head of School, or any of the staff responsible for the postgraduate coursework and research programs offered in the Faculty, go to the Postgraduate Studies and Research Office on Level 2.

Faculty Information and Assistance

The Faculty of Built Environment Website

The Faculty of the Built Environment's website **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.

Computing Information

The Faculty has five major computing laboratories containing 80 personal computers available for general use by students in the Faculty. These laboratories are used for teaching formal classes, as well as providing general network and computing access for students 24 hours a day. The computers are higher end PC workstations configured to support a wide range of applications including: CAD, modelling, rendering, visualisation, multimedia presentations, GIS, analysis, general office applications and much more. The Faculty's Resource Centre and Postgraduate labs add a further 40 computers to this mix which is complimented by the student accessible wireless networking in and around the Faculty.

These laboratory resources are supported by a range of devices and services from standard printers, plotters and scanners to notebooks, digital cameras and projectors for presentations. The Faculty offers a printing service providing large format colour printing, photo quality output and laminating. This will allow student presentations to exceed professional

quality. The labs provide an environment where the computing technology can be utilised throughout the wide range of courses offered across the Built Environment's disciplines.

All these computers are connected to the Campus Wide Network, providing secure online file storage, access for students to the information resources supported by the Faculty and the University generally, as well as the international resources of the Internet.

Student Ownership of Personal Computers

The Faculty encourages all students to consider the purchase of a personal computer to support their studies. The prevailing policy is that the Faculty endeavours to provide for the high end computing needs of students, in the belief that many students are able to meet their own needs for more basic applications. To that end, the Faculty publishes a document which is available on the website, providing advice to students regarding the purchase of personal computers, software and network connectivity.

Course Descriptions

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

Enrolment Procedures

New Students

New students enrolling in graduate programs will be sent enrolment information from the University Admissions Office. New students enrol online at myUNSW **https://my.unsw.edu.au**.

Re-enrolling Students

All students re-enrolling in the Faculty will re-enrol online via myUNSW. Instructions can be found on the FBE website.

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 consists of textbooks and recommended reading, background information to programs, serials and standards (these are duplicated in the Physical Sciences Library). Unique materials held consist of donations, undergraduate theses, trade catalogues and an open reserve collection of specific materials left by lecturers to supplement program work.

The Resource Centre computers provide access to library catalogues and other online databases, email facilities and the Internet and six of the computers have word-processing facilities. Photocopying facilities are also provided.

Assistance is provided by the librarian in using the Centre's resources and 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-6.00pm Monday to Thursday, 8.30am-4.00pm on Friday. Out of session, the Resource Centre is open from 8.30am-4.00pm Monday to Friday, closed all January, weekends and public holidays.

Rules for Progression

Progression in programs offered in FBE is generally dependent on the successful completion of prerequisites and/or corequisites 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 Program Director may recommend a restricted program.

Summary of Programs

Higher Degrees – Research

Following the award of a first degree in Architecture, Building, Industrial Design, Landscape Architecture, Planning or other relevant program of the University of New South Wales or other approved university, graduates may apply to register for study leading to the award of the degree of:

1. Doctor of Philosophy
2. Master of Architecture
3. Master of Science
4. Master of Building
5. Master of Landscape Architecture
6. Master of Town Planning
8. Master of the Built Environment

For details concerning these degrees see Program Rules and Information – Research Degrees later in this Handbook or write to the Associate Dean Research.

Higher Degrees – Coursework

In addition to the facilities available for the pursuit of higher degrees by research, formal programs are offered as follows:

1. Master of Architecture
2. Master of the Built Environment (Sustainable Development)
3. Master of Construction Project Management in Professional Practice
3. Master of Construction Project Management
4. Master of Property and Development
5. Master of Urban Development and Design
6. Graduate Diploma in Built Environment (Sustainable Development)
7. Graduate Certificate in Built Environment (Sustainable Development)
8. Graduate Certificate in Construction Project Management

Program Rules and Information - Research Degrees

Postgraduate Student Director: Catherine De Lorenzo

The Faculty of the Built Environment offers excellent facilities for research and welcomes inquiries from students who wish to pursue programs for research as detailed below. Prospective students should consult the Postgraduate Student Director to discuss their research interests prior to making a formal application.

Research students are encouraged to join one of the Faculty's five research groups which provide a collegial environment for staff and students with similar research interests in the following areas:

- Design
- Management
- History and Theory
- Environment and Sustainability
- Urban and Cultural Studies

The Faculty is home to the following research centres and units which provide opportunities for research students to participate in a focused research endeavour:

- Centre for a Sustainable Built Environment (formerly SOLARCH)
- City Futures Research Centre
- Centre for Health Assets Australisia (CHAA)

1120 Doctor of Philosophy

PhD

Typical Duration
4 years

Minimum UOC for Award
144 units of credit

Typical UOC per Session
24 units of credit

Program Description

This is a research degree requiring an original and significant contribution to knowledge in an approved course. Supervision is available for topics relevant to the discipline areas of the faculty (architecture, building construction management, industrial design, interior architecture, landscape architecture, human and environment interface geography, urban design, and urban planning). Cross-disciplinary research is encouraged and collaborative supervision across these disciplines and with other disciplines within the University is available.

The Doctor of Philosophy (PhD) degree is offered in all faculties of the University of New South Wales and encourages initiative and originality in research. Candidates should make a significant contribution to knowledge in their field.

As a general guide, the UNSW entry requirements for the degree of Doctor of Philosophy are as follows:

A candidate for the degree shall have been awarded an appropriate degree of Bachelor with Honours from the University of New South Wales or a qualification considered equivalent from another university or tertiary institution at a level acceptable to the Research Committee of the appropriate faculty.

Candidates may be admitted to the PhD program after one year's full-time enrolment in a Masters by Research program, with the approval of the Faculty Postgraduate Affairs Committee.

In exceptional cases an applicant who submits evidence of such other academic and professional qualifications as may be approved by the Committee may be permitted to enrol for the degree.

However, as each faculty manages its own PhD programs, prospective local and international research students should check with the relevant faculty and/or school for specific entry requirements.

English language requirements also apply. Please refer to the UNSW website: **www.unsw.edu.au/futureStudents/postgradResearch/res/fspgrengreqpolicy.html**

Program Objectives and Learning Outcomes

The Doctor of Philosophy degrees encourages initiative and originality in research. Students will make a significant contribution to knowledge in their field and will be competent to carry out research in their chosen area.

Program Structure

This program involves a minimum of three years full-time study. Students undertake supervised research leading to the production of the thesis.

The length of a doctoral thesis normally should not exceed 100,000 words of text and should be submitted for examination within 4 years of full-time study.

In some faculties advanced coursework is also prescribed.

Academic Rules

1. The degree of Doctor of Philosophy may be awarded by the Council on the recommendation of the Research Committee of the appropriate faculty or board (hereinafter referred to as the Committee) to a candidate who has made an original and significant contribution to knowledge.

Qualifications

2. (1) A candidate for the degree shall have been awarded an appropriate degree of Bachelor with Honours from the University of New South Wales or a qualification considered equivalent from another university or tertiary institution at a level acceptable to the Committee.

(2) In exceptional cases an applicant who submits evidence of such other academic and professional qualifications as may be approved by the Committee may be permitted to enrol for the degree.

(3) If the Committee is not satisfied with the qualifications submitted by an applicant the Committee may require the applicant to undergo such assessment or carry out such work as the Committee may prescribe, before permitting enrolment as a candidate for the degree.

Enrolment

3. (1) An application to enrol as a candidate for the degree shall be lodged with the Registrar at least one month prior to the date at which enrolment is to begin.

(2) In every case before making the offer of a place the Committee shall be satisfied that initial agreement has been reached between the *School and the applicant on the topic area, supervision arrangements, provision of adequate facilities and any coursework to be prescribed and that these are in accordance with the provisions of the guidelines for promoting postgraduate study within the University.

(3) The candidate shall be enrolled either as a full-time or a part-time student.

(4) A full-time candidate will present the thesis for examination no earlier than three years and no later than five years from the date of enrolment and a part-time candidate will present the thesis for examination no earlier than four years and no later than six years from the date of enrolment, except with the approval of the Committee.

(5) The candidate may undertake the research as an internal student i.e. at a campus, teaching hospital, or other research facility with which the University is associated, or as an external student not in attendance at the University except for periods as may be prescribed by the Committee.

(6) An internal candidate will normally carry out the research on a campus or at a teaching or research facility of the University except that the Committee may permit a candidate to spend a period in the field, within another institution or elsewhere away from the University provided that the work can be supervised in a manner satisfactory to the Committee. In such instances the Committee shall be satisfied that the location and period of time away from the University are necessary to the research program.

(7) The research shall be supervised by a supervisor and where possible a co-supervisor who are members of the academic staff of the School or under other appropriate supervision arrangements approved by the Committee. Normally an external candidate within another organisation or institution will have a co-supervisor at that institution.

Progression

4. The progress of the candidate shall be considered by the Committee following report from the School in accordance with the procedures established within the School and previously noted by the Committee.

(i) The research proposal will be reviewed as soon as feasible after enrolment. For a full-time student this will normally be during the first year of study, or immediately following a period of prescribed coursework. This review will focus on the viability of the research proposal.

(ii) Progress in the course will be reviewed within twelve months of the first review. As a result of either review the Committee may cancel enrolment or take such other action as it considers appropriate. Thereafter, the progress of the candidate will be reviewed annually.

Thesis

5. (1) On completing the program of study a candidate shall submit a thesis embodying the results of the investigation.

(2) The candidate shall give in writing to the Registrar two months notice of intention to submit the thesis.

(3) The thesis shall comply with the following requirements:

(a) it must be an original and significant contribution to knowledge of the subject;

(b) the greater proportion of the work described must have been completed subsequent to enrolment for the degree;

(c) it must be written in English except that a candidate in the Faculty of Arts and Social Sciences may be required by the Committee to write a thesis in an appropriate foreign language;

(d) it must reach a satisfactory standard of expression and presentation;

(e) it must consist of an account of the candidate's own research but in special cases work done conjointly with other persons may be accepted provided the Committee is satisfied about the extent of the candidate's part in the joint research.

(4) The candidate may not submit as the main content of the thesis any work or material which has previously been submitted for a university degree or other similar award but may submit any work previously published whether or not such work is related to the thesis.

(5) Four copies of the thesis shall be presented in a form which complies with the requirements of the University for the preparation and submission of theses for higher degrees.

(6) It shall be understood that the University retains the four copies of the thesis submitted for examination and is free to allow the thesis to be consulted or borrowed. Subject to the provisions of the Copyright Act, 1968, the University may issue the thesis in whole or in part, in photostat or microfilm or other copying medium.

Examination

6. (1) There shall be not fewer than three examiners of the thesis, appointed by the Committee, at least two of whom shall be external to the University.

(2) At the conclusion of the examination each examiner shall submit to the Committee a concise report on the thesis and shall recommend to the Committee that one of the following:

(a) The thesis merits the award of the degree.

(b) The thesis merits the award of the degree subject to minor corrections as listed being made to the satisfaction of the head of school.

(c) The thesis requires further work on matters detailed in my report. Should performance in this further work be to the satisfaction of the higher degree Committee, the thesis would merit the award of the degree.

(d) The thesis does not merit the award of the degree in its present form and further work as described in my report is required. The revised thesis should be subject to re-examination.

(e) The thesis does not merit the award of the degree and does not demonstrate that resubmission would be likely to achieve that merit.

(3) If the performance in the further work recommended under (2)(c) above is not to the satisfaction of the Committee, the Committee may permit the candidate to submit the thesis for re-examination as determined by the Committee within a period determined by it but not exceeding eighteen months.

(4) After consideration of the examiners' reports and the results of any further examination of the thesis, the Committee may require the candidate to submit to written or oral examination before recommending whether or not the candidate be awarded the degree. If it is decided that the candidate be not awarded the degree, the Committee shall determine whether or not the candidate be permitted to resubmit the thesis after a further period of study and/or research.

Fees

7. A candidate shall pay such fees as may be determined from time to time by the Council.

** 'School' is used here and elsewhere in these conditions to mean any teaching unit authorised to enrol research students and includes a department where that department is not within a school, a centre given approval by the Academic Board to enrol students, and an interdisciplinary unit within a Faculty and under the control of a Dean of a Faculty. Enrolment is permitted in more than one such teaching unit.*

Further Information

If you are considering applying for a PhD at UNSW you will need to make contact with the relevant school or faculty. This is necessary in order to establish that your research interests and those of the school and faculty are aligned, and that there is a suitable supervisor for your particular area of research.

Prospective students are strongly advised to make contact with potential supervisors before applying for research study at the University. Please refer to the Faculty home page for contact details of schools and departments.

Please refer to the UNSW website for further information on how to apply, scholarships, English language requirements, thesis preparation and other research related matters: **www.unsw.edu.au/futurestudents/research**

2200 Master of Architecture

MArch

Typical Duration
2 years

Minimum UOC for Award
96 units of credit

Typical UOC per Session
24 units of credit

Program Description

This degree is available to full-time, part-time and external candidates. It requires the submission of a thesis embodying the results of an original investigation or design. For further information on program requirements and availability, please contact the Faculty of the Built Environment.

Academic Rules

1. The degree of Master of Architecture or Master of Building or Master of the Built Environment or Master of Landscape Architecture or Master of Town Planning by research may be awarded by the Council on the recommendation of the Research Committee of the Faculty of the Built Environment (hereinafter referred to as the Committee) to a candidate who has demonstrated ability to undertake research by the submission of a thesis embodying the results of an original investigation or design.

Qualifications

2. (1) A candidate for the degree shall have been awarded an appropriate degree of Bachelor of four full-time year's duration (or the part-time equivalent) from the University of New South Wales or a qualification considered equivalent from another university or tertiary institution at a level acceptable to the Committee.

(2) In exceptional cases an applicant who submits evidence of such academic and/or professional qualifications as may be approved by the Committee may be permitted to enrol for the degree.

(3) When the Committee is not satisfied with the qualifications submitted by an applicant the Committee may require the applicant, before being permitted to enrol, to undergo such examination or carry out such work as the Committee may prescribe.

Enrolment and Progression

3. (1) An application to enrol as a candidate for the degree shall be made on the prescribed form which shall be lodged with the Registrar at least one calendar month before the commencement of the session in which enrolment is to begin.

(2) In every case, before permitting a candidate to enrol, the director of the program in which the candidate intends to enrol shall be satisfied that adequate supervision and facilities are available.

(3) An approved candidate shall be enrolled in one of the following categories:

(a) full-time attendance at the University;

(b) part-time attendance at the University;

(c) external – not in regular attendance at the University and using research facilities external to the University.

(4) A candidate shall be required to undertake an original investigation or design on an approved topic. The candidate may also be required to undergo such examination and perform such other work as may be prescribed by the Committee.

(5) The work shall be carried out under the direction of a supervisor appointed from the full-time members of the University staff.

(6) The progress of a candidate shall be reviewed annually by the Committee following a report by the candidate, the supervisor and the head of the school in which the candidate is enrolled and as a result of such review the Committee may cancel enrolment or take such other action as it considers appropriate.

(7) No candidate shall be granted the degree until the lapse of three academic sessions in the case of a full-time candidate or four academic sessions in the case of a part-time or external candidate from the date of enrolment. In the case of a candidate who has been awarded the degree of Bachelor with Honours or who has had previous research experience the Committee may approve remission of up to one session for a full-time candidate and two sessions for a part-time or external candidate.

(8) A full-time candidate for the degree shall present for examination not later than six academic sessions from the date of enrolment. A part-time or external candidate for the degree shall present for examination not later than ten academic sessions from the date of enrolment. In special cases an extension of these times may be granted by the Committee.

Thesis

4. (1) On completing the program of study a candidate shall submit a thesis embodying the results of the original investigation or design.

(2) The candidate shall give in writing two months notice of intention to submit the thesis.

(3) The thesis shall present an account of the candidate's own research. In special cases, work done conjointly with other persons may be accepted provided the committee is satisfied about the extent of the candidate's part in the joint research.

(4) The candidate may also submit any work previously published whether or not such work is related to the thesis.

(5) Three copies of the thesis shall be presented in a form which complies with the requirements of the University for the preparation and submission of higher degree theses.

(6) It shall be understood that the University retains the three copies of the thesis submitted for examination is free to allow the thesis to be consulted or borrowed. Subject to the provisions of the Copyright Act, 1968, the University may issue the thesis in whole or in part, in photostat or microfilm or other copying medium.

Examination

5. (1) There shall be not fewer than two examiners of the thesis, appointed by the Committee, at least one of whom shall be external to the University unless the Committee is satisfied that this in not practicable.

(2) At the conclusion of the examination each examiner shall submit to the Committee a concise report on the merits of the thesis and shall recommend to the Committee that:

(a) the candidate be awarded the degree without further examination; or

(b) the candidate be awarded the degree without further examination subject to minor corrections as listed being made to the satisfaction of the head of the school; or

(c) the candidate be awarded the degree subject to a further examination on questions posed in the report, performance in this further examination being to the satisfaction of the Committee; or

(d) the candidate be not awarded the degree but be permitted to resubmit the thesis in a revised form after a further period of study and/or research; or

(e) the candidate be not awarded the degree and be not permitted to resubmit the thesis.

(3) If the performance at the further examination recommended under (2)(c) above is not to the satisfaction of the Committee, the Committee may permit the candidate to represent the same thesis and submit to a further oral, practical or written examination within a period specified by it but not exceeding eighteen months.

(4) The Committee shall, after consideration of the examiners' reports and the reports of any oral or written or practical examination, recommend whether or not the candidate may be awarded the degree. If it is decided that the candidate be not awarded the degree the Committee shall determine whether or not the candidate may resubmit the thesis after a further period of study and/or research.

Fees

6. A candidate shall pay such fees as may be determined from time to time by the Council.

2206 Master of Science

MSc

Typical Duration
2 years

Minimum UOC for Award
96 units of credit

Typical UOC per Session
24 units of credit

Program Description

This degree is available to full-time, part-time and external candidates. It requires the submission of a thesis embodying the results of an original investigation or design. For further information on program requirements and availability, please contact the Faculty of the Built Environment

Academic Rules

Please refer to the Academic Rules for program 2200 Master of Architecture (MArch).

2210 Master of Building

MBuild

Typical Duration
2 years

Minimum UOC for Award
96 units of credit

Typical UOC per Session
24 units of credit

Program Description

This degree is available to full-time, part-time and external candidates. It requires the submission of a thesis embodying the results of an original investigation. For further information on program requirements and availability, please contact the Faculty of the Built Environment.

Academic Rules

Please refer to the Academic Rules for program 2200 Master of Architecture (MArch).

2220 Master of Landscape Architecture

MLArch

Typical Duration
2 years

Minimum UOC for Award
96 units of credit

Typical UOC per Session
24 units of credit

Program Description

This degree is available to full-time, part-time and external candidates. It requires the submission of a thesis embodying the results of an original investigation or design. For further information on program requirements and availability, please contact the Faculty of the Built Environment.

Academic Rules

Please refer to the Academic Rules for program 2200 Master of Architecture (MArch).

2230 Master of Town Planning

MTP

Typical Duration
2 years

Minimum UOC for Award
96 units of credit

Typical UOC per Session
24 units of credit

Program Description

This degree is available to full-time, part-time and external candidates. It requires the submission of a thesis embodying the results of an original investigation. For further information on program requirements and availability, please contact the Faculty of the Built Environment.

Academic Rules

Please refer to the Academic Rules for program 2200 Master of Architecture (MArch).

See above.

2240 Master of the Built Environment

MBEnv

Typical Duration
2 years

Minimum UOC for Award
96 units of credit

Typical UOC per Session
24 units of credit

Program Description

This degree is available to full-time, part-time and external candidates. It requires the submission of a thesis embodying the results of an original investigation or design. For further information on program requirements and availability, please contact the Faculty of the Built Environment.

Academic Rules

Please refer to the Academic Rules for program 2200 Master of Architecture (MArch).

Program Rules and Information - Coursework Degrees

The Faculty of the Built Environment welcomes enquiries from students who wish to pursue graduate coursework programs as detailed below. Prospective students should consult the Program Director to discuss their interests prior to making a formal application.

8142 Master of Architecture

MArch

Typical Duration
1 year

Minimum UOC for Award
48 units of credit

Typical UOC per Session
24 units of credit

Program Director: Professor Xing Ruan

Program Description

The Master of Architecture Program at UNSW offers three majors providing advanced understanding in Architectural Design, History/Theory and Computing. The Program is suitable for generalists as well as specialist members of the design professions wishing to develop significant leadership potentials in the profession, as well as pathways leading towards academic and research careers. The Program is cosmopolitan in its scope, and Asian-Pacific in its emphasis.

- **Architectural Design** (plan code **ARCHBS8142**)
- **Architectural History/Theory** (plan code **ARCHDS8142**)
- **Architectural Computing** (plan code **ARCHAS8142**)

The Master of Architecture by coursework degrees are of one year full-time or two years part-time duration, and students may enrol either at the beginning or the middle of the year.

This is a post-professional degree and is not accredited for architectural registration.

The degree is awarded as Master of Architecture with a statement on the testamur identifying the area of specialisation undertaken by the candidate.

Admission Requirements

The minimum requirement is a 4 year full-time bachelor or equivalent degree, and additional requirements apply to different specialisations as described below. Students must nominate their proposed major at the time of application i.e. Design, History and Theory or Computing.

Architectural Design Major

Applicants must have a recognised professional degree in architecture, a high level of performance in design studio and design related subjects, and must submit a design portfolio demonstrating the range and quality of their design experience. One year of post-graduation professional experience in architectural practice, as well as personal and employer declarations about their role in the work are desirable.

History/Theory Major

Applicants must outline their interest in the field and the benefits to be gained from this Major in a written statement.

Computing Major

Applicants are assumed to have a working knowledge and experience with the principal computing tools used in architectural design practice, specifically CAD, 3D modelling and visualisation. Where students do not have those skills upon entry to the program, it is strongly recommended that they take an additional non-award course in order to acquire that base knowledge. Please note that additional tuition fees apply to non-award courses.

Program Objectives and Learning Outcomes

Please contact the Faculty of Built Environment for information regarding the Program Objectives and Learning Outcomes.

Program Structure

Students undertaking the MArch Program are required to nominate their plan of study before commencement. They must then complete a set of prescribed core courses in that area of study, supplemented by elective courses to bring their total units of credit (UOC) to 48 for the degree.

The degree may be commenced in either session of the academic year subject to the availability of places in the program as well as appropriate courses being offered at that time. It is normally undertaken over two full-time sessions or four part-time sessions. In general, candidates are required to complete as many core courses as possible before undertaking their elective options.

Notwithstanding any of the above, whether courses are offered in any one academic session will depend on student numbers. Students must therefore plan their programs in consultation with the Program Director or Coordinators.

Master of Architecture (Architectural Design) (program **8142**, plan code **ARCHBS8142**)

Students in the MArch (Arch Des) program must undertake core courses totalling 36 UOC and electives totalling 12 UOC. In special cases, students may take another combination of courses towards their core with the agreement of the Program Director.

The MArch (Arch Des) program requires the completion of two studio based Architectural Design Projects totalling 24 UOC. Note that, except for these higher value Project courses all other core courses are 6 UOC and elective courses are 6 UOC.

Candidates wishing to undertake the MArch (Arch Des) program on a part-time basis must note that the studio-based design courses (Architectural Design Project 1 & 2) are session-specific courses and must be completed in the session in which they are scheduled.

Plan Structure

Students with an architecture or design related professional degree pursuing the Design major must take the following combination of courses:

Core Courses:

ARCH7103	Architectural Design Project 1	(12 UOC)
ARCH7104	Architectural Design Project 2	(12 UOC)

Core Options:

Students select 12 UOC from this list.

ARCH7304	Architecture and the City	(6 UOC)
ARCH7305	Theories in History	(6 UOC)
ARCH7306	Theory and Architectural Practice	(6 UOC)
ARCH7307	Architectural Design Strategies	(6 UOC)
ARCH7308	Architectural Design Aesthetics	(6 UOC)
ARCH7309	Architectural Writing and Criticism	(6 UOC)

Electives:

Students take 12 UOC of electives. These can be from the recommended electives or core option courses not taken as core, or with the approval of the Program Director, other courses offered within the Faculty or the University.

Recommended Elective courses

BENV7140	Multimedia on the Web	(6 UOC)
BENV7141	Multimedia in Design Presentation	(6 UOC)
BENV7142	CAD and Visualisation	(6 UOC)
BENV7143	Advanced Visualisation	(6 UOC)
BENV7149	Design Collaboration using a Building Information Model	(6 UOC)
BENV7190	People and Urban Space	(6 UOC)
SUSD0001	Sustainable Development and the Urban Environment	(6 UOC)
SUSD0002	Resources, Materials and Sustainability	(6 UOC)
SUSD0003	Energy and the Built Environment	(6 UOC)
SUSD0004	Human Factors, Sustainability and Habitability	(6 UOC)
UDES0004	History and Theory of Urban Development And Design	(6 UOC)
UDES0009	Urban Landscape and Heritage	(6 UOC)

Master of Architecture (History and Theory) (program **8142**, plan code **ARCHDS8142**)

Plan Structure

Students pursuing the History and Theory Major take the following combination of courses.

Core Course:

ARCH7004	Architectural Research Project	(12 UOC)

Core Options:

Students select 24 UOC from this list.

ARCH7304	Architecture and the City	(6 UOC)
ARCH7305	Theories in History	(6 UOC)
ARCH7306	Theory and Architectural Practice	(6 UOC)
ARCH7307	Architectural Design Strategies	(6 UOC)
ARCH7308	Architectural Design Aesthetics	(6 UOC)
ARCH7309	Architectural Writing and Criticism	(6 UOC)

Electives:

Listed Elective courses, or Core option courses not taken as Core, totalling 12 UOC, or with the approval of the Program Director other courses totalling up to 12 UOC within the Faculty or the University.

Elective Courses

BENV7149	Design Collaboration using a Building Information Model	(6 UOC)
BENV7190	People and Urban Space	(6 UOC)
SUSD0001	Sustainable Development and the Urban Environment	(6 UOC)
SUSD0002	Resources, Materials and Sustainability	(6 UOC)
SUSD0003	Energy and the Built Environment	(6 UOC)
SUSD0004	Human Factors, Sustainability and Habitability	(6 UOC)
UDES0004	History and Theory of Urban Development and Design	(6 UOC)
UDES0009	Urban Landscape and Heritage	(6 UOC)

Master of Architecture (Architectural Computing) (program **8142**, plan code **ARCHAS8142**)

Plan Structure

Students in the MArch (Arch Comp) program must undertake core courses totalling 36 UOC and electives totalling 12 UOC. All students must complete a Graduate Research Project as part of the core, but are able to select the remaining core courses (4 courses at 6 UOC each) from the

prescribed list of postgraduate computing courses shown below. Elective courses (2 courses at 6 UOC) may be selected from the same list, or from any graduate course offered in the Faculty (except for 'BENV7142 CAD and Visualisation' which embodies assumed knowledge for this program and is only available as a non award course), or with the permission of the Program Director, from any postgraduate course offered by the University of New South Wales or appropriate course offered by another institution.

Note that students with a professional architectural background, or equivalent design experience, may be permitted to take a Design Application course for the MArch (Arch Design) major, in lieu of 12 UOC of electives in this major.

Core course

ARCH7003	Graduate Research project	(12 UOC)

Core Options

(at least 4 core courses must be selected from this group to fulfill the program requirements)

ARCH7204	Design Computing Theory	(6 UOC)
ARCH7205	Computer Graphics Programming	(6 UOC)
ARCH7206	CAD Management and Information Technology	(6 UOC)
BENV7140	Multimedia on the Web	(6 UOC)
BENV7141	Multimedia in Design Presentation	(6 UOC)
BENV7143	Advanced Visualisation	(6 UOC)
BENV7147	Information Management Systems	(6 UOC)
BENV7148	Object Based CAD Modelling	(6 UOC)
BENV7149	Design Collaboration using a Building Information Model	(6 UOC)

Recommended Electives

ARCH7307	Architectural Design Strategies	(6 UOC)
BENV7190	People and Urban Space	(6 UOC)
CONS0005	Computers in Construction Management	(6 UOC)
SUSD0001	Sustainable Development and the Urban Environment	(6 UOC)
SUSD0002	Resources, Materials and Sustainability	(6 UOC)
SUSD0003	Energy & the Built Environment	(6 UOC)
SUSD0004	Human Factors, Sustainability & Habitability	(6 UOC)
UDES0004	History and Theory of Urban Development and Design	(6 UOC)
UDES0009	Urban Landscape and Heritage	(6 UOC)

Note: Not all computing courses are offered every semester or even in any given year. Applicants are advised to check the Faculty website for timetable information to get an idea of the mix of courses being offered at any point in time. There are, however, always at least two computing courses available in each semester to accommodate these program requirements.

Academic Rules

Advanced Standing

At least 50% of program requirements must be completed at UNSW for the award of a UNSW postgraduate coursework degree or diploma in the Faculty of the Built Environment. Advanced Standing may be granted for completed or partially completed postgraduate awards from UNSW or from another institution. When considering the granting of advanced standing on the basis of previous postgraduate study at another institution, the program authority will take into account the quality of the institution and the quality, level and content of postgraduate courses previously undertaken.

8124 Master of Construction Project Management in Professional Practice

MCPM (Prof Practice)

Typical Duration
1.5 years

Minimum UOC for Award
72 units of credit

Typical UOC per Session
24 units of credit

Program Director: Program Director: Dr Patrick XW Zou

Program Description

Management of Construction Projects embraces the principles of project management and applies them across different phases of the construction project development cycle to achieve successful project outcomes in terms of time, cost, quality, safety, and sustainability. This three-tiered program (Graduate Certificate Master and Master in Professional Practice) has been designed to provide excellent opportunities to students for advanced study in construction project management and economics in either full time or part time modes. The program aims at improving proficiency of practitioners in the construction industry to meet current and future challenges. The program allows students to learn not only the general management and project management principles and techniques, but also to apply these principles and techniques to the management of large-scale and complex construction projects specifically.

Career Opportunities

The programs are appropriate for people seeking careers in construction management, project management, design management, value management and international project management. It also provides valuable education to those seeking a broader base to careers in architecture, engineering, property development, urban planning and facilities management.

Program Objectives and Learning Outcomes

Please contact the Faculty of the Built Environment for information regarding the Program Objectives and Learning Outcomes.

Program Structure

To qualify for the Master of Construction Project Management in Professional Practice program students will be required to complete a program of study totaling 72 UOC (as adjusted by advanced standing provisions). Students must complete 8 core courses plus 2 elective courses. In conventional mode the Master in Professional Practice degree requires three full-time sessions of study

Core Courses

CONS0002	Human Resources Management	(6 UOC)
CONS0007	Principles and Practice of Management	(6 UOC)
CONS0009	Construction Planning and Control	(6 UOC)
CONS0010	Contracts Management and Law	(6 UOC)
CONS0013	Construction Management Applications	(6 UOC)
CONS0014	Project Management	(6 UOC)
CONS0020	Research Project	(18 UOC)
SUSD0006*	Research Methods	(6 UOC)

**In exceptional cases, where a student can demonstrate his/her research skills with evidence, the Research Methods Course may be exempted and substituted with an elective course.*

Elective Courses

CONS0003	Project Quality Management	(6 UOC)
CONS0005	Computers in Construction Management	(6 UOC)
CONS0011	Cost Planning and Analysis	(6 UOC)
CONS0015	Building Construction	(6 UOC)
CONS0016	Project Risk Management	(6 UOC)
REST0004	Property Finance	(6 UOC)
REST0007	Facilities and Asset Management	(6 UOC)
SUSD0002	Resources, Materials and Sustainability	(6 UOC)

Elective Courses Alternatives

Candidates enrolled in the Master or Master in Profesional Practice Programs may choose courses up to 12 UOC from other postgraduate programs in FBE subject to Program Director's approval.

Course Sequence

Note there are no pre-requisites in the program core or elective courses.

Elective courses with enrolment numbers below the Faculty determined threshold might not be offered. Some elective courses may be offered only once over two years.

Academic Rules

For academic rules relating to this program, please contact the Faculty of the Built Environment.

Admission Requirements

Admission is available to students with an appropriate degree or equivalent from an approved university in relevant fields such as building, construction management, construction economics, civil engineering, mining engineering, architecture, urban planning, quantity surveying, property development, real estate, or equivalent, together with evidence of a capacity to achieve average credit or better grades consistently in their first degree.

Professional experience is desirable and considered as an advantage in admission selection.

Students who have completed the requirements the Master of Construction Project Management may apply to upgrade to the Master of Construction Project Management in Professional Practice.

Advanced Standing

For Master and Master in Professional Practice Programs

At least 50% of program requirements must be completed at UNSW for the award of a UNSW postgraduate coursework degree or diploma in the Faculty of the Built Environment. Advanced Standing may be granted for completed or partially completed postgraduate awards from UNSW or from another institution. When considering the granting of advanced standing on the basis of previous postgraduate study at another institution, the program authority will take into account the quality of the institution and the quality, level and content of postgraduate courses previously undertaken.

A postgraduate coursework student enrolled in an articulated program may apply to progress from the Graduate Certificate to Masters level with full credit for courses completed in earlier programs in the sequence, provided that the earlier awards are not conferred.

Applications for progression through a particular articulated program will be refused if six years have elapsed since completion for the earlier award.

8123 Master of Construction Project Management

MCPM

Typical Duration
1 year

Minimum UOC for Award
48 units of credit

Typical UOC per Session
24 units of credit

Program Director: Program Director: Dr Patrick XW Zou

Program Description

Management of Construction Projects embraces the principles of project management and applies them across different phases of the construction project development cycle to achieve successful project outcomes in terms of time, cost, quality, safety, and sustainability. This three-tiered program (Graduate Certificate Master and Master in Professional Practice) has been designed to provide excellent opportunities to students for advanced study in construction project management and economics in either full time or part time modes. The program aims at improving proficiency of practitioners in the construction industry to meet current and future challenges. The program allows students to learn not only the general management and project management principles and techniques, but also to apply these principles and techniques to the management of large-scale and complex construction projects specifically.

Career Opportunities

The programs are appropriate for people seeking careers in construction management, project management, design management, value management and international project management. It also provides valuable education to those seeking a broader base to careers in architecture, engineering, property development, urban planning and facilities management.

Program Objectives and Learning Outcomes

Please contact the Faculty of the Built Environment for information regarding the Program Objectives and Learning Outcomes.

Program Structure

To qualify for the Master of Construction Project Management program students will be required to complete a program of study totaling 48 UOC (as adjusted by advanced standing provisions). Students must complete six core courses and two elective courses. In conventional mode the degree requires two full-time sessions of study.

Core Courses

CONS0002	Human Resources Management	(6 UOC)
CONS0007	Principles and Practice of Management	(6 UOC)
CONS0009	Construction Planning and Control	(6 UOC)
CONS0010	Contracts Management and Law	(6 UOC)
CONS0013	Construction Management Applications	(6 UOC)
CONS0014	Project Management	(6 UOC)

Elective Courses

CONS0003	Project Quality Management	(6 UOC)
CONS0005	Computers in Construction Management	(6 UOC)
CONS0011	Cost Planning and Analysis	(6 UOC)
CONS0015	Building Construction	(6 UOC)
CONS0016	Project Risk Management	(6 UOC)
REST0004	Property Finance	(6 UOC)
REST0007	Facilities and Asset Management	(6 UOC)
SUSD0002	Resources, Materials and Sustainability	(6 UOC)

Note: Not all elective courses are available in any one year.

Academic Rules

For academic rules relating to this program, please contact the Faculty of the Built Environment.

Admission Requirements

Admission is available to students with an appropriate degree or equivalent from an approved university in relevant fields such as building, construction management, construction economics, civil engineering, mining engineering, architecture, urban planning, quantity surveying, property development, real estate, or equivalent, together with evidence of a capacity to achieve average credit or better grades consistently in their first degree. Professional experience is desirable and considered as an advantage in admission selection.

Advanced Standing

For Master and Master in Professional Practice Programs

At least 50% of program requirements must be completed at UNSW for the award of a UNSW postgraduate coursework degree or diploma in the Faculty of the Built Environment. Advanced Standing may be granted for completed or partially completed postgraduate awards from UNSW or from another institution. When considering the granting of advanced standing on the basis of previous postgraduate study at another institution, the program authority will take into account the quality of the institution and the quality, level and content of postgraduate courses previously undertaken.

A postgraduate coursework student enrolled in an articulated program may apply to progress from the Graduate Certificate to Masters level with full credit for courses completed in earlier programs in the sequence, provided that the earlier awards are not conferred.

Applications for progression through a particular articulated program will be refused if six years have elapsed since completion for the earlier award.

7123 Graduate Certificate in Construction Project Management

GradCert CPM

Typical Duration
0.5 year

Minimum UOC for Award
24 units of credit

Typical UOC per Session
24 units of credit

Program Director: Program Director: Dr Patrick XW Zou

Program Description

Management of Construction Projects embraces the principles of project management and applies them across different phases of the construction project development cycle to achieve successful project outcomes in terms of time, cost, quality, safety, and sustainability. This three-tiered program (Graduate Certificate Master and Master in Professional Practice) has been designed to provide excellent opportunities to students for advanced study in construction project management and economics in either full time or part time modes. The program aims at improving proficiency of practitioners in the construction industry to meet current and future challenges. The program allows students to learn not only the general management and project management principles and techniques, but also to apply these principles and techniques to the management of large-scale and complex construction projects specifically.

Career Opportunities

The programs are appropriate for people seeking careers in construction management, project management, design management, value management and international project management. It also provides valuable education to those seeking a broader base to careers in architecture, engineering, property development, urban planning and facilities management.

Program Objectives and Learning Outcomes

Please contact the Faculty of the Built Environment for information regarding the Program Objectives and Learning Outcomes.

Program Structure

To qualify for the Graduate Certificate of Construction Project Management program students will be required to complete a program of study totaling 24 UOC. Students must complete 4 courses from the Core Courses. Subject to satisfactory performance, students may continue with their postgraduate studies by subsequently applying for enrolment in a Master of Construction Project Management degree program and may be granted advanced standing.

Core Courses

CONS0002	Human Resources Management	(6 UOC)
CONS0007	Principles and Practice of Management	(6 UOC)
CONS0009	Construction Planning and Control	(6 UOC)
CONS0010	Contracts Management and Law	(6 UOC)
CONS0013	Construction Management Applications	(6 UOC)
CONS0014	Project Management	(6 UOC)

Academic Rules

For academic rules relating to this program, please contact the Faculty of the Built Environment.

Admission Requirements

The Graduate Certificate program is suited to practicing personnel in relevant fields including building, construction management, construction economics, civil engineering, mining engineering, project management, quantity surveying, urban planning, real estate, or equivalent, who wish to enhance their career opportunities. This program also provides an opportunity to those who have relevant professional experience but limited formal qualifications to study at the graduate level. To qualify for an entry to the Graduate Certificate in Construction Project Management, the applicant needs to have:

- A recognised Bachelor degree, OR
- A recognised college or university diploma with minimum 3 years working experience, OR
- A recognised professional qualification plus 5 years working experience.

Applicants without formal qualifications may be required to provide examples of written work that display evidence of critical faculty, a degree of rigour in argument and sense of protocols of scholarship.

Subject to satisfactory performance at a credit level or better average grades, students may continue with their postgraduate studies by subsequently enrolling in a Master of Construction Project Management degree program and may be granted advanced standing.

Advanced Standing

No advanced standing nor exemption will be given for the Graduate Certificate Program.

8127 Master of Property and Development

MPD

Typical Duration
1.5 years

Minimum UOC for Award
72 units of credit

Typical UOC per Session
24 units of credit

Program Director: Dr Jinu Kim

Program Description

Each year the nation commits more than half its capital outlays to land development, building and infrastructure. The real estate industry is rapidly moving from essentially responding to client requirements for structures to providing business solutions and sustainable communities. This makes property a key sector of the economy. The property and development program offered at UNSW is designed to meet the needs of those who wish to work at the cutting edge of these changes, and assemble a suite of courses that stretch their imaginations and capabilities.

In a collaborative arrangement between the Faculty of the Built Environment, peak industry associations and other Faculties, UNSW offers a Master of Property and Development to meet these objectives. The program should appeal to people seeking careers in development, investment and management of property and infrastructure and the professions that serve this industry. It also provides valuable education to those seeking a broader base to careers in architecture and landscape architecture, construction, engineering, urban planning and law.

In response to the rapid changes in the field of property, this program offers four areas of specialisation: a generalist Master of Property and Development or specialisations in Valuation, Investment and Property or Asset and Facilities Management.

Career Opportunities and Accreditation

Graduates from this program have an opportunity to engage the property profession and Industry in a wide range of activities, such as valuation, property development, property analysis, property finance, property agency, property management, and asset and facilities management. The program also provides for graduates to become members of professional institutions such, as the Australian Property Institute (API) and the Royal Institution of Chartered Surveyors (RICS), subject to the relevant institutions designated practical experience requirements.

Program Objectives and Learning Outcomes

Please contact the Faculty of the Built Environment for information regarding the Program Objectives and Learning Outcomes.

Program Structure

Students can undertake a generalist Master of Property and Development (plan code **RESTAS8127**), or choose one of the following specialisations:

Development and Investment (plan code **RESTBS8127**)
Assets and Facilities Management (plan code **RESTCS8127**)
Valuation (plan code **RESTDS8127**)

To qualify for the Master of Property and Development programs students will be required to complete a program of study totaling 72 UOC as adjusted by advanced standing provisions. Since most courses are of 6 UOC, students must usually complete 12 courses. Each course involves about 120 hours of work on the part of a student. Modes of delivery vary. Most require attendance at classes in either block or week-by-week mode. The variety of delivery forms provides flexibility and opportunity to undertake study outside the usual sessions. In conventional mode the degree requires three full-time sessions of study, however, the variety of modes of delivery enables some pathways through these programs to be completed within twelve months. This is only possible for students beginning their studies in the first session of the academic year.

Master of Property and Development (Generalist program, plan RESTAS8127)

Core Courses

SUSD0001	Sustainable Development and the Urban Environment (6 UOC)	
BENV7720	Land and Environment Law	(6 UOC)
REST0006	Property Development	(6 UOC)
BENV7721	Planning and Land Policy	(6 UOC)
REST0010	Modern Property	(6 UOC)
REST0001	Property Investment	(6 UOC)

Elective Courses

Any 36 UOC from UNSW postgraduate programs can be selected subject to Program Director's approval.

Students may take a 12 UOC research project in place of 12 UOC of electives subject to Program Director's approval.

Master of Property and Development in Development and Investment (plan RESTBS8127)

Core Courses

SUSD0001	Sustainable Development and the Urban Environment	(6 UOC)
BENV7720	Land and Environment Law	(6 UOC)
REST0006	Property Development	(6 UOC)

BENV7721	Planning and Land Policy	(6 UOC)
REST0001	Property Investment	(6 UOC)
REST0010	Modern Property	(6 UOC)

Extended Core Courses

To enable students to graduate with the Development and Investment specialisation they must complete the courses indicated below:

CONS0014	Project Management	(6 UOC)
CONS0015	Building Construction	(6 UOC)
REST0004	Property Finance	(6 UOC)
UDES0006	Case Studies in Urban Development and Design	(6 UOC)

CONS0015 Building Construction must be taken by students with an undergraduate degree NOT in a Built Environment discipline. Students from a Built Environment background do not need to complete this course. The Program Director will make this determination.

Elective Courses

Students from a Built Environment background are required to complete 18 UOC of electives. Students from a non-Built Environment background are required to complete 12 UOC of electives only as they are taking an additional extended core course, CONS0015 Building Construction. Electives can be selected from any UNSW postgraduate program subject to the Program Director's approval.

Students may take a 12 UOC research project in place of 12 UOC of electives subject to Program Director's approval.

Master of Property and Development in Asset and Facilities Management (plan RESTCS8127)

Core Courses

SUSD0001	Sustainable Development and the Urban Environment	(6 UOC)
BENV7720	Land and Environment Law	(6 UOC)
REST0006	Property Development	(6 UOC)
BENV7721	Planning and Land Policy	(6 UOC)
REST0001	Property Investment	(6 UOC)
REST0010	Modern Property	(6 UOC)

Extended Core Courses

To enable students to graduate with the Asset and Facility Management specialisation they must complete the courses indicated below:

CONS0015	Building Construction	(6 UOC)
SUSD0003	Energy & the Built Environment	(6 UOC)
SUSD0004	Human Factors, Sustainability and Habitability	(6 UOC)
REST0007	Asset and Facilities Management	(6 UOC)

CONS0015 Building Construction must be taken by students with an undergraduate degree NOT in a Built Environment discipline. Students from a Built Environment background do not need to complete this course. The Program Director will make this determination.

Elective Courses

Students from a Built Environment background are required to complete 18 UOC of electives. Students from a non Built Environment background are required to complete 12 UOC of electives only as they are taking an additional extended core course, CONS0015 Building Construction. Electives can be selected from any UNSW postgraduate program subject to the Program Director's approval.

Students may take a 12 UOC research project in place of 12 UOC of electives subject to Program Director's approval.

Master of Property and Development in Valuation (plan RESTDS8127)

Core Courses

REST0004	Property Finance	(6 UOC)
REST0005	Valuation 1	(6 UOC)
BENV7720	Land and Environment Law	(6 UOC)
REST0015	Statutory Valuation	(6 UOC)
REST0006	Property Development	(6 UOC)
REST0017	Urban Economics	(6 UOC)

Extended Core Courses

To enable students to graduate with the Valuation specialisation they must complete the courses below:

CONS0015	Building Construction	(6 UOC)
REST0016	Specialist Valuation	(6 UOC)
REST0010	Modern Property	(6 UOC)
REST0001	Property Investment	(6 UOC)

The Building Construction course must be taken in place of an elective by students from a non Built Environment background.

Elective Courses

Students from a Built Environment background are required to complete 18 UOC of electives. Students from a non Built Environment background are required to complete 12 UOC of electives only as they are taking an additional extended core course, CONS0015 Building Construction. Electives can be selected from any UNSW postgraduate program subject to the Program Director's approval.

Students may take a 12 UOC research project in place of 12 UOC of electives subject to Program Director's approval.

Academic Rules

Admission Requirements

Admission is available to students with an appropriate degree or equivalent from an approved university in relevant fields such as building, construction management, construction economics, civil engineering, mining engineering, material engineering, architecture, urban planning, quantity surveying, property development, real estate, or equivalent, together with evidence of performance at credit level or better average grades in their first degree. Documented evidence of professional experience is desirable and is considered as an advantage in selecting applicants.

Advanced Standing

At least 50% of program requirements must be completed at UNSW for the award of a UNSW postgraduate coursework degree or diploma in the Faculty of the Built Environment. Advanced Standing to a maximum of 50% of Program requirements may be granted for completed or partially completed postgraduate awards from UNSW or from another institution. When considering the granting of advanced standing on the basis of previous postgraduate study at another institution, the program authority will take into account the quality of the institution and the quality, level and content of postgraduate courses previously undertaken.

8131 Master of Urban Development and Design

MUDD

Typical Duration
1.5 years

Minimum UOC for Award
72 units of credit

Typical UOC per Session
24 units of credit

Program Director: Dr Bruce Judd

Program Description

A one calendar year (three sessions) full-time or two calendar year (five sessions) part-time multi-disciplinary coursework program for a wide range of graduates from both design and non-design based disciplines with both Session 1 and Session 2 intake. An advanced study program examines the crucial relationship between urban development and design from an international perspective, but with particular reference to the rapidly developing Asia-Pacific region. The intensive one calendar year full time program involves two academic sessions of study plus a summer term and includes a compulsory field project based in a major international city. Alternatively, the recommended part time, two calendar year program involves one year of core and elective lecture/seminar courses followed by one year of design studio and related courses. Graduates of the program are eligible for membership of the Urban Design Chapter of the Planning Institute of Australia (PIA).

Admission Requirements

Admission to the program is available to a wide range of graduates in both design and non-design based disciplines. The minimum requirement is a four year undergraduate degree in a field such as architecture, landscape architecture, urban planning, urban studies, real estate economics, property development, or another appropriate discipline. In exceptional cases students may be admitted on the basis of professional experience.

Program Objectives and Learning Outcomes

The objectives of the MUDD program are to:

- provide a high quality postgraduate education for built environment and related professionals wishing to establish a career in the field of urban design;

- provide an interdisciplinary understanding of the role of urban design within the context of the broader social, economic and environmental aspects of urban development;
- provide an international perspective on urban design with an emphasis on the Asian-Pacific region of which Australian is part through inclusion of a compulsory international field project;
- to provide a balance between theory and practice in urban design through an equal emphasis on lecture/seminar and studio based courses;
- to develop skills in communication of urban design through a variety of media including publications, exhibitions and web based communication;
- provide a pathway to professional accreditation in urban design.

The learning outcomes of the MUDD program are:

- A sound theoretical understanding of the theory and principles of urban design and their relationship to the broader social, economic and environmental urban processes;
- An ability to analyse complex urban environments and the constrains and opportunities these impose on urban development, design and planning;
- A sound understanding of the urban design process including analysis, structure planning, master planning and development of guidelines;
- Development of a 'vocabulary' of urban design paradigms and case studies and their use in the design process;
- Enhanced design skills appropriate to the disciplinary background of students;
- An ability to work in a multidisciplinary design teams;
- Well-developed urban design communication skills, both written, verbal and visual;
- Ability to apply urban design skills in an another (international) cultural context;
- Employability within a private consulting firm or government agency involved in urban design practice or administration.

Program Structure

The content of the program is progressive, stressing theoretical knowledge of economic, social, environmental and physical design determinants at the beginning, and moving into more applied skills and applications toward the end of the program. The nature of contribution to studio-based design projects will be determined according to academic and professional background.

To qualify for the Master of Urban Development degree, students are required to complete eight core courses and one elective course to accumulate a total of 72 UOC.

The compulsory core includes four lecture/seminar based courses, three project based studio courses, and a communications course. The typical pattern for core and elective courses is a two hour lecture/seminar format over 14 weeks. Studio courses typically involve two three hour studio sessions per week over 14 weeks â with the exception of the compulsory International Field Project which requires full time attendance for two weeks in a studio location overseas.

Elective opportunities are limited to Session 1 for full-time students. Students are encouraged to select electives from those listed below which have been specifically selected for the program. However students may be permitted, with the approval of the Program Director, to select electives from other programs offered within the Faculty or other faculties of the University.

The Summer Term includes case studies of major urban projects (UDES0006), the International Field Project studio (UDES0003), and a communications course (UDES0010) involving the preparation of an annual exhibition and publication.

Program of Study for Full-time Candidates:

Session 1

UDES0001	Urban Design Studio	(12 UOC)
UDES0004	History and Theory of Urban Development and Design	(6 UOC)
Electives		(6 UOC)

Session 2

UDES0008	Planning and Urban Development	(6 UOC)
UDES0009	Urban Landscape & Heritage	(6 UOC)
UDES0002	Urban Design Studio	(12 UOC)

Summer Term

UDES0010	Communication in Urban Design	(6 UOC)
UDES0003	Urban Design Studio	(12 UOC)
UDES0006	Case Studies in Urban Development and Design	(6 UOC)

Recommended Program of Study for Part-time Candidates:

Year 1

Session 1

UDES0004	History and Theory of Urban Development and Design	(6 UOC)
Electives		(6 UOC)

Session 2

UDES0008	Planning and Urban Development	(6 UOC)
Electives		(6 UOC)

Year 2

Session 1

UDES0001	Urban Design Studio	(12 UOC)

Session 2

UDES0002	Urban Design Studio	(12 UOC)

Summer Term

UDES0010	Communication in Urban Design	(6 UOC)
UDES0003	Urban Design Studio	(12 UOC)
UDES0006	Case Studies in Urban Development and Design	(6 UOC)

Recommended Elective Courses

ARCH7304	Architecture and the City	(6 UOC)
BENV7142	CAD and Visualisation	(6 UOC)
BENV7143	Advanced Visualisation	(6 UOC)
BENV7148	Object Based CAD Modelling	(6 UOC)
CONS0003	Project Quality Management	(6 UOC)
CONS0007	Principles and Practice of Management	(6 UOC)
REST0004	Property Finance	(6 UOC)
REST0010	Modern Property	(6 UOC)
SUSD0001	Sustainable Development and the Urban Environment	(6 UOC)
SUSD0004	Human Factors, Sustainability and Habitability	(6 UOC)

Note: Most elective courses are offered in only one session per year. Some courses may not be offered every year. Additional electives may also be offered in a particular session. Students are advised to contact the Program Director prior to enrolment for information about the availability of courses in a particular session.

Academic Rules

Advanced Standing

At least 50% of program requirements must be completed at UNSW for the award of a UNSW postgraduate coursework degree or diploma in the Faculty of the Built Environment. Advanced Standing to a maximum of 50% of program requirements may be granted for completed or partially completed postgraduate awards from UNSW or from another institution. When considering the granting of advanced standing on the basis of previous postgraduate study at another institution, the program authority will take into account the quality of the institution and the quality, level and content of postgraduate courses previously undertaken.

8132 Master of the Built Environment (Sustainable Development)

MBEnv(SustDev)

Typical Duration
1.5 years

Minimum UOC for Award
72 units of credit

Typical UOC per Session
24 units of credit

Program Director: Associate Professor Deo Prasad

Program Description

The built environment is the physical expression of economic and social development of society. Creating sustainable built environments that satisfy environmental, social and economic objectives are widely accepted in principle, and a degree of understanding about sustainability has developed in many countries. Yet achieving sustainability is a complex

task and the challenge has moved from sustainability education i.e. the need to inform about the need, to education *for* sustainability i.e. how to implement sustainable development programs. There is a growing body of principles and techniques to help achieve this in relation to the built environment, and there is still a lot to learn. Education for sustainability is about empowering professionals to take on the challenge. It is transformative rather than just transmissive; it is holistic and seeks critical thinking. The task begins with developing ways of thinking as well as considering the differing value systems and cultures that influence the ways communities shape their built environments. The Master of the Built Environment (Sustainable Development) at UNSW provides the opportunity to explore these challenges in depth and adapt them to the needs of diverse professional and cultural settings. Australia offers a useful setting in which to explore these issues and at the same time undertake comparative study. Sydney, Australian's global city, is a hybrid of European, American and Asian influences. Its urban economy blends economic development with the protection of its biodiversity and scenic environment, together with a concern for social equity and lifestyle quality that operates in a distinctive structure of governance, one that allows a sovereign state within a federation to manage urban and rural development. This program takes a global view and places it in a local context. It provides tools for thought, analysis and decision making to achieve a sustainable built environment.

Admission Requirements

A minimum four year Bachelor degree or equivalent in an appropriate discipline. Where an applicant's qualifications are not considered adequate, admission may be permitted to the Graduate Diploma or Graduate Certificate with the possibility of upgrading to the Masters program, subject to satisfactory performance.

In exceptional circumstances other academic qualifications may also be considered.

Program Objectives and Learning Outcomes

Please contact the Faculty of Built Environment for information regarding the Program Objectives and Learning Outcomes.

Program Structure

To qualify for the Master of the Built Environment (Sustainable Development) students will be required to complete a program of study totalling 72 units of credit (UOC) as adjusted by advanced standing provisions. Since most courses apart from the Graduate Project and Design Studio are of 6 UOC, students must usually complete 8 courses in addition to the project. Each course involves about 160 hours of work on the part of a student. Modes of delivery vary with some courses requiring attendance at classes in either block or week-by-week mode. The variety of delivery forms provides flexibility and opportunity to undertake study outside the main semesters. In conventional mode the degree requires three full-time sessions of study. The Masters program requires students to complete:

- Four core courses totalling 24 UOC
- A research project totalling 18 UOC (in which case an additional core SUSD0006 Research Design is needed) OR
- A Design Studio course totalling 12 UOC
- Three to six electives totalling 18 to 36 UOC depending on the research or design pathway. Students electing to take a research project rather than a studio course must complete a course in research methods relevant to their project before the final semester of enrolment in that project. This requirement has the effect of reducing the electives for such students from 36 UOC to 18 UOC.

Core Group

SUSD0001	Sustainable Development and the Urban Environment	(6 UOC)
SUSD0002	Resources, Materials and Sustainability	(6 UOC)
SUSD0003	Energy & the Built Environment	(6 UOC)
SUSD0004	Human Factors, Sustainability and Habitability	(6 UOC)

Project

SUSD0005	Graduate Project	(18 UOC)
or		
SUSD0007	Design Studio	(12 UOC)

One of the following courses may be substituted for SUSD0007 on arrangement with the Program Director.

ARCH7103	Architecture Design Project 1	(12 UOC)
ARCH7104	Architecture Design Project 2	(12 UOC)
UDES0002	Urban Design Studio	(12 UOC)
UDES0003	Urban Design Studio	(12 UOC)

SUSD0006 Research Design is compulsory for those students choosing to undertake SUSD0005 Graduate Research Project.

Below are the recommended electives. Students may undetake other relevant postgraduate courses with permission from the Program Director. Such courses are not limited to those offered by UNSW. The University has formal links with 17 Australian and overseas Universities through the U21 Program, to facilitate study at other institutions. Within UNSW, the following faculties and schools may offer relevant courses: Faculty of Arts and Social Sciences, Institute of Environmental Studies, School of Civil and Environmental Engineering and School of Biological, Earth and Environmental Sciences.

Electives

The following are some recommended electives. Please check the FBE website for a complete, current list of electives.

BENV7190	People and Urban Space
BENV7191	Urban heritage Conservation
BENV7720	Land and Environment Law
CONS0014	Project Management
GBAT9103	Environmental Management
GEOH9011	Environmental Impacts Assessment
GEOH9015	Population, Health and Environment
GEOH9018	Transport Applications of Geographical Information Systems
REST0006	Property Development
REST0007	Facilities Management
UDES0006	Case Studies in Urban Development and Design

Note: Some electives may not be offered every year.

All courses are 6 UOC unless otherwise stated.

The sequence of courses is governed by prerequisites for some courses.

Note also that with the agreement of the Program Director suitable postgraduate electives may be selected from other faculties at UNSW, in particular:

- Institute of Environmental Studies
- School of Civil and Environmental Engineering
- School of Arts and Social Sciences
- School of Biological, Earth and Environmental Sciences

Academic Rules

Advanced Standing

At least 50% of program requirements must be completed at UNSW for the award of a UNSW postgraduate coursework degree or diploma in the Faculty of the Built Environment. Advanced Standing may be granted for completed or partially completed postgraduate awards from UNSW or from another institution. When considering the granting of advanced standing on the basis of previous postgraduate study at another institution, the program authority will take into account the quality of the institution and the quality, level and content of postgraduate courses previously undertaken.

5132 Graduate Diploma in Built Environment (Sustainable Development)

GradDipBEnv(SustDev)

Typical Duration
1 year

Minimum UOC for Award
48 units of credit

Typical UOC per Session
24 units of credit

Program Director: Associate Professor Deo Prasad

Program Description

Buildings and urban environments represent a major source of human impact on natural ecosystems and sustainable development has now become a major concern of urban policy and development. There is an increased demand for built environment and related professionals to develop knowledge and skills appropriate to sustainable development, and an expansion of specialised career opportunities in both the public and private sector.

This program is an advanced interdisciplinary coursework program which provides opportunities for graduates from a wide range of backgrounds (e.g. architecture, landscape architecture, urban planning, building, property development, civil engineering, etc.) to improve their knowledge and skills in the application of the principles of sustainable development to the planning, design, construction and management of buildings and the urban environment. While approached from an international perspective, the program places special emphasis on the rapidly developing South-East Asian region. The program is available to suitably qualified local and international students and provides opportunities for full-time or part-time study.

Admission Requirements

Admission is available to students with a first degree or equivalent from a recognised tertiary institution in any relevant field together with evidence of a capacity to achieve credit level or better grades consistently. Professional experience is also considered in selecting applicants.

Program Objectives and Learning Outcomes

Please contact the Faculty of the Built Environment for information on the Program Objectives and Learning Outcomes.

Program Structure

The Graduate Diploma is a one year full-time or two years part-time postgraduate diploma comprising four core courses and four electives totalling 48 UOC.

Core Courses

SUSD0001	Sustainable Development and the Urban Environment	(6 UOC)
SUSD0002	Resources, Materials and Sustainability	(6 UOC)
SUSD0003	Energy & the Built Environment	(6 UOC)
SUSD0004	Human Factors, Sustainability and Habitability	(6 UOC)

Below are the recommended electives. Students may undetake other relevant postgraduate courses with permission from the Program Director. Such courses are not limited to those offered by UNSW. The University has formal links with 17 Australian and overseas universities through the U21 Program, to facilitate study at other institutions. Within UNSW, the following faculties and schools may offer relevant courses: Faculty of Arts and Social Sciences, Institute of Environmental Studies, School of Civil and Environmental Engineering and School of Biological, Earth and Environmental Sciences.

Electives

The following are some recommended electives. Please check the FBE website for a complete, current list of electives.

BENV7190	People and Urban Space
BENV7191	Urban heritage Conservation
BENV7720	Land and Environment Law
CONS0014	Project Management
GBAT9103	Environmental Management
GEOH9011	Environmental Impacts Assessment
GEOH9015	Population, Health and Environment
GEOH9018	Transport Applications of Geographical Information Systems
REST0006	Property Development
REST0007	Facilities Management
UDES0006	Case Studies in Urban Development and Design

Note: Some electives may not be offered every year.

All courses are 6 UOC unless otherwise stated.

The sequence of courses is governed by prerequisites for some courses.

Note also that with the agreement of the Program Director suitable postgraduate electives may be selected from other faculties at UNSW, in particular:

- Institute of Environmental Studies
- School of Civil and Environmental Engineering
- School of Arts and Social Sciences
- School of Biological, Earth and Environmental Sciences

Academic Rules

Advanced Standing

At least 50% of program requirements must be completed at UNSW for the award of a UNSW postgraduate coursework degree or diploma in the Faculty of the Built Environment. Advanced Standing may be granted for completed or partially completed postgraduate awards from UNSW or from another institution. When considering the granting of advanced standing on the basis of previous postgraduate study at another institution, the program authority will take into account the quality of the institution and the quality, level and content of postgraduate courses previously undertaken.

Upgrading and Articulation

A postgraduate coursework student enrolled in an articulated program may apply to progress from the Graduate Certificate to Masters level with full credit for courses completed in earlier programs in the sequence, provided that the earlier awards are not conferred. Applications for progression through a particular articulated program will be refused if six years have elapsed since completion for the earlier award.

7332 Graduate Certificate in Built Environment (Sustainable Development)

GradCertBEnv(SustDev)

Typical Duration
1 year

Minimum UOC for Award
24 units of credit

Typical UOC per Session
12 units of credit

Program Director: Associate Professor Deo Prasad

Program Description

Buildings and urban environments represent a major source of human impact on natural ecosystems and sustainable development has now become a major concern of urban policy and development. There is an increased demand for built environment and related professionals to develop knowledge and skills appropriate to sustainable development, and an expansion of specialised career opportunities in both the public and private sector.

The program is an advanced interdisciplinary coursework program which provides opportunities for graduates from a wide range of backgrounds (e.g. architecture, landscape architecture, urban planning, building, property development, civil engineering, etc.) to improve their knowledge and skills in the application of the principles of sustainable development to the planning, design, construction and management of buildings and the urban environment. While approached from an international perspective, the program places special emphasis on the rapidly developing South East Asian region.

Admission Requirements

A Bachelor degree or equivalent in an appropriate discipline. In exceptional circumstances other academic qualifications may also be considered.

Please note that the Graduate Certificate is not available to international students as it can only be undertaken on a part-time basis.

Program Objectives and Learning Outcomes

Please contact the Faculty of the Built Environment for information on the Program Objectives and Learning Outcomes.

Program Structure

The Graduate Certificate is comprised of four core courses for a total of 24 units of credit.

SUSD0001	Sustainable Development and the Urban Environment	(6 UOC)
SUSD0002	Resources, Materials and Sustainability	(6 UOC)
SUSD0003	Energy & the Built Environment	(6 UOC)
SUSD0004	Human Factors, Sustainability and Habitability	(6 UOC)

Academic Rules

Advanced Standing

No advanced standing or exemption will be given for the Graduate Certificate Program.

Further Information

Upgrading and Articulation

A postgraduate coursework student enrolled in an articulated program may apply to progress from the Graduate Certificate to Masters level with full credit for courses completed in earlier programs in the sequence, provided that the earlier awards are not conferred. Applications for progression through a particular articulated program will be refused if six years have elapsed since completion for the earlier award.

Faculty of the College of Fine Arts

A Message from the Dean

The College of Fine Arts (COFA) is one of the ten dynamic faculties of the University of New South Wales. Studying at COFA is characterised by rigorous studio activities, high levels of scholarship and research, exposure to the best and most exciting art and design practice Sydney can offer, and participation in collaborative international art projects. Located in Paddington, the centre of Sydney's gallery and museum district, COFA offers a comprehensive range of postgraduate and research degrees through its five professional schools (School of Art, School of Art Education, School of Art History and Theory, School of Design Studies and School of Media Arts). The College is unique amongst Australian art and design institutions in that it provides studio practice as well as professional studies in theory, history, education and management.

Staff and students at the College are engaged in scholarship and research across a wide range of visual arts and design disciplines including painting, drawing, printmaking, sculpture/performance/installation, photography, film/video, mixed media, digital media, ceramics, textiles, jewellery, graphics/media, applied/object and environments/spatial. Specialist degrees are offered in the areas of art education, design education, art and design history and theory, and arts administration. Cross-disciplinary research that links COFA and other UNSW teaching and research expertise is also possible, 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 2200, 210 are international students who come from more than 25 countries across Asia and the Pacific, Europe and the Americas. The College has cooperative agreements with specialist art and design institutions throughout the world: for example, the International Drawing Research Institute (located at the College) places COFA staff and students in key learning roles alongside colleagues in Beijing and Glasgow.

COFA has the expertise, resources and experience to offer specialised yet flexible cross-disciplinary degree programs in visual 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

Faculty Information and Assistance

Who Can Help? 99
The College of Fine Arts Website 99
Course Descriptions 99
Units of Credit 99
Advanced Standing 99
Attendance 99
Computing Information 99
Technical Resources 99
Clement Semmler Library 99
Ivan Dougherty Gallery 99
Support for Students 100
Indebtedness to the University 100
Building Rules 100
Traffic and Parking Rules 100

Program Rules and Information – Research Degrees

Doctor of Philosophy 100
2245 Master of Fine Arts 102
2255 Master of Art Education (Honours) 103
2264 Master of Arts Administration (Honours) 104
2265 Master of Art Theory 105
2266 Master of Design (Honours) 106

Program Rules and Information – Coursework Degrees

9307 Master of Art 107
5307 Graduate Diploma in Art 109
7307 Graduate Certificate in Art 109
9302 Master of Art Administration 109
5302 Graduate Diploma in Art Administration 110
7302 Graduate Certificate in Art Administration 110
9303 Master of Art and Design Education 111
7304 Graduate Certificate in Art and Design Education 112
9304 Master of Design 112
5724 Graduate Diploma in Design 113
7303 Graduate Certificate in Design 113
9308 Master of Digital Media 113
5308 Graduate Diploma in Digital Media 114
7308 Graduate Certificate in Digital Media 114
Elective Courses for Postgraduate Coursework Programs 114

Faculty Information and Assistance

Research and scholarship in the disciplines of art and design is organised and administered through five schools. The College includes the Clement Semmler Library, a specialist art and design research library; the Ivan Dougherty Gallery, the COFA Exhibition/Performance Space, and Three Foot Square; and three research centres: the International Drawing Research Institute, the iCINEMA Centre for Interactive Cinema Research and the Centre for Contemporary Art and Politics.

Who Can Help?

If you require advice about enrolment, degree requirements, progression within programs or any other general matters, contact the Student Centre, Ground Floor B Block, phone 9385 0684. Faculty timetables and official University forms are also available from the Student Centre.

The location of the College of Fine Arts is:

Cnr. Oxford Street and Greens Road
Paddington NSW 2021 Australia
Web address: **www.cofa.unsw.edu.au**

All enquiries should be addressed to:

The Student Centre
College of Fine Arts,
The University of New South Wales
PO Box 259
Paddington NSW 2021
Telephone (02) 9385 0684
Fax (02) 9385 0706
Email: cofa@unsw.edu.au

The College of Fine Arts Website

Please refer to the College of Fine Arts' website for further information: **www.cofa.unsw.edu.au**

The School of Art
Web address: **www.cofa.unsw.edu.au/art**

The School of Art Education
Web address: **www.cofa.unsw.edu.au/arted**

The School of Art History and Theory
Web address: **www.cofa.unsw.edu.au/artht**

The School of Design Studies
Web address: **www.cofa.unsw.edu.au/design**

The School of Media Arts
Web address: **www.cofa.unsw.edu.au/media**

Course Descriptions

Course descriptions for 2006 can be found in alphabetical order by course code at the back of this Handbook. Many non-core courses are offered on a rotating two or three year schedule, and the full list is available in the Online Handbook at **www.handbook.unsw.edu.au**

Units of Credit

The University has introduced a university-wide units of credit (UOC) system for all courses offered to postgraduate students. The system means that a course will have the same units of credit value irrespective of which faculty's program it is counting towards. Students are able to determine the value of courses taken from other faculties when planning their programs of study. The student load for a course is calculated by dividing the units of credit value of a course by the total units of credit required for that year of the program. Student load is used to determine both student contribution charges and tuition fees. Students who take more or less than the standard load for that year of a program will be charged accordingly.

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 for courses in which they are enrolled; and
- where absences in excess of 3 classes occur, students may be given a fail grade (UF).

Computing Information

Computing Resources at the College include 4 main teaching labs, a general access lab, smaller specialist labs, specialist audio and video studios, workstations and control rooms. In total, COFA provides over 150 general and specialist workstations equipped with hardware and software complementary to course requirements. All workstations are connected to the University Wide Network, which in turn is connected to the Internet via the 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, DVD authoring, modelling, animation, CAD, desktop publishing and high end scanning. The Digital Studio and Moving Image Labs provide access to digital audio and video production. Decks patched into these workstations include DAT, VHS, Mini DV and DVCAM. The Research Imaging Laboratory includes a number of computers with a range of 2D and 3D digital imaging applications. In addition to the College computing facilities, COFA encourages students to consider the purchase of a personal computer as recommended by UNSW Division of Information Services (DIS) to support their studies. The COFA Computing Resource Handbook detailing further information on purchasing a computer, computing policy, facilities and services can be found at **www.cofa.unsw.edu.au/units/csu**

Advice is available from school offices on the requirements for computing equipment and software for each program offered. Students undertaking computing studies in any program are responsible for ensuring that they have appropriate backups of their work. Work should not be left on College computers as its security cannot be guaranteed by the College. All students enrolled in courses at the College are bound by the COFA Computing Code of Conduct for Students, which can be found at **www.cofa.unsw.edu.au/units/csu/studentinfo/**

Technical Resources

The Resource Centre provides audio-visual services to the Faculty in the form of equipment and expertise. The Centre has a wide range of equipment, including DAT recorders, mini DV cameras, digital still cameras, and portable data projectors. For more information check **www.cofa.unsw.edu.au/units/resource/**. A range of video and audio editing equipment and studios is also available at the College.

Other services at the College include Digital Print and Copy Service (DP&CS) which provides various output services to the students and staff of COFA, UNSW and external clients. Services include: large format printing on a range of media; digital to colour copier; photographic continuous tone; CD burning; digital to film and high quality film scanning.

Clement Semmler Library

The Clement Semmler Library supports teaching, learning and research in art and design at the College of Fine Arts. For information regarding resources and opening hours, please refer to the following website: **http://info.library.unsw.edu.au/cofa/about/cofa.html**

Ivan Dougherty Gallery

UNSW Ivan Dougherty Gallery provides an educational and cultural resource for the University, the broader national and international art community and the general public. The Gallery presents around ten to twelve group or thematic exhibitions per year of Australian and international recent and contemporary art in all media and disciplines: painting, sculpture, prints, drawings, design and installation work. There is a Faculty and postgraduate exhibition held each year.

Public programs such as forums, symposia and floor talks accompany exhibitions. These are attended by UNSW students and the general public. In addition, a publication is produced for each exhibition, generally in the form of an illustrated catalogue containing curatorial essays, artist texts and background information. The Gallery keeps a research archive of all published material and photographic images of each exhibition.

Ivan Dougherty Gallery was established in 1977 by the Alexander Mackie College of Advanced Education at 200 Cumberland Street, The Rocks and was named after Major General Sir Ivan Dougherty, Chairman of the first College Council. It moved to its current premises in 1981.

UNSW Ivan Dougherty Gallery hours: Monday to Saturday 10am – 5pm (closed public holidays).

Website: **www.cofa.unsw.edu.au/idg**

UNSW College of Fine Arts also houses the COFA Exhibition and Performance Space (COFA Gallery), primarily for the benefit of student

work. It oversees a dynamic program of week-long exhibitions featuring the work of COFA students, students from international art institutions, recurrent events such as ARTEXPRESS and various student award exhibitions.

COFA Gallery hours: Monday to Friday 10am-5pm (closed public holidays).

Support for Students

The Counselling Service, Compass Programs, provides personal development resources, enhancement programs and confidential counselling to enrolled students of UNSW. Students are encouraged to access the Counselling Service in relation to any issue that might adversely affect their personal and academic progress. The service employs psychologists who are able to assist students with concerns such as: transition and adjustment to university life and academic expectations; support with sorting out academic or administrative issues; motivation and other difficulties which affect study; interpersonal problems or relationship conflicts; and personal concerns such as stress, anxiety, depression or loneliness.

Appointments at the College of Fine Arts can be made by telephoning (02) 9385 0733 or visiting the COFA service at ground floor, G Block, Room 05. Appointments on the Kensington campus are available between 9am and 5pm and can be made by dropping in or telephoning (02) 9385 5418 for the Counselling Service which is located on the 2nd Floor, East Wing, Quadrangle Building. Telephone counselling appointments and before/after hours appointments can be negotiated.

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

Indebtedness to the University

A student becomes indebted to the University by non-payment of any fee or charge and by non-return of any College property. A student who is indebted to the University and who fails to make a satisfactory settlement of the indebtedness upon receipt of due notice will be penalised.

Students who fail to pay charges and late charges levied by the University will not be permitted to attend classes, undertake assessments or be granted any course grades.

Students who fail to return material borrowed from the Clement Semmler Library by the due date, may be refused further borrowing privileges at the discretion of the College Librarian or delegate.

Students who fail to return on time materials borrowed from College Resource units may be refused further borrowing privileges, at the discretion of the Dean or delegate.

Students unable to return Library or other Resource items borrowed from the College are required to pay the cost of their replacement. The minimum charge per item will be determined by the College.

Students who fail to return any materials borrowed from the College, or who fail to satisfy any financial obligation to the University may incur one or more of the following penalties as determined by the Dean:

(1) refusal of further borrowing privileges;

(2) withdrawal of authority to attend classes;

(3) refusal of permission to enrol;

(4) withholding of the testamur for an award.

Such penalty will remain in force until materials are returned, compensation made, or other such obligations satisfied.

Building Rules

Students are required to abide by the building closing times determined for the campus. Opening and closing times will be determined by an authorised College officer from time to time and will be shown on official notice boards. Building and other campus premises or grounds are to be vacated at any time when required by an authorised officer of the College.

In the interests of safety and student welfare, persons under the age of 16 years are not permitted on campus unless expressly authorised by the Dean.

In the interests of general comfort and safety, students, staff and visitors are required to obey the campus rules regarding smoking, eating and drinking.

Students seeking to serve alcoholic drinks at social functions are required to have the prior permission of the Dean or delegate.

Animals are not permitted on any part of the campus, except with the permission of an authorised College officer.

Students who fail to comply with these rules may be required to show cause why they should not lose their entitlement to membership and privileges of the College and, subsequently, may be subject to such penalty as may be determined by the Dean.

Traffic and Parking Rules

The College grounds are private property and the University reserves the right to regulate the entry of individuals and vehicles and their behaviour and operation within the grounds. Students may not bring vehicles onto College grounds unless they have the express permission of the Facilities Zone Manager and accept the College Traffic and Parking Rules and the penalties for the infringement of those rules.

Any vehicle brought onto the grounds is required to be driven, parked and managed in compliance with the College rules and in the observance of the directions of authorised University/College officers.

The College does not accept responsibility for any damage caused to vehicles while travelling, standing or parked in the grounds, nor for any damage to, or loss of, accessories and/or contents.

The bringing or driving of vehicles or cycles on paths, grassed areas, or elsewhere on the grounds, except for roadways and car parks, is prohibited except with the permission of an authorised University/College officer.

Where a breach of the Traffic and Parking Rules occurs, the following penalties will apply:

- for the first infringement or offence, an authorised officer will record the vehicle registration number and issue a written "first parking warning notice";
- for the second and subsequent infringements or offences, an authorised officer will record the vehicle registration number and issue a "second parking warning notice". The driver shall be required to pay a minimum fine of $50.

Students may appeal in writing to the Dean against imposition of any penalty for infringement of the Traffic and Parking Rules.

Program Rules and Information – Research Degrees

Doctor of Philosophy

PhD

The degree of Doctor of Philosophy is offered in the Faculty of the College of Fine Arts in the following programs:

1285 Art Education
1286 Art Theory
1287 Fine Arts
1288 Design
1289 Media Arts

Typical Duration
4 years

Minimum UOC for Award
144 units of credit

Typical UOC per Session
24 units of credit

Program Description

The Doctor of Philosophy (PhD) degree is offered in all faculties of the University of New South Wales and encourages initiative and originality in research. Candidates should make a significant contribution to knowledge in their field.

As a general guide, the UNSW entry requirements for the degree of Doctor of Philosophy are as follows:

A candidate for the degree shall have been awarded an appropriate degree of Bachelor with Honours from the University of New South Wales or a qualification considered equivalent from another university or tertiary institution at a level acceptable to the Research Committee of the appropriate Faculty.

Candidates may be admitted to the PhD program after one year's full-time enrolment in a Masters by Research program, with the approval of the Faculty Postgraduate Affairs Committee.

In exceptional cases an applicant who submits evidence of such other academic and professional qualifications as may be approved by the Committee may be permitted to enrol for the degree.

However, as each Faculty manages its own PhD programs, prospective local and international research students should check with the relevant Faculty and/or School for specific entry requirements.

English language requirements also apply. Please refer to the UNSW website for details: **www.unsw.edu.au/futureStudents/postgradResearch/res/fspgrengreqpolicy.html**

Program Objectives and Learning Outcomes

The Doctor of Philosophy (PhD) degree encourages initiative and originality in research. Students will make a significant contribution to knowledge in their field and will be competent to carry out research in their chosen area.

Program Structure

This program involves a minimum of three years full-time study. Students undertake supervised research leading to the production of the thesis.

The length of a doctoral thesis normally should not exceed 100,000 words of text and should be submitted for examination within 4 years of full-time study.

In some faculties advanced coursework is also prescribed.

Academic Rules

1. The degree of Doctor of Philosophy may be awarded by the Council on the recommendation of the Standing Committee of the College of Fine Arts [hereinafter referred to as the Committee] to a candidate who has made an original and significant contribution to knowledge.

Qualifications

2. (1) A candidate for the degree shall have been awarded an appropriate degree of Bachelor with Honours from the University of New South Wales or a qualification considered equivalent from another university or tertiary institution at a level acceptable to the Committee.

(2) In exceptional cases an applicant who submits evidence of such other academic and professional qualifications as may be approved by the Committee may be permitted to enrol for the degree.

(3) If the Committee is not satisfied with the qualifications submitted by an applicant the Committee may require the applicant to undergo such assessment or carry out such work as the Committee may prescribe, before permitting enrolment as a candidate for the degree.

Enrolment

3.(1) An application to enrol as a candidate for the degree shall be lodged with Faculty Administration one month prior to the date at which enrolment is to begin.

(2) In every case before making the offer of a place the Committee shall be satisfied that initial agreement has been reached between the School* and the applicant on the topic area, supervision arrangements, provision of adequate facilities and any coursework to be prescribed and that these are in accordance with the provisions of the guidelines for promoting postgraduate study within the University.

(3) The candidate shall be enrolled either as a full-time or a part-time student.

(4) A full-time candidate will present the thesis for examination no earlier than three years and no later than five years from the date of enrolment and a part-time candidate will present the thesis for examination no earlier than four years and no later than six years from the date of enrolment, except with the approval of the Committee.

(5) The candidate may undertake the research as an internal student i.e. at a campus, teaching hospital, or other research facility with which the University is associated, or as an external student not in attendance at the University except for periods as may be prescribed by the Committee.

(6) The candidate will normally carry out the research on a campus or at a teaching or research facility of the University except that the Committee may permit a candidate to spend a period in the field, within another institution or elsewhere away from the University provided that the work can be supervised in a manner satisfactory to the Committee. In such instances the Committee shall be satisfied that the location and period of time away from the University are necessary to the research program.

(7) The research shall be supervised by a supervisor and where possible a co-supervisor who are members of the academic staff of the School, or under other appropriate supervision arrangements approved by the Committee. An external candidate within another organisation or institution will have a co-supervisor at that institution.

Progression

4.(1) The progress of the candidate shall be considered by the Committee following report from the School in accordance with the procedures established within the School and previously noted by the Committee.

(2) The research proposal will be reviewed as soon as feasible after enrolment. For a full-time student this will normally be during the first year of study, or immediately following a period of prescribed coursework. This review will focus on the viability of the research proposal.

(3) Progress in the program will be reviewed within twelve months of the first review. As a result of either review the Committee may cancel enrolment or take such other action as it considers appropriate. Thereafter, the progress of the candidate will be reviewed annually.

Thesis

5. (1) On completing the program of study a candidate shall submit a thesis embodying the results of the investigation.

(2) The candidate shall give in writing to Faculty Administration two months notice of intention to submit the thesis.

(3) The thesis shall comply with the following requirements:

a) it must be an original and significant contribution to knowledge of the subject;

b) the greater proportion of the work described must have been completed subsequent to enrolment for the degree;

c) it must be written in English except that a candidate in the Faculty of Arts may be required by the Committee to write a thesis in an appropriate foreign language;

d) it must reach a satisfactory standard of expression and presentation;

e) it must consist of an account of the candidate's own research but in special cases work done conjointly with other persons may be accepted provided the Committee is satisfied about the extent of the candidate's part in the joint research.

(4) The candidate may not submit as the main content of the thesis any work or material which has previously been submitted for a university degree or other similar award but may submit any work previously published whether or not such work is related to the thesis.

(5) Four copies of the thesis shall be presented in a form which complies with the requirements of the University for the preparation and submission of theses for higher degrees.

(6) It shall be understood that the University retains the four copies of the thesis submitted for examination and is free to allow the thesis to be consulted or borrowed. Subject to the provisions of the Copyright Act, 1968, the University may issue the thesis in whole or in part, in photostat or microfilm or other copying medium.

Examination

6. (1) There shall be not fewer than three examiners of the thesis, appointed by the Academic Board on the recommendation of the Committee, at least two of whom shall be external to the University.

(2) At the conclusion of the examination each examiner shall submit to the Committee a concise report on the thesis and shall recommend to the Committee that:

a) the thesis merits the award of the degree;

b) the thesis merits the award of the degree subject to minor corrections, as listed, being made to the satisfaction of the Head of School;

c) the thesis requires further work on matters detailed in the examiner's report. Should performance in this further work be to the satisfaction of the Committee, the thesis would merit the award of the degree;

d) the thesis does not merit the award of the degree in its present form and further work as described in the examiner's report is required. The revised thesis should be subject to re-examination;

e) the thesis does not merit the award of the degree and does not demonstrate that resubmission would be likely to achieve that merit.

(3) If the performance in the further work recommended under (2)(c) above is not to the satisfaction of the Committee, the Committee may permit the candidate to submit the thesis for re-examination as determined by the Committee within a period determined by it, but not exceeding eighteen months.

(4) After consideration of the examiners' reports and the results of any further examination of the thesis, the Committee may require the candidate to submit to written or oral examination before recommending whether or not the candidate be awarded the degree. If it is decided that the candidate be not awarded the degree, the Committee shall determine whether or not the candidate be permitted to resubmit the thesis after a further period of study and/or research.

Fees

A candidate shall pay such fees as may be determined from time to time by the Council.

** School is used here and elsewhere in these conditions to mean any teaching unit authorised to enrol research students and includes a department where that department is not within a school; a centre given approval by the Academic Board to enrol students and an interdisciplinary unit within a faculty and under the control of the Dean of the Faculty. Enrolment is permitted in more than one such teaching unit.*

Further Information

If you are considering applying for a PhD at UNSW you will need to make contact with the relevant School or Faculty. This is necessary in order to establish that your research interests and those of the School and Faculty are aligned, and that there is a suitable supervisor for your particular area of research.

Prospective students are strongly advised to make contact with potential supervisors before applying for research study at the University.

Please refer to the relevant school and department home page for contact details (via **www.unsw.edu.au**).

Please refer to the UNSW website for further information on how to apply, scholarships, English language requirements, thesis preparation and other research related matters: **www.unsw.edu.au/futurestudents/research**

2245 Master of Fine Arts (by Research)

MFA

Typical Duration
2 years

Minimum UOC for Award
96 units of credit

Typical UOC per Session
24 units of credit

Program Description

The Master of Fine Arts program enables students of proven ability to engage in the sustained investigation at an advanced level of an area of interest or concern in their visual arts practice. This inquiry takes the form of a supervised research project and leads to the exhibitions, performance, publication or screening of artwork/s that are complete, coherent and appropriate to the stated inquiry.

The significance of the research outcomes may be the contribution of new knowledge to the fine arts, the innovation of a distinctive methodology or approach in visual arts practice, poetics or the new application of technologies in visual arts practice. The products of the inquiry should be the creation of high quality studio based work accompanied by a written component containing documentation of the project and its development.

MFA studies are available in the discipline areas of Digital Imaging, Drawing, Film, Installation, Interactive Media, Painting, Performance, Photomedia, Printmaking, Sculpture, Sound, Time-Based Art, Video, Ceramics, Jewellery & Textiles. Studies in a combination of discipline areas are possible. Students work under the guidance of a qualified supervisor who is usually a member of the Faculty's full-time lecturing staff. Regular seminars are held at which MFA candidates are required to give a presentation of their research at least once during their program.

Some individual on-campus studio space is available to MFA students; all general college facilities and equipment may be accessed. Research students are encouraged to take an active part in college life.

Program Objectives and Learning Outcomes

Please refer to the Program Description.

Program Structure

Please contact the College of Fine Arts for information.

Academic Rules

1. (1) The degree of Master of Fine Arts by research may be awarded by the Council on the recommendation of the Standing Committee of the College of Fine Arts [hereinafter referred to as the Committee] to a candidate who has demonstrated ability to undertake research by the submission of the results of an original investigation.

Qualifications

2. (1) A candidate for the degree shall have been awarded an appropriate degree of Bachelor with Honours from the University of New South Wales or a qualification considered equivalent, from this, another university or tertiary institution at a level acceptable to the Committee.

(2) In exceptional cases an applicant who submits evidence of such other academic and professional qualifications as may be approved by the Committee may be permitted to enrol for the degree.

(3) If the Committee is not satisfied with the qualifications submitted by an applicant the Committee may require the applicant to undergo such assessment or carry out such work as the Committee may prescribe, before permitting enrolment.

Enrolment

3. (1) An application to enrol as a candidate for the degree shall be made on the prescribed form which shall be lodged with Faculty Administration at the prescribed time before the commencement of the session in which the enrolment is to begin.

(2) In every case before making the offer of a place the Committee shall be satisfied that initial agreement has been reached between the appropriate School and the applicant on the topic area, supervision arrangements, provision of adequate facilities and any coursework to be prescribed and that these are in accordance with the provisions of the guidelines for promoting postgraduate study within the University.

(3) The candidate shall be enrolled as either a full-time or part-time student.

(4) A full-time candidate will present the advanced work for examination no earlier than two years and no later than three years from the date of enrolment and a part-time candidate will present the advanced work for examination no earlier than four years and no later than six years from the date of enrolment except with the approval of the Committee.

(5) The candidate may undertake the research as an internal student, i.e. at the College, or as an external student not in attendance at the College except for periods as may be prescribed by the Committee.

(6) The research candidate will normally carry out the research at the College except that the Committee may permit a candidate to spend a period in the field, within another institution or elsewhere away from the College provided that the work can be supervised in a manner satisfactory to the Committee. In such instances the Committee shall be satisfied that the location and period of time away from the College are necessary to the research program.

(7) The research shall be supervised by a supervisor or supervisors who are members of the academic staff of the appropriate school or under other appropriate supervision arrangements approved by the Committee. Normally an external candidate within another organisation or institution will have a co-supervisor at that institution.

Progression

4. (1) The progress of the candidate shall be considered by the Committee each session following report from the appropriate school in accordance with the procedures established within the School and previously noted by the Committee.

(2) A candidate for the degree shall be required to submit to such assessment or conditions as prescribed.

Advanced Work**

5. (1) On completing the program of study a candidate shall present for examination:

a) an exhibition or appropriate presentation of work; and

b) a catalogue or relevant supportive material such as a script; and

c) a written component containing comprehensive documentation of all stages of the studio study in three bound copies, each containing as far as practicable a visual record of the work presented for examination.

(2) The candidate shall give in writing to the Faculty Manager two months notice of intention to present for examination.

(3) The advanced work shall present on account of the candidate's own research. In special cases work done conjointly with other persons may be accepted, provided the Committee is satisfied on the candidate's part in the joint research.

(4) Three copies of the documentation of the advanced work shall be presented in a form which complies with the requirements of the University for the preparation and submission of theses for higher degrees.

(5) It shall be understood that the College retains the three copies of the documentation of the advanced work submitted for examination and is free to allow the documentation to be consulted or borrowed. Subject to the provisions of the Copyright Act, 1968, the College may issue the thesis in whole or in part, in photostat or microfilm or other copy medium.

*** or equivalent work as determined by the Standing Committee.*

Examination

6. (1) There shall be no fewer than two examiners of the advanced work, appointed by the Committee, at least one of whom shall be external to the University unless the Committee is satisfied that this is not practicable.

(2) At the conclusion of the examination each examiner shall submit to the Committee a concise report on the advanced work and shall recommend to the Committee that:

a) The advanced work merits the award of the degree;

b) The advanced work merits the award of the degree, subject to minor corrections, as listed, being made to the satisfaction of the Head of School;

c) The advanced work requires further work on matters detailed in the examiner's report. Should performance in this further work be to the satisfaction of the Committee, the advanced work would merit the award of the degree;

d) The advanced work does not merit the award of the degree in its present form and further work as described in the examiner's report is required. The revised advanced work should be subject to re-examination;

e) The advanced work does not merit the award of the degree and does not demonstrate that re-submission would be likely to achieve that merit.

(3) If the performance in the further work recommended under 6.2(c) above is not to the satisfaction of the Committee, the Committee may permit the candidate to re-present the same advanced work and submit to further examination as determined by the Committee within a period specified by it but not exceeding eighteen months.

(4) The Committee shall, after consideration of the examiners' reports and the results of any further examination, recommend whether or not the candidate may be awarded the degree. If it is decided that the candidate be not awarded the degree the Committee shall determine whether or not the candidate be permitted to resubmit the advanced work after a further period of study and/or research.

Fees

7. A candidate shall pay such fees as may be determined from time to time by the Council.

2255 Master of Art Education (Honours)

MArtEd(Hons)

Typical Duration
2 years

Minimum UOC for Award
96 units of credit

Typical UOC per Session
24 units of credit

Program Description

The Master of Art Education (Honours) provides students of proven ability with an opportunity to undertake advanced work in a selected art education orientation, for example: curriculum theory and practice; theoretical frameworks in art and art education including research and development of broad relevance to the field; critical and historical methods in art and education; cognitive theory; the social roles, ideologies and philosophies of the museum as an educational institution; explorations of the integration of art and therapy in theory and practice.

Participants in the research degree undertake an original investigation with academic supervision. The program is offered full-time for two years and part-time for four years as a minimum for the award of the degree.

Program Objectives and Learning Outcomes

Please refer to the Program Description.

Program Structure

Please contact the College of Fine Arts for information.

Academic Rules

1. The degree of Master of Art Education (Honours) may be awarded by the Council on the recommendation of the Standing Committee of the College of Fine Arts [hereinafter referred to as the Committee] to a candidate who has demonstrated ability to undertake research by the submission of a thesis embodying the results of an original investigation.

Qualifications

2. (1) A candidate for the degree shall have been awarded an appropriate degree of Bachelor with Honours from the University of New South Wales or a qualification considered equivalent, from this, another university or tertiary institution at a level acceptable to the Committee.

(2) In exceptional cases an applicant who submits evidence of such other academic and professional qualifications as may be approved by the Committee may be permitted to enrol for the degree.

(3) If the Committee is not satisfied with the qualifications submitted by an applicant the Committee may require the applicant to undergo such assessment or carry out such work as the Committee may prescribe, before permitting enrolment.

Enrolment

3. (1) An application to enrol as a candidate for the degree shall be made on the prescribed form which shall be lodged with Faculty Administration at the prescribed time before the commencement of the session in which the enrolment is to begin.

(2) In every case before making the offer of a place the Committee shall be satisfied that initial agreement has been reached between the School of Art Education and the applicant on the topic area, supervision arrangements, provision of adequate facilities and any coursework to be prescribed and that these are in accordance with the provisions of the guidelines for promoting postgraduate study within the University.

(3) The candidate shall be enrolled as either a full-time or part-time student.

(4) A full-time candidate will present the thesis for examination no earlier than two years and no later than three years from the date of enrolment and a part-time candidate will present the thesis for examination no earlier than four years and no later than six years from the date of enrolment except with the approval of the Committee.

(5) The candidate may undertake the research as an internal student, i.e. at the College, or as an external student not in attendance at the College except for periods as may be prescribed by the Committee.

(6) The research candidate will normally carry out the research at the College except that the Committee may permit a candidate to spend a period in the field, within another institution or elsewhere away from the College provided that the work can be supervised in a manner satisfactory to the Committee. In such instances the Committee shall be satisfied that the location and period of time away from the College are necessary to the research program.

(7) The research shall be supervised by a supervisor or supervisors who are members of the academic staff of the School or under other appropriate supervision arrangements approved by the Committee. Normally an external candidate within another organisation or institution will have a co-supervisor at that institution.

Progression

4. (1) The progress of the candidate shall be considered by the Committee each session following a report from the School in accordance with the procedures established within the School and previously noted by the Committee.

(2) A candidate for the degree shall be required to submit to such assessment or conditions as prescribed.

Thesis**

5. (1) On completing the program of study a candidate shall submit a thesis embodying the results of the investigation.

(2) The candidate shall give in writing to the Faculty Manager two months notice of intention to submit a thesis.

(3) The thesis shall present on account of the candidate's own research. In special cases work done conjointly with other persons may be accepted, provided the Committee is satisfied on the candidate's part in the joint research.

(4) The candidate may also submit any work previously published whether or not such work is related to the thesis.

(5) It shall be understood that the College retains the three copies of the thesis to be consulted or borrowed. Subject to the provisions of the Copyright Act, 1968, the College may issue the thesis in whole or in part, in photostat or microfilm or other copy medium.

*** or equivalent work as determined by the Standing Committee.*

Examination

6. (1) There shall be no fewer than two examiners of the thesis, appointed by the Committee, at least one of whom shall be external to the University unless the Committee is satisfied that this is not practicable.

(2) At the conclusion of the examination each examiner shall submit to the Committee a concise report on the thesis and shall recommend to the Committee that:

a) The thesis merits the award of the degree;

b) The thesis merits the award of the degree, subject to minor corrections, as listed, being made to the satisfaction of the Head of School;

c) The thesis requires further work on matters detailed in the examiner's report. Should performance in this further work be to the satisfaction of the Committee, the thesis would merit the award of the degree;

d) The thesis does not merit the award of the degree in its present form and further work as described in the examiner's report is required. The revised thesis should be subject to re-examination;

e) The thesis does not merit the award of the degree and does not demonstrate that re-submission would be likely to achieve that merit.

(3) If the performance in the further work recommended under 6.2(c) above is not to the satisfaction of the Committee, the Committee may permit the candidate to re-present the same thesis and submit to further examination as determined by the Committee within a period specified by it but not exceeding eighteen months.

(4) The Committee shall, after consideration of the examiners' reports and the results of any further examination, recommend whether or not the candidate may be awarded the degree. If it is decided that the candidate be not awarded the degree the Committee shall determine whether or not the candidate be permitted to re-submit the thesis after a further period of study and/or research.

Fees

7. A candidate shall pay such fees as may be determined from time to time by the Council.

2264 Master of Art Administration (Honours)

MArtAdmin(Hons)

Typical Duration
2 years

Minimum UOC for Award
96 units of credit

Typical UOC per Session
24 units of credit

Program Description

Students enrolled in the Master of Art Administration (Honours) complete 24 units of coursework (normally taken as four courses of 6 units of credit), and undertake a program of independent, supervised research to produce a thesis (72 units and may take the form of a written thesis or an art administration project, together with supporting written documentation). The length of the thesis may vary but will not normally exceed 30,000 words. Each research student is allocated a supervisor with knowledge of the field. In addition, at least one co-supervisor is appointed. Students are expected to meet regularly with the supervisor. Contact with other staff and postgraduate students is maintained through participation in the postgraduate seminar program.

Coursework courses offered by the College of Fine Arts are listed in this Handbook: see section on coursework Masters degrees. Students will discuss the courses to be taken with the program coordinator and the supervisor. Approval for the coursework courses, the thesis topic and supervisory arrangements is given by the Standing Committee.

Program Objectives and Learning Outcomes

Please refer to the Program Description.

Program Structure

Please contact the College of Fine Arts for information.

Academic Rules

1. The degree of Master of Art Administration (Honours) may be awarded by the Council on the recommendation of the Standing Committee of the College of Fine Arts [hereinafter referred to as the Committee] to a candidate who has passed the coursework component of the program, and demonstrated ability to undertake research by the submission of a thesis embodying the results of an original investigation.

Qualifications

2. (1) A candidate for the degree shall have been awarded an appropriate degree of Bachelor with Honours from the University of New South Wales or a qualification considered equivalent, from this, another university or tertiary institution at a level acceptable to the Committee.

(2) In exceptional cases an applicant who submits evidence of such other academic and professional qualifications as may be approved by the Committee may be permitted to enrol for the degree.

(3) If the Committee is not satisfied with the qualifications submitted by an applicant the Committee may require the applicant to undergo such assessment or carry out such work as the Committee may prescribe, before permitting enrolment.

(4) A candidate who has completed courses in the Master of Art Administration from the University of New South Wales, or other appropriate postgraduate courses, may qualify for advanced standing and be granted exemptions of up to 24 units in the coursework component of the degree.

Enrolment

3. (1) An application to enrol as a candidate for the degree shall be made on the prescribed form which shall be lodged with Faculty Administration at the prescribed time before the commencement of the session in which the enrolment is to begin.

(2) In every case, before making the offer of a place, the Committee shall be satisfied that initial agreement has been reached between the School of Art History and Theory and the applicant on the coursework component, the topic area, the proposed format of the thesis, supervision arrangements, and provision of adequate facilities and that these are in accordance with the provisions of the guidelines for promoting postgraduate study within the University.

(3) The candidate shall be enrolled as either a full-time or part-time student.

(4) Candidates will undertake 24 units of postgraduate coursework, normally taken as 4 courses of 6 units, and 72 units of research thesis. Coursework will normally be undertaken concurrently with the thesis. A full-time candidate will present the thesis for examination no earlier than two years and no later than three years from the date of enrolment; and a part-time candidate will present the thesis for examination no earlier than four years and no later than six years from the date of enrolment, except with the approval of the Committee.

(5) The candidate may undertake the research for the thesis as an internal student, i.e. at the College, or as an external student not in attendance at the College except for periods as may be prescribed by the Committee.

(6) The internal candidate will normally carry out the research at the College except that the Committee may permit a candidate to spend a period in the field, within another institution or elsewhere away from the College provided that the work can be supervised in a manner satisfactory to the Committee. In such instances the Committee shall be satisfied that the location and period of time away from the College are necessary to the research program.

(7) The research shall be supervised by a supervisor or supervisors who are members of the academic staff of the School or under other appropriate supervision arrangements approved by the Committee. Normally an external candidate within another organisation or institution will have a co-supervisor at that institution.

(8) Selection of courses in the coursework component will be made in consultation with the supervisor and program coordinator, and approved by the Program Authority.

Progression

4. (1) The progress of the candidate shall be considered by the Committee each session following report from the School in accordance with the procedures established within the School and previously noted by the Committee.

(2) A candidate for the degree shall be required to submit to such assessment or conditions as prescribed.

(3) A candidate, who has completed the coursework component (normally by achieving passes or better in four courses of 6 units of credit each), and who has passed the thesis (as set out in point 6 under the Examination section), will qualify for the award of the degree.

Thesis**

5. (1) On completing the program of study a candidate shall submit a thesis embodying the results of the investigation.

(2) The candidate shall give in writing to the Faculty Manager two months notice of intention to submit the thesis.

(3) The written thesis (including documentation of project-based thesis) shall present an account of the candidate's own research. In special cases work done conjointly with other persons may be accepted, provided the Committee is satisfied on the candidate's part in the joint research.

(4) The candidate may also submit any work previously published whether or not such work is related to the thesis.

(5) Three copies of the written thesis shall be presented in a form which complies with the requirements of the University for the preparation and submission of theses for higher degrees.

(6) It shall be understood that the College retains the three copies of the written thesis submitted for examination and is free to allow the thesis to be consulted or borrowed. Subject to the provisions of the Copyright Act, 1968, the College may issue the thesis in whole or in part, in photostat or microfilm or other copy medium.

*** or equivalent work as determined by the Standing Committee.*

Examination

6. (1) There shall be no fewer than two examiners of the thesis, appointed by the Committee, at least one of whom shall be external to the University unless the Committee is satisfied that this is not practicable.

(2) At the conclusion of the examination each examiner shall submit to the Committee a concise report on the thesis and shall recommend to the Committee that:

a) The thesis merits the award of the degree;

b) The thesis merits the award of the degree, subject to minor corrections, as listed, being made to the satisfaction of the Head of School;

c) The thesis requires further work on matters detailed in the examiner's report. Should performance in this further work be to the satisfaction of the Committee, the thesis would merit the award of the degree;

d) The thesis does not merit the award of the degree in its present form and further work as described in the examiner's report is required. The revised thesis should be subject to re-examination;

e) The thesis does not merit the award of the degree and does not demonstrate that re-submission would be likely to achieve that merit;

(3) If the performance in the further work recommended under 6.2(c) above is not to the satisfaction of the Committee, the Committee may permit the candidate to re-present the same thesis and submit to further examination as determined by the Committee within a period specified by it but not exceeding eighteen months.

(4) The Committee shall, after consideration of the examiners' reports and the results of any further examination, recommend whether or not the candidate may be awarded the degree. If it is decided that the candidate be not awarded the degree the Committee shall determine whether or not the candidate be permitted to resubmit the thesis after a further period of study and/or research.

Fees

7. A candidate shall pay such fees as may be determined from time to time by the Council.

2265 Master of Art Theory (by Research)

MArtTh

Typical Duration
2 years

Minimum UOC for Award
96 units of credit

Typical UOC per Session
24 units of credit

Program Description

Students enrolled in the Master of Art Theory undertake a program of independent, supervised research over two years full-time (or the equivalent part-time) and produce a written thesis. This research degree in Art History and Theory offers training in research methodologies, their critical evaluation and application. In certain cases art work may be submitted in support of the written thesis, where it is appropriate to make an argument through a visual or time-based form. Each research student is allocated a supervisor with knowledge of the field. In addition, at least one co-supervisor is appointed. Students are expected to meet regularly with the supervisor. Contact with other staff and postgraduate students is maintained through participation in the postgraduate seminar program.

Program Objectives and Learning Outcomes

Please refer to the Program Description.

Program Structure

Please contact the College of Fine Arts for information.

Academic Rules

1. The degree of Master of Art Theory by research may be awarded by the Council on the recommendation of the Standing Committee of the College of Fine Arts [hereinafter referred to as the Committee] to a candidate who has demonstrated ability to undertake research by the submission of a thesis embodying the results of an original investigation. The degree shall be awarded with the grade of Honours Class 1 or with the grade Honours Class 2.

Qualifications

2. (1) A candidate for the degree shall have been awarded an appropriate degree of Bachelor with Honours from the University of New South Wales or a qualification considered equivalent, from this, another university or tertiary institution at a level acceptable to the Committee.

(2) In exceptional cases an applicant who submits evidence of such other academic and professional qualifications as may be approved by the Committee may be permitted to enrol for the degree.

(3) If the Committee is not satisfied with the qualifications submitted by an applicant the Committee may require the applicant to undergo such assessment or carry out such work as the Committee may prescribe, before permitting enrolment.

Enrolment

3. (1) An application to enrol as a candidate for the degree shall be made on the prescribed form which shall be lodged with Faculty Administration at the prescribed time before the commencement of the session in which the enrolment is to begin.

(2) In every case, before making the offer of a place, the Committee shall be satisfied that initial agreement has been reached between the School of Art History and Theory and the applicant on the topic area, supervision arrangements, provision of adequate facilities and any coursework to be prescribed and that these are in accordance with the provisions of the guidelines for promoting postgraduate study within the University.

(3) The candidate shall be enrolled as either a full-time or part-time student.

(4). A full-time candidate will present the thesis for examination no earlier than two years and no later than three years from the date of enrolment and a part-time candidate will present the thesis for examination no earlier than four years and no later than six years from the date of enrolment, except with the approval of the Committee.

(5) The candidate may undertake the research as an internal student i.e. at the College or as an external student not in attendance at the College except for periods as may be prescribed by the Committee.

(6) The research candidate will normally carry out the research at the College except that the Committee may permit a candidate to spend a period in the field, within another institution or elsewhere away from the College provided that the work can be supervised in a manner satisfactory to the Committee. In such instances the Committee shall be satisfied that the location and period of time away from the College are necessary to the research program.

(7) The research shall be supervised by a supervisor or supervisors who are members of the academic staff of the School or under other appropriate supervision arrangements approved by the Committee. Normally an external candidate within another organisation or institution will have a co-supervisor at that institution.

Progression

4. (1) The progress of the candidate shall be considered by the Committee each session following report from the School in accordance with the procedures established within the School and previously noted by the Committee.

(2) A candidate for the degree shall be required to submit to such assessment or conditions as prescribed.

Thesis**

5. (1) On completing the program of study a candidate shall submit a thesis embodying the results of the investigation.

(2) The candidate shall give in writing to the Faculty Manager two months notice of intention to submit the thesis.

(3) The thesis shall present on account of the candidate's own research. In special cases work done conjointly with other persons may be accepted, provided the Committee is satisfied on the candidate's part in the joint research.

(4) The candidate may also submit any work previously published whether or not such work is related to the thesis.

(5) Three copies of the thesis shall be presented in a form which complies with the requirements of the University for the preparation and submission of theses for higher degrees.

(6) It shall be understood that the College retains the three copies of the thesis submitted for examination and is free to allow the thesis to be consulted or borrowed. Subject to the provisions of the Copyright Act,

1968, the College may issue the thesis in whole or in part, in photostat or microfilm or other copy medium.

*** or equivalent work as determined by the Standing Committee.*

Examination

6. (1) There shall be no fewer than two examiners of the thesis, appointed by the Committee, at least one of whom shall be external to the University unless the Committee is satisfied that this is not practicable.

(2) At the conclusion of the examination each examiner shall submit to the Committee a concise report on the thesis and shall recommend to the Committee that:

a) The thesis merits the award of the degree;

b) The thesis merits the award of the degree, subject to minor corrections, as listed, being made to the satisfaction of the Head of School;

c) The thesis requires further work on matters detailed in the examiner's report. Should performance in this further work be to the satisfaction of the Committee, the thesis would merit the award of the degree;

d) The thesis does not merit the award of the degree in its present form and further work as described in the examiner's report is required. The revised thesis should be subject to re-examination;

e) The thesis does not merit the award of the degree and does not demonstrate that re-submission would be likely to achieve that merit.

(3) If the performance in the further work recommended under 6.2(c) above is not to the satisfaction of the Committee, the Committee may permit the candidate to re-present the same thesis and submit to further examination as determined by the Committee within a period specified by it but not exceeding eighteen months.

(4) The Committee shall, after consideration of the examiners' reports and the results of any further examination, recommend whether or not the candidate may be awarded the degree. If it is decided that the candidate be not awarded the degree the Committee shall determine whether or not the candidate be permitted to resubmit the thesis after a further period of study and/or research.

Fees

7. A candidate shall pay such fees as may be determined from time to time by the Council.

2266 Master of Design (Honours)

MDes(Hons)

Typical Duration
2 years

Minimum UOC for Award
96 units of credit

Typical UOC per Session
24 units of credit

Program Description

The Master of Design (Honours) is a two year full-time, or four year part-time, program in design research where candidates nominate a research thesis/project focusing on Graphics/Media Design, Environments/Spatial Design, Applied/Object Design, Integrated Design, Design Management, or Design History/Theory. The degree is aimed at providing candidates with an opportunity to demonstrate mastery in their approved area of research in design through investigation of the theoretical underpinnings of design process, practice and/or product. The program requires research resulting in a written thesis and/or studio project.

The program is individually oriented and cannot be undertaken by coursework.

Studies are available in the following areas for the Master of Design (Honours):

- Graphic/Media Design including photographic and computer imaging in both still and animated formats;
- Environments Design including interiors, exhibition, theatre and garden projects;
- Applied/Object Design including industrial design, product design, jewellery design, ceramics design and textiles design;
- Integrated Design with reference to the cross disciplinary nature of studio practice and/or theory;
- Design Management/Practice with reference to the integration of design management strategies toward the development of the Australian design culture;
- Design History/Theory with reference to the application of historical and theoretical methodologies to design process and product.

Candidates are largely self-directed under the guidance of a qualified supervisor, co-supervisor or a panel of supervisors.

Program Objectives and Learning Outcomes

The objectives of the program are:

- to provide the opportunity for designers of proven ability to undertake advanced work in design, thereby extending their creative and research capacity from the base established in undergraduate and graduate studies;
- to foster a climate which encourages speculation, experiment and soundly based working procedures;
- to promote critical reflection on the relationship between designers, their work and society;
- to encourage candidates to take advantage of the supportive climate of the College whilst at the same time developing those capacities required in assuming their place within the wider community as practitioners.

Program Structure

Please contact the College of Fine Arts for information.

Academic Rules

1. The degree of Master of Design (Honours) may be awarded by the Council on the recommendation of the Standing Committee of the College of Fine Arts [hereinafter referred to as the Committee] to a candidate who has demonstrated ability to undertake research by the submission of the results of an original investigation.

Qualifications

2. (1) A candidate for the degree shall have been awarded an appropriate degree of Bachelor with Honours from the University of New South Wales or a qualification considered equivalent, from this, another university or tertiary institution at a level acceptable to the Committee.

(2) In exceptional cases an applicant who submits evidence of such other academic and professional qualifications as may be approved by the Committee may be permitted to enrol for the degree.

(3) If the Committee is not satisfied with the qualifications submitted by an applicant the Committee may require the applicant to undergo such assessment or carry out such work as the Committee may prescribe, before permitting enrolment.

Enrolment

3. (1) An application to enrol as a candidate for the degree shall be made on the prescribed form which shall be lodged with Faculty Administration at the prescribed time before the commencement of the session in which the enrolment is to begin.

(2) In every case, before making the offer of a place, the Committee shall be satisfied that initial agreement has been reached between the School of Design Studies and the applicant on the topic area, supervision arrangements, provision of adequate facilities and any coursework to be prescribed and that these are in accordance with the provisions of the guidelines for promoting postgraduate study within the University.

(3) The candidate shall be enrolled as either a full-time or part-time student.

(4) A full-time candidate will present the thesis for examination no earlier than two years and no later than three years from the date of enrolment and a part-time candidate will present the thesis for examination no earlier than four years and no later than six years from the date of enrolment except with the approval of the Committee.

(5) The candidate may undertake the research as an internal student, i.e. at the College, or as an external student not in attendance at the College except for periods as may be prescribed by the Committee.

(6) The research candidate will normally carry out the research at the College except that the Committee may permit a candidate to spend a period in the field, within another institution or elsewhere away from the College provided that the work can be supervised in a manner satisfactory to the Committee. In such instances the Committee shall be satisfied that the location and period of time away from the College are necessary to the research program.

(7) The research shall be supervised by a supervisor or supervisors who are members of the academic staff of the School or under other appropriate

supervision arrangements approved by the Committee. Normally an external candidate within another organisation or institution will have a co-supervisor at that institution.

Progression

4. (1) The progress of the candidate shall be considered by the Committee each session following report from the School in accordance with the procedures established within the School and previously noted by the Committee.

(2) A candidate for the degree shall be required to submit to such assessment or conditions as prescribed.

Advanced Work**

5. (1) On completing the program of study a candidate shall present for examination:

a) a thesis/project embodying the results of the investigation;

b) an exhibition or appropriate presentation of work embodying the results of the investigation. This mode of presentation will include appropriate, comprehensive documentation of the project hypothesis and all stages of the studio study.

(2) The candidate shall give in writing to the Faculty Manager two months' notice of intention to present for examination.

(3) The advanced work shall present an account of the candidate's own research. In special cases work done conjointly with other persons may be accepted, provided the Committee is satisfied on the candidate's part in the joint research.

(4) Three copies of the documentation of the advanced work shall be presented in a form which complies with the requirements of the University for the preparation and submission of theses for higher degrees.

(5) It shall be understood that the College retains the three copies of the documentation of the advanced work submitted for examination and is free to allow the documentation to be consulted or borrowed. Subject to the provisions of the Copyright Act, 1968, the College may issue the thesis in whole or in part, in photostat or microfilm or other copy medium.

*** or equivalent work as determined by the Standing Committee.*

Examination

6. (1) There shall be no fewer than two examiners of the advanced work, appointed by the Committee, at least one of whom shall be external to the University unless the Committee is satisfied that this is not practicable.

(2) At the conclusion of the examination each examiner shall submit to the Committee a concise report on the advanced work and shall recommend to the Committee that:

a) The thesis or project merits the award of the degree;

b) The thesis or project merits the award of the degree, subject to minor corrections as listed being made to the satisfaction of the Head of School;

c) The thesis or project requires further work on matters detailed in the examiner's report. Should performance in this further work be to the satisfaction of the Committee, the thesis or project would merit the award of the degree;

d) The thesis or project does not merit the award of the degree in its present form and further work as described in the examiner's report is required. The revised thesis or project should be subject to re-examination;

e) The thesis or project does not merit the award of the degree and does not demonstrate that re-submission would be likely to achieve that merit.

(3) If the performance in the further work recommended under 6.2(c) above is not to the satisfaction of the Committee, the Committee may permit the candidate to re-present the same thesis or project and submit to further examination as determined by the Committee within a period specified by it but not exceeding eighteen months.

(4) The Committee shall, after consideration of the examiners' reports and the results of any further examination, recommend whether or not the candidate may be awarded the degree. If it is decided that the candidate be not awarded the degree the Committee shall determine whether or not the candidate be permitted to resubmit the thesis or project after a further period of study and/or research.

Fees

7. A candidate shall pay such fees as may be determined from time to time by the Council.

Program Rules and Information – Coursework Degrees

9307 Master of Art (by Coursework)

MArt

Typical Duration
1.5 years

Minimum UOC for Award
72 units of credit

Typical UOC per Session
24 units of credit

Program Description

The program is designed for students who wish to investigate or further artistic interests under expert guidance. Students are encouraged to see their art in the context of contemporary developments and to examine various aesthetic propositions. Students are encouraged to develop a professional approach to their own creative endeavours at all times and the program aims to assist in the transition from student to practising artist in the community, or in the pursuit of further study at research level. Interdisciplinary practice is encouraged and excellence promoted.

Program Objectives and Learning Outcomes

Please refer to the Program Description.

Program Structure *(Subject to UNSW Council approval)*

1. Students must complete a minimum of 72 units of credit of postgraduate courses for the award of the degree, unless exemption(s) have been granted.

2. The program shall comprise of 18 units of credit of prescribed core courses, 12 units of credit of core theory courses, 18 units of credit of studio courses and 24 units of credit of electives, one of which shall be a studio based course.

3. At least 36 units of credit of prescribed courses shall be from a disciplinary Plan defined by the Standing Committee of the College of Fine Arts.

4. As this program is considered to be intensive and rigorous in involvement, students are expected to maintain their unsupervised studio practice during mid-session and inter-session periods, although not necessarily on campus.

5. Students will present a documentation volume as a substantial written and appropriately illustrated, annotated record of their working processes and areas of concern. This volume will be assessed on a satisfactory/unsatisfactory basis.

Full-Time Study - Three Sessions - 1.5 Years

Prescribed Core Courses x 3	(18 UOC)
Studio Courses x 3	(18 UOC)
Core Theory x 2	(12 UOC)
Electives x 4	(24 UOC)
Total units of credit:	72
Total units of credit per session:	24

Program Plan Details

Students must choose a major study plan of the following, which includes 3 prescribed core courses, 3 studio courses, 2 core theory courses and 4 electives.

Drawing (program **9307**, plan **DRAPBS9307**)

3 prescribed core courses:

SART9705	Drawing 1
SART9706	Drawing 2
SART9707	Drawing 3

Plus three of the following postgraduate studio courses:

SART9727	Drawing
SART9733	Life Drawing
SART9740	Anatomy for Artists
SART9741	Composition and Design
SART9744	Painting/Drawing Field Studies
SART9734	Painting from Life
SART9743	Digital Imaging and Painting
SART9742	Colour
SART9728	Painting
SART9758	Special Projects – Studio

Plus two core theory courses, normally SAHT9141 Current Issues in Art and SAED9002 Practices of Research in Art, Design and Education.

Plus four electives, including at least one studio course.

Painting (program **9307**, plan **DRAPAS9307**)

3 prescribed core courses:

SART9701 Painting 1
SART9702 Painting 2
SART9703 Painting 3

Plus three of the following postgraduate studio courses:

SART9727 Drawing
SART9733 Life Drawing
SART9740 Anatomy for Artists
SART9741 Composition and Design
SART9744 Painting/Drawing Field Studies
SART9734 Painting from Life
SART9743 Digital Imaging and Painting
SART9742 Colour
SART9728 Painting
SART9734 Painting from Life
SART9758 Special Projects – Studio

Plus two core theory courses, normally SAHT9141 Current Issues in Art and SAED9002 Practices of Research in Art, Design and Education.

Plus four electives including at least one studio course.

Photomedia (program **9307**, plan **FOTOAS9307**)

3 prescribed core courses:

SOMA9713 Photomedia 1
SOMA9714 Photomedia 2
SAMA9715 Photomedia 3

Plus three of the following postgraduate studio courses:

SOMA9730 Analogue Photography
SOMA9731 Digital Imaging
SOMA9736 Advanced Analogue Photography
SOMA9737 Vector Graphics in Visual Arts
SOMA9741 Writing for Digital Media
SOMA9745 Introduction to Photographic Studio Lighting
SOMA9746 Advanced Photographic Studio Lighting
SOMA9747 Cinematography Workshop

Plus two core theory courses, SAHT9141 Current Issues in Art and SAED9002 Practices of Research in Art, Design and Education.

Plus four electives including at least one studio course.

Printmaking – (program **9307**, plan **PRINBS9307)**

3 prescribed core courses:

SART9709 Printmaking 1
SART9710 Printmaking 2
SART9711 Printmaking 3

Plus three of the following postgraduate studio courses:

SART9729 Etching
SART9735 Advanced Etching
SART9749 Printmaking
SART9748 Screen Printing
SART9747 Artists' Books
SART9745 Custom Printing
SART9746 Advanced Custom Printing
SART9752 Paper Technology
SART9758 Special Projects – Studio

Plus three core theory courses, normally SAHT9141 Current Issues in Art and SAED9002 Practices of Research in Art, Design and Education.

Plus four electives including at least one studio course.

Sculpture, Performance and Installation (program **9307**, plan **SCULBS9307**)

3 prescribed core courses:

SART9721 Sculpture, Performance and Installation 1
SART9722 Sculpture, Performance and Installation 2
SART9723 Sculpture, Performance and Installation 3

Plus three of the following postgraduate studio courses:

SART9750 Installation
SART9732 Sculpture
SART9738 Advanced Sculpture
SART9751 Electronics Technologies
SART9753 Advanced Electronics
SART9754 Metal Casting
SART9756 Ceramic Shell Casting
SART9757 Sculpture Field Studies
SART9758 Special Projects – Studio

Plus two core theory courses, normally SAHT9141 Current Issues in Art and SAED9002 Practices of Research in Art, Design and Education.

Plus four electives including at least one studio course.

Time Based Art (program **9307**, plan **TBASAS9307)**

3 prescribed core courses:

SOMA9717 Time Based Art 1
SOMA9718 Time Based Art 2
SOMA9719 Time Based Art 3

Plus three of the following postgraduate studio courses:

SOMA9725 Introductory Interactive Multimedia
SOMA9726 Introductory Animation
SOMA9739 Advanced Interactive Multimedia
SOMA9743 Advanced Animation
SOMA9742 Introduction to Sound
SOMA9744 Advanced Sound
SOMA9740 Narrative and Gameplay
SOMA9741 Writing for Digital Media
SOMA9101 Video Construction
SOMA9745 Introduction of Photographic Studio Lighting
SOMA9746 Advanced Photographic Studio Lighting
SART9751 Electronics Technologies
SART9753 Advanced Electronics
SOMA9747 Cinematography Workshop
SOMA9749 Video Art

Plus two core theory courses, SAHT9141 Current Issues in Art and SAED9002 Practices of Research in Art, Design and Education.

Plus four electives including at least one studio course.

Academic Rules

1. The degree of Master of Art by coursework may be awarded by the Council to a candidate who has satisfactorily completed a program of advanced study.

Qualifications

2. (1) A candidate for the degree shall have been awarded an appropriate degree of Bachelor from the University of New South Wales or a qualification considered equivalent from another university or tertiary institution at a level acceptable to the Standing Committee of the College of Fine Arts (hereinafter referred to as the Committee).

(2) In exceptional cases an applicant who submits evidence of such other academic and professional qualifications as may be approved by the Committee may be permitted to enrol for the degree.

(3) If the Committee is not satisfied with the qualifications submitted by an applicant the Committee may require the applicant to undergo such assessment or carry out such work as the Committee may prescribe, before permitting enrolment.

Enrolment and Progression

3. (1) An application to enrol as a candidate for the degree shall be made on the prescribed form which shall be lodged with the Faculty Manager by the advertised closing date which will be at least two calendar months before the commencement of the session in which enrolment is to begin.

(2) A candidate for the degree shall be required to undertake such formal courses and pass such assessment or conditions as prescribed.

(3) The progress of a candidate shall be reviewed each session by the Committee and, as a result of its review, the Committee may cancel enrolment or take such other action as it considers appropriate.

(4) Candidates will not normally be awarded the degree until the lapse of three academic sessions from the date of enrolment in the case of a full-time candidate or six sessions in the case of a part-time candidate. The maximum period of candidature shall be six academic sessions from the date of enrolment for a full-time candidate and eight academic sessions for a part-time candidate.

Fees

4. A candidate shall pay such fees as may be determined from time to time by the Council.

5307 Graduate Diploma in Art (by Coursework)

GradDip

Typical Duration
1 year

Minimum UOC for Award
48 units of credit

Typical UOC per Session
24 units of credit

Program Description

Please refer to the program entry for 9307 Master of Art for further information.

Program Objectives and Learning Outcomes

Please refer to the program entry for 9307 Master of Art for further information.

Program Structure *(Subject to UNSW Council approval)*

The Graduate Diploma in Art provides students with the opportunity to achieve an exit credential from the Master of Art program after two sessions full-time and the completion of eight courses - two prescribed core courses, one core theory course, two studio courses in the one discipline area, one studio elective and two electives.

Academic Rules

Please refer to the program entry for 9307 Master of Art for more information.

7307 Graduate Certificate in Art (by Coursework)

GradCert

Typical Duration
0.5 years

Minimum UOC for Award
24 units of credit

Typical UOC per Session
24 units of credit

Program Description

Please refer to the program entry for 9307 Master of Art for further information.

Program Objectives and Learning Outcomes

Please refer to the program entry for 9307 Master of Art for further information.

Program Structure *(Subject to UNSW Council approval)*

The Graduate Certificate in Art provides students with the opportunity to achieve an exit credential from the Master of Art program after one session full-time and the completion of four courses - one prescribed core course, one studio course in the one discipline area, one studio elective and one elective.

Academic Rules

Please refer to the program entry for 9307 Master of Art for further information.

9302 Master of Art Administration (by Coursework)

MArtAdm

Typical Duration
1.5 years

Minimum UOC for Award
72 units of credit

Typical UOC per Session
24 units of credit

Program Description

The Master of Art Administration combines wide ranging aspects of the visual arts in relation to management, marketing and finance as well as curatorial practices, writing and documentation, legal and theoretical studies. The degree recognises the significant changes that are taking place in the cultural sphere and prepares students for future employment in areas both inside and outside the traditional gallery/museum context. Practical, analytical and theoretical skills are developed in a program that emphasises vocational training within a wider cultural and critical framework.

The program consists of lectures, seminars and hands-on activities, a 10,000 word research paper and industry placement of no less than 180 hours. Each course normally requires attendance at a 3 hour lecture plus related research and assignment work.

Program Objectives and Learning Outcomes

It is intended that students graduating from this program will be equipped with the skills necessary to function in managerial, administrative, curatorial, art writing and other professional capacities within the visual arts industry.

Program Structure

The Master of Art Administration comprises core courses, core options, open electives and an internship:

Core Courses

Students take six core courses, totalling 36 units of credit, including SAHT9115 Internship.

SAHT9111	Management and Organisation: Systems, Services and Survival	(6 UOC)
SAHT9112	Writing for Different Cultures and Audiences	(6 UOC)
SAHT9113	Cultural Property, Ethics and the Law	(6 UOC)
SAHT9115	Internship	(6 UOC)
SAHT9116	Research Paper	(6 UOC)
SAHT9126	Organisational Psychology: Managing People in the Workplace	(6 UOC)

Core Options

Students take no less than three, and no more than six, courses from those offered as core options.

SAHT9114	Exhibition Management and Curatorial Studies	(6 UOC)
SAHT9121	Exhibition and Gallery Design Development	(6 UOC)
SAHT9122	Education and Public Programs	(6 UOC)
SAHT9123	Marketing and Promotion	(6 UOC)
SAHT9124	Arts and Cultural Policy	(6 UOC)
SAHT9125	The Australian Art Market	(6 UOC)
SAHT9127	Conservation and Collections Management	(6 UOC)
SAHT9128	History of Exhibitions of Australian Art	(6 UOC)
SAHT9129	The Development of Art Criticism in Australia	(6 UOC)
SAHT9130	Art Galleries and Collections in Australia	(6 UOC)
SAHT9131	Visual and Museum Cultures of the Asia-Pacific Region	(6 UOC)
SAHT9132	Festivals and Biennales	(6 UOC)
SAHT9693	Museum Development - Fundraising and Philanthropy	(6 UOC)

Open Electives

Students may take up to three courses from those offered as postgraduate level electives by UNSW, but may take none. Students who wish to undertake electives from other faculties must consult with the Head of School.

The total number of courses taken as core options and open electives is six, totalling 36 units of credit.

Study

Full-time study involves three sessions, totalling 72 units of credit. Students would normally undertake 24 units of credit per session, with core courses completed before the commencement of the third session.

Part-time study involves six sessions, totalling 72 units of credit. Students would normally undertake 12 units of credit per session, with core courses completed before the commencement of the fifth session.

Internship

Students undertake an internship, usually in their last semester of study.

Academic Rules

1. The degree of Master of Art Administration by coursework may be awarded by the Council to a candidate who has satisfactorily completed a program of advanced study.

Qualifications

2. (1) A candidate for the degree shall have been awarded an appropriate degree of Bachelor from the University of New South Wales or a qualification considered equivalent from another university or tertiary institution at a level acceptable to the Standing Committee of the College of Fine Arts [hereinafter referred to as the Committee].

(2) In exceptional cases an applicant who submits evidence of such other academic and professional qualifications as may be approved by the Committee may be permitted to enrol for the degree.

(3) If the Committee is not satisfied with the qualifications submitted by an applicant the Committee may require the applicant to undergo such assessment or carry out such work as the Committee may prescribe, before permitting enrolment.

Enrolment and Progression

3. (1) An application to enrol as a candidate for the degree shall be made on the prescribed form which shall be lodged with the Faculty Manager by the advertised closing date which will be at least two calendar months before the commencement of the session in which enrolment is to begin.

(2) A candidate for the degree shall be required to undertake such formal courses and pass such assessment or conditions as prescribed.

(3) The progress of a candidate shall be reviewed each session by the Committee and as a result of its review the Committee may cancel enrolment or take such other action, as it considers appropriate.

(4) No candidate shall be awarded the degree until the lapse of three academic sessions from the date of enrolment in the case of a full-time candidate or six sessions in the case of a part-time candidate. The maximum period of candidature shall be six academic sessions from the date of enrolment for a full-time candidate and eight academic sessions for a part-time candidate.

Fees

4. A candidate shall pay such fees as may be determined from time to time by the Council.

5302 Graduate Diploma in Art Administration (by Coursework)

GradDipArtAdmin

Typical Duration
1 year

Minimum UOC for Award
48 units of credit

Typical UOC per Session
24 units of credit

Program Description

The College of Fine Arts offers a range of opportunities for graduates wishing to extend their professional qualifications and those wishing to broaden or change direction in their professional endeavours.

The Graduate Diploma in Art Administration is an introduction to the field of study and is available to candidates who wish to gain new directions, different to major study of their undergraduate degree and for students admitted under rule 2.2 of Conditions for the Award.

Candidates must successfully complete eight courses totaling 48 units of credit to graduate with the Graduate Diploma. Alternatively, students who have not taken out the award may upgrade to the Master of Art Administration (Coursework) if they are:

- admitted under qualifications rule 2.1 or
- admitted under qualification rule 2.2 and have gained a credit average.

The Graduate Diploma can be completed in two academic sessions. The maximum period of candidature is six academic sessions. In special circumstances an extension may be granted.

Program Objectives and Learning Outcomes

It is intended that students graduating from this program will be equipped with some of the skills necessary to function in managerial, administrative, curatorial, art writing and other professional capacities within the visual arts industry.

Program Structure

1. Students must complete a minimum of 48 units of credit of postgraduate courses for the award of the Graduate Diploma.

2. Students must complete 24 units of credit of the prescribed core courses and 24 units of credit of which at least 12 units of credit must be core options, but up to 12 units of credit may be open electives.

Core Courses

SAHT9111	Management and Organisation: Systems, Services and Survival	(6 UOC)
SAHT9112	Writing for Different Cultures and Audiences	(6 UOC)
SAHT9113	Cultural Property, Ethics and the Law	(6 UOC)
SAHT9126	Organisational Psychology: Managing People in the Workplace	(6 UOC)

Core Options

SAHT9114	Exhibition Management and Curatorial Studies	(6 UOC)
SAHT9121	Exhibition and Gallery Design Development	(6 UOC)
SAHT9122	Education and Public Programs	(6 UOC)
SAHT9123	Marketing and Promotion	(6 UOC)
SAHT9124	Arts and Cultural Policy	(6 UOC)
SAHT9125	The Australian Art Market	(6 UOC)
SAHT9127	Conservation and Collections Management	(6 UOC)
SAHT9128	History of Exhibitions of Australian Art	(6 UOC)
SAHT9129	The Development of Art Criticism in Australia	(6 UOC)
SAHT9130	Art Galleries and Collections in Australia	(6 UOC)
SAHT9131	Visual and Museum Cultures of the Asia-Pacific Region	(6 UOC)
SAHT9132	Festivals and Biennales	(6 UOC)
SAHT9693	Museum Development - Fundraising and Philanthropy	(6 UOC)

Academic Rules

Please refer to the program entry for 9302 Master of Art Administration for further information.

7302 Graduate Certificate in Art Administration (by Coursework)

GradCertArtAdmin

Typical Duration
0.5 years

Minimum UOC for Award
24 units of credit

Typical UOC per Session
24 units of credit

Program Description

The College of Fine Arts offers a range of opportunities for graduates wishing to extend their professional qualifications and those wishing to broaden or change direction in their professional endeavours.

The Graduate Certificate in Art Administration is available to candidates who wish to go in a direction different to the major study of their undergraduate degree and for students admitted under rule 2.2 of Conditions for the Award.

Candidates must successfully complete four courses totaling 24 units of credit to graduate with the Graduate Certificate. Alternatively, students who have not taken out the award may upgrade to the Graduate Diploma of Art Administration if:

- admitted under qualifications rule 2.1 or
- admitted under qualification rule 2.2 and have gained a credit average.

The Graduate Certificate can be completed in one academic session. The maximum period of candidature is three academic sessions. In special circumstances an extension may be granted.

Program Objectives and Learning Outcomes

It is intended that students graduating from this program will be equipped with some of the skills necessary to function in managerial, administrative, curatorial, art writing and other professional capacities within the visual arts industry.

Program Structure

1. Students must complete a minimum of 24 units of credit of postgraduate courses for the award of the Graduate Certificate.

2. Students must complete 12 units of credit of the prescribed core courses and 12 units of credit of core options.

Core Courses

SAHT9111	Management and Organisation: Systems, Services and Survival	(6 UOC)
SAHT9112	Writing for Different Cultures and Audiences	(6 UOC)
SAHT9113	Cultural Property, Ethics and the Law	(6 UOC)
SAHT9126	Organisational Psychology: Managing People in the Workplace	(6 UOC)

Core Options

SAHT9121	Exhibition and Gallery Design Development	(6 UOC)
SAHT9122	Education and Public Programs	(6 UOC)
SAHT9123	Marketing and Promotion	(6 UOC)
SAHT9124	Arts and Cultural Policy	(6 UOC)
SAHT9125	The Australian Art Market	(6 UOC)
SAHT9127	Conservation and Collections Management	(6 UOC)
SAHT9128	History of Exhibitions of Australian Art	(6 UOC)
SAHT9129	The Development of Art Criticism in Australia	(6 UOC)
SAHT9130	Art Galleries and Collections in Australia	(6 UOC)
SAHT9131	Visual and Museum Cultures of the Asia-Pacific Region	(6 UOC)
SAHT9132	Festivals and Biennales	(6 UOC)
SAHT9693	Museum Development - Fundraising and Philanthropy	(6 UOC)

Academic Rules

Please refer to the program entry for 9302 Master of Art Administration for further information.

9303 Master of Art and Design Education (by Coursework)

MArtDesEd

Typical Duration
1 year

Minimum UOC for Award
48 units of credit

Typical UOC per Session
24 units of credit

Program Description

This program provides professional development courses in art and design education. Students will investigate current visual arts and design interests through courses interpreting curriculum change and innovation, building research practice and leadership in the profession.

Students will be able to:

- Make sense of new syllabus concepts, in particular practices, frames, the conceptual framework and case studies.
- Develop practical approaches to the analysis and processes of assessment and reporting requirements.
- Take up studio courses and develop bodies of work in drawing, design, digital and electronic media, painting and photography through individually negotiated projects.
- Learn to write about art through seminars, workshops and critical forums with leading critics, historians and curators.
- Gain skills using the Internet, web and other electronic databases.

This program is taught by art and design educators who are the architects of recent syllabus change, along with practicing artists, designers, art historians and theorists. Courses emphasise individual contact with faculty staff and the opportunity to discuss the most recent developments in art, design and education with senior academics who are widely published, have exhibited internationally and are recognised as eminent within their fields.

A wide choice of electives combined with flexible modes of delivery provide opportunities for individuals to tailor a program of study to match their changing preferences, professional interests, and personal needs. Typically classes attract primary, secondary and tertiary educators and others with an interest in visual arts education in a range of settings.

On completing the program, students achieve a recognised postgraduate credential and increased confidence to practically manage change and implement new syllabuses and curriculums.

Students may exit with a Graduate Certificate in Art and Design Education (7304) after the completion of three courses; one core, one core option and one elective, studied full-time or part-time, and selected from the Master of Art and Design Education program.

Program Objectives and Learning Outcomes

Please refer to the Program Description.

Program Structure

1. The Master of Art and Design Education comprises core courses, core options and electives.

2. Students typically complete four core courses, two core options and two electives.

3. All courses are 6 units of credit.

4. The program may be completed as one year of full time study, over two sessions, with four courses each session.

5. Part time study, of two years over four sessions, entails two courses per session.

6. Students may exit with a Graduate Certificate in Art and Design Education (7304) after the completion of three courses; one core, one core option and one elective.

Courses

Core Courses

SAED9002	Practices of Research in Art, Design and Education	(6 UOC)
SAED9004	Curriculum in Art, Design and Education	(6 UOC)
SAED9006	Theoretical Frameworks in Art, Design and Education	(6 UOC)
SAED9009	Applying the Conceptual Framework in the Art Museum	(6 UOC)
SAED9020	Art and Design History in Art Education	(6 UOC)
SAED9029	Bodies of Work and the Practice of Art Making	(6 UOC)

Core Options Courses

SAED9001	Education Studies	(6 UOC)
SAED9003	Issues in Design Education	(6 UOC)
SAED9005	Theory of Knowing in Art, Design and Education	(6 UOC)
SAED9024	Art and Design Criticism in Art Education	(6 UOC)
SAED9025	Qualitative Research in Art, Design and Education	(6 UOC)
SAED9026	Contextual Studies in Teaching Art and Design	(6 UOC)
SAHT9124	Arts and Cultural Policy	(6 UOC)
SAHT9126	Organisational Psychology: Managing People in the Workplace	(6 UOC)
SDES9204	Design Process Workshop 1	(6 UOC)
SDES9216	Design Management and Practice 1	(6 UOC)

Electives

SAED9008	Introduction to Art Therapy	(6 UOC)
SAED9018	Research Project in Elective Studies 1	(6 UOC)
SAED9019	Research Project in Elective Studies 2	(6 UOC)
SAED9021	Introduction to Frameworks of Research in Art& Design Education	(6 UOC)
SAED9022	Research Seminar in Art Education	(6 UOC)

Academic Rules

1. The degree of Master of Art and Design Education by coursework may be awarded by the Council to a candidate who has satisfactorily completed a program of advanced study.

Qualifications

2. (1) A candidate for the degree shall have been awarded an appropriate degree of Bachelor from the University of New South Wales or a qualification considered equivalent from another university or tertiary institution at a level acceptable to the Standing Committee of the College of Fine Arts [hereinafter referred to as the Committee].

(2) In exceptional cases an applicant who submits evidence of such other academic and professional qualifications as may be approved by the Committee may be permitted to enrol for the degree.

(3) If the Committee is not satisfied with the qualifications submitted by an applicant the Committee may require the applicant to undergo such assessment or carry out such work as the Committee may prescribe, before permitting enrolment.

Enrolment and Progression

3. (1) An application to enrol as a candidate for the degree shall be made on the prescribed form which shall be lodged with the Faculty Manager by the advertised closing date which will be at least two calendar months before the commencement of the session in which enrolment is to begin.

(2) A candidate for the degree shall be required to undertake such formal courses and pass such assessment or conditions as prescribed.

(3) The progress of a candidate shall be reviewed each session by the Committee and, as a result of its review; the Committee may cancel enrolment or take such other action as it considers appropriate.

(4) No candidate shall be awarded the degree until the lapse of two academic sessions from the date of enrolment in the case of a full-time candidate or four sessions in the case of a part-time candidate. The maximum period of candidature shall be five academic sessions from the date of enrolment for a full-time candidate and seven academic sessions for a part-time candidate.

Fees

4. A candidate shall pay such fees as may be determined from time to time by the Council.

7304 Graduate Certificate in Art and Design Education (by Coursework)

GradCert

Typical Duration
0.5 years

Minimum UOC for Award
18 units of credit

Typical UOC per Session
24 units of credit

Program Description

Please refer to the program entry for 9303 Master of Art and Design Education for further information.

Program Objectives and Learning Outcomes

Please refer to the program entry for 9303 Master of Art and Design Education for further information.

Program Structure

The Graduate Certificate in Art and Design Education provides students with the opportunity to achieve an exit credential from the Master of Art and Design Education program after one session full-time and the completion of three courses - one core, one core option and one elective.

Academic Rules

Please refer to the program entry for 9303 Master of Art and Design Education for further information.

9304 Master of Design (by Coursework)

MDes

Typical Duration
1.5 years

Minimum UOC for Award
72 units of credit

Typical UOC per Session
24 units of credit

Program Description

The Master of Design program is aimed at providing candidates with the opportunity to extend and develop their theoretical, professional and practical knowledge in a range of design applications.

This program offers design professionals fresh perspectives on their practice, toward achieving a more flexible and integrated work process as well as the opportunity to experiment with new or unfamiliar technologies. This combination of design theory and technical exploration informs the designer's future contribution to an emerging international design culture. The Master of Design program is offered at the UNSW COFA campus and in Singapore through the Cornerstone Training Centre.

Program Objectives and Learning Outcomes

Please refer to the Program Description.

Program Structure

1. Students must undertake all core courses unless they have advanced standing.

2. Students must complete a minimum of 72 units of credit of postgraduate courses for the award of the Master of Design by coursework.

3. Students are able to choose from three main strands of core options and must complete one full sequence with the exception of advanced standing.

4. Students are able to choose electives from any postgraduate electives offered in the faculty as well as from the core options available in the MDes as long as the units of credit are equivalent.

Core Courses

SAED9002	Practices of Research in Art, Design and Education	(6 UOC)
SDES9201	Design Seminar 1	(6 UOC)
SDES9202	Design Seminar 2	(6 UOC)
SDES9203	Design Seminar 3	(6 UOC)
SDES9204	Design Process Workshop 1	(6 UOC)

Core Options

Candidates may choose from three main strands in the core options:

Design Studio: Graphics or Environments or Integrated or Ceramics or Textiles or Jewellery

Design History and Theory

Design Management and Practice

SAHT9143	Design History and Theory 1	(6 UOC)
SAHT9144	Design History and Theory 2	(6 UOC)
SAHT9145	Design History and Theory Project	(6 UOC)
SDES9206	Design Studio: Graphics/Media 1	(6 UOC)
SDES9207	Design Studio: Graphics/Media 2	(6 UOC)
SDES9208	Design Studio: Environments 1	(6 UOC)
SDES9209	Design Studio: Environments 2	(6 UOC)
SDES9210	Design Studio: Integrated Design Studies 1	(6 UOC)
SDES9211	Design Studio: Integrated Design Studies 2	(6 UOC)
SDES9212	Design Studio Project	(6 UOC)
SDES9216	Design Management and Practice 1	(6 UOC)
SDES9217	Design Management and Practice 2	(6 UOC)
SDES9218	Design Management Project	(6 UOC)
SDES9740	Design Studio: Ceramics 1	(6 UOC)
SDES9741	Design Studio: Ceramics 2	(6 UOC)
SDES9742	Design Studio: Jewellery 1	(6 UOC)
SDES9743	Design Studio: Jewellery 2	(6 UOC)
SDES9744	Design Studio: Textiles 1	(6 UOC)
SDES9745	Design Studio: Textiles 2	(6 UOC)

Electives

The elective opportunity is designed to allow candidates to increase their knowledge and skill in areas relevant to the major focus of their Design Studies or Design Studio. The choice of the electives must be approved by the Head of the School of Design Studies. The candidate is permitted to undertake electives to the total of 24 units of credit which may be selected from courses offered at an appropriate level by the Schools of Art, Art Education, Art History and Theory, Media Arts and/or Design Studies, and/or other faculties of the University.

Academic Rules

1. The degree of Master of Design by coursework may be awarded by the Council to a candidate who has satisfactorily completed a program of advanced study.

Qualifications

2. (1) A candidate for the degree shall have been awarded an appropriate degree of Bachelor from the University of New South Wales or a qualification considered equivalent from another university or tertiary institution at a level acceptable to the Standing Committee of the College of Fine Arts [hereinafter referred to as the Committee].

(2) In exceptional cases an applicant who submits evidence of such other academic and professional qualifications as may be approved by the Committee may be permitted to enrol for the degree.

(3) If the Committee is not satisfied with the qualifications submitted by an applicant the Committee may require the applicant to undergo such assessment or carry out such work as the Committee may prescribe, before permitting enrolment.

Enrolment and Progression

3. (1) An application to enrol as a candidate for the degree shall be made on the prescribed form which shall be lodged with the Faculty Manager by the advertised closing date which will be at least two calendar months before the commencement of the session in which enrolment is to begin.

(2) A candidate for the degree shall be required to undertake such formal courses and pass such assessment or conditions as prescribed.

(3) The progress of a candidate shall be reviewed each session by the Committee and as a result of its review the Committee may cancel enrolment or take such other action as it considers appropriate.

(4) No candidate shall be awarded the degree until the lapse of three academic sessions from the date of enrolment in the case of a full-time candidate or six sessions in the case of a part-time candidate. The maximum period of candidature shall be six academic sessions from the date of enrolment for a full-time candidate and eight academic sessions for a part-time candidate.

Fees

4. A candidate shall pay such fees as may be determined from time to time by the Council.

5724 Graduate Diploma in Design (by Coursework)

GradDipDes

Typical Duration
1 year

Minimum UOC for Award
48 units of credit

Typical UOC per Session
24 units of credit

Program Description

Please refer to the program entry for 9304 Master of Design for further information.

Program Objectives and Learning Outcomes

Please refer to the program entry for 9304 Master of Design for further information.

Program Structure

The Graduate Diploma in Design provides students with the opportunity to achieve an exit credential from the Master of Design program after two sessions full-time and the completion of eight courses - four core courses, two core options and two electives.

Academic Rules

Please refer to the program entry for 9304 Master of Design for further information.

7303 Graduate Certificate in Design (by Coursework)

GradCertDes

Typical Duration
0.5 years

Minimum UOC for Award
24 units of credit

Typical UOC per Session
24 units of credit

Program Description

Please refer to the program entry for 9304 Master of Design for further information.

Program Objectives and Learning Outcomes

Please refer to the program entry for 9304 Master of Design for further information.

Program Structure

The Graduate Certificate in Design provides students with the opportunity to achieve an exit credential from the Master of Design program after one session full-time and the completion of four courses - two core courses, one core option and one elective.

Academic Rules

Please refer to the program entry for 9304 Master of Design for further information.

9308 Master of Digital Media (by Coursework)

MDM

Typical Duration
1.5 years

Minimum UOC for Award
72 units of credit

Typical UOC per Session
24 units of credit

Program Description

The Master of Digital Media is a coursework Masters program that allows for intensive study in one of the two areas - Computer Animation or Sound and Image. Over three semesters, students are introduced to the development of media based studio projects utilising digital technologies, with the third semester involving the completion of a major studio project in sound, film, video or animation.

Each session will involve twelve hours of face-to-face teaching, and it is expected that the program will involve a commitment of at least 24 hours per week outside of these hours for satisfactory completion. The student can select from a range of electives to complement the core studies program, for a total of 24 units of credit each session.

Studio electives allow individual interests to be explored within the program structure, and in addition, students are required to undertake 3 electives in theoretical studies.

A significant part of the program involves a supervised studio project, which allows the candidate to integrate theoretical and practical skills from earlier sections of the program in a structured production program.

Students are required to supply suitable hard disk media for storage and backup of studio work. While computing resources are supplied for classes, it is highly advantageous for students to purchase their own computers. The specifications for a suitable computing platform can be advised at the time of commencement.

Program Objectives and Learning Outcomes

Please refer to the Program Description.

Program Structure

Students must complete 72 units of credits (UOC) including 42 UOC of Core Courses, 18 UOC of approved Art Theory electives and 12 UOC of approved Studio electives.

Core Courses

SOMA9001	Sound Construction 1	(6 UOC)
SOMA9002	Sound Construction 2	(6 UOC)
SOMA9500	Digital Media Major Project Workshop	(18 UOC)

Select either:

SOMA9101	Video Construction	(6 UOC)
SOMA9102	Production Workshop - Development of Integrated Media Programs	(6 UOC)

or:

SOMA9201	Three Dimensional Animation 1	(6 UOC)
SOMA9202	3D Animation Workshop	(6 UOC)

Electives

Students must complete 3 approved art theory electives (18 UOC) and 2 approved studio electives (12 UOC).

Academic Rules

1. The degree of Master of Digital Media by coursework may be awarded by the Council to a candidate who has satisfactorily completed a program of advanced study.

Qualifications

2. (1) A candidate for the degree shall have been awarded an appropriate degree of Bachelor from the University of New South Wales or a qualification considered equivalent from another university or tertiary institution at a level acceptable to the Standing Committee of the College of Fine Arts [hereinafter referred to as the Committee].

(2) In exceptional cases an applicant who submits evidence of such other academic and professional qualifications as may be approved by the Committee may be permitted to enrol for the degree.

(3) If the Committee is not satisfied with the qualifications submitted by an applicant the Committee may require the applicant to undergo such

assessment or carry out such work as the Committee may prescribe, before permitting enrolment.

Enrolment and Progression

3. (1) An application to enrol as a candidate for the degree shall be made on the prescribed form which shall be lodged with the Faculty Manager by the advertised closing date which will be at least two calendar months before the commencement of the session in which enrolment is to begin.

(2) A candidate for the degree shall be required to undertake such formal courses and pass such assessment or conditions as prescribed.

(3) The progress of a candidate shall be reviewed each session by the Committee and as a result of its review the Committee may cancel enrolment or take such other action, as it considers appropriate.

(4) No candidate shall be awarded the degree until the lapse of three academic sessions from the date of enrolment in the case of a full-time candidate or six sessions in the case of a part-time candidate. The maximum period of candidature shall be six academic sessions from the date of enrolment for a full-time candidate and eight academic sessions for a part-time candidate.

Fees

4. A candidate shall pay such fees as may be determined from time to time by the Council.

5308 Graduate Diploma in Digital Media (by Coursework)

GradDip

Typical Duration
1 year

Minimum UOC for Award
48 units of credit

Typical UOC per Session
24 units of credit

Program Description

Please refer to the program entry for 9308 Master of Digital Media for further information.

Program Objectives and Learning Outcomes

Please refer to the program entry for 9308 Master of Digital Media for further information.

Program Structure

The Graduate Diploma in Digital Media provides students with the opportunity to achieve an exit credential from the Master of Digital Media program after two sessions full-time and the completion of eight courses - four prescribed core courses, two approved theory electives and two approved studio electives.

Academic Rules

Please refer to the program entry for 9308 Master of Digital Media for further information.

7308 Graduate Certificate in Digital Media (by Coursework)

GradCert

Typical Duration
0.5 years

Minimum UOC for Award
24 units of credit

Typical UOC per Session
24 units of credit

Program Description

Please refer to the program entry for 9308 Master of Digital Media for further information.

Program Objectives and Learning Outcomes

Please refer to the program entry for 9308 Master of Digital Media for further information.

Program Structure

The Graduate Certificate in Digital Media provides students with the opportunity to achieve an exit credential from the Master of Digital Media program after one session full-time and the completion of four courses - two prescribed core courses, one approved theory elective and one approved studio elective.

Academic Rules

Please refer to the program entry for 9308 Master of Digital Media for further information.

Elective Courses for Postgraduate Coursework Programs

Students may choose electives from the courses listed below that are offered by the College of Fine Arts. It is also possible to choose electives from other faculties of the University. All other courses (i.e. core courses of degrees) offered at the College of Fine Arts may be available to be undertaken as electives as well. Advice should be sought from your Head of School 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.

Please note that some courses have prerequisites and/or need to be completed in sequential order (i.e. SAHT9143 Design History and Theory 1 must be completed before SAHT9144 Design History and Theory 2).

Art Administration

SAHT9111	Management and Organisation: Systems, Service and Survival
SAHT9112	Writing for Different Cultures and Audiences
SAHT9113	Cultural Property, Ethics and the Law
SAHT9121	Exhibition and Gallery Design Development
SAHT9122	Education and Public Programs
SAHT9123	Marketing and Promotion
SAHT9124	Arts and Cultural Policy
SAHT9125	The Australian Art Market
SAHT9126	Organisational Psychology
SAHT9127	Conservation and Collections Management
SAHT9128	History of Exhibitions of Australian Art
SAHT9129	The Development of Art Criticism in Australia
SAHT9130	Art Galleries and Collections in Australia
SAHT9131	Visual and Museum Cultures of the Asia-Pacific Region
SAHT9132	Festivals and Biennales
SAHT9693	Museum Development: Fundraising and Philanthropy

Art and Design History and Theory

SAHT9133	Pornography, Art and Politics
SAHT9134	Memory and Self
SAHT9136	The Art and Culture of Everyday Life
SAHT9137	Art and Cultural Difference
SAHT9138	Art After Postmodernism
SAHT9141	Current Issues in Art
SAHT9143	Design History and Theory 1
SAHT9144	Design History and Theory 2
SAHT9145	Design History and Theory Project
SAHT9202	Eurocentred Visions
SAHT9203	Mapping the Modern
SAHT9204	Mapping the Postmodern
SAHT9205	Modern Aesthetics
SAHT9206	Breeding the Body Beautiful

Special Project

SAHT9690	Special Project

Art and Design Education

Curriculum and Policy

SAED9001	Education Studies
SAED9003	Issues in Design Education
SAED9004	Curriculum and Art, Design and Education
SAED9009	Applying the Conceptual Framework in the Art Museum
SAED9005	Theory of Knowing in Art, Design and Education Theory
SAED9024	Art and Design Criticism in Art Education
SAED9025	Qualitative Research in Art, Design and Education
SAED9010	Dialogues, Communities and Cultural Development
SAED9026	Contextual Studies in Teaching
SAED9020	Art and Design History in Art Education
SAED9029	Bodies of Work and the Practice of Art Making

Research and Theory

SAED9002 Practices of Research in Art, Design and Education
SAED9006 Theoretical Frameworks in Art, Design and Education
SAED9008 Introduction to Art Therapy
SAED9018 Research Project in Elective Studies 1
SAED9019 Research Project in Elective Studies 2
SAED9021 Introduction to Frameworks of Research in Art and Design Education
SAED9022 Research Seminar in Art Education

Design Studies

SDES9201 Design Seminar 1
SDES9202 Design Seminar 2
SDES9203 Design Seminar 3
SDES9204 Design Process Workshop
SDES9206 Design Studio: Graphics/Media 1
SDES9207 Design Studio: Graphics/Media 2
SDES9208 Design Studio: Environments 1
SDES9209 Design Studio: Environments 2
SDES9210 Design Studio: Integrated Design Studies 1
SDES9211 Design Studio: Integrated Design Studies 2
SDES9212 Design Studio Project
SDES9216 Design Management and Practice 1
SDES9217 Design Management and Practice 2
SDES9218 Design Management Project
SDES9740 Design Studio: Ceramics 1
SDES9741 Design Studio: Ceramics 2
SDES9742 Design Studio: Jewellery 1
SDES9743 Design Studio: Jewellery 2
SDES9744 Design Studio: Textiles 1
SDES9745 Design Studio: Textiles 2
SDES9750 Contemporary Typography
SDES9751 Propaganda in Graphic Design
SDES9752 Experimental Design
SDES9753 Design Critique through Practice

Visual Arts & Media Arts

SART9727 Drawing
SART9728 Painting
SART9729 Etching
SART9732 Sculpture
SART9733 Life Drawing
SART9734 Painting from Life
SART9735 Advanced Etching
SART9738 Advanced Sculpture
SART9740 Anatomy for Artists
SART9741 Composition & Design
SART9742 Colour
SART9743 Digital Imaging & Painting
SART9744 Painting/Drawing Field Studies
SART9745 Custom Printing
SART9746 Advanced Custom Printing
SART9747 Artists' Books
SART9748 Screen Printing
SART9749 Printmaking
SART9750 Installation
SART9751 Electronics Technologies
SART9752 Paper Technology
SART9753 Advanced Electronics
SART9754 Metal Casting
SART9756 Ceramic Shell Casting
SART9757 Sculpture Field Studies
SART9758 Special Projects - Studio
SART9759 Abstraction for Drawing & Painting
SOMA9725 Introductory Interactive Multimedia
SOMA9726 Introduction to Animation
SOMA9730 Analogue Photography
SOMA9731 Digital Imaging
SOMA9736 Advanced Analogue Photography
SOMA9737 Vector Graphics in Visual Arts
SOMA9739 Advanced Interactive Multimedia
SOMA9740 Narrative & Gameplay
SOMA9741 Writing for Digital Media
SOMA9742 Introduction to Sound
SOMA9743 Advanced Animation
SOMA9744 Advanced Sound
SOMA9745 Introduction to Photographic Studio Lighting
SOMA9746 Advanced Photographic Studio Lighting
SOMA9747 Cinematography Workshop
SOMA9749 Video Art

Faculty of Commerce and Economics

A Message from the Dean

Welcome to the Faculty of Commerce and Economics at the University of New South Wales – one of Australia's leading universities.

After fifty years of dynamic growth, UNSW has a reputation for excellence, sustained innovation, scholarship, research and practical application; and the Faculty of Commerce and Economics plays an important role in maintaining this reputation.

The Faculty attracts high-achieving students from across the region, with strength, depth and quality across eight teaching and research units. Through excellence in scholarship we aim to enhance the capability of our students and staff to add value to the organisations, professions and communities in which they aspire to leadership roles.

The Faculty values its close relationships with industry and the professions, ensuring a high demand for our graduates, many of whom are now leaders in industry, government, politics and academia.

The Faculty is committed to supporting its students throughout their learning experience. We have a wide range of support services, including an Educational Development Unit, a Faculty Student Centre to assist with administrative matters, and Undergraduate and Postgraduate Advisors in each school. Together we aim to offer you a rewarding and stimulating environment in which to pursue your studies. I wish you every success.

Greg Whittred
Dean
Faculty of Commerce and Economics

Contents

Faculty Information and Assistance

Who Can Help? 116
The Faculty of Commerce and Economics Website 117
Computer Information 117
Course Descriptions 117
Course Timetables 117
Education Development Unit 117
Enrolment Procedures 117
Examinations 117
Use of Calculators 117

Schools and Disciplines

School of Accounting 117
Actuarial Studies 117
School of Banking and Finance 118
School of Business Law and Taxation 118
School of Economics 119
School of Information Systems, Technology and Management 119
School of Marketing 119
School of Organisation and Management 119
Professional Recognition of Programs 120

Program Rules and Information – Research Degrees

Doctor of Philosophy (PhD) 121
2585 Master of Philosophy 121

Program Rules and Information – Coursework Degrees

8404 Master of Commerce 122
7355 Graduate Certificate in Commerce 123
8616 Master of Business and Technology 123
5457 Graduate Diploma in Business and Technology 124
7333 Graduate Certificate in Business and Technology 124
8007 Master of Technology Management 124
8406 Master of Finance 125
8407 Master of Information Systems 126
8409 Master of Professional Accounting 126
8415 Master of Professional Accounting (Extension) 127
8411 Master of Actuarial Studies 127
8412 Master of Economics 127
8414 Master of Marketing 128
7355 Graduate Certificate in Media Sales (Customised) 128

Plan Rules and Information

Accounting 129
Banking 129
Business Law 129
Business Strategy 129
Finance 130
Financial Econometrics 130
Funds Management 130
Human Resource Management 130
Information Management 130
Information Systems 130
International Business 130
International Finance 131
Marketing 131
Organisation and Management Studies 131
Strategic Value Management 131
Tourism Marketing 131

Faculty Information and Assistance

Who Can Help?

If you require advice about enrolment, degree requirements, progression within programs or any other general matters, contact the Faculty of Commerce and Economics Student Centre, Ground Floor, John Goodsell Building: telephone (02) 9385 3189, fax (02) 9313 7767, email pgfce@unsw.edu.au.

Office Hours:

During Orientation Week, Week 1 and Week 2 of session:
Monday – Thursday 9.00am – 6.30pm
Friday 9.00am – 5.00 pm

Other weeks:
Monday – Friday 9.00am – 5.00pm

For specific information and advice about academic course content, contact the appropriate schools/teaching units.

The Faculty of Commerce and Economics Website

Please refer to the Faculty website for further information:
www.fce.unsw.edu.au

Computer Information

The Faculty of Commerce and Economics has a number of laboratories located in the Quadrangle and John Goodsell Buildings, all of which are equipped with Pentium machines. More detailed information is available in the Faculty 'Student IT Resource Handbook' or on the Faculty website.

Course Descriptions

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

Course Timetables

Postgraduate course timetables are available to re-enrolling students via the Faculty website before the end of the current year of study.

Education Development Unit

In pursuit of the FCE's vision to be the leading business faculty in the Asian region, the Education Development Unit (EDU) provides support, development and leadership for both staff and students in the area of education quality and innovation.

The EDU supports all FCE students in the development and enhancement of their academic skills, by providing a range of strategies including:

- **Orientation programs** – Offered for both undergraduate and postgraduate programs, orientation introduces students to teaching and learning approaches, learning expectations, strategies for successful study in the Faculty and provides opportunities to meet Faculty staff and students.
- **Discipline-specific resources and activities** – The EDU works with academic staff from different disciplines to develop workshops and resources relevant to specific disciplines.
- **Academic skills workshops** – Provided throughout each session, these workshops are free and specifically for FCE students. Topics include referencing, reading critically, essay and report writing, case analysis, presentation skills, working in groups, and exam preparation.
- **Resources and handouts** – Available both in print and on-line, resources include handouts on academic skills and a range of other topics for FCE students.
- **Consultations** – Confidential individual or small group consultations regarding any learning issues are offered to all FCE students.

FCE students visiting the EDU may wish to talk to staff about their learning, their language needs and improving their academic performance. Students can collect or borrow appropriate support materials, find out about workshops or make appointments for a one-hour consultation.

For further information, visit the EDU website at **http://education.fce.unsw.edu.au**, drop in at the EDU Learning Assistance Centre, Room 2039, level 2, South Wing, Quadrangle Building or phone: (02) 9385 5584.

Enrolment Procedures

Applicants interested in studying in the Faculty of Commerce and Economics should contact the Faculty of Commerce and Economics Student Centre on (02) 9385 3189 or the Student Recruitment Office on (02) 9385 1844.

New students are informed of enrolment procedures after they have accepted an offer.

All re-enrolling students are emailed information to enable them to enrol online using myUNSW.

It is the responsibility of students to ensure their enrolment adheres to the program structure.

Examinations

Additional information on examinations and assessment, including rules and restrictions, can be found in the beginning of this Handbook.

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 December/January. In general, this opportunity will only be offered to a student who has been prevented from taking an end of session examination or who has been placed at a serious disadvantage during the examination and whose circumstances have improved considerably in the period since the examination was held.

Students are advised not to undertake programs with which they cannot cope adequately and re-enrolling students are encouraged to seek advice from the FCE Student Centre on this matter.

Use of Calculators

The Faculty of Commerce and Economics has resolved to advise all students to equip themselves with a portable electronic calculator, preferably one which possesses, in addition to the four basic arithmetic functions, those involving discounting and present value calculations.

These calculators should be a valuable study aid in expediting the routine aspects of assigned practical exercises throughout the year in many courses. Such calculators may also be permitted, subject to the discretion of individual examiners, in examinations for courses taught in the faculty.

Schools and Disciplines

The Faculty of Commerce and Economics includes the Schools of: Accounting; Actuarial Studies; Banking and Finance; Business Law and Taxation; Economics; Information Systems, Technology and Management; Marketing; Organisation and Management.

School of Accounting

Head of School: Professor Wai Fong Chua
Administrative Officer: Colin Withers

Students enrolled in a Master of Commerce by coursework may undertake the following specialisations: Accounting or Strategic Value Management. In addition there are the popular Master of Professional Accounting and Master of Professional Accounting (Extension) degrees.

The Accounting disciplinary stream includes courses related to the use of financial information by owners, shareholders, creditors, managers and governments to achieve their objectives. The different areas covered include: financial accounting (preparation of legally required financial statements, analysis and interpretation of financial statements, complex financial transactions and instruments, differences in reporting entities including multinational enterprises and international reporting diversity), managerial accounting in the context of world class management practice (design and operation of accounting information systems, planning and control, budgeting, benchmarking, strategy formulation and performance evaluation), and auditing (evaluating internal control systems, adding credibility to reported information and improving the corporate governance process).

The Strategic Value Management program focuses on strategic resource management in the context of achieving stakeholder value. A range of accounting and management courses are available to students in this stream, including Business Risk Management, Business Performance Management and E-Commerce: Strategy and Processes.

The Master of Professional Accounting is ideal for students who have no or limited exposure to the study of accounting. The program is an excellent multidisciplinary introduction to business with sufficient accounting for students to obtain recognition by the two peak professional accounting bodies in Australia. Employers often seek staff who have met the professional requirements as it means a range of essential business skills have been acquired. Thus students may find it easier to find employment in Australia or elsewhere by completing this program.

The Professional Accounting degree is accredited by CPA Australia and the Institute of Chartered Accountings in Australia. This program is not normally available to students from Australians Universities with major studies in Accounting.

Actuarial Studies

Head: Professor Michael Sherris
Administrative Assistant: Bindya Subba

Actuarial Studies involves the application of quantitative, economic and financial models and analysis to long term financial management particularly in life insurance, general insurance, health insurance, and

superannuation as well as in other financial services. The actuarial courses cover the models used to quantify and manage risks such as survival, birth, marriage, sickness, retirement, accident, fire, flood, asset default and asset value fluctuations and to study their financial effect on the obligations of insurance companies, benefit plans and other financial security systems. The courses provide the foundations for actuarial practice in the pricing, reserving, investment, and financial management of life insurance, general insurance superannuation and pension funds. The actuarial program of study also aims to develop the use of judgement and to provide the necessary combination of mathematical, statistical, accounting, economic, financial, demographic, analytical and modelling skills for a rewarding career in the financial services industry.

The Master of Actuarial Studies provides students who meet the required standards with the opportunity to apply for exemption from some or all of the Part I and II examinations of the Institute of Actuaries of Australia (IA Aust) and entry into the actuarial profession, as well as study courses in quantitative risk management.

Graduates in mathematics, engineering and science disciplines, who are interested in applying their mathematical skills in a rewarding career in the financial services industry, should consider an actuarial career as an option. Graduates from Commerce and Economics disciplines with a strong mathematical background, such as would be obtained from studying econometrics, mathematical economics or mathematical finance, should also consider an actuarial career.

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. About a third of the fully qualified actuaries in Australia work or practice in life insurance, another third work or practice in superannuation, and the rest are in general insurance, finance, funds management, education and other areas of practice. 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, the completion of, or exemption from, subjects in Parts I, II and III of the professional syllabus of the IA Aust is required.

Part II is made up of the Actuarial Control Cycle subjects. Part III is completed by distance education through the IA Aust usually on a part-time basis after completing the Part I and Part II subjects.

Please refer to the section 'Professional Recognition of Programs' for a sample program.

School of Banking and Finance

Head of School: Professor Terry Walter
Administrative Officers: Clarissa Niland, Shirley Webster and Kathleen White

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. Finance is also concerned with investment decisions (for example, selection among alternative projects, selection of securities to include in a portfolio), 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 in domestic and international markets.

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 the Asia-Pacific are other important issues in finance.

The growth of interest in the financial sector has been accredited to greater public awareness of the financial market as an investment opportunity. The risks of these markets are also more appreciated, so strategies to manage these are increasingly important. 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 in relation to financial matters now exists. 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 postgraduate programs offered by the School will provide the necessary skills and knowledge for those who wish to enter this growing and complex market, with the prospect of advancing rapidly within the industry.

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, venture capital and private equity specialists, 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
Administrative Assistant: Bibi Moore

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 graduate level the School offers a MCom specialisation in Business Law.

School of Economics

Head of School: Professor Bill Schworm
Administrative Officers: Nadine Caisley, Catriona Reid, Dominique Motteux, Clea Bye.

The School of Economics comprises approximately 45 full-time academic staff engaged in teaching and research across a wide range of sub-disciplines within economics including econometrics, financial economics and business strategy.

The School is involved in the teaching of two postgraduate coursework degrees, the Master of Commerce (MCom) and the Master of Economics (MEc), and two research degrees, the Master of Philosophy and the Doctor of Philosophy.

The Master of Economics program is a new program commencing in 2006 which provides advanced training in theoretical and applied aspects of modern economics and econometrics.The MCom is a faculty-wide degree in which students can take a number of courses in Economics. In addition, the School of Economics has a strong and growing commitment to graduate studies with research emphasis. Research in the School is of a high calibre by both national and international standards. The School ranks among the top three within Australia on a variety of research performance criteria and members of the School play an important role in the academic and economic policy debate within Australia and internationally.

The MPhil is a research degree consisting of advanced coursework plus a thesis.

The PhD in Economics is designed to equip students with advanced research training in economics. Students are provided with a strong grounding in theoretical and applied economic analysis and econometrics through both coursework and research supervision. In addition to any prescribed coursework, candidates for the PhD in Economics must submit a thesis which is an original and significant contribution to the discipline.

School of Information Systems, Technology and Management

Head of School: Professor Graham Low
Administrative Officer: Tricia Hartley

Information Systems (IS) involves the planning, analysis, design and maintenance of computerised systems used to process information in commerce, industry, government and research organisations. Information Technology (IT) is the underlying mechanism that controls these systems. Information Systems and Information Technology are indispensable to the operations of most modern organisations. In an information systems course you will study how information systems are planned, analysed, designed, operated and managed. Throughout the program you will develop conceptual and practical skills of the way in which computer systems are used within organisations.

Graduates often follow careers as programmers, analysts, business analysts, information technology specialists, data administrators, EDP auditors, e-commerce specialists and web managers. Major employers of Information Systems graduates include government departments, banks, finance organisations, oil companies, insurance companies, large manufacturing enterprises, retail companies, service industries, computer marketing organisations, universities and other research organisations.

School of Marketing

Head of School: Professor Paul Patterson
Administrative Officer: Nadia Withers

Marketing is a dynamic management discipline concerned with exchange processes in competitive markets. It is of critical importance in all sectors of the economy, including local and international businesses, and profit-making and non-profit making organisations. The business function of marketing seeks to identify the needs and wants of customers, determine potential target markets, design appropriate products and services, 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. The Australian Market and Social Research Society has given professional accreditation to graduates of our programs. Also, there are affiliations with professional organisations such as the Advertising Federation of Australia, the Australian Marketing Institute, The Australian Direct Marketing Association, and the Australian Customer Service Association.

Postgraduate Programs: The specialist Master of Marketing exists for those who wish to extend and deepen their prior knowledge of Marketing. It is an advanced program that in unique and innovative ways marries contemporary Marketing issues with a critical, research-based approach to learning.

Graduates wanting to acquire knowledge of Marketing are encouraged to enrol in the Marketing Specialisation of the MCom degree. This program features courses in the areas of e-marketing, international management, services and business-to-business marketing, marketing in Asia, marketing communications, new product development, retailing and logistics and customer analysis. This program is designed for those who seek to broaden their business horizons after studying a non-marketing program as an undergraduate.

A specialisation in Tourism Marketing within the MCom exists for those wishing to study Marketing in combination with Tourism and Hospitality Management. The program covers all core areas of tourism and hospitality management, and takes advantage of strong links with industry and government. Industrial training is available as an additional and optional component of the program.

The School offers a customised program in conjunction with industry. The Media Sales certificate program prepares students for careers in media sales, media buying and marketing communications.

A small number of places are available each year for students wishing to undertake postgraduate research in Marketing or Tourism. The PhD program requires students to complete at least four research courses in the School of Marketing and submit a major research thesis. A Master of Philosophy program is also available.

Contact the School for program brochures or consult the website: **www.marketing.unsw.edu.au**

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 CRC for Sustainable Tourism: The focus of this centre is on tourism, economics, policy and marketing. The Centre has strong links with Federal and State Government organisations, and the tourism industry. It coordinates UNSW membership of the national Cooperative Research Centre for Sustainable Tourism (CRCST) which is a source of funding for tourism related research.

School of Organisation and Management

Head of School: Associate Professor Lucy Taska
Administrative Officer: Terry O'Callaghan

The School of Organisation and Management was formed on 1 July 2004 by the merger of the School of Industrial Relations and Organisational Behaviour and the School of International Business. Consequently course codes which previously started with IROB and IBUS are now under the MGMT prefix.

The School offers coursework and research study in three disciplinary streams: Human Resource Management; Organisation and Management Studies; and International Business.

The program 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.

International Business is a rapidly growing field of study dealing with the development, strategy, and management of multinational enterprises in the global context of complex and dynamic business environments. Besides the study of multinational enterprises, the field necessarily includes business context studies and culture and communications, including language studies. Doing business and making decisions internationally involves greater complexity and is much more challenging compared to decision making restricted to the domestic context. Special knowledge and skills are required to be successful at international business. Strategic decisions have to be made about which countries to operate in, 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 also include global strategy, country risk, business negotiations, cultural difference, and performance measurement and evaluation.

The program in **Organisation and Management Studies** focuses on how best to coordinate the structure and resources of a work enterprise in order to effectively attain designated organisational goals. Particular attention is given to the nature, determinants and management implications of individual, group and collective behaviours within organisations. Drawing on theories from organisational behaviour, sociology, psychology, management, cultural and gender studies and the social sciences in general, this program provides an in-depth understanding of human relations and organisational dynamics and their associated interaction. This knowledge is also applied to practical issues of employee management and to the development of appropriate organisational design. There is increasing demand for more professionally oriented managers and for consultancy expertise in the areas of organisational redesign and change in both private and public sectors. The School's programs have been designed to address this demand.

Professional Recognition of Programs

The degree programs offered by the Faculty of Commerce and Economics at UNSW are recognised by professional organisations in accordance with the details set out below:

Australian Computer Society (ACS)

The MCom (Information Systems) meets the requirements for Professional Level accreditation of the Australian Computer Society. The basis for accreditation is:

1. Satisfactory completion of the following core courses:

COMM5001	Business Communication, Ethics and Practice
COMM5002	Managing for Value Creation 1
COMM5003	Managing for Value Creation 2
COMM5004	Business Capstone Project

2. Satisfactory completion of two courses in Information Systems as a disciplinary foundation:

INFS5988	Business Information Systems
INFS5992	Data Management

3. Satisfactory completion of four courses in Information Systems as a disciplinary specialisation:

INFS5848	Information Systems Project Management
INFS5885	Managing e-Business Technology
INFS5905	Information Systems Auditing
INFS5926	Advanced Data Management
INFS5927	Knowledge Management Systems and Technology
INFS5928	Software Engineering Management
INFS5953	Information Systems Management
INFS5957	Information and Decision Technology
INFS5974	Advanced Database Implementation
INFS5975	Advanced Software Implementation
INFS5982	Advanced Data Communications
INFS5983	Business Data Communications
INFS5984	Information Systems Security
INFS5989	Information Systems Design
INFS5991	Decision Support Systems
INFS5993	Special Topic in Information Systems, Technology and Management

4. Satisfactory completion of the full requirements of the program.

The Australian Institute of Banking and Finance (AIBF)

The educational requirements for **Associateship** will be satisfied on completion of a University degree specialising in Banking and Finance which includes a management, a marketing and four banking and finance courses.

The educational requirements for **Senior Associateship** will be satisfied on completion of a University degree specialising in Banking and Finance which includes a management, a marketing and four banking and finance courses and employment in the Australia/New Zealand banking and finance industry for at least two years.

Graduates who have met the academic, but not the work experience, requirements for Senior Associate, qualify for **Associate membership.**

Students are advised to contact AIBF for current requirements: **www.aibf.com.au**

Australian Market and Social Research Society (AMSRS)

Postgraduate MCom marketing students at UNSW are able to obtain the AMSRS Certificate in Market Research if they have successfully completed a number of approved courses. The AMSRS Certificate in Market Research is widely recognised by government and industry as a measure of competence in market research.

To qualify for the Certificate, postgraduate MCom students must complete and pass the following courses:

COMM5002	Managing for Value Creation 1
MARK5800	Customer and Market Analysis
MARK5801	Marketing Management and Marketing Strategy
MARK5811	Applied Marketing Research

Plus 1 from:

MARK5810	Marketing Communication and Promotion
MARK5812	Distribution, Retail, Channels and Logistics
MARK5813	Product Development and Brand Management

Students who have successfully completed the required courses at UNSW must complete the application form which is available from the School of Marketing Office, UNSW, Sydney NSW 2052 or contact the Australian Market and Social Research Society, telephone (02) 9571 5966, fax (02) 9571 5944, website: **www.amsrs.com.au** Further information is available from the Professional Associations section in the Marketing website: **www.marketing.unsw.edu.au**

Chartered Secretaries Australia (CSA)

The CSA is the professional association for 10,000 company secretaries and corporate managers in Australia. It also operates as the Australian Division of the International, 70,000 member strong, Institute of Chartered Secretaries and Administrators to which most CSA members also belong.

The CSA accredits courses which, if completed, count towards the academic requirements of both professional associations. During the course of their studies, students are encouraged to become CSA Student Members.

For details of accredited courses and student membership contact Dr John Nelson, National Education Manager, CSA, 70 Castlereagh Street, Sydney, telephone (02) 9223 5744, email info@CSAust.com, website **www.CSAust.com**

CPA Australia

CPA Australia has accepted this University as an approved tertiary institution for the purpose of its membership qualifications.

Graduates who complete the Master of Professional Accounting or the Master of Professional Accounting (Extension) may be eligible for associate membership of CPA Australia. Although the programs are 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.

Students seeking professional recognition are advised to confirm membership requirements with CPA Australia. Please refer to their website at: **www.cpaaustralia.com.au**

The Institute of Actuaries of Australia

The following courses offered in the Master of Actuarial Studies cover the syllabus of the Part I and Part II examinations of the Institute of Actuaries of Australia:

UNSW Courses		**Professional Subjects**
ACTL5101	Probability and Statistics for Actuaries	CT3
ACTL5102	Financial Mathematics for Actuaries	CT1
ACTL5103	Stochastic Modelling for Actuaries	CT4 & CT6
ACTL5104	Actuarial Statistics	CT4
ACTL5105	Life Insurance and Superannuation Models	CT5
ACTL5106	Insurance Risk Models	CT6
ACTL5107	Economics for Actuaries	CT7
ACTL5108	Finance and Financial Reporting for Actuaries	CT2
ACTL5109	Financial Economics for Insurance and Superannuation	CT8
ACTL5100	Actuarial Theory and Practice A	Part II
ACTL5200	Actuarial Theory and Practice B	Part II

Students wishing to apply for exemption from the Part I or II professional examinations must achieve above average performance in the relevant courses.

Qualification as a Fellow of The Institute of Actuaries of Australia (FIAA) 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 (AIAA) is attained on completion of the courses in Parts I and II.

Part I and Part II of the professional examinations are covered in the Master of Actuarial Studies program. No exemptions are available from the Part III examinations. Part III consists of four half-year subjects completed by distance education through the Institute of Actuaries of Australia usually on a part-time basis after completing the Part I and II subjects. Two of these subjects (Module 1: Investments, and Module 4: Commercial Actuarial Practice) are compulsory. In Modules 2 and 3 students select subjects in one specialty area of proactice: Life Insurance; General Insurance; Superannuation and Planned Savings; and Investment Management 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 specialisation 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 (FIAA) is recognised by local actuarial societies in Hong Kong, Singapore, Malaysia, New Zealand and Japan. The actuarial societies in Hong Kong, Singapore and Malaysia do not conduct their own examinations.

The Institute of Chartered Accountants in Australia

The Master of Professional Accounting and the Master of Professional Accounting (Extension) are accredited by the Institute. Students are advised to contact the Institute for current requirements: **www.icaa.org.au**

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, MFin or MCom degree programs.

Applications for registration, exemption or admission should be made direct to Institute: **www.securities.edu.au**

Program Rules and Information – Research Degrees

Doctor of Philosophy

PhD

The degree of Doctor of Philosophy is offered in the Faculty of Commerce and Economics in the following programs:

Program

1521	Accounting
1545	Actuarial Studies
1561	Banking and Finance
1535	Business Law and Taxation
1540	Economics
1525	Information Systems
1550	Marketing
1605	Organisation and Management

Typical Duration
4 years

Minimum UOC for Award
144 units of credit

Typical UOC per Session
24 units of credit

Program Description

The Doctor of Philosophy (PhD) degree is offered in all faculties of the University of New South Wales and encourages initiative and originality in research. Candidates should make a significant contribution to knowledge in their field.

As a general guide, the UNSW entry requirements for the degree of Doctor of Philosophy are as follows:

- A candidate for the degree shall have been awarded an appropriate degree of Bachelor with Honours from the University of New South Wales or a qualification considered equivalent from another university or tertiary institution at a level acceptable to the Research Committee of the appropriate Faculty.
- Candidates may be admitted to the PhD program after one year's full-time enrolment in a Masters by Research program, with the approval of the Faculty Research Committee.
- In exceptional cases an applicant who submits evidence of such other academic and professional qualifications as may be approved by the Committee may be permitted to enrol for the degree.

However, as each Faculty manages its own PhD programs, prospective local and international research students should check with the relevant Faculty and/or School for specific entry requirements.

Program Objectives and Learning Outcomes

The Doctor of Philosophy (PhD) degree encourages initiative and originality in research. Students will make a significant contribution to knowledge in their field and will be competent to carry out research in their chosen area.

Program Structure

This program involves a minimum of three years full-time study. Students undertake supervised research leading to the production of the thesis.

The length of a doctoral thesis normally should not exceed 100,000 words of text and should be submitted for examination within 4 years of full-time study.

In some faculties advanced coursework is also prescribed.

Academic Rules

Please refer to PhD Academic Rules under the Faculty and Social Sciences section in this Handbook.

Further Information

If you are considering applying for a PhD at UNSW you will need to make contact with the relevant school or faculty. This is necessary in order to establish that your research interests and those of the school and faculty are aligned, and that there is a suitable supervisor for your particular area of research.

Prospective students are strongly advised to make contact with potential supervisors before applying for research study at the University.

Please refer to the relevant faculty home page for contact details of schools and departments.

Please refer to the following webpage for further information on how to apply, scholarships, English language requirements, thesis preparation and other research related matters: **www.unsw.edu.au/futurestudents/research**

Please contact the Faculty of Commerce and Economics Research Office via email graduateresearch.fce@unsw.edu.au for further information.

2585 Master of Philosophy in Commerce & Economics

MPhil

Typical Duration
1.5 years

Minimum UOC for Award
72 units of credit

Typical UOC per Session
24 units of credit

Program Description

The Master of Philosophy (MPhil) is designed to provide an opportunity for students to develop research competence in a limited timeframe. The program duration is 1.5 years full-time or 3 years part-time.

Program Objectives and Learning Outcomes

The Master of Philosophy (MPhil) aims to:

- Deepen insight into underlying paradigms, advanced theory and research processes in a commerce discipline;
- Develop competence in conducting research; and
- Provide opportunities for the design of discipline-based research projects

Program Structure

The Master of Philosophy (MPhil) consists of:

An average of four coursework courses totalling 24 units of credit usually undertaken in the first year of candidature.

A thesis not exceeding 40,000 words on an approved topic to the value of 48 units of credit.

The MPhil program will be offered in the following disciplinary streams:

Accounting (plan **ACCTAR2585**)
(1) All students shall study the following core courses:

ACCT5909	Current Developments in Auditing Research
ACCT5951	Current Developments in Accounting Research – Financial

ACCT5952 Current Developments in Accounting Research Managerial
ACCT5997 Seminar in Research Methodology

(2) In addition to completing the courses listed in 1, students shall enrol in the thesis component, either ACCT5994 for full-time or ACCT6001 for part-time, and submit a thesis on an approved topic. Normally the thesis should not exceed 40,000 words.

Actuarial Studies (plan **ACTLBR2585**)

(1) All students shall study the following core courses:

ACTL5003 Research Topics in Actuarial Studies
ACTL5100 Actuarial Theory and Practice A
ACTL5200 Actuarial Theory and Practice B

and an option selected from the relevant postgraduate courses approved by the Head of School.

Note: Students who have completed the equivalent of ACTL5100 or ACTL5200 in prior study will substitute courses from the relevant postgraduate courses approved by the Head of School.

(2) In addition to completing the courses listed in 1, students shall enrol in ACTL5000 or ACTL5001 and submit a thesis on an approved topic. Normally the thesis should not exceed 40,000 words.

Banking and Finance (plan **FINSCR2585**)

(1) All students shall study the following core courses:

FINS5575 Research Methods in Finance 1
FINS5576 Advanced Topics in Asset Pricing
FINS5579 Research Methods in Finance 2

and one of the following courses:

FINS5574 Foundations of Financial Decision Making
FINS5577 Advanced Topics in Corporate Finance
FINS5578 Recent Developments in Banking Research
FINS5591 Special Topics in Finance

(2) In addition to completing the courses listed in 1, students shall enrol in the thesis component, either FINS5594 for full-time or FINS6001 for part-time students, and submit a thesis on an approved topic. Normally the thesis should not exceed 40,000 words.

Business Law and Taxation (plan **LEGTER2585**)

(1) All students shall study the following core courses:

LEGT5998 Research Seminar in Commercial Law
and one of the following courses:

LEGT5522 Special Topic in Business Law
LEGT5523 Special Topic in Taxation

and any two of the School's postgraduate courses approved by the Head of School.

(2) In addition to completing the courses listed in 1, students shall enrol in either LEGT5994 for full-time or LEGT6001 for part-time and submit a thesis on an approved topic. Normally the thesis should not exceed 40,000 words.

Economics (plan **ECONAR2585**)

(1) All students shall complete four postgraduate courses offered by the School of Economics and approved by the Head of the School of Economics, unless exempted from a course or courses because of advanced standing. Advanced standing may be granted by the Head of the School of Economics for equivalent postgraduate courses successfully completed prior to admission to the program but not used for another award, up to a maximum of four courses.

(2) Postgraduate courses offered in the Faculty of Commerce and Economics, or by other faculties in the University of New South Wales, may be substituted for those offered by the School of Economics with the permission of the Head of the School of Economics.

(3) In addition to completing four courses, students shall enrol in ECON5199 Thesis (full-time) or ECON6101 Thesis (part-time), and submit a thesis on an approved topic. Normally the thesis should not exceed 40,000 words.

(4) Applicants who have not completed standard fourth year undergraduate courses in Economics (or equivalent) in their studies prior to entry to the program may be required to complete a prescribed set of postgraduate courses in the MPhil.

Employment Relations (plan **MGMTAR2585**)

(1) All students shall study the following core courses:

MGMT5982 Advanced Theory in Organisation and Management
MGMT5983 Advanced Methods in Organisation and Management
MGMT5731 Special Topic in Industrial Relations
MGMT5946 Managing Occupational Health and Safety

(2) In addition to completing the courses listed in 1, students shall enrol in MGMT5951 and submit a thesis on an approved topic. Normally the thesis should not exceed 40,000 words.

Human Resource Management (plan **MGMTFR2585**)

(1) All students shall study the following core courses:

MGMT5982 Advanced Theory in Organisation and Management
MGMT5983 Advanced Methods in Organisation and Management
MGMT5941 Special Topic in Human Resource Studies
MGMT5920 Managing Equity, Diversity and Disability

(2) In addition to completing the courses listed in 1, students shall enrol in MGMT5953 and submit a thesis on an approved topic. Normally the thesis should not exceed 40,000 words.

Information Systems and Management (plan **INFSER2585**)

(1) All students shall study the following core courses:

INFS5986 Research Topics in Information Systems 1
INFS5987 Research Topics in Information Systems 2

and two courses to be approved by the Head of School of Information Systems, Technology and Management, from advanced graduate courses offered by the School of Information Systems, Technology and Management.

(2) In addition to completing the courses listed in 1, students shall enrol in INFS5994 full-time or INFS6001 part-time, and submit a thesis on an approved topic. Normally the thesis should not exceed 40,000 words.

International Business (plan **MGMTBR2585**)

(1) All students shall study the following core courses:

MGMT5982 Advanced Theory in Organisation and Management
MGMT5983 Advanced Methods in Organisation and Management
MGMT5961 Special Topic in International Business
MGMT5603 Global Business Strategy and Management

(2) In addition to completing the courses listed in 1, students shall enroll in MGMT5955 and submit a thesis on an approved topic. Normally the thesis should not exceed 40,000 words.

Marketing (plan **MARKAR2585**)

(1) All students shall study the following core courses:

MARK8995 Business Research Methods in Marketing
MARK8996 Research Seminar in Marketing
MARK8997 Advanced Quantitative Methods in Marketing
MARK8998 Contemporary Research Methods in Marketing

(2) In addition to completing the courses listed in 1, students shall enrol in MARK8994 and submit a thesis on an approved topic. Normally the thesis should not exceed 40,000 words.

Organisational Behaviour (plan **MGMTER2585**)

(1) All students shall study the following core courses:

MGMT5982 Advanced Theory in Organisation and Management
MGMT5983 Advanced Methods in Organisation and Management
MGMT5931 Special Topic in Organisational Behaviour
MGMT5904 Organisational Transformation at the Speed of E

(2) In addition to completing the courses listed in 1, students shall enrol in MGMT5951 and submit a thesis on an approved topic. Normally the thesis should not exceed 40,000 words.

Academic Rules

Refer to Program Structure for the academic requirements relating to this program.

Program Rules and Information – Coursework Degrees

8404 Master of Commerce and Economics

MCom

Typical Duration
1.5 years

Minimum UOC for Award
72 units of credit

Typical UOC per Session
24 units of credit

Program Description

The Master of Commerce program has a long and distinguished history in providing high quality, relevant business education to graduates who wish to broaden their undergraduate business degree and those from non-business backgrounds wishing to develop their skills and knowledge in business. The Master of Commerce program is taught on-campus. The typical program duration is 1.5 years full-time, or 3 years part-time.

Program Objectives and Learning Outcomes

The program has been designed to:

- provide students with a fundamental grounding in commerce/ business;
- allow students to pursue in-depth study of their chosen discipline;
- ensure students are equipped with a breadth and depth of generic and disciplinary knowledge and skills which can be applied to a range of complex business problems and contexts over time;
- allow students to place their disciplinary specialisation in the wider context of commercial activity.

Program Structure

The Master of Commerce consists of 12 courses (4 core courses, 6 disciplinary courses and 2 elective courses).

Core Courses

To be taken at the start of the program:

COMM5001	Business Communications, Ethics & Practice	(6UOC)
COMM5002	Managing for Value Creation 1	(6UOC)
COMM5003	Managing for Value Creation 2	(6UOC)

To be taken at the end of the program:

COMM5004	Business Capstone Project	(6UOC)

Disciplinary Courses

The disciplinary courses selected will depend on the chosen specialisation. Fifteen specialisations are available within the MCom program.

Each specialisation includes 2 disciplinary core courses. The remaining 4 disciplinary courses may be prescribed or selected from a list.

Specialisations available in 2006 are:

Accounting
Strategic Value Management
Finance
Banking
Funds Management
International Finance
Financial Econometrics
Business Law
International Business
Organisation and Management Studies
Human Resource Management
Business Strategy
Marketing
Tourism Marketing
Information Systems

Elective Courses

Elective courses may be taken within the same disciplinary stream as the specialisation, or any disciplinary stream available in the MCom program.

Sample Program

The following sample program is for a full-time student undertaking Accounting as a specialisation.

First Session

COMM5001	Business Communications, Ethics & Practice	(6UOC)
COMM5002	Managing for Value Creation 1	(6UOC)
COMM5003	Managing for Value Creation 2	(6UOC)

Plus the first disciplinary core course for Accounting:

ACCT5930	Financial Accounting	(6UOC)

Second Session

The second disciplinary core course for Accounting:

ACCT5996	Business Processes: Analysis & Improvement	(6 UOC)

Plus 3 more disciplinary courses for Accounting:

ACCT5919	Business Risk Management	(6 UOC)
ACCT5922	E-Business: Strategy & Process	(6 UOC)
ACCT5942	Corporate Accounting & Regulation	(6 UOC)

Third Session

1 more disciplinary course for Accounting and 2 elective courses:

ACCT5949	Managing Agile Organisations	(6 UOC)
MARK5800	Customer & Market Analysis	(6 UOC)
MGMT5700	Management Work & Organisation	(6 UOC)

Plus the final core course:

COMM5004	Business Capstone Project	(6 UOC)

Academic Rules

Please refer to Program Structure for the academic requirements relating to this program.

7355 Graduate Certificate in Commerce

GradCert

Typical Duration
0.5 years

Minimum UOC for Award
24 units of credit

Typical UOC per Session
24 units of credit

Program Description

The Graduate Certificate in Commerce is available to candidates who meet the academic entry requirements for the Master of Commerce but do not wish to undertake the full Masters program. It is also available as an exit point in the Master of Commerce.

Program Structure

Candidates must successfully complete four courses totalling 24 units of credit from the graduate courses offered by the Faculty of Commerce and Economics, subject to prerequisites.

Academic Rules

Please refer to Program Structure for the Academic Requirements relating to this program.

8616 Master of Business and Technology

MBT

Typical Duration
3-6 years part-time

Minimum UOC for Award
72 units of credit

Typical UOC per Session
6 units of credit

Program Description

The Master of Business and Technology program aims to equip managers and professionals with the skills and knowledge to be effective in a business environment driven by technology. The unique combination of courses provides participants with the intellectual tools to manage business, technology and where they intersect. The MBT is designed to be undertaken in part-time mode, in combination with full-time employment. Participants benefit from applying core course concepts to their workplace and experience. The MBT can be taken in either face-to-face or in distance mode. Participants receive comprehensive course materials and are allocated to a small class of approximately 20 – 25 participants. Classes can be either face-to-face on campus, meeting once a week for 1.5 hours or virtual, accessed via the internet. Class discussion is enriched by a student cohort of mature-age professionals and managers who bring a diversity of experience from a wide cross section of industry.

Contact: MBT Program
Telephone: +61 2 9385 6660
Email: mbt@unsw.edu.au

Program Objectives and Learning Outcomes

The program aims to enable participants to: 1. Critically appreciate frameworks, tools and techniques which address business problems in

technology-based environments, across a wide range of organisational contexts; 2. Construct appropriate solutions to problems in these complex and uncertain environments; 3. Improve their professional practice by drawing on previous experience, extending concepts based on new knowledge, applying solutions to the workplace and evaluating their impact; 4. Enrich and improve their practice by collaborating with and drawing from people from many professional contexts; 5. Actively manage change for organisational improvement and appreciate the different dimensions of change which contribute to organisational sustainability.

Program Structure

To qualify for the Master of Business and Technology (MBT), a candidate must successfully complete a minimum of 72 units of credit (normally 12 courses of 6 units of credit each). The program can be completed in six sessions. The program is usually taken on a part-time basis.

GBAT9101	Project Management	(6 UOC)
GBAT9102	Management of Manufacturing Systems	(6 UOC)
GBAT9103	Environmental Management	(6 UOC)
GBAT9104	Management of Innovation & Technical Change	(6 UOC)
GBAT9105	Risk Management	(6 UOC)
GBAT9106	Information Systems Management	(6 UOC)
GBAT9107	Asset Management	(6 UOC)
GBAT9109	Energy Management	(6 UOC)
GBAT9112	Managing Occupational Health & Safety	(6 UOC)
GBAT9113	Strategic Management of Business & Technology	(6 UOC)
GBAT9114	Principles of Marketing	(6 UOC)
GBAT9115	Information Technology for Managers	(6 UOC)
GBAT9117	E-Business Strategy & Management	(6 UOC)
GBAT9120	Accounting: A User Perspective	(6UOC)
GBAT9121	Managing Agile Organisations	(6UOC)
GBAT9122	Business Economics	(6UOC)
GBAT9123	Fundamentals of Corporate Finance	(6UOC)
GBAT9124	Business Law and Technology	(6UOC)
GBAT9125	Fundamentals of People Management	(6UOC)

or other courses as may be approved by the Faculty.

Academic Rules

Please refer to Program Structure for the academic requirements relating to this program.

5457 Graduate Diploma in Business and Technology

GradDip

Typical Duration
2-4 years part-time

Minimum UOC for Award
48 units of credit

Typical UOC per Session
6 units of credit

Program Description

Candidates must complete a minimum program totaling 48 units of credit (normally 8 courses at 6 units of credit each) taken from MBT courses or such other courses as may be approved by the Faculty. Those successfully completing all 48 units of credit may elect to graduate with the Graduate Diploma in Business and Technology or if they wish, to proceed to the Masters.

Contact: MBT Program
Telephone: +61 2 9385 6660
Email: mbt@unsw.edu.au

Program Objectives and Learning Outcomes

This program articulates into 8616 MBT, please see this program for more details.

Program Structure

Candidates must complete a minimum program totaling 48 units of credit (normally 8 courses at 6 units of credit each) taken from MBT courses or such other courses as may be approved by the Faculty.

Academic Rules

For an award of Graduate Diploma in Business, candidates must successfully complete 48 units of credit. If they wish, candidates may then proceed to the Masters degree.

7333 Graduate Certificate in Business and Technology

GradCert

Typical Duration
1-2 years part-time

Minimum UOC for Award
24 units of credit

Typical UOC per Session
6 units of credit

Program Description

Graduate Certificate in Business and Technology (GradCert) is available to candidates who do not have tertiary qualifications, but do have at least four years of relevant experience. Candidates can use the Graduate Certificate as an entry point to the Master of Business and Technology (articulation rules apply).

Contact: MBT Program
Telephone: +61 2 9385 6660
Email: mbt@unsw.edu.au

Program Objectives and Learning Outcomes

This program articulates into 8616 MBT, please see this program for more details.

Program Structure

Candidates must successfully complete four courses totalling 24 units of credit. Courses are chosen from those offered in the MBT. Achievement of a credit average will then entitle participants to upgrade to the Graduate Diploma in Business and Technology.

Alternatively, candidates may choose to exit the program at this point and graduate with the GradCert.

Academic Rules

Please refer to Program Structure for the academic requirements relating to this program.

8007 Master in Technology Management

MTM

Typical Duration
1 year

Minimum UOC for Award
48 units of credit

Typical UOC per Session
24 units of credit

Program Description

The Master of Technology Management program integrates strategy and technology, enabling graduates to apply continuous innovation in their organisations. It is a cross-faculty program designed for science and engineering graduates. Students complement their technology skills with managerial skills by taking additional coursework in their field of expertise and combining it with management studies.

Effective management of technology and innovation is the key to success in modern organisations. In this environment, management careers rely on a comprehensive understanding of technology as it relates to business strategies and operations at all levels of responsibility. The MTM program is taught on-campus. The program duration is 1 year full-time, 2 years part-time.

Entry to this program requires a first degree in an engineering, science or technology field.

Program Structure

The Master of Technology Management comprises 48 UOC. Students are required to complete 2 core courses plus 36 UOC of electives chosen from the participating faculties.

Core Courses

MGMT5800	Technology. Management. & Innovation	(6UOC)
(To be taken in the first session of study)		
MGMT5801	Strategic Management of Technology & Innovation	(6UOC)
(To be taken in the second session of study)		

Elective Courses

A maximum of 24 UOC credit (excluding the core courses) may be chosen from each faculty, and a maximum of 36 UOC in total. The participating faculties are:

Engineering
Science
Commerce and Economics

Academic Rules

Please refer to Program Structure for the Academic Requirements relating to this program.

8406 Master of Finance

MFin

Typical Duration
1 year

Minimum UOC for Award
48 units of credit

Typical UOC per Session
24 units of credit

Program Description

Developed in close consultation with the finance sector, the Master of Finance is a high quality and academically innovative program combining theory and practice. The aim is to provide practitioners with the latest knowledge and skills to fast-track their careers.

The Master of Finance offers a challenging learning environment for students wanting to study advanced finance. It exposes participants to the latest thinking and current research. Learning activities, both in and out of the classroom, are aimed at ensuring participants are familiar with and can undertake critical analysis of the latest theories, techniques and practices in their chosen subject area. In addition, assessment events will ensure that participants can relate theory and research to practical situations.

There are four specialist streams:

Corporate Finance
Funds Management
International Finance
Investment Banking

It is also possible to be awarded a Master of Finance without a specialisation.

Note: Entry to this program requires an academic background in Finance.

Program Structure

The Master of Finance consists of 8 courses (4 core courses and 4 elective courses).

All Master of Finance students must complete the following four core courses.

Core Courses

MFIN6201	Empirical Techniques and Applications in Finance	(6UOC)
MFIN6205	Financial Risk Management for Financial Institutions	(6UOC)
MFIN6210	Empirical Studies in Finance	(6UOC)
MFIN6214	Financial Theory and Policy	(6UOC)

Elective Courses for Master of Finance without a specialisation:

Choose four courses from the following list:

FINS5516	International Corporate Finance	(6UOC)
FINS5517	Applied Portfolio Management and Modelling	(6UOC)
FINS5522	Emerging Financial Markets	(6UOC)
FINS5523	Alternative Asset Classes	(6UOC)
FINS5530	Financial Institutions Management	(6UOC)
FINS5531	Risk and Insurance	(6UOC)
FINS5533	Real Estate Finance and Investment	(6UOC)
FINS5534	Strategic Management of Credit Risk and Loan Policy	(6UOC)
FINS5535	Derivatives and Risk Management Techniques	(6UOC)
FINS5536	Fixed Income Securities and Derivatives	(6UOC)
FINS5541	Advanced Investment and Funds Management	(6UOC)
FINS5542	Applied Funds Management	(6UOC)
FINS5550	International Banking Management	(6UOC)
FINS5551	International Insurance Management	(6UOC)
FINS5566	Electronic Financial Trading	(6UOC)
MFIN6211	Structured Finance Law	(6UOC)
MFIN6212	Taxation of Financial Arrangements	(6UOC)
MFIN6213	Research topic	(6UOC)

or other courses as may be approved by the Head of School, Banking and Finance

Elective Courses for Master of Finance (Corporate Finance):

Choose four courses from the following list:

FINS5516	International Corporate Finance	(6UOC)
FINS5523	Alternative Asset Classes	(6UOC)
FINS5531	Risk and Insurance	(6UOC)
FINS5533	Real Estate Finance and Investment	(6UOC)
FINS5535	Derivatives and Risk Management Techniques	(6UOC)
MFIN6211	Structured Finance Law	(6UOC)
MFIN6212	Taxation of Financial Arrangements	(6UOC)
MFIN6213	Research topic	(6UOC)

or other courses as may be approved by the Head of School, Banking and Finance

Elective Courses for Master of Finance (Funds Management):

Choose four courses from the following list:

FINS5517	Applied Portfolio Management and Modelling	(6UOC)
FINS5523	Alternative Asset Classes	(6UOC)
FINS5530	Financial Institutions Management	(6UOC)
FINS5533	Real Estate Finance and Investment	(6UOC)
FINS5534	Strategic Management of Credit Risk and Loan Policy	(6UOC)
FINS5535	Derivatives and Risk Management Techniques	(6UOC)
FINS5536	Fixed Income Securities and Derivatives	(6UOC)
FINS5541	Advanced Investment and Funds Management	(6UOC)
FINS5542	Applied Funds Management	(6UOC)
MFIN6213	Research topic	(6UOC)

or other courses as may be approved by the Head of School, Banking and Finance

Elective Courses for Master of Finance (International Finance):

Choose four courses from the following list:

FINS5516	International Corporate Finance	(6UOC)
FINS5522	Emerging Financial Markets	(6UOC)
FINS5523	Alternative Asset Classes	(6UOC)
FINS5535	Derivatives and Risk Management Techniques	(6UOC)
FINS5550	International Banking Management	(6UOC)
FINS5551	International Insurance Management	(6UOC)
MFIN6213	Research topic	(6UOC)

or other courses as may be approved by the Head of School, Banking and Finance

Elective Courses for Master of Finance (Investment Banking):

Choose four courses from the following list:

FINS5523	Alternative Asset Classes	(6UOC)
FINS5530	Financial Institutions Management	(6UOC)
FINS5531	Risk and Insurance	(6UOC)
FINS5533	Real Estate Finance and Investment	(6UOC)
FINS5534	Strategic Management of Credit Risk and Loan Policy	(6UOC)
FINS5535	Derivatives and Risk Management Techniques	(6UOC)
FINS5536	Fixed Income Securities and Derivatives	(6UOC)
FINS5566	Electronic Financial Training	(6UOC)
MFIN6211	Structured Finance Law	(6UOC)
MFIN6212	Taxation of Financial Arrangements	(6UOC)
MFIN6213	Research topic	(6UOC)

or other courses as may be approved by the Head of School, Banking and Finance

Academic Rules

Please refer to Program Structure for the academic requirements relating to this program.

8407 Master of Information Systems

MIS

Typical Duration
1 year

Minimum UOC for Award
48 units of credit

Typical UOC per Session
24 units of credit

Program Description

The Master of Information Systems program is designed for established information systems/information technology professionals, who aspire to management and leadership roles in industry. The program will enable aspiring industry leaders to think strategically in order to:

Maximise the strategic effectiveness of policies, process and IT infrastructure;

Drive best practice and innovation, and leading edge information systems;

Leverage the interface between management and IT;

Promote access to and understanding of strategic information within organisations.

The Master of Information Systems is taught on-campus. The typical duration of the program is 1 year full-time or 2 years part-time.

Note: Entry to this program requires an academic background in an information systems related field and relevant work experience.

Program Objectives and Learning Outcomes

The Master of Information Systems aims to provide:

- up-to-date frameworks, knowledge and skills in the management of the information systems function in the context of the broader business environment.
- a deeper understanding of the implications of information systems and technology decisions from a broad business perspective.
- management capabilities for information systems and information technology professionals.

The program learning outcomes for the Master of Information Systems are:

- facilitate the strategic role of information systems in organisational development;
- facilitate the interdependencies across business functions and learn how information systems add value across the business;
- recommend solutions that align business and technical needs at both the tactical and strategic levels;
- critically evaluate and analyse the impact of change across the business environment, particularly that brought about by information technology;
- plan and manage information systems projects in the context of complex and changing business environments;
- organise, plan and manage human and financial resources to achieve strategic objectives of the information systems function;
- communicate effectively with both internal and external stakeholders on a broad range of business issues relating to the IS function.

Program Structure

The Master of Information Systems consists of 8 courses (6 core courses and 2 elective courses).

Core Courses

INFS5731	Information Technology and Business Strategy	(6UOC)
INFS5732	Managing and Delivering Information Technology Services	(6UOC)
INFS5733	Information Technology Quality and Project Management	(6UOC)
INFS5740	Information Technology Management Project	(6UOC)
MGMT5980	Managing the Human Side of Technological Innovation	(6UOC)
MGMT5981	Interpersonal and Career Skills for the IT Manager	(6UOC)

Electives

Choose two from:

ACCT5979	Accounting & Business Analysis	(6UOC)
INFS5734	Security of Enterprise Information Technology Resources	(6UOC)
INFS5735	Managing Integrated Enterprise Systems	(6UOC)
LEGT5565	Contemporary Issues in IT Law	(6UOC)

Professional Accreditation

The Master of Information Systems will be accredited at the professional level by the Australian Computer Society.

Interested candidates without an appropriate background in information systems may wish to consider undertaking the Master of Commerce (specialisation in Information Systems) as an alternative program.

Academic Rules

Please refer to Program Structure for the Academic Requirements relating to this program.

8409 Master of Professional Accounting

MProfAcc

Typical Duration
1.5 years

Minimum UOC for Award
72 units of credit

Typical UOC per Session
24 units of credit

Program Description

The Master of Professional Accounting is designed for graduates with no or limited exposure to the study of accounting. The Master of Professional Accounting program provides an introduction to business with a focus on accounting and enables students to obtain recognition by the two peak professional accounting bodies in Australia: CPA Australia and the Institute of Chartered Accounting in Australia. Firms often seek employees who have met professional requirements as it means a range of essential business skills have been acquired.

The MProfAcc program is taught on-campus. The typical duration of the program is 1.5 years full-time or 3 years part-time.

Note: As the degree is primarily aimed at graduates with non-accounting studies, students with an undergraduate major in accounting from an Australian university are not advised to enrol in this degree.

Program Structure

The Master of Professional Accounting comprises 72 UOC (12 core courses and 1 elective course). Students undertaking the program should take care to take the courses in an appropriate sequence. For instance, ACCT5930 and LEGT5512 should be taken early in the program as they provide the foundation for other courses.

Core Courses

ACCT5908	Auditing and Assurance Services	(6UOC)
ACCT5930	Financial Accounting	(6UOC)
ACCT5931	Strategic Financial & Resource Management	(6UOC)
ACCT5942	Corporate Accounting & Regulation	(6UOC)
ACCT5996	Business Processes: Analysis & Improvement	(6UOC)
ECON5103	Business Economics	(6UOC)
ECON5257	Introductory Statistics & Data Analysis	(3UOC)
FINS5511	Corporate Finance	(6UOC)
INFS5978	Accounting Information Systems	(6UOC)
LEGT5512	Legal Foundations for Accountants	(3UOC)
LEGT5541	Corporations and Business Associations Law	(6UOC)
LEGT5551	Taxation Law	(6UOC)

Elective Courses

Choose one of the following courses:

ACCT5910	Business Analysis and Valuation	(6UOC)
ACCT5943	Advanced Financial Reporting	(6UOC)

Professional Accreditation

The degree is accredited by CPA Australia and the Institute of Chartered Accountants in Australia (ICAA). Although the degree is accredited, CPA Australia and ICAA assess every applicant for membership against their standing membership requirements, which include a rule that each applicant must hold a degree that is considered comparable by the

National Office of Overseas Skills Recognition (NOOSR) to an Australian Bachelor's degree. If requested, CPA Australia and ICAA will provide an assessment of an overseas qualification.

Academic Rules

Please refer to Program Structure for the Academic Requirements relating to this program.

8415 Master of Professional Accounting (Extension)

MProfAcc (Extn)

Typical Duration
2 years

Minimum UOC for Award
96 units of credit

Typical UOC per Session
24 units of credit

Program Description

The Master of Professional Accounting (Extension) follows the structure of the Master of Professional Accounting but also provides students with the opportunity to complete a more comprehensive program beyond the core professional knowledge areas required for accreditation with ICAA and CPA Australia and study four additional elective courses related to resource management and specialised professional work.

Program Structure

The Master of Professional Accounting comprises 96 UOC (12 core courses and 5 elective courses). Students undertaking the program should take care to take the courses in an appropriate sequence. For instance, ACCT5930 and LEGT5512 should be taken early in the program as they provide the foundation for other courses.

Core Courses

ACCT5908	Auditing and Assurance Services	(6UOC)
ACCT5930	Financial Accounting	(6UOC)
ACCT5931	Strategic Financial & Resource Management	(6UOC)
ACCT5942	Corporate Accounting & Regulation	(6UOC)
ACCT5996	Business Processes: Analysis & Improvement	(6UOC)
ECON5103	Business Economics	(6UOC)
ECON5257	Introductory Statistics & Data Analysis	(3UOC)
FINS5511	Corporate Finance	(6UOC)
INFS5978	Accounting Information Systems	(6UOC)
LEGT5512	Legal Foundations for Accountants	(3UOC)
LEGT5541	Corporations and Business Associations Law	(6UOC)
LEGT5551	Taxation Law	(6UOC)

Elective Courses

Choose one of the following:

ACCT5910	Business Analysis and Valuation	(6UOC)
ACCT5943	Advanced Financial Reporting	(6UOC)

Choose four of the following:

ACCT5907	Corporate Financial Anaysis	(6UOC)
ACCT5910	Business Analysis and Valuation (if not selected above)	(6UOC)
ACCT5919	Business Risk Management	(6UOC)
ACCT5920	Managing Intangible Resources	(6UOC)
ACCT5921	Business Performance Management	(6UOC)
ACCT5943	Advanced Financial Reporting (if not selected above)	(6UOC)
ACCT5949	Managing Agile Organisations	(6UOC)
ACCT5955	Value-Based Management in a Global Economy	(6UOC)
FINS5526	Int'l Corporate Governance: Accounting & Finance Perspectives	(6UOC)
INFS5984	Information Systems Security	(6UOC)
LEGT5583	International Business Taxation	(6UOC)

or other courses as may be approved by the Faculty.

Professional Accreditation

The degree is accredited by CPA Australia and the Institute of Chartered Accountants in Australia (ICAA). Although the degree is accredited, CPA Australia and ICAA assess every applicant for membership against their standing membership requirements, which include a rule that each applicant must hold a degree that is considered comparable by the National Office of Overseas Skills Recognition (NOOSR) to an Australian Bachelor's degree. If requested, CPA Australia and ICAA will provide an assessment of an overseas qualification.

Academic Rules

Please refer to Program Structure for the academic requirements relating to this program.

8411 Master of Actuarial Studies

MActSt

Typical Duration
1.5 years

Minimum UOC for Award
72 units of credit

Typical UOC per Session
24 units of credit

Program Description

The Master of Actuarial Studies allows graduates to obtain and develop the required competencies to enter an actuarial career and provides quantitative risk management training for entry into the financial services industry. The program covers the professional actuarial subjects and includes options in actuarial studies, quantitative risk management and other related disciplines.

The MActSt program is taught on-campus. The typical duration is 1.5 years full-time or 3 years part-time.

Note: Applicants without a strong mathematical background may be advised to complete the ActEd Australasia Foundation course, and demonstrate adequate mathematical performance on the self-assessed test.

Program Structure

The Master of Actuarial Studies consists of 12 courses (4 core courses and 8 elective courses). Some courses are offered only in Session 1 or Session 2.

Core Courses

ACTL5101	Probability & Statistics for Actuaries	(6UOC)
ACTL5102	Financial Mathematics	(6UOC)
ACTL5107	Economics for Actuaries	(6UOC)
ACTL5108	Finance for Actuaries	(6UOC)

Elective Courses

ACTL5002	Super & Retire Benefits	(6UOC)
ACTL5004	Project Report	(12UOC)
ACTL5100	Actuarial Theory & Practice. A	(6UOC)
ACTL5103	Stochastic Model for Actuaries	(6UOC)
ACTL5104	Actuarial Statistics	(6UOC)
ACTL5105	Life Insurance & Superannuation	(6UOC)
ACTL5106	Insurance Risk Models	(6UOC)
ACTL5109	Financial Economics	(6UOC)
ACTL5200	Actuarial Theory & Practice B	(6UOC)
ACTL5301	Models for Risk Management	(6UOC)
ACTL5302	Risk and Capital Management	(6UOC)
ACTL5303	Asset Liability Management	(6UOC)
ACTL5304	Risk Management Strategies	(6UOC)

Academic Rules

Please refer to Program Structure for academic requirements relating to this program.

Professional Accreditation

The UNSW actuarial program is fully accredited by the Institute of Actuaries of Australia for both Part I and Part II subjects and recognised for exemptions by the Institute of Actuaries (London) for the Core Technical subjects.

8412 Master of Economics

MEc

Typical Duration
1 year

Minimum UOC for Award
48 units of credit

Typical UOC per Session
24 units of credit

Program Description

The Master of Economics program provides advanced training in theoretical and applied aspects of modern economics and econometrics.

The program objectives are:

(i) To provide students with knowledge of the major ideas of modern economics and econometrics and to impart a comprehension of these ideas so that they may be properly evaluated and applied.

(ii) To provide students with the knowledge and technical ability to use economic and econometric models to undertake independent research and to communicate the results of their research.

(iii) To provide students with the capacity to comprehend and critically evaluate articles appearing in leading economics and econometrics journals so that they can learn new developments and apply them to their research.

(iv) To provide students with the necessary foundations in economics and econometrics to proceed to a PhD within Australia or abroad and to succeed in the best international programs.

A graduate of this program is prepared for a career as a professional economist with advanced technical skills or for further studies in economics or related fields in Australia and abroad.

Note: Entry to this program requires an academic background in economics.

Program Structure

The Master in Economics degree comprises 48 units of credit. Students are required to complete four core courses and four elective courses.

Core Courses

ECON6001	Microeconomic Analysis	(6UOC)
ECON6002	Macroeconomic Analysis	(6UOC)
ECON6003	Econometric Analysis	(6UOC)
ECON6004	Mathematical Economics	(6UOC)

Elective Courses

Choose four of the following courses:

ECON6101	Advanced Microeconomic Analysis	(6UOC)
ECON6102	Advanced Macroeconomic Analysis	(6UOC)
ECON6201	Advanced Econometric Theory	(6UOC)
ECON6202	Computational Statistics and Econometric Modelling	(6UOC)
ECON6203	Applied Econometrics	(6UOC)
ECON6301	Industrial Organisation	(6UOC)
ECON6302	International Trade	(6UOC)
ECON6303	Economics of Labour Markets	(6UOC)
ECON6304	Business Cycles and Growth	(6UOC)
ECON6305	Economics of Natural Resources	(6UOC)
ECON6306	Environmental Economics	(6UOC)
ECON6307	The Economics of Health and Medical Care	(6UOC)
ECON6350	Special Topics in Economics	(6UOC)

With the approval of the Head of the School of Economics, elective courses may also be selected from the following list:

ECON5106	Financial Economics	(6UOC)
ECON5114	Superannuation and Retirement Benefits	(6UOC)
ECON5206	Financial Econometrics	(6UOC)
ECON5248	Business Forecasting	(6UOC)

or other courses as may be approved by the Head of School, Economics

Academic Rules

Please refer to Program Structure for Academic Rules relating to this program.

8414 Master of Marketing

MMktg

Typical Duration
1 year

Minimum UOC for Award
48 units of credit

Typical UOC per Session
24 units of credit

Program Description

The Master of Marketing is an advanced program designed for marketing professionals who are looking to enhance their marketing knowledge and skills. In unique and innovative ways, it marries contemporary marketing issues with a critical, research-based approach to learning.

Specialisation in particular aspects of marketing is a highly distinctive feature of the program. These specialist streams draw directly and explicitly on the research strengths of the School, with streams in strategic consumer and brand marketing and marketing communication; marketing information and analysis. Participants are expected to select specialisations depending on their background and career objectives.

The MMktg is taught on-campus. The typical program duration is 1 year full-time or 2 years part-time.

Note: Entry to this program requires an academic background in a marketing related field, and relevant work experience.

Program Structure

The Master of Marketing comprises 48 UOC. A student must complete 4 (6 UOC) core courses and 8 (3 UOC) elective courses chosen from the 3 specialist streams.

Core Courses

MARK6000	Contemporary Perspectives in Marketing	(6UOC)
MARK6001	Business Skills for Marketers	(6UOC)
MARK6002	Creativity, Innovation and Change in Marketing	(6UOC)
MARK6003	Practicum in Marketing	(6UOC)

Specialist Streams

Strategic Services and Business-to-Business Marketing

MARK6004	Business-to-Business Marketing	(3UOC)
MARK6005	Advanced Services Marketing and Management	(3UOC)
MARK6006	Customer Relationship Management	(3UOC)
MARK6007	Managing Marketing Relationships, Alliances and Networks	(3UOC)
MARK6010	Global Marketing Strategy	(3UOC)

Consumer and Brand Marketing and Marketing Communication

MARK6011	Marketing in Asia	(3UOC)
MARK6013	Advances in Consumer Analysis	(3UOC)
MARK6020	Product and Brand Management	(3UOC)
MARK6021	Integrated Marketing Communication	(3UOC)
MARK6022	Advertising and Sales Promotion Implementation	(3UOC)

Marketing Information and Analysis

MARK6009	International Marketing Research	(3UOC)
MARK6016	Marketing Databases, Information, and Knowledge	(3UOC)
MARK6017	Analytical Mathods for Segmentation, Targeting and Customer Analysis	(3UOC)

or other elective courses as may be approved by the Head of School, Marketing

Academic Rules

Please refer to Program Structure for Academic Rules relating to this program.

7355 Graduate Certificate of Commerce in Media Sales (Customised)

GradCertCom

Typical Duration
1 year

Minimum UOC for Award
24 units of credit

Typical UOC per Session
24 units of credit

Program Description

The Faculty offers a Graduate Certificate of Commerce in Media Sales through the School of Marketing. The program consists of courses and a cadetship.

Program Structure

Courses

MARK5991	Media Sales Environment	(6 UOC)
MARK5992	Media Audience Research	(6 UOC)
MARK5993	Media Planning	(6 UOC)
MARK5994	Media Customer Relationships	(6 UOC)

Cadetship

The courses are taught over a six-week period. Upon successful completion of the courses, students undertake a 12 month employment cadetship.

Both the courses and cadetship must be completed satisfactorily for the Graduate Certificate to be awarded.

Academic Rules

Please refer to Program Structure for the Academic Requirements relating to this program.

Plan Rules and Information

MCom by coursework

The Master of Commerce (MCom) offers a number of specialisations (plans).

Note: Each disciplinary stream includes two disciplinary core courses. In addition to the common core, students may receive transfer credit for the disciplinary core of their specialisation on the basis of studies undertaken prior to commencing the Master of Commerce. The disciplinary core courses are noted by an asterisk (*).

Accounting

Plan ACCTAS8404

Required

ACCT5930*	Financial Accounting
ACCT5996*	Business Processes: Analysis and Improvement

Disciplinary Electives

ACCT5908	Auditing and Assurance Services
ACCT5910	Financial Statement Analysis
ACCT5917	Strategic Management Systems and Processes
ACCT5919	Business Risk Management
ACCT5920	Managing Intangible Resources
ACCT5921	Business Performance Management
ACCT5922	E-Business Strategy and Processes
ACCT5931	Strategic Financial and Resource Management
ACCT5942	Corporate Accounting and Regulation
ACCT5943	Advanced Financial Reporting
ACCT5949	Managing Agile Organisations
ACCT5955	Value-Based Management in a Global Economy
INFS5905	Information Systems Auditing

** Disciplinary core*

Banking

Plan FINSDS8404

Required

FINS5512*	Financial Markets and Institutions
FINS5513*	Investments and Portfolio Selection
FINS5514	Capital Budgeting and Financial Decisions
FINS5530	Financial Institution Management

Disciplinary Electives

FINS5534	Strategic Management of Credit Risk and Loan Policy
FINS5550	International Banking Management
ACCT5910	Financial Statement Analysis

In addition to the four common core and six disciplinary courses, students have two MCom electives to complete. These electives may be taken from courses in any disciplinary stream (subject to satisfying prerequisites). However, students wishing to study electives related to banking may wish to select from the following:

FINS5515	Issues in Corporate Finance
FINS5517	Applied Portfolio Management and Modelling
FINS5522	Emerging Financial Markets
FINS5523	Entrepreneurial Finance
FINS5526	International Corporate Governance: Accounting and Finance Perspectives
FINS5531	Risk and Insurance
FINS5533	Real Estate Finance and Investment
FINS5535	Derivatives and Risk Management Techniques
FINS5536	Fixed Income Securities and Interest Rate Derivatives
FINS5541	Advanced Investment and Funds Management
FINS5542	Applied Funds Management

** Disciplinary core*

Business Law

Plan LEGTAS8404

Required

LEGT5511*	Legal Foundations of Business
and either	
LEGT5541*	Corporations and Business Associations Law
or	
LEGT5551*	Taxation Law

Disciplinary Electives

LEGT5411	Legal Strategies for Knowledge Protection
LEGT5421	E-Business and the Law
LEGT5522	Special Topic in Business Law
LEGT5523	Special Topic in Taxation
LEGT5531	Competition and Consumer Law
LEGT5541	Corporations and Business Associations Law (unless taken as disciplinary core)
LEGT5542	Law of Corporate Governance
LEGT5551	Taxation Law (unless taken as disciplinary core)
LEGT5561	Legal Aspects of Finance
LEGT5562	Business Law in a Global Economy
LEGT5571	Franchising
LEGT5575	Corporate Fraud and Crime
LEGT5581	Taxation Policy, Principles and Planning
LEGT5582	Taxation of Business Entities
LEGT5583	International Business Taxation
LEGT5586	Corporate Tax, Law and Strategy
LEGT5589	Capital Gains Tax

** Disciplinary core*

Business Strategy

Plan COMMDS8404

Required

ECON5110*	Managerial Economics
MGMT5601*	Global Business and the Multinational Enterprise
ECON5111	Economics of Strategy
ECON5112	Organisational Economics
MGMT5603	Global Business Strategy and Management
MGMT5609	Geopolitical Risk Management

In addition to the four common core and six disciplinary courses, students have two MCom electives to complete. These electives may be taken from courses in any disciplinary stream (subject to satisfying prerequisites). However, students wishing to study electives related to business strategy may wish to select from the following:

ACCT5917	Strategic Management
ACCT5919	Business Risk Management
ACCT5931	Strategic Financial and Resource Management
ACCT5996	Business Processes: Analysis and Improvement
ECON5203	Statistics for Business
ECON5248	Business Forecasting
MGMT5602	Cross Cultural Management
MGMT5604	Asia Pacific Business and Management
MGMT5606	Chinese Business and Management
MGMT5607	International Entrepreneurship and New Venture Management
MGMT5608	Corporate Strategy in East Asia
MGMT5801	Strategic Management of Technology and Innovation
MGMT5904	Organisational Transformation at the Speed of E
MGMT5908	Strategic Human Resource Management
MGMT5910	Towards Corporate Sustainability: Effective Human Resources and Organisations
LEGT5411	Legal Strategies and Knowledge Protection
LEGT5542	Law of Corporate Governance
LEGT5583	International Business Taxation
LEGT5586	Corporate Law, Tax and Strategy
MARK5801	Marketing Management and Marketing Strategy

**Disciplinary core*

Finance

Plan FINSAS8404

Required

FINS5512* Financial Markets and Institutions
FINS5513* Investments and Portfolio Selection
FINS5514 Capital Budgeting and Financial Decisions
FINS5516 International Corporate Finance
FINS5530 Financial Institution Management
FINS5535 Derivatives and Risk Management Techniques

In addition to the four common core and six disciplinary courses, students have two MCom electives to complete. These electives may be taken from courses in any disciplinary stream (subject to satisfying prerequisites). However, students wishing to study electives related to finance may wish to select from the following:

FINS5515 Issues in Corporate Finance
FINS5517 Applied Portfolio Management and Modelling
FINS5522 Emerging Financial Markets
FINS5523 Entrepreneurial Finance
FINS5526 International Corporate Governance: Accounting Finance Perspectives
FINS5531 Risk and Insurance
FINS5533 Real Estate Finance and Investment
FINS5534 Strategic Management of Credit Risk and Loan Policy
FINS5536 Fixed Income Securities and Interest Rate Derivatives
FINS5541 Advanced Investments and Funds Management
FINS5542 Applied Funds Management
FINS5550 International Banking Management
FINS5551 International Insurance Management

** Disciplinary core*

Financial Econometrics

Plan COMMCS8404

Required

ECON5203* Statistics for Business
FINS5513* Investments and Portfolio Selection

Disciplinary Electives – List A

ECON5248 Business Forecasting
ECON5206 Financial Econometrics
ECON5106 Financial Economics
ECON5110 Managerial Economics

Disciplinary Electives – List B

FINS5514 Capital Budgeting and Financial Decisions
FINS5517 Applied Portfolio Management and Modelling
FINS5535 Derivatives and Risk Management Techniques
FINS5536 Fixed Income Securities and Interest Rate Derivatives

** Disciplinary core*

To obtain a specialisation in Financial Econometrics, at least two electives must be taken from List A and two electives from List B.

Funds Management

Plan FINSES8404
Required

FINS5512* Financial Markets and Institutions
FINS5513* Investments and Portfolio Selection
FINS5514 Capital Budgeting and Financial Decisions
FINS5517 Applied Portfolio Management and Modelling

Disciplinary Electives

FINS5535 Derivatives and Risk Management Techniques
FINS5541 Advanced Investment and Funds Management
FINS5542 Applied Funds Management

In addition to the four common core and six disciplinary courses, students have two MCom electives to complete. These electives may be taken from courses in any disciplinary stream (subject to satisfying prerequisites). However, students wishing to study electives related to funds management may wish to select from the following:

FINS5515 Issues in Corporate Finance
FINS5516 International Corporate Finance
FINS5522 Emerging Capital Markets
FINS5523 Entrepreneurial Finance
FINS5526 International Corporate Governance: Accounting Finance Perspectives
FINS5530 Financial Institution Management
FINS5531 Risk and Insurance
FINS5533 Real Estate Finance and Investment
FINS5534 Strategic Management of Credit Risk and Loan Policy
FINS5536 Fixed Income Securities and Interest Rate Derivatives
FINS5550 International Banking Management
FINS5551 International Insurance Management

** Disciplinary core*

Human Resource Management

Plan MGMTCS8404

Required

MGMT5700* Management, Work and Organisation
MGMT5908* Strategic Human Resource Management Disciplinary Electives
MGMT5701 Employment and Industrial Relations
MGMT5702 International Employment Relations
MGMT5705 Management of Training
MGMT5711 Employment and Industrial Law
MGMT5712 Negotiation Skills
MGMT5800 Management, Technology & Innovation
MGMT5801 Strategic Management of Technology & Innovation
MGMT5904 Organisational Transformation at the Speed of E
MGMT5909 Management Consulting & Organisational Transformation
MGMT5910 Towards Corporate Sustainability: Effective Human Resources and Organisations
MGMT5912 International Business Negotiations
MGMT5920 Managing Equity, Diversity and Disability
MGMT5946 Managing Occupational Health and Safety
MGMT5947 Remuneration and Performance Management
MGMT5948 Human Resources Recruitment, Selection and Development
MGMT5949 International Human Resource Management
MGMT5960 Strategic People Management
MGMT5602 Cross-Cultural Management

** Disciplinary core*

Information Systems

Plan INFSAS8404
Required

INFS5988* Business Information Systems
INFS5992* Data Management Disciplinary Electives
INFS5848 Information Systems Project Management
INFS5885 Managing e-Business Technology
INFS5905 Information Systems Auditing
INFS5926 Advanced Data Management
INFS5927 Knowledge Management Systems and Technology
INFS5928 Software Engineering Management
INFS5953 Information Systems Management
INFS5957 Information and Decision Technology
INFS5974 Advanced Database Implementation
INFS5975 Advanced Software Implementation
INFS5982 Advanced Data Communications
INFS5983 Business Data Communications
INFS5984 Information Systems Security
INFS5989 Information Systems Design
INFS5991 Decision Support Systems
INFS5993 Special Topic in Information Systems, Technology and Management

** Disciplinary core*

International Business

Plan MGMTAS8404
Required

MGMT5601* Global Business and Multinational Enterprise
MGMT5604* Asia-Pacific Business and Management
MGMT5602 Cross-Cultural Management
MGMT5603 Global Business Strategy and Management
MGMT5608 Corporate Strategy in East Asia
MGMT5609 Geopolitical Risk Management

In addition to the four common core and six disciplinary courses, students have two MCom electives to complete. These electives may be taken from courses in any disciplinary stream (subject to satisfying prerequisites). However, students wishing to study electives related to international business may wish to select from the following:

MGMT5606 Chinese Business and Management
MGMT5607 International Entrepreneurship and New Venture Management

ACCT5955 Value Based Management in a Global Economy
ECON5156 International Trade
FINS5516 International Corporate Finance
FINS5522 Emerging Financial Markets
MGMT5912 International Business Negotiations
MGMT5949 International Human Resource Management
LEGT5562 Business Law in a Global Economy
LEGT5583 International Business Taxation
MARK5940 International Marketing
MARK5945 Marketing in Asia
JAPN5100 Business Japanese A**
JAPN5102 Professional Japanese A**
MGMT5691 Special Topic in International Business
MGMT5699 Project Report in International Business (12 UOC)

** Disciplinary core*

*** Other language courses may be taken with approval of PG Coursework Coordinator*

International Finance

Plan FINSFS8404

Required

FINS5512* Financial Markets and Institutions
FINS5513* Investments and Portfolio Selection
FINS5514 Capital Budgeting and Financial Decisions
FINS5516 International Corporate Finance Disciplinary Electives
FINS5522 Emerging Financial Markets
FINS5550 International Banking Management
FINS5551 International Insurance Management

In addition to the four common core and six disciplinary courses, students have two MCom electives to complete. These electives may be taken from courses in any disciplinary stream (subject to satisfying prerequisites). However, students wishing to study electives related to international finance may wish to select from the following:

FINS5515 Issues in Corporate Finance
FINS5517 Applied Portfolio Management and Modelling
FINS5523 Entrepreneurial Finance
FINS5526 International Corporate Governance: Accounting & Finance Perspectives
FINS5530 Financial Institution Management
FINS5531 Risk and Insurance
FINS5533 Real Estate Finance and Investment
FINS5534 Strategic Management of Credit Risk and Loan Policy
FINS5535 Derivatives and Risk Management Techniques
FINS5536 Fixed Income Securities and Interest Rate Derivatives
FINS5541 Advanced Investment and Funds Management
FINS5542 Applied Funds Management

** Disciplinary core*

Marketing

Plan MARKAS8404

Required

MARK5800* Customer and Market Analysis
MARK5801* Marketing Management and Marketing Strategy
Disciplinary Electives
MARK5810 Marketing Communication and Promotion
MARK5811 Applied Marketing Research
MARK5812 Distribution, Retail Channels, and Logistics
MARK5813 Product Development and Brand Management
MARK5814 E-Marketing
MARK5815 International Marketing in Asia
MARK5816 Services Marketing
MARK5817 Contemporary Issues in Marketing

In addition to the four common core and six disciplinary courses, students have two MCom electives to complete. These electives may be taken from courses in any disciplinary stream, including further marketing courses, (subject to satisfying prerequisites). However, students wishing to study electives related to tourism marketing may wish to select from the following:

TAHM5010 Global Perspectives in Tourism
TAHM5011 Strategic Tourism Marketing
TAHM5012 Creating and Managing Alliances in Global Tourism
TAHM5013 Destination Marketing and Management

** Disciplinary core*

Organisation and Management Studies

Plan MGMTHS8404

Required

MGMT5700* Management, Work and Organisation
MGMT5901* Organisational Behaviour

Disciplinary Electives

MGMT5712 Negotiation Skills
MGMT5800 Management, Technology and Innovation
MGMT5801 Strategic Management of Technology & Innovation
MGMT5904 Organisational Transformation at the Speed of E
MGMT5908 Strategic Human Resource Management
MGMT5909 Management Consulting and Organisational Transformation
MGMT5910 Towards Corporate Sustainability: Effective Human Resources and Organisations
MGMT5912 International Business Negotiations
MGMT5920 Managing Equity, Diversity and Disability
MGMT5946 Managing Occupational Health and Safety
MGMT5960 Strategic People Management
ACCT5917 Strategic Management: Systems and Processes
ACCT5919 Business Risk Management
ACCT5920 Managing Intangible Resources
ACCT5949 Managing Agile Organisations
MGMT5602 Cross-Cultural Management
MGMT5603 Global Business Strategy and Management
MGMT5609 Geopolitical Risk Management

** Disciplinary core*

Strategic Value Management

Plan ACCTHS8404

Required

ACCT5996* Business Processes: Analysis and Improvement
ACCT5931* Strategic Financial and Resource Management

Disciplinary Electives

ACCT5917 Strategic Management: Systems and Processes
ACCT5919 Business Risk Management
ACCT5920 Managing Intangible Resources
ACCT5921 Business Performance Management
ACCT5922 E-Business Strategy and Processes
ACCT5949 Managing Agile Organisations
ACCT5955 Value-Based Management In a Global Economy
MGMT5609 Geopolitical Risk Management
MGMT5904 Organisational Transformation at the Speed of E

** Disciplinary core*

Tourism Marketing

Plan TAHMCS8404

Required

MARK5800* Customer and Market Analysis
MARK5801* Marketing Management and Marketing Strategy
TAHM5010 Global Perspectives in Tourism
TAHM5011 Strategic Tourism Marketing
TAHM5012 Creating and Managing Alliances in Global Tourism
TAHM5013 Destination Marketing and Management

In addition to the four common core and six disciplinary courses, students have two MCom electives to complete. These electives may be taken from courses in any disciplinary stream (subject to satisfying prerequisites). However, students wishing to study electives related to marketing may wish to select from the following:

MARK5810 Marketing Communication and Promotion
MARK5811 Applied Marketing Research
MARK5812 Distribution, Retail Channels, and Logistics
MARK5813 Product Development and Brand Management
MARK5814 E-Marketing
MARK5815 International Marketing in Asia
MARK5816 Services Marketing
MARK5817 Contemporary Issues in Marketing

** Disciplinary core*

Faculty of Engineering

A Message from the Dean

This Handbook provides descriptions of the postgraduate programs offered by the Faculty of Engineering at UNSW.

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, Photovoltaic and Renewable Energy Engineering, Surveying and Spatial Information Systems and the Graduate School of Biomedical Engineering. The Faculty has several research centres and is actively engaged with nine Cooperative Research Centres (CRCs) and with the new National Centre of Excellence in Information, Communication and Technology.

Postgraduate engineering education at UNSW can extend undergraduate knowledge in a number of ways:

- Advanced studies in your engineering discipline;
- Broadening studies extending beyond your discipline;
- Research at the leading edge of engineering.

Postgraduate study in the Faculty can lead to the awards of Graduate Diplomas and coursework Master degrees as well as Masters, MPhil and PhD degrees by research.

Postgraduate study is the way to keep up and get ahead in engineering. Many graduates return to formal or informal study many times in their working life.

Brendon Parker
Dean
Faculty of Engineering

Contents

Faculty Information and Assistance

Who Can Help? 133
Faculty of Engineering Website 133
Re-enrolment Procedures 133
Professional Institutions 133

Faculty Centres

Centre for Advanced Macromolecular Design 134
Centre for Electrochemical and Minerals Processing 134
Centre for Energy and Environmental Markets 134
ARC Centre for Excellence in Advanced Silicon Photovoltaics and Photonics 134
Centre for Water and Waste Technology 135
UNESCO Centre for Membrane Science and Technology 135

Summary of Programs

Research Degrees 135
Doctor of Philosophy 135
Master of Engineering/Master of Science 136
Master of Philosophy 136
Coursework Masters Degrees 136
Master of Engineering Science 136
Graduate Diplomas 137
Graduate Certificates 137
Graduate Courses 137

Research and Project Areas

Biomedical Engineering 137
Chemical Engineering, Industrial Chemistry and Food Technology 138
Civil and Environmental Engineering 139
Computer Science and Engineering 141
Electrical Engineering and Telecommunications 142
Mechanical and Manufacturing Engineering 143
Mining Engineering 143
Petroleum Engineering 144
Photovoltaic Engineering 145
Surveying and Spatial Information Systems 145

Program Rules and Information – Research Degrees

Doctor of Philosophy 146
Master of Philosophy 147
Master of Engineering (ME) and Master of Science (MSc) by Research – Academic Rules 149

Program Rules and Information – Coursework Degrees

School of Chemical Engineering and Industrial Chemistry

8016 Master of Engineering Science in Process Engineering 151
5034 Graduate Diploma in Aluminium Smelting Technology 151
7334 Graduate Certificate in Aluminium Smelting Technology 152
8033 Master of Science in Food Science & Technology 152
5020 Graduate Diploma in Food Science & Technology 153
7310 Graduate Certificate in Food Science & Technology 153

School of Civil and Environmental Engineering

8612 Master of Engineering Science in Civil & Environmental Engineering (internal mode) 154
8617 Master of Engineering Science in Civil & Environmental Engineering (external mode) 156
8607 Master of Engineering Science (offshore mode) 157
8615 Master of Environmental Engineering Science (internal mode) 157
8618 Master of Environmental Engineering Science (external mode) 157
5459 Graduate Diploma in Civil & Environmental Engineering (internal mode) 158
5454 Graduate Diploma in Civil & Environmental Engineering (external mode) 158
5444 Graduate Diploma in Civil & Environmental Engineering (offshore mode) 158
7336 Graduate Certificate in Civil Engineering 159
7337 Graduate Certificate in Environmental Engineering 159

School of Computer Science and Engineering

8682 Master of Computing and Information Technology 159
5432 Graduate Diploma in Computing and Information Technology 160
7342 Graduate Certificate in Computing 161
8684 Master of Information Technology 161
7344 Graduate Certificate in Advanced Computing 162

School of Electrical Engineering and Telecommunications

8501 Master of Engineering Science in Electrical Engineering 162
5458 Graduate Diploma in Electrical Engineering 164
8503 Master of Engineering Science in Telecommunications 164
5448 Graduate Diploma in Telecommunications 165

School of Mechanical and Manufacturing Engineering (incorporating Aerospace Engineering, Mechatronic Engineering and Naval Architecture)

8710 Master of Engineering Science in Mechanical & Manufacturing Engineering 166
Manufacturing Engineering and Management 166
Refrigeration and Air Conditioning 166
Mechatronic Engineering 166
5710 Graduate Diploma in Mechanical & Manufacturing Engineering 166
7710 Graduate Certificate in Good Manufacturing Practice 167

School of Mining Engineering

8055 Master of Engineering Science in Mining Engineering 167
5040 Graduate Diploma in Mining Engineering 168
7335 Graduate Certificate in Mining Engineering 169
5045 Graduate Diploma in Mine Ventilation 169

School of Petroleum Engineering

8655 Master of Engineering Science in Petroleum Engineering 170
5031 Graduate Diploma in Petroleum Engineering 170
7341 Graduate Certificate in Petroleum Engineering 170

School of Photovoltaic & Renewable Energy Engineering

8512 Master of Engineering Science in Photovoltaics and Solar Energy 171

School of Surveying and Spatial Information Systems

8651 Master of Engineering Science in Surveying and Spatial Information Systems 172
5492 Graduate Diploma in Surveying and Spatial Information Systems 173
8652 Master of Engineering Science in Spatial Information 173
5496 Graduate Diploma in Spatial Information 173

Graduate School of Biomedical Engineering

8660 Master of Biomedical Engineering 174
8665 Master of Engineering Science 174
5445 Graduate Diploma in Biomedical Engineering 175

Faculty Information and Assistance

The entry for the Faculty of Engineering is divided into separate sections for each school/unit. Before reading program outlines 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, diplomas and certificates offered by the Faculty. Detailed information on each course then appears under **Course Descriptions** at the back of this Handbook, which includes pre/corequisite details, contact hours, units of credit, etc. For a full list of courses offered by the University, refer to the Online Handbook at **www.handbook.unsw.edu.au**

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.

Who Can Help?

If you require advice about enrolment, degree requirements, progression within programs, course content and requirements, contact the appropriate school representative

Important: As changes may be made to information provided in this Handbook, students should frequently consult the notice-boards of the Schools, the official notice-boards of the University and the Online Handbook (**www.handbook.unsw.edu.au**).

Faculty of Engineering Website

www.eng.unsw.edu.au

This Faculty of Engineering website provides information about programs, courses, research interests, news and current events. The website also contains links to all the schools, units, centres and affiliated research institutes of the Faculty, as well as staff and student information resources.

Re-enrolment Procedures

All current students will be able to re-enrol via the web using myUNSW. This means that, in most cases, you will be able to enrol and drop classes yourself without the need to fill in forms or attend your program office.

Further information, including details on how and when to enrol for 2006 can be found on myUNSW **https://my.unsw.edu.au**

It is the responsibility of students to enrol in a program consistent with the rules governing re-enrolment and admission to the degree.

Professional Institutions

1. Institution of Engineers Australia

The professional body for engineering in Australia is Institution of Engineers Australia, which has as its first objective the promotion of the science and practice of engineering in all its branches.

Institution of Engineers Australia has its national headquarters in Canberra and functions through a series of divisions, the local one being the Sydney Division. Within each division are branches representing the main interests within the profession, e.g. civil, mechanical, electrical, engineering management and environmental engineering.

Students of an approved school of engineering may join the Institution as a student member. Student members receive the monthly publications *Engineers Australia* and *Student News* and have access to other publications at preferential rates.

Student members are invited to participate in the Excellence Award for Work Experience, the National Young Engineer of the Year Award and to avail themselves of other Engineers Australia services including the Mentor Scheme and industrial experience guidance.

For more information and membership application forms, write to the Institution of Engineers Australia, Sydney Division, 1st Floor, 118 Alfred Street, Milsons Point 2061, Tel: (02) 8923 7100, website **www.ieaust.org.au**

2. Spatial Sciences Institute, Australia

During their undergraduate years, students in the Surveying and Spatial Information Systems program are encouraged to take the first steps in joining in the activities of the professional body which represents them: the Spatial Sciences Institute (SSI). The aims of the SSI 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 journal of the Institute, *Position,* as well as *Azimuth*, which is published by the NSW Division of the Institution of Surveyors (currently affiliated with the SSI). Membership also entitles the student to attend all meetings of the Institute's state bodies and to attend the SSI 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 website **www.spatialsciences.org.au**

3. The Association of Professional Engineers, Scientists and Managers, Australia

APESMA is a professional organisation that represents the industrial interests of its members with a major focus on providing advice

and assistance on employment related matters, including individual representation and improving salaries and conditions for professional engineers, scientists and managers.

Students are invited to become affiliate members (free of charge) of the Association while they are studying. This membership gives students access to information and advice on industrial experience, salary rates for graduates and contracts of employment. Student members receive the *Student Update*, a publication designed specifically for students, three times a year. This gives students practical insight into the workplace and in particular 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: (02) 9263 6500, website **www.apesma.asn.au**

Faculty Centres

The Centre for Advanced Macromolecular Design

Director: Professor Tom Davis

The Centre for Advanced Macromolecular Design (CAMD) was established in 2000 in the School of Chemical Engineering and Industrial Chemistry with academic links to the Schools of Applied Bioscience (Department of Biotechnology) and Biochemistry, the Graduate School of Biomedical Engineering and the Department of Surgery at the Prince of Wales Hospital.

Industry links have also been established with BHP, Ciba Specialty Chemicals, CSIRO Molecular Science, DuPont, ICI, Mimotopes, Orica and the Cooperative Research Centre for Polymers.

The mission of CAMD is focused on the synthesis and application of novel macromolecules. To achieve this the members of the Centre combine advanced polymerisation techniques and biomolecular science to produce materials for high technology applications.

Current projects include:

- Propagation rate coefficients from pulsed-laser polymerisation
- Star polymer synthesis using controlled/living radical polymerisation
- Reversible-addition-fragmentation transfer polymerisation (RAFT)
- Polymer honeycomb coatings from self-organising star polymers
- Therapeutic polymers for pharmaceutical applications
- Cobalt-mediated free radical polymerisation
- Hydrogels as biomaterials
- Photochromic response in optical polymers
- Solid phases for combinatorial chemistry
- Free radical ring-opening polymerisation kinetics
- Theoretical studies of radical reactions

Centre for Electrochemical and Minerals Processing

Director: Professor Maria Skyllas-Kazacos
Associate Directors: Professor Barry Welch and Associate Professor Tam Tran

The Centre for Electrochemical and Minerals Processing is a joint venture between the School of Chemical Engineering and Industrial Chemistry and the School of Materials Science and Engineering, UNSW, with the Centre for Light Metals Research, University of Auckland. Its aims are to address the growing need in both the Australasian region and around the world for training and research support for the aluminium and other mineral and electrochemical process industries.

The Centre has thus provided a new vehicle which brings together special skills and expertise within the two institutions in the areas of electrochemical engineering, mineral processing and aluminium smelting technologies combined with research and test facilities that can be made available to the relevant industry groups for collaborative research and for the solution of specific technical problems.

Emphasis is given to the following research areas:

- Aluminium smelting technology (Prof Maria Skyllas-Kazacos, Prof Barry Welch, A/Prof Jim Metson, Prof Mark Taylor and A/Prof, Margaret Hyland)
- Electrochemical engineering, including battery and fuel cell technology (Maria Skyllas-Kazacos and A/Prof Jim Metson)
- Mineral processing and alumina refining (A/Prof Tam Tran)
- Applications of ceramics and glass manufacture (A/Prof Michael Brungs)
- High temperature glass and metallurgical processes (A/Prof Michael Brungs and A/Prof Veena Sahajwalla)

In addition to the research and testing programs and facilities, the Centre has also established new Graduate Certificate and Graduate Diploma programs in aluminium smelting technology, which are now being offered through the School of Chemical Engineering and Industrial Chemistry. These are currently the only training programs that lead to tertiary qualifications for technical personnel working in the aluminium smelting industry both in Australia and around the world.

Centre for Energy and Environmental Markets

Joint Director (Engineering) and Presiding Director: Associate Professor Hugh Outhred
Joint Director (Commerce and Economics) Associate Professor: Anthony D. Owen

The Centre for Energy and Environmental Markets (CEEM) was established as a joint venture between the Faculty of Commerce and Economics and the Faculty of Engineering in 2004. It is an interdisciplinary centre that draws on expertise from the faculties of Commerce and Economics, Engineering, Science, Arts and Social Sciences, the Australian Graduate School of Management and the Institute for Environmental Studies to provide Australian research leadership in the interdisciplinary design, analysis and performance monitoring of energy and environmental markets and their associated policy frameworks.

The decision to establish CEEM responds particularly to recent government initiatives to restructure infrastructure industries, such as electricity, gas, water and telecommunications, as well as increasing reliance on markets in tradable environmental instruments as a form of environmental regulation.

CEEM operates in an international context, maintaining links and undertaking joint research with international partners. CEEM also maintains links to the Centre for Environmental Modelling and Prediction (CEMAP) at UNSW, the Capital Markets Cooperative Research Centre (CMCRC) and the Securities Industry Research Centre of Asia-Pacific (SIRCA), with respect to shared research and commercialisation interests, software platforms and databases.

Currently, CEEM undertakes research on the following topics:

- Design, analysis and performance evaluation of physical energy markets (with an initial focus on ancillary services, spot market and network services for electricity and gas)
- Design, analysis and performance evaluation of energy-related derivative markets (financial and environmental, including interactions between derivative and physical markets)
- Design, analysis and performance evaluation of policy frameworks and policy instruments in energy and the environment
- Experimental market platforms to facilitate the development of efficient market designs
- Applications of artificial intelligence (AI) techniques to energy and environmental market analysis
- Economic valuation methodologies and their application to energy and environmental issues

For more information, please visit **www.ceem.unsw.edu.au**

ARC Centre of Excellence in Advanced Silicon Photovoltaics and Photonics

Director: Scientia Professor Stuart Wenham

The Centre of Excellence in Advanced Silicon Photovoltaics and Photonics was established in 2003 by the Australian Research Council. This new Centre of Excellence was established to coordinate previously independent world-leading programs conducted under the Key Centre for Photovoltaic Engineering, the PV Special Research Centre, and the Special Research Centre for Third Generation Photovoltaics including all collaborating organisations. This re-organisation aims at increasing the coordination, cross-fertilisation and concentration of effort of the previously separate Centres, as well as launching new initiatives in the commercial application of recent contributions to silicon photonics.

The proposed program of research for the Centre falls into the following strands:

- Silicon wafer-based ('first generation') photovoltaic approaches, applying the group's leadership in both laboratory and commercial technologies to the key issues facing photovoltaics over the coming decade.
- Silicon thin-film ('second generation') approaches.

- 'Third generation' photovoltaic approaches, capable of performance higher than single junctions, continuing the highly assessed program being conducted within the SRC for Third Generation Photovoltaics.
- Silicon photonics, including the development of high-efficiency silicon-based light emitters and high speed modulators for microelectronics.

The first three strands address issues relevant to the PV industry over the next 20 years, while the fourth applies insights and technology developed in our PV work to the broader microelectronics area.

Centre for Water and Waste Technology

Director: Professor TD Waite

The Centre for Water and Waste Technology was established in 1987 and has operated as a focal point for research in water and waste technologies at the University of New South Wales since that time. The purpose of the Centre is to develop and apply innovative technologies and methodologies to the management of all waters and wastes.

The Centre's research emphases include investigation into atmospheric emissions, biological treatment and environmental microbiology, physical-chemical processes, waste management, risk assessment and sustainable water management including water reuse. The Centre's activities include grant and sponsored research projects, consultancies and education and training elements. As well as supporting research students, the Centre provides professional invigorant and additional continuing education courses in the fields of Water and Wastewater Treatment and Solid Waste Management.

The Centre for Water and Waste Technology is a UNSW Centre that is managed within the School of Civil and Environmental Engineering. Strong linkages with academic staff in other schools on campus exist with joint activities with the Schools of Chemical Engineering and Industrial Chemistry; Biotechnology and Biomolecular Sciences; and Biological, Earth and Environmental Sciences.

UNESCO Centre for Membrane Science and Technology

Director: Professor AG Fane
Deputy Director: Associate Professor DE Wiley

The Centre for Membrane Science and Technology was formed in 1987 as a collaborative venture between the School of Chemical Engineering and Industrial Chemistry and the Department of Biophysics, School of Physics. In 1988 it was granted Commonwealth Special Research Centre status and funding, and in 1992 it became one of only four UNESCO Science Centres worldwide.

Research programs focus on fundamental research on both biomembranes, and membrane processes, as well as synthetic (industrial) membranes; membrane based manufacturing processes (chemical and biological reactor systems); product purification; purification of water; treatment and safe disposal of wastes, including sewage; biomedical applications; and membrane based biosensor technology. Other activities include the development of novel membranes including conducting and isoporous membranes, membrane biophysics, membrane pervaporation, gas separation membrane, supported liquid membranes, and membrane-based systems using metal binding liquids to remove heavy metals. Research covers system and process improvement, design and control as well as characterisation of process mechanisms.

The Centre has close links and collaborative projects operating with research institutes in Italy, France, Germany, Denmark, Finland, The Netherlands, the United Kingdom, Lithuania, Romania, Russia, Oman, the United States, Canada and Thailand. It also maintains connections with membrane groups in Austria, Belgium, China, Indonesia, Israel, Japan, Korea, Malaysia, India, Pakistan, South Africa and Singapore.

The Centre organises postgraduate study programs, with up to half of its 25 students coming from countries other than Australia. It also offers shorter-term training programs for overseas trainees in aspects of membrane science and technology and runs specialist workshops on a diverse range of membrane related subjects.

Summary of Programs

The Faculty awards higher degrees as follows: Research – Doctor of Philosophy, Master of Engineering and Master of Science; Coursework Masters – Master of Biomedical Engineering, Master of Computer Science, Master of Engineering Science (available in a number of areas of specialisation), Master of Environmental Engineering Science and Master of Information Science. In addition, the degrees of Doctor of Science and Master of Science may be awarded for research conducted in, or in association with, the Faculty of Engineering. A Master of Philosophy program combining research with casework is also available.

Conditions governing the award of research degrees are set out later in this Handbook in 'Program Rules and Information – Research Degrees'.

Research Degrees

Research degrees may be undertaken in the Faculty of Engineering as follows:

PhD

Biomedical Engineering	1710
Chemical Engineering	1010
Civil and Environmental Engineering	1630
Computer Science and Engineering	1650
Electrical Engineering	1640
Food Science and Techology	1031
Industrial Chemistry	1016
Mechanical and Manufacturing Engineering	1662
Mining Engineering	1050
Petroleum Engineering	1017
Photovoltaic Engineering	1655
Surveying and Spatial Information Systems	1681

ME

Biomedical Engineering	2675
Chemical Engineering	2150
Civil and Environmental Engineering	2650
Computer Science and Engineering	2665
Electrical Engineering	2660
Mechanical and Manufacturing Engineering	2692
Mining Engineering	2180
Petroleum Engineering	2156
Photovoltaic Engineering	2655
Surveying and Spatial Information Systems	2721

MSc

Biomedical Engineering	2795
Chemical Engineering	2010
Civil and Environmental Engineering	2750
Computer Science and Engineering	2765
Food Science and Technology	2031
Industrial Chemistry	2016

MPhil

Biomedical Engineering	2685
Chemical Engineering & Industrial Chemistry	2685
Civil & Environmental Engineering	2685
Computer Science & Engineering	2685
Electrical Engineering & Telecommunications	2685
Food Science & Technology	2685
Mechanical & Manufacturing Engineering	2685
Mining Engineering	2685
Petroleum Engineering	2685
Photovoltaic Engineering	2685
Surveying & Spatial Information Systems	2685
Telecommunications	2685

Doctor of Philosophy (PhD)

This degree is awarded for a thesis considered to be a substantially original contribution to the course concerned. The degree is becoming a prerequisite for appointments in government and industrial research and development laboratories and in higher education. Research for this degree may be taken at, or externally to, the University. However the Faculty recommends that periods of residency at the University totalling at least six months be included in the candidate's research program.

Admission guidelines: A candidate for registration for the degree of Doctor of Philosophy should hold an Honours degree from the University of NSW or an Honours degree of equivalent standing from another approved university. Applications for admission should be made to the Registrar on the prescribed form at least one calendar month before the commencement of the session in which registration is to begin.

Period of candidature: The normal period is 6 academic sessions (full-time) and 8 academic sessions (part-time) from the date of enrolment. In special cases the minimum period of registration may be reduced by up to two academic sessions. The maximum period of registration is 10 academic sessions (full-time) and 12 academic sessions (part-time). In special cases an extension of these times may be granted.

Concurrent coursework: All new PhD candidates in the Faculty of Engineering must complete and pass three courses as approved by the Head of School, normally in the first year of candidature.

Master of Engineering (ME)/Master of Science (MSc)

These are research degrees in which a thesis embodies the result of an original investigation, or design, or engineering development. Candidates for the award of the degree of ME may be required to carry out a program of advanced study.

Admission guidelines: A candidate for registration for the degree of Master of Engineering or Master of Science should hold a Bachelor degree usually at Honours level from the University of NSW or from another approved university. Applications for admission should be made to the Registrar on the prescribed form at least one calendar month before the commencement of the session in which registration is to begin.

Period of candidature: The normal period is 3 academic sessions (full-time) and 6 academic sessions (part-time) from the date of enrolment. In special cases the minimum period of registration may be reduced by up to two academic sessions. The maximum period of registration is 6 academic sessions (full-time) and 10 academic sessions (part-time). In special cases extensions may be granted.

Concurrent coursework: All new Masters research candidates in the Faculty of Engineering must complete and pass three courses as approved by the Head of School, normally in the first year of candidature.

Master of Philosophy

The Master of Philosophy is a generic research program with a significant component of coursework. The program comprises 72 units of credit (UOC) – 18 UOC of coursework and 54 UOC for the research project. The normal duration of the program is three semesters. However, the program may be completed in one calendar year if research is possible over summer. A unique feature of the program is the provision for Oral Defence as part of the examination process. This will ensure rapid examination. Articulation from the MPhil to a PhD program is possible. Supervision arrangements must be confirmed before enrolment. Candidature may be either internal or external mode.

Coursework Masters Degrees

Detailed information on coursework programs is available from the schools offering the programs and can be found in this Handbook under the appropriate school section.

Admission guidelines: An acceptable qualification is a degree at Honours level, or at Pass level to a superior standard in a four year program in an approved discipline. The latter is defined as an average of 65% over the last two years of a full-time program (or last three stages of a part-time program) taken in minimum time. If the degree concerned is not in an acceptable discipline, or was of less than four years full-time study, a bridging or qualifying program is required. This is normally arranged by enrolment in the appropriate Graduate Diploma with the possibility of transferring to the Masters program after completion of requirements prescribed by the Faculty.

Applicants for admission to a program of study leading to the award of a Masters degree by coursework commencing in first session should apply to the Registrar on the prescribed form by the 31 October of the year before the year in which enrolment is to begin. Where application is for registration commencing in the second session, applicants should apply at least two months before the commencement of session.

It may be necessary to limit entry to formal programs due to quota restrictions. In such cases, applications may be placed on a reserve list and considered subject to the availability of places. If a firm offer of admission is made, it will be subject to acceptance within three weeks.

Programs of study leading to the award of coursework Masters degrees may be undertaken in the Faculty as follows:

Internal Mode Delivery

MBiomedE

Biomedical Engineering	8660

MCompIT

Computing and Information Technology	8682

MEngSc

Biomedical Engineering	8665
Coastal Engineering & Management	8612
Construction Management	8612
Electrical Engineering	8501
Engineering and Technology Management	8612
Engineering Geology	8612
Geotechnical Engineering	8612
Groundwater Studies	8612
Hydrology & Water Resources	8612
Infrastructure Management	8612
Manufacturing Engineering and Management	8710
Mechanical Engineering	8710
Mechatronic Engineering	8710
Mining Industry Management	8055
Mining Geomechanics	8055
Photovoltaics & Solar Energy	8512
Process Engineering	8016
Project Management	8612
Spatial Information	8652
Structural Engineering	8612
Surveying & Spatial Information Systems	8651
Telecommunications	8503
Transport Engineering	8612
Waste Management	8612
Water Engineering	8612
Water Quality Management	8612
Water and Wastewater Treatment	8612

MEnvEngSc

Environmental Engineering	8615

MIT

Information Technology	8684

MSc

Food Science & Technology	8033
Food Microbiology	8033
Food Engineering	8033
Food Science and Nutrition	8033

External/Distance Mode Delivery

MEngSc

Construction Management	8617
Construction Management (Offshore)	8607
Engineering and Technology Management	8617
Engineering and Technology Management (Offshore)	8607
Infrastructure Management (Offshore)	8607
Infrastructure Management	8617
Manufacturing Management (Offshore)	8607
Manufacturing Engineering and Management	8710
Petroleum Engineering	8655
Project Management	8617
Project Management (Offshore)	8607
Transport Engineering	8617
Waste Management	8617
Water Engineering	8617
Water and Wastewater Treatment	8617

MEnvEngSc

Environmental Engineering	8618

Master of Engineering Science

MEngSc

The Master of Engineering Science is a faculty-wide degree allowing for flexibility of choice between formal coursework and project work. The schools in the Faculty have developed recommended programs of study leading to specialisation in certain areas and further information is available under each school section in this Handbook.

Candidates are required to complete a program totalling a minimum of 48 units of credit. A degree may be awarded for formal coursework only or for the completion of formal coursework and a report on a project depending on the program being offered.

Candidates may undertake interdisciplinary studies and, subject to approval, are able to take courses from any school in the Faculty, other faculties of the University and other universities or institutions. By means of this system, programs of studies best suited to the needs of the candidates may be selected.

Before enrolment an applicant should submit an intended program for approval by the school or division offering the majority of the units of credit to ensure that the prerequisite background held is adequate for all courses including those taken in other schools or institutions.

Some coursework Masters programs are fee-paying. A schedule of fees is available on enquiry.

Period of candidature: The minimum period is 2 academic sessions (full-time) or 4 academic sessions (part-time) from the date of enrolment. The maximum period of candidature is 4 academic sessions (full-time) and 8 academic sessions (part-time). In special cases an extension of time may be granted.

Graduate Diplomas

Programs of study leading to the award of a Graduate Diploma in the Faculty of Engineering provide graduates with opportunities to extend their professional knowledge. In most cases, candidates may choose from a range of courses in the special area of their choice. There are also opportunities to select courses from other professional areas in which candidates may be interested.

Before enrolment, an applicant should submit an intended program for approval by the school or centre offering the majority of the units of credit. Candidates must usually complete a program totalling 36 units of credit. The program may contain courses from other schools of the Faculty, other faculties of the University and other universities or institutions subject to meeting the prerequisite requirements.

If an applicant nominates a program of study taken from the list below, at least half of the units of credit should come from the courses taken in that area.

It should be noted that some candidates who have partially completed the requirements, but not taken out the award may be considered for upgrading to the relevant Master program with advanced standing. Since the policy on upgrading varies between different schools and centres, further enquiries should be made with the school or centre concerned.

Applicants for admission to a program of study leading to the award of a Graduate Diploma commencing in first session should apply to the Registrar on the prescribed form by 31 October of the year before the year in which enrolment is to begin. Where application is for registration commencing in the second session, applicants should apply at least two months before the commencement of session.

It may be necessary to limit entry to formal programs due to quota restrictions. In such cases, applications may be placed on a reserve list and considered subject to the availability of places. If a firm offer of admission is made, it will be subject to acceptance within three weeks.

Some Graduate Diploma programs offered by the Faculty of Engineering are fee paying. A schedule of fees is available on enquiry.

Programs of study leading to the award of a Graduate Diploma may be undertaken in the Faculty of Engineering as follows:

Internal Mode Delivery

Aerospace Engineering	5710
Aluminium Smelting	5034
Biomedical Engineering	5445
Civil and Environmental Engineering	5459
Computing and Information Technology	5432
Electrical Engineering	5458
Food Technology	5020
Manufacturing Engineering and Management	5710
Mechanical Engineering	5710
Mechatronic Engineering	5710
Mining Engineering	5040
Petroleum Engineering	5031
Spatial Information	5496
Telecommunications	5448

External/Distance Mode Delivery

Civil and Environmental Engineering (Offshore)	5444
Civil and Environmental Engineering	5454
Coal Mine Strata Control	5040
Manufacturing Management (Offshore)	5444
Mine Ventilation	5045
Petroleum Engineering	5031
Surveying and Spatial Information Systems	5492

Further details of the recommended programs of study may be obtained from the relevant schools.

Graduate Certificates

Programs of study leading to the award of a Graduate Certificate in the Faculty of Engineering provide graduates with opportunities to extend their professional knowledge. In most cases, candidates may choose from a range of courses in the special area of their choice. There are also opportunities to select courses from other professional areas in which candidates may be interested.

Before enrolment, an applicant should submit an intended program for approval by the relevant school or centre. Candidates must usually complete a program totalling 24 units of credit.

It should be noted that some candidates who have partially completed the requirements but not taken out the Certificate may be considered for upgrading to the other programs with advanced standing. Since the policy on upgrading varies between different schools and centres, further enquiries should be made with the school or centre concerned.

Applicants for admission to a program of study leading to the award of a Graduate Certificate commencing in first session should apply to the Registrar on the prescribed form by 31 October of the year before the year in which enrolment is to begin. Where application is for registration commencing in the second session, applicants should apply at least two months before the commencement of session.

It may be necessary to limit entry to formal programs due to quota restrictions. In such cases, applications may be placed on a reserve list and considered subject to the availability of places. If a firm offer of admission is made, it will be subject to acceptance within three weeks.

All Graduate Certificate programs offered by the Faculty of Engineering are fee paying. A schedule of fees is available on enquiry.

Programs of study leading to the award of a Graduate Certificate may be undertaken in the Faculty of Engineering as follows:

Internal Mode Delivery

Advanced Computing	7344
Aluminium Smelting Technology	7334
Civil Engineering	7336
Computing 7342	
Environmental Engineering	7337
Food Science & Technology	7310
Mining Engineering	7335

External/Distance Mode Delivery

Civil Engineering	7336
Environmental Engineering	7337
Good Manufacturing Practice	7710
Petroleum Engineering	7341

Graduate Courses

The courses which may be available for candidates proceeding to the award of the degree of Master of Biomedical Engineering, Master of Computer Science, Master of Engineering Science, Master of Environmental Engineering Science, Master of Information Science, Master of Mining Management and Graduate Diploma can be found in each school section. Not all electives are necessarily offered in any particular year.

Many graduate courses assume that students have prior, or preliminary, knowledge of the area of study. It is the responsibility of students to acquaint themselves with this level of assumed prior knowledge and take steps, if necessary, to obtain it. This may, for example, involve a program of preparatory reading before commencing the course.

In some cases, the assumed level of knowledge for a specific course is indicated in this Handbook by the statement of assumed knowledge. This is intended as a guide to the assumed prior knowledge and often uses the description of other courses in the Handbook to indicate the content and level which the lecturer will assume. Students who are in doubt as to the adequacy of their preparation should contact the lecturer concerned and discuss the matter. The lecturer in charge of a course has the authority to decide whether or not the student has the appropriate level of assumed knowledge.

Research and Project Areas

Biomedical Engineering

Analysis of Patient Therapies
Application of mathematical models for compartmental analysis.

Arterial Haemodynamics
Analysis of relationships of blood pressure and flow in arteries; application of wave transmission theory; mechanics of artery wall.

Arterial Morphometry
Quantification of arterial wall structure using image analysis algorithms. Application of mathematical techniques of pattern recognition. Relation of elastin structural changes to age and disease.

Artificial Blood Vessels
Construction of artificial blood vessels by growing endothelial cells on bare mechanical scaffolds and other scaffolds that have been modified with extracellular matrix molecules to encourage cell attachment and growth.

Biomaterials and Biocompatibility
Interaction of material with specific tissues; biological reactions; mechanical properties of materials; interfacial reactions.

Biomechanics of Joints
Specification of articulation of joints in 3 dimensions. Modelling of joint movement.

Biomedical Instrumentation and Computer Acquisition
Instrumentation used for data acquisition and signal analysis.

Biomedical Polymers
Biomaterials with mechanical properties suitable for manufacturing implantable devices.

Biomedical Signal Analysis and Processing
Analysis of time-series data from respiratory transducers and other measurement devices. Software for optimal graphical presentation of complex data.

Cardiac Assist Devices
Flow-field characterisation and numerical modelling of pulsatile and rotary ventricular assist devices. Muscle-powered pumping. Fluid-structure interactions.

Cardiovascular Effects of Body Movement
Body movement and ground impact during running causes changes in blood pressure due to interaction of movement of the thorax and cardiac ejection. This could be relevant in athletic training and in exercise testing of patients with heart disease.

Cardiovascular Function and Task Performance
Analysis of changes in heart rate and blood pressure with external stimuli simulating stress. Measurement of reaction time to a range of stressful stimuli. Methods are applied to testing of student airline pilots.

Cell Therapy Technologies
Medical devices for the production of therapeutic cellular subsets from cord blood or adult peripheral blood stem cells. Applied to the prevention of neutropenia following high-dose chemotherapy of cancer.

Cerebrospinal Fluid Mechanics
CSF motion and pressure waves in the spinal cord. Aetiology of syringomyelia.

Computer-Aided Histological Analysis
Pattern recognition analysis of cellular morphology. Applied to diagnosis of prostatic cancer.

Endothelial Cell/Fluid Shear Interactions
Assessment of endothelial cell function in response to mechanical stress.

Endothelial Derived Factors and Arterial Stiffness
Effects of nitric oxide and endothelin in regulation of large artery stiffness. Investigations done in the iliac artery of the sheep.

Engineering the Extracellular Environment to Control Cell Behaviour and Generate Functional Tissue
Extracellular matrix glycoproteins and proteoglycans control cell phenotype by providing cell adhesive surfaces and delivering growth factors and cytokines: An investigation of their roles and applications in Tissue Engineering.

Extracorporeal Therapies
Blood and fluid exchange techniques as used in the artificial kidney and other dialysis methodologies.

Flow in Collapsible Tubes
Mechanics of flow in tubes affected by external pressure. Analysis applied to studies of blood flow in veins, generation of auscultatory phenomena and fluid flow in other physiological systems.

Flow Visualisation and Measurement
Measurement of flow fields using laser techniques (LDV, PIV).

Fluid/Structure Interaction Computation
Application to strongly coupled FSI problems with large motions of flexible walls.

Home Telecare/Clinical Decision Support
Instrumentation and measurement of physiological parameters of ambulatory subjects in the home. Communication protocols and software for data logging, monitoring and decision making.

Infection Associated with Medical Devices
Interactions of microorganisms with biomaterials and devices and antimicrobial coating strategies.

Mechanisms of Age Related Arterial Degradation and Hypertension
Arterial mechanics associated with changes in wall properties with age and increased arterial blood pressure. Finite element modelling. Functional changes related to changes in wall stiffness.

Mechanical Forces and Remodelling of Vascular Tissue
Examination of the role of mechanical stress within blood vessel walls on remodelling of tissue and development of capillary sprouts from existing blood vessels.

Medical Image Processing
Pattern recognition and image processing techniques applied to imaging of biological tissue.

Medical Informatics
Development of databases related to efficient storage and retrieval of patient medical information.

Modelling of Artificial Kidney Therapy
Simulation of the dialysis process for calculation of flow rates and filtration parameters for efficient operation of the artificial kidney.

Modelling of Cardiac Electrical Potentials
Development of simulation techniques describing biopotentials of cardiac cells. Analysis applied to studies of dynamic changes related to irregularities of the heart beat.

Modelling of Cell Motility and Division
Developing models to predict cell proliferation and dynamic behaviour in response to biological signalling.

Modelling of Mass Transfer Processes in Medicine
Simulation of fluid exchanges across membranes. Calculation of water and solute transport in different compartments.

Neural Prostheses
Development of sensors and stimulation techniques applied to replacement of neurological function such as artificial vision.

Non-Invasive Blood Pressure Measurement
Application of instrumentation, sensors and analysis techniques for the non-invasive measurement of arterial pressure.

Nonlinear Dynamical Systems Analysis
Analysis of aperiodic time series. Application to experimental systems. Separating noise and chaos.

Ocular Biomaterials
Development and use of materials for construction of contact lenses.

Orthopaedic Applications of Hydroxyapatite
Specific applications of specialised materials for replacement of bone function.

Orthopaedic Implants
Development, construction and mechanical testing of materials and devices used for implants to restore function of bones.

Processing and Interpretation of Biomedical Signals
Acquisition and processing of physiological signals derived from biopotential sources. Specific application to automated analysis of electrocardiographic signals.

Pulsatile Crossflow Filtration
The influence of pulsatile flow on the efficacy of filtration through semipermeable membranes.

Recombinant Proteins for Smart Surfaces
Synthesis of recombinant proteins to provide specialised signalling for support of cells on a polymer surface

Respiratory Instrumentation and Systems
Devices and techniques applied to problems related to sleep apnoea.

Ultrasonic Distance Measurement
Analysis of ultrasound signals for the determination of distance.

Stem Cell Tissue Engineering
Growth and differentiation of adult stem cells; skeletal, vascular and blood cells.

Chemical Engineering, Industrial Chemistry and Food Technology

Chemical Engineering

Particle dynamics; fluidisation and spouted bed processes drying, carbonisation, devolatisation and gasification; sedimentation and thickening; filtration mechanisms, dewatering of filter cakes; characterisation of particulate materials; particle coating; preparation of novel photocatalysts; aggregation kinetic modelling; electrostatic charge determination; Non-Newtonian fluid-particle systems.

Reaction engineering, mass transfer with chemical reaction in heterogeneous systems; effect of mixing and nonideal transport; complex consecutive reactions, catalytic reaction engineering, pressure reactors; mathematical modelling. Multiphase photocatalytic reactors. Catalytic distillation processes.

Food Chemistry

Quantification of the chemical deterioration of foods, especially lipids, during processing and storage; characterising the nature of flavours and off-flavours in foods and beverages; characterising the nature of natural food constituents.

Food Engineering

Determine the thermophysical and rheological properties of a range of food systems and food ingredients; examine fundamental and applied aspects of grain, vegetable and crop storage and drying; process control of food processing operations; develop computer models of food processing unit operations and of quality changes during processing.

Food Microbiology

Develop fundamental knowledge and understanding about the ecology, growth and biochemical activities of microorganisms associated with foods and beverages, apply this information to the management of food safety and food spoilage, the production of fermented foods and beverages, the use of microorganisms as potential sources of food ingredients and processing aids, to quality evaluation and hazard analysis. Evaluate and develop modern systems for the detection, enumeration and identification of microorganisms in foods.

Food Processing

Examine the effects of processing variables on food quality and stability; study food preservation by application of hurdle technologies; develop commodity technologies for application in the food industry.

Fuel Technology Fuel Science and Engineering

Fuel processing; chemical and physical properties of chars; pyrolysis of coal and composition of the volatile products; fluidised bed gasification; thermochemistry of gas-solid reactions in fluidised beds; thermogravimetric analysis of chars; kinetics of carbon gasification; lubricating oil and bitumen from oil shale. Combustion; fluidised bed combustion; flames, burners and flame stability; oil-coal suspensions; incinerator design for gaseous liquid and solid wastes; industrial applications of natural gas; furnace modelling; High efficiency natural gas burners; low emission gas burners. Fuel efficiency; studies on fuel efficiency systems; energy and resource recovery from wastes; efficiency of fuel conversion processes. Fuel constitution; analysis, constitution and characterisation of primary and derived fuels. Air pollution; workplace atmospheres; combustion generated pollutants gaseous and particulate. Solid wastes; pyrolysis of waste material; resource recovery; energy analysis; incineration.

Heat Transfer

Refrigeration, heat transfer and food engineering; neural networks; genetic algorithms and other optimisation methods; computational fluid dynamics; phase change and inverse heat transfer; food refrigeration. Heat exchanger failing.

Industrial Chemistry

Chemical reaction engineering, catalysis and synthetic fuel production and processing; petrochemistry; conversion processes of coal to oil; catalytic methods and reactors; catalytic methods for air pollution control; kinetic modelling of catalytic processes; catalyst activation and de-activation studies; car exhaust catalysts.

Solid state, molten salt and aqueous electrochemistry; electrochemistry of glass and chemistry of glass melting; physical and chemical characterisation of glasses.

Metal electrowining; battery research, vanadium redox cell development. Electrode kinetics and mechanistic studies. Aluminium electrolysis; electrolytic decomposition of organochlorines. Conducting polymer electrodes evaluation and development of solid state gas sensors.

Environmental chemistry; Analysis of industrial pollutants; air and water pollution monitoring; chemical strategies for emission control; occupational health chemistry; development of new analytical methods for process control and environmental monitoring; environmental catalysis; air pollution control.

Membrane Processes

Membrane fabrication for ultrafiltration and reverse osmosis; membrane characterisation; ultrafiltration of proteinaceous solutions; desalination of brackish water; ion separation; pervaporation, membrane distillation; gas fractionation, cross flow filtration; liquid membranes; membrane bioreactors; environmental applications; dynamic membranes; ceramic membranes; hydrogel coatings.

Mineral Processing

Hydrometallurgy; minerals dissolution and leaching processes; liquor purification processes, metal recovery by precipitation, adsorption, ion-exchange, cementation and electrolytic processes, dewatering of minerals.

Nutrition

Increase knowledge and understanding of food nutrients and other bioactive compounds and properties of foods; to develop and test nutritionally modified foods in line with dietary guidelines; to increase knowledge and understanding of the relationship of food nutrients to health and chronic disease.

Pollution Studies

Unit operations in water pollution control, biological treatment methods, advance treatment methods; unit operations in air pollution control; bio-filtration, odour control processes; fabric filtration monitoring; hot gas cleaning.

Polymer Science

Preparative and analytical polymer chemistry
Membrane preparation and properties
Polybutadiene polymerisation by Ziegler-Natta catalysts, molecular weight properties
Elastomer filler applications in rubber and plastics
Thermal analysis of elastomer and plastics
Interpenetrating polymer networks, fracture toughness of polymercomposites and thermoplastics
Conducting polymers; polymer fractals; radiation grafting and crosslinking, conducting polymer membranes
Structure-Property relationships of optical polymers
Free-radical polymerisation kinetics
Hydrogels and biomaterials
Rigid-rigid polymer blends
Conducting polymer composites
Rheology of polymeric systems

Postharvest Technology of Fruit and Vegetables

Develop improved handling and storage technologies, through fundamental and applied research, into the mechanisms and metabolic processes responsible for ripening, senescence, physiological disorders, decay and quality changes.

Process Design and Control

Computer aided design; systems analysis and process identification; plant simulation; strategies for fault analysis; process optimisation studies.

Sensory analysis/product development

Develop trained panels for assessment of food quality; aid in product development; develop innovative value-added food products.

Separations Science

Development and evaluation of new methods for solid-liquid, liquid-liquid and gas-gas separations.

Energy conservation and waste minimisation; improved design procedures for heat exchange networks; mass exchange networks for waste minimisation.

Supercritical Fluid Technology

Fundamental studies and novel applications in the pharmaceutical environmental and natural product industries.

Civil and Environmental Engineering

Concrete Technology

Specification and quality control of concrete
Investigation of alternative cementitious materials
Durability of concrete
High strength and high performance concrete
Ductility of concrete through the use of polymer fibres
Supplementary cementitious materials e.g. fly ash, slag and silica fume
Properties of polymer modified concrete

Concrete Structures

Time effects including creep and shrinkage in reinforced and prestressed concrete structures
Finite element modelling of reinforced concrete including beam-column-slab connections
Collapse load behaviour of reinforced concrete slabs
Durability and ductility of concrete structures
Non-metallic tendons for prestressed concrete applications
Behaviour and strength of slender reinforced concrete columns
Studies on high-strength concrete
Reactive powder concrete
Reinforced concrete deep beams

Partially prestressed concrete beams
Analysis and design of end blocks for post-tensioned beams
Strength of precast prestressed concrete planks
Continuous prestressed concrete structures

Composite Structures

Strength and time dependent characteristics of steel-concrete composite structures

Partial-interaction in composite structures
Behaviour of composite beams in negative bending
Concrete composite members

Engineering Construction and Management

Construction operations. Equipment selection. Field layout. Productivity.
Systems studies, systems engineering
Construction management, process planning and control
Construction process automation and field robotics
IT based inter-organisational collaboration
Project management
Contracts, quality, safety, environment and risk management
Management of people
Engineering economics. Financial management.
Time management. Asset management. Maintenance management
Marketing, strategic management

Environmental Fluid Mechanics

Two-fluid systems with small density differences
Pollutant dispersion
Stratified flows
Physics of inland and coastal waters
Turbulence in water bodies and the atmosphere
Atmosphere/ocean interactions
Computational algorithms
Numerical modelling

Environmental Microbiology

Microbiology of waste treatment (including composting)
Environmental pathogens
Wastewater recycling

Geotechnical Engineering

Shear strength of jointed rock, soft rock and clay soils, strength of rockfill
Expansive soils
Mine tailings disposal
Uncertainty in geotechnical engineering
Risk assessment for slopes and dams
Landfill design
Contaminant transport
Site remediation
Embankment dams
Landsliding; groundwater response to rainfall, progressive failure, probability of failure
Influence of soil fabric and mineralogy on properties
Predicting excavatibility of rock
Finite element techniques and their applications in geotechnical engineering including static and dynamic loading
Numerical modelling of contaminant flow and flow in fractured and porous media
Numerical modelling of partially saturated flow
Numerical techniques in static and dynamic fracture mechanics and damage mechanics
Application of artificial intelligence and fuzzi-sets in geotechnical engineering

Groundwater

Dry land salinity studies
Groundwater modelling
Coastal groundwater
Groundwater geophysics
Hydrogeochemistry
Contaminant detection and movement
Borehole geophysics
Groundwater resource analysis
Surface water and groundwater interaction

Hydraulics and Coastal Engineering

Open channel flow and hydraulic structures
Fluvial and estuarine hydraulics
Catchment drainage and water quality
Sediment transport and dredging
Coastal structures and port engineering
Numerical and physical modelling
Hydraulics of water and wastewater treatment plants
Pump intakes, manifolds, pipe distribution and cooling water systems
Pollutant disposal and dispersion
Wetlands and stormwater pollution control
Flood modelling and floodplain management
Coastal dynamics, wind-wave interaction
Coastal and beach processes
Coastal zone management
Coastal imaging and remote sensing

Hydrology

Methods of flood estimation
Design based on flood estimates
Economics of data collection
Assessment, modelling, forecasting of drought
Computational hydraulics
Rainfall-runoff relationships
Water quality
Urban drainage
Catchment management
Computer applications in hydrology
Fluid mechanics

Pavement Engineering

Industrial and airport pavements
Pavement management and rehabilitation
Interlocking concrete block pavements
Accelerated trafficking studies of pavements and pavement materials
Constitutive relationships of soils and pavement materials
Pavement design and analysis

Steel Structures

Thin walled sections and buckling of steel members
Computer aided design of steel structures

Computational Structural Mechanics

Stability analysis using bubble functions
Large scale limit and shakedown analyses
Nonsmooth mechanics
Inverse problems in the mechanics of materials
Limit and shakedown analyses in the presence of constitutive instabilities
Structural optimisation under complementarity constraints

Transport Engineering

Modelling of land use and transport interaction
Transport demand forecasting and planning practice
Intelligent transport systems
Microscopic simulation of vehicular and pedestrian traffic
Measurements, planning and control of traffic
Urban and rural transport system analysis and design
Traffic calming and travel demand management
Pedestrian and cycling facilities; modelling, analysis, planning, design
Airports and air transport
Airports and the environment
Transport and the environment; accidents, energy, intrusion, noise, pollution
Investigations into transport economics, policy and decision making
Economic evaluation and transport investments
Transport and health
Urban transport and sustainable development

Water and Wastewater Treatment

Municipal wastewater and sludge treatment
Mathematical modelling of wastewater treatment
Low cost treatment systems
Water quality
Nutrient control in wastewater treatment
Management of water quality in municipal supplies
Water quality management
Potable, environmental and industrial identification and control of public health risks in water supply

Water Resources Engineering

Interactions and processes involving particles and surfaces with application in the water and wastewater treatment industries and in natural and industrial aqueous systems
Experimental and computational studies of the fate and effects of pollutants

Hydro geochemistry of subsurface environments
Application of geographic information systems (GIS) to water resource management
Remote sensing in hydrologic modelling and resources management

Waste Management

Hazardous waste management
Modelling hazardous waste generation
Waste minimisation
Waste audits
Environmental management plans
High temperature incinerator
Solid waste management strategies
Transfer stations
Recycling incineration
Landfill management plans
Leachate generation and control

Computer Science and Engineering

Active vision
Algorithms
Algorithms design
Analogical reasoning
Application of logic programming
Artificial intelligence
Belief revision
Character recognition and natural language
Cognitive modelling
Cognitive and situated robotics
Combinatorial algorithms
Communication protocols
Communication systems
Compilation
Compiler construction and technology
Compilers and parsing
Component software
Component-based software and reuse
Computational algebra and geometry
Computer architecture
Computer assisted learning
Computer graphics
Computer networks
Computer organisation
Computer security
Computer telephony
Computer vision
Computer vision and control for robotics
Computers and biology
Concurrency
Connectionist modelling of human analogical reasoning and relational cognition
Conversational agents
Cross-organisational and dynamic workflows
Data mining
Database system implementation & performance modelling
Database systems
Deductive databases
Descriptive process modelling
Diagrammatic reasoning
Distributed applications
Distributed computing and systems
Document image analysis and recognition
Electronic commerce
Embedded operating systems and architecture
Epistemic and temporal logics in computer science
Evolution of XML documents (versions and views)
Expert systems
Formal methods and specifications
Formal reasoning and refinement
Functional programming
Fuzzy databases
Fuzzy systems and evidence theory
Graph visualisation
Graph-theoretic algorithms
Heterogeneous computing
High performance computing
Human computer interaction
Image processing
Information retrieval/filtering/retrieval
Intensional programming
Internet information management
Internetwork traffic management
Knowledge acquisition
Knowledge-based systems
Knowledge discovery
Knowledge engineering
Knowledge representation
Knowledge-based image understanding
Languages
Learning algorithms and theory
Logic programming and systems
Logic in computer science
Logic of knowledge and belief
Logics of action
Machine learning
Management of uncertainty and possibility theory
Microkernels and microkernel-based systems
Microprocessor based equipment
Mining software development experience
Mobile computing
Model based reasoning
Multilingual typography
Multimedia
Multimedia transmission
Multiversion websites
Natural language processing
Natural language understanding
Network management
Neural networks
Non-monotonic reasoning
Object technology
Object-oriented databases
Object-orientation
Object-oriented design and technology
Object-oriented distributed systems
Object-oriented software engineering
Open Software systems
Operating systems
Optimising compilers
Parallel and distributed computing and systems
Parallel processing
Parallelism
Parsing and translation
Pattern recognition
Performance specification
Performance evaluation of Internet protocols and architectures
Persistent systems
Philosophical foundations of AI
Planning
Probabilistic refinement
Process algebras
Production systems
Program analysis
Programming environments
Programming languages
Quality of service in the Internet
Querying databases in mobile environments
Querying web-accessible databases
Reactive systems
Real-Time systems
Reconfigurable computing and architectures
Reconfigurable systems
Recurrent network architectures
Reverse engineering
Rigorous methods for program construction
Robotics
Scheduling and resource management in parallel and distributed systems
Semiconductor device simulation
Semistructured/XML databases
Sharing e-services on the web
Signal recognition
Simulation and modelling
Single-address-space operating systems
Software configuration
Software development cost modelling
Software engineering
Software inspections

Software metrics
Specification and refinement
Specification and verification of real-time concurrent systems
Speech recognition and synthesis
Systems theory
TCP/IP and ATM Internetworking
Temporal logic
Tensor product networks
The Internet and intranets
Theory of computation
Theory of computer security and electronic commerce infrastructure
Theory of databases systems
Theory of distributed systems
Theory of neural networks
Theory of programming languages
Timed systems
User-interface design in software engineering
Version control
Versioned software engineering
Visualisation
Web databases
Web Operating System (WOS)

Electrical Engineering and Telecommunications

Photonics

Optical communications systems.
Optical sensors.
Manufacture of optical fibres (both glass and polymer).
Integrated optics.
Fibre devices .
Nonlinear effects in optical fibres.
Soliton propagation in optical fibres.
Planar silica waveguide devices
Planar silica waveguide Technology

Signal Processing

Signal processing and analysis.
Active and adaptive filtering.
Digital filters.
Digital signal processing and applications.
Acoustic and seismic signal processing.
Speech and audio processing and coding.
Cochlear modeling; biophysical modeling of auditory physiology; speech and audio processing; speech compression, enhancement, recognition; audio compression; text to speech synthesis.
Application of neural networks.
Image and video compression.
Digital image processing and video signal processing.

Telecommunications

(1) Communications Networks

Computer communications and local area networks architecture.
New architectures for local area networks.
Network reliability and service availability.
BISDN, ATM protocols and multimedia communications.
Quality of service in data networks, network management position systems.

(2) Communications Systems

Wireless and mobile communications networks
Land & satellite mobile communications, digital communications CDMA.
Adaptive signal processing.
Information theory.
Error control coding.
Channel coding and Trellis coded modulation.
Space-time signal processing and transmit diversity.
Joint source-channel coding.
Diversity techniques for wireless communications, space time processing, CDMA receiver design (baseband processing), blind or semi-blind channel identification, channel estimation for OFDM over fading channels, iterative techniques for joint channel estimation and detection
Earth station design, spatial acquisition and tracking, low earth orbit satellites, Ka Band communications.
Quality of service in data networks; positioning systems.

Energy Systems

(1) Power Systems and Energy Studies

Power system analysis. Distribution system planning and operation. Harmonics. Optimisation of hydro-electric power systems. Load management and control.

Power system planning and economics. Electricity industry restructuring. End-use efficiency. Renewable energy sources. Photovoltaic systems. Remote area supply. Harmonics. Flexible AC transmission system. Remote area supplies. Renewable energy sources and applications. Power system emergency control. Energy storage. Load management and control.

Renewable energy industry development, renewable energy industry development, energy industry restructuring, distributed renewable and demand-side resources, renewables applications, distributed artificial intelligence

(2) Electrical Power Equipment and Utilisation

High voltage and high current phenomena. Insulating material application. Partial discharge detection and location. Gaseous discharges and insulation. E.M. Compatibility. SF6 insulated systems. Overvoltages and equipment protection. Electrical lighting. Electrical measurements and data acquisition. Permanent magnet and other electrical machines and drives. Hybrid actuators.

Equipment for hazardous atmospheres. Computer aided teaching. Electrical machine modelling. Online parameter determination of machines. Synthetic loading of machines. Efficiency measurement of machines using synthetic loading. Application of high temperature superconductors.

Drive dynamics. Control techniques for electric drives. Torque control techniques. Sensorless control. Drive state and parameter Estimation. Motion control systems. Drive system modelling. E.M. Compatibility. Electrical Safety.

Vector control of induction and synchronous motor drive. Torque control techniques. Motion control systems. Drive system modelling. Dynamics of drives. Observer techniques for machine speed, position and parameters. Power electronic circuit and drive simulation. Converter harmonics and mitigation techniques. Power factor correction and active filtering.

(3) Power Electronics

DC/DC converters.
High frequency power transformers.
Inverters for machine drives.
Microprocessor control of power electronics.
Variable speed drives.
Simulation.
Converter non linearities and control.
Converter harmonics.
Unity power factor conversion.
Active filtering.

Microelectronics

Microsystems/MEMS: Microfabrication technology, Planar silica waveguide optical cross-switch, Inertial sensors, Neural electrodes for intra-ocular prosthesis.

Quantum computation, silicon nanoelectronics, single electron devices

Analog CMOS design: solid-state circuits and systems, ultra low-power CMOS design Bio-medical microelectronics, cochlear implants, high-performance analogue circuits in deep sub-micron CMOS, VLSI neural networks.

Digital hardware for telecommunication, image processing hardware, low power digital hardware design.

RF and microwave filters and antennas, ferrimagnetics, high temperature superconductors, CAD for microwave devices and materials design, computer aided learning.

Systems and Control

Adaptive signal processing and control; stochastic control; averaging theory; estimation and control of queueing networks; vision and control. Signal processing; inverse problems; medical image processing (functional magnetic resonance imaging); neural encoding; computer vision; random fields. time series; econometrics; stochastic finance; functional data analysis.

Robust control and filtering, hybrid dynamical systems, state estimation and control via telecommunication networks, guidance, application of modern control and signal processing techniques to biomedical engineering and medicine.

Computation issues in control. Adaptive control. Non-linear control. Digital and adaptive Control. Real-time computing. Nonlinear control. Robust control.

Biomedical engineering. Biological signal analysis. Wavelets. Physiological systems modelling and analysis. ECG analysis. Neural networks. Health telematics and home monitoring. Physiological system modelling. Biological signal processing. Computer modelling of information processing. Neural computing and learning machines.

Constructing design tools for nonlinear systems; robust control design; structural backstepping. Real-time instrumentation and control; designing and implementation of real-time systems capable of implementing real-time control solutions; RT-Linux for the purpose of controller implementation.

Mechanical and Manufacturing Engineering

Aerospace Engineering

Composites
Finite element analysis
Fatigue, fracture mechanics and damage tolerance
Computational aerodynamics
Unsteady boundary layers
Turbulence
Laser anemometry
Flow simulation
Compressor aerodynamics
Design of aircraft
Aerospace CAM/CA
Initial project design
Aerospace policy studies
Distributed logic satellite control systems

Manufacturing Engineering and Management

Production planning and control
Job sop scheduling
Artificial intelligence in manufacturing management
Experimental and theoretical investigations of the following processes: machining, electric discharge machining, laser cutting
Performance of single and multipoint cutting tools including tool life and economics of machining
Properties of materials at high rates of strain
Engineering design analysis and tolerance technology
Quality function deployment
Metrology studies
Flexible fixtures
Applications of genetic algorithms and neural nets in manufacturing
Intelligent control of manufacturing systems
Design for manufacture
Ecologically sustainable manufacturing techniques
Cellular manufacturing strategies
Concurrent engineering
CAD/CAM
Computer-integrated manufacturing
Machine vision for manufacturing inspection
Performance measures
Quality management
Human factors in technology and society

Mechanical Engineering: Applied Mechanics

Mechanics of solids
Stress analysis
Fracture mechanics
Impact mechanics
Spatial and planar linkages
Mechanics of machines
Rotor bearing dynamics
Vibrations
Metallic friction, wear and lubrication
Hydrodynamic dampers
Noise and vibration control
Creep analysis

Mechanical Engineering: Design

Biomechanics
Bulk materials handling
Design of surgical equipment
Computer aided design
Concurrent design
Development of engineering design
Design methodology
Design projects: analysing testing and development for industry
Maintenance management
Wind energy systems
Design with mechatronics
Life assessment

Mechanical Engineering: Fluid and Thermal Engineering

Computational fluid dynamics
Solidification in earth and microgravity
Energy conversion and energy conservation
Engine performance and emissions
Heat transfer
Gas dynamics, transonic flow, shock waves
Optical measuring methods
Refrigeration and air conditioning
Solar energy
Two-phase flow with and without heat transfer

Mechatronic Engineering

Applications of Artificial Intelligence in engineering
Computer interfacing
Electromagnetic systems in manufacturing
Logic programming
Microcomputer control
Neural nets
Reliability engineering
Robotics and manufacturing
Active steering
Metal spinning
Welding research

Naval Architecture

Computer-aided ship design
Ships design methodology
Hydrodynamics of planing surfaces
Hydrodynamics of high-speed ferries, catamarans, hovercraft, hydrofoils, surface-effect ships
Problems in wave resistance
Boundary element methods
Water jets
Light weight ship structures
Nonlinear structural analysis
Resistance
Propulsion
Stability

Mining Engineering

Surface and Underground Mine Geomechanics
B Hebblewhite, J Galvin, Y Cai, C Fowler, P Hagan, J Watson

Underground excavation design using various stress analysis modelling packages including boundary element, finite element, finite difference and displacement discontinuity. Rock mass classification; strata control, ground support and pillar design application in both soft and hard rock environments; surface subsidence control. Application of fundamental rock and soil mechanics principles to mechanics of ground; geotechnical monitoring and back analyses of in situ stresses and deformations in underground mines. Boundary element numerical methods for the computation of stress near underground openings; boundary element methods for the prediction of crack propagation in rock, as applied in rock cutting technology, blasting technology and hydro fracturing; finite element methods for the analysis of wind blast in underground coal mines due to goaf collapse, finite element modelling of coal pillars and finite element modelling of rock bolts.

Mine Ventilation
R Moreby, J Galvin, D Chalmers, C Fowler

Mine ventilation principles and design for both hard rock and coal mining operations; gas management in mines; gas drainage; heat in mines; mine air conditioning; spontaneous combustion; mine atmosphere emergency management. Underground mine environmental management expertise. Mine ventilation simulation and monitoring; fan performance. Engineering principles of windblasts and airblasts in mining operations; monitoring of windblast effects; instrumentation development; gas and dust in mine atmospheres.

Mining Systems and Methods
J Galvin, B Hebblewhite, C Daly, D Laurence

Application of computing to mining engineering, operations research and computer simulation of mining processes. Computer visualisation of mining systems. Mine lighting. Mining techniques and practices, mine planning and mining methods, mine management, mining legislation, health and safety; systems safety assessments. All aspects of open cut hard rock mining - operations and planning; mechanical cutting of rock; tunnelling; mineral economics.

Mine Environmental Management and Sustainable Development
D Laurence

Mining environmental management; mine rehabilitation & closure; mine safety & health; mining law; mining in developing countries; institutional strengthening in developing countries; social impact of mining on indigenous communities.

Mine Geophysics

Mine geology and geophysics; design, development and application of geophysical and other instrumentation for mine geotechnical assessment. Application of geophysical tools in mine monitoring; study of induced and triggered seismicity in mining regions.

Virtual Reality Systems for Training and Simulation
C Fowler; J Galvin

Development of simulation systems for mining operations and equipment; training.
Self-escape & emergency rescue

Seabed Mining
B Hebblewhite, D Laurence

Evaluation of seabed deposits for potential sustainable mining development; seabed massive sulphides; undersea terrain, potential mining systems technology and economics; environmental impact of mining systems; environmental modelling and simulation.

Petroleum Engineering

Petroleum Production Economics

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, incorporating inflation, real and nominal net cash flow, treatment of sunk costs, project financing).

Economic indicators (the calculation, application, usefulness and meaning of net present value, rate of return and other indicators). Analysis of production acceleration, lease buy and other incremental economics examples.

Risk analysis (risk in the oil and gas industry, expected value, decision tree analysis, value of information, sensitivity analysis, probability analysis, Monte Carlo simulation, portfolio analysis).

The significance and analysis of government involvement in petroleum activities. The effect of petroleum fiscal regimes on the oil and gas industry. Comparison of fiscal regimes worldwide. Effects of fiscal regimes on exploration, field development and operational/engineering decision making (analysing fiscal severity, fiscal efficiency, incremental fiscal effects).

School is also actively involved in a research program undertaken by the Australian Petroleum Cooperative Research Centre on the geological disposal of carbon dioxide. Given its petroleum economics and related capabilities, the School's aim is to study the economic viability of CO_2 injection at specific sites and across Australia as a whole and the environmental and economic impact on the country in the long term.

Reservoir Characterisation:

The program is designed to provide a spatial description of petrophysical properties in heterogeneous reservoirs. We do this by integrating geology (geological rules and experience), geophysics, petrophysics, reservoir and production engineering. The programme aims to derive static properties (porosity and permeability) in wells and inter-well regions at log scale, or at grid-block scale. When coupled with dynamic properties at grid-block scale, the result is a reliable simulation model which is used to improve performance prediction in relatively new fields. It is also used to rejuvenate old fields by locating by-passed and undrained hydrocarbons. The following research activities are under reservoir characterisation:

- Knowledge-rich reservoir modeling.
- Formation evaluation and petrophysics.
- Lithofacies recognition from well logs.
- Prediction of reservoir quality.Reservoir upscaling.
- Characterisation of naturally fractured and coal bed reservoirs development of detailed description the reservoir.

Improved Oil and Gas Recovery:

The objective of this program is to develop improved secondary (water flooding) and tertiary (immiscible and miscible) recovery technologies through a better understanding of rock microstructure, pore-scale displacement mechanisms and scale-up from the pore-scale to laboratory core, log and simulator grid-block scales. The outcomes from this program include:

- Development of a virtual core laboratory which allows the simulation of special core analysis tests commonly used by industry to measure two and three-phase residual oil saturations, relative permeabilities and capillary pressures and
- Characterisation of heterogeneity from the pore-scale to the core-scale.

These provide an independent verification and extension of limited laboratory test data. This greatly reduces the level of uncertainty associated with the design of secondary and tertiary field-scale floods.

Characterising Core Scale Heterogeneity:

We use high resolution (5 microns) X-ray CT scanning to produce detailed 3-dimensional images of the pore-space in core plugs cut from reservoir rock. These images allow direct measurement of pore and throat sizes, coordination numbers and the spatial distribution of these parameters.

These studies have shown that rocks exhibit correlated heterogeneity at the core-scale down to the pore-scale. The correlations have a major impact on residual hydrocarbon saturation and the scale-up behavior of the residual from the laboratory core plug to log or reservoir simulator grid-block scales. The group characterises these correlations using truncated Fractional Levy and Fractional Brownian Motion statistics.

Pore Scale Displacement Mechanisms:

Using glass-micromodels of porous media, we have studied pore-scale displacement mechanisms for two and three-phase displacements. We have placed particular emphasis on the injection of immiscible gas to recover waterflood residual oil. The double-displacement mechanisms identified in this work form the basis of all current fundamental descriptions of three-phase flow in porous media.

The three-phase studies have shown the importance of rock-fluid (wettability) and fluid-fluid (spreading) interactions in determining oil recovery. In three-phase flow, wetting and spreading films together with the morphology of the pore-space determine the connectivity of oil and the resulting residual saturation. Under gravity stabilized conditions, where film flow is important, waterflood residual oil saturations of the order of 30% may be reduced to below 10% by tertiary immiscible gas flooding.

Large Scale Network Modeling:

We have developed large-scale percolation-type or rule-based network models for the study and scale-up of multi-phase flow through porous media. These models use pore and throat size distributions from X-ray CT scans and pore-scale displacement mechanisms to simulate two and three-phase laboratory displacement tests.

Conventional network simulators require computational times ($\sim N^2$). We have developed a new algorithm which is much faster ($\sim N\log(N)$). This allows us to run grids in excess of a billion pores and therefore to simulate scale-up behavior from the laboratory core plug scale to the full-core or log resolution scales. The network models allow us to simulate all the special core analysis tests normally used by industry to evaluate the potential of improved oil recovery processes. These include drainage and imbibition displacement tests to determine two and three-phase relative permeability, capillary pressure and residual saturations and constant rate and constant pressure mercury porosimetry. More importantly, the models can be used to scale-up these parameters to provide simulators with more realistic input data for more meaningful predictions of field performance.

Drilling Optimisation, Simulation and Equipment Design:

Optimum drilling equipment design. Numerical and analytical modelling of drilling equipment and drilling wells. Estimation of equipment strengths, drilling stresses. Prediction and minimisation of drilling costs. Lightweight alloys in drilling and downhole tubular design. Drilling vibrations and elimination techniques. Slim hole drilling and stability of downhole tubular. Coiled tubing design. Penetration rate modelling. Air, foam and mist drilling and improvement techniques.

The South-East Asia region including Australia continues to grow in importance as a major oil and gas producing region. The operators realise the value of developing fields using contemporary drilling and completion techniques to create highly deviated, extended reach and multilateral wells, mono-bore wells, slim hole wells, etc. These new technologies offer economic benefits through a mix of lower development costs, higher production rate and improved recovery. A number of obstacles to the effective application of these techniques include:

- Comprehensive geomechanical modeling to characterize stresses for geologically complex region including Coal Bed Methane, HDR geothermal reservoirs and naturally fractured reservoirs. The group also uses an advanced rock mechanics laboratory facility to characterize rock properties.

- Borehole instability analysis in shales and other geologically complex conditions and development of well plan including well trajectory, drilling fluid, cement and casing program.
- Directional well plan, drilling equipment and processes involved in horizontal and multilateral wells. Instability analysis of drill pipes for deep and slim holes.

Drilling fluid formulation and management:

The School uses an extensive laboratory and computer modelling capabilities to develop environmentally friendly drilling fluids, which maintain functional performance for a wide range of well conditions.

- Test facilities: Standard and high pressure, high temperature testing equipments to study rheology and dynamic filtration of drilling fluid, fluid/shale chemical potential and osmosis flow, interfacial tension of drilling and completion fluids, mud pressure penetration characteristics in shales, friction coefficient of drilling fluids etc.
- Testing of mud chemical and functional properties of mud according to API standard.
- Screening of formation compatible drilling fluid system: API mud property measurement, dynamic filtration and mud cake analysis, pore fluid-mud compatibility analysis, measurement of friction coefficient of mud/rock/steel, mud/steel/steel system, chemical analysis of the mud system, etc.

Formation damage prevention and management:

The group uses a comprehensive laboratory and computational facilities to study the mechanism of formation damage and technique to remove the permeability impairment due to mud filtrate invasion.

- Dynamic filtration test to study permeability impairment due to mud filtrate invasion.
- Advanced electronic microscopy, analytical equipment and other specialised facilities are used to study the effect of mud chemistry on the microscopic structure of mud-cake and mud caking process, which control water loss, and fluid-rock interaction at the pore level.
- Acid stimulation test analysis to remove permeability impairment and/or enhance reservoir productivity.

Reservoir stimulation to increase productivity:

The School is conducting advanced research in the development of numerical modelling capability to address the following issues:

- Causes of fracture twisting and turning and premature screen-out. This capability is being used to design fracture treatments for formations, which are characterised by complex stress regimes and reservoir heterogeneity. The research has gained international recognition by industry and academia.
- Multivariate fracture treatment optimisation technique for enhanced hydrocarbon production from tight reservoirs. The optimization model integrates various treatment and fracture parameters, operational limitations, fracture growth control requirements, potential design objectives and a suitable optimization algorithm. The model thus optimizes the fracture geometry and operation parameters to maximize hydrocarbon production from reservoir.
- We have also developed multiple-well fracture treatment and production optimisation technique for the development of the whole reservoirs.

Hot Dry Rock Geothermal Drilling and Reservoir Development:

The program is designed to provide the HDR industry (is new industry with little experience in the area) with know how and expertise in the development of geothermal energy from HDR resources. In view of this the group has been actively involved in the development of drilling systems, methods and equipment to drill into a hot (250 °C), hard, abrasive and highly stressed environment. The group has also advanced the technology of hydraulic fracturing by shear dilation (Proppant free) to stimulate and develop reservoir with fractured net works. Moreover, it has been involved in improving seismic mapping of hydraulic fractures both in igneous and sedimentary rocks. Our major research activities in this area include: (1) modeling of stresses, (2) characterisation of naturally fractured geothermal reservoirs, (3) reservoir development by hydraulic fracturing, (4) fluid flow simulation in naturally fractured reservoirs and (5) heat flow and heat extraction process for geothermal energy recovery.

Production Engineering:

The production of hydrocarbons from petroleum reservoirs to surface storage units at economic levels requires simultaneous consideration of reservoir inflow performance, wellbore deliverability and surface facilities.

Optimum selection of parameters such as completion type, perforation interval, tubing size, flowing bottom hole pressure, operating wellhead pressure, length of the wellbore within the pay can increase the well productivity significantly.

The School has established capabilities to analyse the productivity of a given production system (reservoir – wellbore – surface facilities) and can deliver: (1) Inflow Performance Curves (IPR) which account for reservoir driving force for both oil and gas reservoirs, (2) impact of the skin effect (near-wellbore damage), partial completion, completion elevation and well deviation on the productivity of reservoir using the concept of the effective wellbore radius and based on Cinco-Ley's semi-analytical method, (3) optimum gravel and screen sizes using Schwartz and Soucier correlations and productivity of gravel packed wells, (4) optimum values for tubing sizes, well head pressures, flow rates, and gas liquid ratios by producing vertical lift performance curves (VLP) of wells for single phase and multi-phase flow.

Research Facilities:

The School of Petroleum Engineering has established leading-edge research facilities to improve the understanding of processes and mechanics involved in the above areas and develop drilling and completion technologies to reduce field development costs and improve recovery efficiency. The research facilities include well equipped laboratories and computer modelling capabilities: rock and fracture mechanics laboratory; petrophysical laboratory; drilling fluid and cementing laboratory; formation damage analysis laboratory (dynamic filtration, fluid displacement, SEM, petrographic, etc.); borehole stability analysis laboratory (chemical potential, pore pressure penetration, swelling of shales, transient pressure pulse permeameter etc); torque and drag evaluation in slim-holes; design and optimisation of drilling muds and cements, stability analysis of tubulars including drill pipes and casings; design of well trajectories and completions for different in-situ stress and hole conditions and production strategies; design of hydraulic fracture stimulation programs for tight gas and geothermal reservoir (HDR) development; acid stimulation of low permeability sand stones; and design and planning of mud waste and cutting disposal in deep isolated formations by hydraulic fracturing.

Photovoltaic & Renewable Energy Engineering

Buried contact and other commercial solar cells
GaAs and SiGe devices
Life cycle analysis of renewable energy systems
Light tapping in thin crystalline silicon
N-type solar cells
Photovoltaic applications in developing countries
Photovoltaic device fabrication and characterisation
Photovoltaic module design
Power grid interaction of renewable energy systems
Renewable energy policy
Screen-printed solar cells
Semiconductor device modeling
Silicon photonics
Silicon solar cells
Thin film crystalline silicon photovoltaic devices
Third generation photovoltaics

Surveying and Spatial Information Systems

3-D laser scanning
Airborne gravimetry
Analysis of deformation measurements
Analysis of errors in DEM determination from radar interferometry
Applications of Geographic Information Systems (GIS)
Applications of inertial technology
Application of satellite imagery to small scale mapping
Application of spaceborne synthetic aperture radar data
Automated feature extraction
Determining the characteristics of surface reflectance
Digital image analysis for photogrammetry and remote sensing
Digital elevation models from aerial and satellite images
RF-based positioning systems
Geoid determination
Global Navigation Ssatellite System (GNSS) receiver design
Global Positioning System (GPS) receiver technology
GPS geodynamics
GPS navigation
GPS surveying
GPS/INS integration
Height datum determination

High-precision surveying
Land information management
Land use and urban monitoring
Least squares estimation and alternatives
Multi-sensor integration
Monitoring of structures and terrain
Monitoring land use change using remotely sensed data
Multimedia
Pseudolite studies
Radar interferometry
Satellite geodesy
Survey network adjustment
Synergism of radar, visible and infrared remotely sensed data
Telegeoinformatics
Vertical topology in GIS
Visualisation

Program Rules and Information – Research Degrees

Doctor of Philosophy

PhD

The degree of Doctor of Philosophy is offered in the Faculty of Engineering in the following programs:

1710	Biomedical Engineering
1010	Chemical Engineering
1630	Civil and Environmental Engineering
1650	Computer Science and Engineering
1640	Electrical Engineering
1031	Food Science and Techology
1016	Industrial Chemistry
1662	Mechanical and Manufacturing Engineering
1050	Mining Engineering
1017	Petroleum Engineering
1655	Photovoltaic Engineering
1681	Surveying and Spatial Information Systems

Typical Duration
4 years

Minimum UOC for Award
144 units of credit

Typical UOC per Session
24 units of credit

Program Description

The Doctor of Philosophy (PhD) degree is offered in all faculties of the University of New South Wales and encourages initiative and originality in research. Candidates should make a significant contribution to knowledge in their field.

As a general guide, the UNSW entry requirements for the degree of Doctor of Philosophy are as follows:

- A candidate for the degree shall have been awarded an appropriate degree of Bachelor with Honours from the University of New South Wales or a qualification considered equivalent from another university or tertiary institution at a level acceptable to the Research Committee of the appropriate Faculty.
- Candidates may be admitted to the PhD program after one year's full-time enrolment in a Masters by Research program, with the approval of the Faculty Postgraduate Affairs Committee.
- In exceptional cases an applicant who submits evidence of such other academic and professional qualifications as may be approved by the Committee may be permitted to enrol for the degree.

Program Objectives and Learning Outcomes

The Doctor of Philosophy (PhD) degree encourages initiative and originality in research. Students will make a significant contribution to knowledge in their field and will be competent to carry out research in their chosen area.

Program Structure

This program involves a minimum of three years full-time study. Students undertake supervised research leading to the production of the thesis.

The length of a doctoral thesis normally should not exceed 100,000 words of text and should be submitted for examination within 4 years of full-time study.

In some faculties advanced coursework is also prescribed.

Academic Rules

1. The degree of Doctor of Philosophy may be awarded by the Council on the recommendation of the Higher Degree Committee of the appropriate faculty or board (hereinafter referred to as the Committee) to a candidate who has made an original and significant contribution to knowledge.

Qualifications

2. (1) A candidate for the degree shall have been awarded an appropriate degree of Bachelor with Honours from the University of New South Wales or a qualification considered equivalent from another university or tertiary institution at a level acceptable to the Committee.

(2) In exceptional cases an applicant who submits evidence of such other academic and professional qualifications as may be approved by the Committee may be permitted to enrol for the degree.

(3) If the Committee is not satisfied with the qualifications submitted by an applicant the Committee may require the applicant to undergo such assessment or carry out such work as the Committee may prescribe, before permitting enrolment as a candidate for the degree.

Enrolment

3. (1) An application to enrol as a candidate for the degree shall be lodged with the Registrar at least one month prior to the date at which enrolment is to begin.

(2) In every case before making the offer of a place the Committee shall be satisfied that initial agreement has been reached between the School* and the applicant on the topic area, supervision arrangements, provision of adequate facilities and any coursework to be prescribed and that these are in accordance with the provisions of the guidelines for promoting postgraduate study within the University.

(3) The candidate shall be enrolled either as a full-time or a part-time student.

(4) A full-time candidate will present the thesis for examination no earlier than three years and no later than five years from the date of enrolment and a part-time candidate will present the thesis for examination no earlier than four years and no later than six years from the date of enrolment, except with the approval of the Committee.

(5) The candidate may undertake the research as an internal student i.e. at a campus, teaching hospital, or other research facility with which the University is associated, or as an external student not in attendance at the University except for periods as may be prescribed by the Committee.

(6) An internal candidate will normally carry out the research on a campus or at a teaching or research facility of the University except that the Committee may permit a candidate to spend a period in the field, within another institution or elsewhere away from the University provided that the work can be supervised in a manner satisfactory to the Committee. In such instances the Committee shall be satisfied that the location and period of time away from the University are necessary to the research program.

(7) The research shall be supervised by a supervisor and where possible a co-supervisor who are members of the academic staff of the School or under other appropriate supervision arrangements approved by the Committee. Normally an external candidate within another organisation or institution will have a co-supervisor at that institution.

Progression

4. The progress of the candidate shall be considered by the Committee following report from the School in accordance with the procedures established within the School and previously noted by the Committee.

(i) The research proposal will be reviewed as soon as feasible after enrolment. For a full-time student this will normally be during the first year of study, or immediately following a period of prescribed coursework. This review will focus on the viability of the research proposal.

(ii) Progress in the course will be reviewed within twelve months of the first review. As a result of either review the Committee may cancel enrolment or take such other action as it considers appropriate. Thereafter, the progress of the candidate will be reviewed annually.

Thesis

5. (1) On completing the program of study a candidate shall submit a thesis embodying the results of the investigation.

(2) The candidate shall give in writing to the Registrar two months notice of intention to submit the thesis.

(3) The thesis shall comply with the following requirements:

(a) it must be an original and significant contribution to knowledge of the subject;

(b) the greater proportion of the work described must have been completed subsequent to enrolment for the degree;

(c) it must be written in English except that a candidate in the Faculty of Arts and Social Sciences may be required by the Committee to write a thesis in an appropriate foreign language;

(d) it must reach a satisfactory standard of expression and presentation;

(e) it must consist of an account of the candidate's own research but in special cases work done conjointly with other persons may be accepted provided the Committee is satisfied about the extent of the candidate's part in the joint research.

(4) The candidate may not submit as the main content of the thesis any work or material which has previously been submitted for a university degree or other similar award, but may submit any work previously published whether or not such work is related to the thesis.

(5) Four copies of the thesis shall be presented in a form which complies with the requirements of the University for the preparation and submission of theses for higher degrees.

(6) It shall be understood that the University retains the four copies of the thesis submitted for examination and is free to allow the thesis to be consulted or borrowed. Subject to the provisions of the Copyright Act, 1968, the University may issue the thesis in whole or in part, in photostat or microfilm or other copying medium.

Examination

6. (1) There shall be not fewer than three examiners of the thesis, appointed by the Committee, at least two of whom shall be external to the University.

(2) At the conclusion of the examination each examiner shall submit to the Committee a concise report on the thesis and shall recommend to the Committee that one of the following:

(a) The thesis merits the award of the degree.

(b) The thesis merits the award of the degree subject to minor corrections as listed being made to the satisfaction of the head of school.

(c) The thesis requires further work on matters detailed in my report. Should performance in this further work be to the satisfaction of the Higher Degree Committee, the thesis would merit the award of the degree.

(d) The thesis does not merit the award of the degree in its present form and further work as described in my report is required. The revised thesis should be subject to re-examination.

(e) The thesis does not merit the award of the degree and does not demonstrate that resubmission would be likely to achieve that merit.

(3) If the performance in the further work recommended under (2)(c) above is not to the satisfaction of the Committee, the Committee may permit the candidate to submit the thesis for re-examination as determined by the Committee within a period determined by it but not exceeding eighteen months.

(4) After consideration of the examiners' reports and the results of any further examination of the thesis, the Committee may require the candidate to submit to written or oral examination before recommending whether or not the candidate be awarded the degree. If it is decided that the candidate be not awarded the degree, the Committee shall determine whether or not the candidate be permitted to resubmit the thesis after a further period of study and/or research.

Fees

7. A candidate shall pay such fees as may be determined from time to time by the Council.

**'School' is used here and elsewhere in these conditions to mean any teaching unit authorised to enrol research students and includes a department where that department is not within a school, a centre given approval by the Academic Board to enrol students, and an interdisciplinary unit within a faculty and under the control of the Dean of the Faculty. Enrolment is permitted in more than one such teaching unit.*

Note: All new PhD candidates in the Faculty of Engineering must complete and pass three courses as approved by the Head of School, normally in the first year of candidature.

Further Information

If you are considering applying for a PhD at UNSW you will need to make contact with the relevant school or faculty. This is necessary in order to establish that your research interests and those of the school and faculty are aligned, and that there is a suitable supervisor for your particular area of research.

Prospective students are strongly advised to make contact with potential supervisors before applying for research study at the University.

Please refer to the UNSW website for further information on how to apply, scholarships, English language requirements, thesis preparation and other research related matters: **www.unsw.edu.au/futurestudents/research**

2685 Master of Philosophy in Engineering

MPhil

Typical Duration
1.5 years

Minimum UOC for Award
72 units of credit

Typical UOC per Session
24 units of credit

Program Description

The Master of Philosophy is a research degree with an examinable coursework component, taken over three sessions and comprising 72 units of credit. A thesis, awarded 54 units of credit, embodies the result of an original investigation, design or engineering development. A program of advanced study, comprising 18 units of credit of coursework, makes up the remainder of the program. The coursework component will normally comprise three courses selected from the Coursework Masters offerings for the relevant discipline. Courses may also be selected from the Graduate School of Engineering. Candidates may undertake interdisciplinary studies subject to approval.

Subject to the approval of the program authority, candidates may enrol in postgraduate courses from other tertiary institutions.

Before enrolment an applicant should submit an intended program for approval by the School or Academic Unit controlling the research discipline for the degree. The School will ensure that the coursework component is relevant to, or complements, the research component, and that the candidate satisfies prerequisite requirements for the study.

A candidate for registration for the degree of Master of Philosophy should hold a relevant Bachelor's degree, usually at Honours level, from the University of New South Wales or from another approved University. Applications for admission should be made to the Registrar or the Director, Student Administration, ADFA at least one calendar month before the commencement of the session in which registration is to begin.

Program Objectives and Learning Outcomes

- To provide the opportunity for research training requiring a significant basic or applied research project; and
- To support the research training with coursework to provide in-depth discipline skills, or skills in relevant entrepreneurial and research methods.

Program Structure

The normal period is three academic sessions (full time) and six academic sessions (part time) from the date of enrolment. Subject to feasibility of supervision, research may be undertaken during Summer Session. The maximum period of registration is five academic sessions (full time) and ten academic sessions (part time). In special cases, extensions may be granted.

The degree provides the opportunity to complete a research program with associated coursework in one calendar year. The structure of the degree is flexible, but might typically comprise:

Session 1

3 courses, selected from School postgraduate coursework and/or the Graduate School of Engineering electives
or
approved courses from other tertiary institutions (18 UOC)
Plus Research Thesis (6 UOC)

Session 2

Research Thesis (24 UOC)

Session 3

Research Thesis (24 UOC)

Academic Rules

1. The degree of Master of Philosophy by research may be awarded by the Council on the recommendation of the Higher Degree Committee of the Faculty of Engineering, or the Research Committee of the University College, ADFA, (hereinafter collectively referred to as the Committee) to a candidate who has demonstrated ability to undertake research

by the submission of a thesis (54 UOC) embodying the results of an original investigation, and who has satisfied the advanced postgraduate coursework requirements (18 UOC) of the degree.

2. Qualifications

(1) A candidate for the degree shall have been awarded an appropriate degree of Bachelor in the relevant discipline from the University of New South Wales or a qualification considered equivalent from another university or tertiary institution at a level acceptable to the Committee, usually an Honours level.

(2) In exceptional cases an applicant who submits evidence of such other academic and professional qualifications as may be approved by the Committee may be permitted to enrol for the degree.

(3) If the Committee is not satisfied with the qualifications submitted by an applicant the Committee may require the applicant to undergo such assessment or carry out such work as the Committee may prescribe, before permitting enrolment.

3. Enrolment

(1) An application to enrol as a candidate for the degree shall be made on the prescribed form which shall be lodged with the Registrar or the Director, Student Administration, ADFA at least two calendar months before the commencement of the session in which enrolment is to begin.

(2) In every case before making the offer of a place the Committee shall be satisfied that initial agreement has been reached between the school controlling the relevant discipline and the applicant on the research area, supervision arrangements, provision of adequate facilities and the coursework to be undertaken, and that these are in accordance with the provisions of the guidelines for promoting postgraduate study within the University.

(3) The candidate shall be enrolled as either a full-time or part-time student.

(4) A full-time candidate will present the thesis for examination no earlier than the equivalent of 3 sessions and no later than 5 sessions from the date of enrolment and a part-time candidate will present the thesis for examination no earlier than 6 sessions and no later than 10 sessions from the date of enrolment, except with the approval of the Committee.

(5) The candidate may undertake the research as an internal student i.e. at a campus, teaching hospital, or other research facility with which the University is associated or as an external student not in attendance at the University except for periods as may be prescribed by the Committee.

(6) An internal candidate will normally carry out the research on a campus or at a teaching or research facility of the University except that the Committee may permit a candidate to spend a period in the field, within another institution or elsewhere away from the University provided that the work can be supervised in a manner satisfactory to the Committee. In such instances the Committee shall be satisfied that the location and period of time away from the University are necessary to the research program.

(7) The research shall be supervised by at least two supervisors who are members of the academic staff of the School or under other appropriate supervision arrangements approved by the Committee. Normally an external candidate within another organisation or institution will have a co-supervisor at that institution.

(8) Schools may, at their discretion, appoint a Management Panel (which might include members from outside the school) to provide administrative support to the candidate and the supervisors. In addition to administrative matters, the panel could have responsibility for progress review and examination of the candidate's work, assistance with timely appointment of examiners and consultation with the candidate at other critical times. The Management Panel should not include any supervisor of the research.

(9) There is an expectation that coursework be completed as soon as feasible within the MPhil program.

4. Progression

The progress of the candidate shall be considered by the Higher Degree Committee following report from the School, in accordance with the procedures established within the Faculty or at University College and previously noted by the Committee.

(1) The research proposal will be reviewed as soon as feasible after enrolment. For a full-time student this will normally be after one session. This review will focus on both the viability of the research proposal, and evidence of satisfactory commencement of the research.

(2) Progress in the program will require that 18 units of credit of approved coursework are undertaken during candidature, and that all courses are passed at the first attempt. As a result of failure in any part of the coursework component, the Committee, advised by the School, may cancel enrolment or take such other action as it considers appropriate. Thereafter, the progress of the candidate will be reviewed each session.

5. Thesis

(1) On completing both the program of research and all coursework, a candidate shall submit a thesis embodying the results of the investigation. The thesis would not normally exceed 40,000 words (or equivalent length).

(2) The candidate shall give in writing to the Registrar one month's notice of intention to submit the thesis.

(3) The thesis shall present an account of the candidate's own research. In special cases work done conjointly with other persons may be accepted, provided the Committee is satisfied about the candidate's part in the joint research, and the candidate submits an individual thesis.

(4) Three copies of the thesis shall be presented in a form which complies with the requirements of the University for the preparation and submission of theses for higher degrees.

(5) It shall be understood that the University retains the three copies of the thesis submitted for examination and is free to allow the thesis to be consulted or borrowed. Subject to the provisions of the Copyright Act, 1968, the University may issue the thesis in whole or in part, in photostat or microfilm or other copying medium. The University may protect Intellectual Property by restricting circulation of the thesis for a limited period (usually not exceeding 2 years).

(6) An electronic version of the thesis shall be submitted to the library on completion of all work and corrections.

(7) Notwithstanding the above, the submission of the thesis will comply with future thesis submission requirements of the University.

6. Examination

(1) There shall be no fewer than two examiners of the thesis, appointed by the committee acting on advice of the school, one of whom should be external to the university unless the committee resolves otherwise, and neither of whom should be supervisors of the research.

(2) The entire examination process will include both the examination of the thesis and the conduct of a concurrent oral defence.

(3) At the conclusion of the examination process each examiner shall submit to the Committee a concise report on the thesis, and shall recommend to the Committee that:

(a) The thesis is satisfactory.

(b) The thesis is satisfactory subject to minor corrections as listed being made to the satisfaction of the Head of School.

(c) The thesis requires further work on matters detailed in the report. Should performance in this further work be to the satisfaction of the Higher Degree Committee, the thesis would be satisfactory.

(d) The thesis is not satisfactory in its present form and further work as described in the report is required. The revised thesis should be subject to re-examination.

(e) The thesis is not satisfactory and does not demonstrate that resubmission would be likely to alter that assessment.

(4) Concurrently with examination of the thesis, the Committee will convene an Oral Defence Panel (the Panel), comprising no less than 3 and no more than 5 panel members, including usually the two examiners and, where appropriate, members of the Management Panel, or any members who may otherwise be selected by the Committee. Supervisors and co-supervisors would not normally be members of the panel. The Panel will conduct an oral defence by the candidate of the work reported in the thesis, at which the examiners' questions, and those of other members of the Panel shall be put to the candidate. The oral defence may include a colloquium delivered by the candidate, time permitting. (It is noted that in many Schools, review of candidature involves a colloquium, in which case a further colloquium may be unnecessary). Where circumstances demand, the Committee may recommend that the oral defence be conducted by an appropriate alternative means, (e.g. a telephone link with the external examiner, or less usually the candidate). Following the defence, the Panel will prepare a short report for the Committee, recommending either that the oral defence was satisfactory, or that it was unsatisfactory.

(5) Recommendation to award the degree will be made by the Committee on consideration of all components of the examination process: the thesis reports from the examiners and the report of the oral defence.

(6) The School shall report to the Committee satisfactory completion of any further work required by the Committee on the recommendation of the examiners and the Oral Defence Panel.

(7) The Committee shall, after consideration of the examiners' reports and the results of the oral defence, recommend whether or not the candidate may be awarded the degree. If it is decided that the candidate be not awarded the degree the Committee shall determine whether or not the candidate should be permitted to resubmit the thesis after a further period of study and/or research; the Committee may also determine whether a supplementary oral defence of the thesis is required.

7. Fees

A candidate shall pay such fees as may be determined from time to time by the Council.

Master of Engineering (by Research)

ME

The degree of Master of Engineering by Research is offered in the Faculty of Engineering in the following programs:

2675	Biomedical Engineering
2150	Chemical Engineering
2650	Civil and Environmental Engineering
2665	Computer Science and Engineering
2660	Electrical Engineering
2692	Mechanical and Manufacturing Engineering
2180	Mining Engineering
2156	Petroleum Engineering
2655	Photovoltaic Engineering
2721	Surveying and Spatial Information Systems

Master of Science (by Research)

MSc

The degree of Master of Science by Research is offered in the Faculty of Engineering in the following programs:

2795	Biomedical Engineering
2010	Chemical Engineering
2750	Civil and Environmental Engineering
2765	Computer Science and Engineering
2031	Food Science and Technology
2016	Industrial Chemistry

Typical Duration
2 years

Minimum UOC for Award
96 units of credit

Typical UOC per Session
24 units of credit

Academic Rules - Master of Engineering (ME) and Master of Science (MSc)

1. The degree of Master of Engineering or Master of Science by research may be awarded by the Council on recommendation of the Higher Degree Committee of the appropriate faculty (hereinafter referred to as the Committee) to a candidate who has demonstrated ability to undertake research by the submission of the thesis embodying the results of an original investigation.

Qualifications

2. (1) A candidate for the degree shall have been awarded an appropriate degree of Bachelor from the University of New South Wales or a qualification considered equivalent from another university or tertiary institution at a level acceptable to the Committee.

(2) An applicant who submits evidence of such other academic or professional attainment as may be approved by the Committee may be permitted to enrol for the degree.

(3) When the Committee is not satisfied with the qualifications submitted by an applicant the Committee may require the applicant, before being permitted to enrol, to undergo such examination or carry out such work the Committee may prescribe.

Enrolment and Progression

3. (1) An application to enrol as a candidate for the degree shall be made on the prescribed form which shall be lodged with the Registrar at least one calendar month before the commencement of the session in which enrolment is to begin.

(2) In every case, before permitting a candidate to enrol, the head of the school* in which the candidate intends to enrol shall be satisfied that adequate supervision and facilities are available.

(3) An approved candidate shall be enrolled in one of the following categories:

(a) full-time attendance at the University;

(b) part-time attendance at the University;

(c) external – not in regular attendance at the University and using research facilities external to the University.

(4) A candidate shall be required to undertake an original investigation on an approved topic. The candidate may also be required to undergo such examination and perform such other work as may be prescribed by the Committee.

(5) The work shall be carried out under the direction of a supervisor appointed from the full-time members of the University staff.

(6) The progress of a candidate shall be reviewed annually by the Committee following a report by the candidate, the supervisor and the head of the school* in which the candidate is enrolled and as a result of such review the Committee may cancel enrolment or take such other action as it considers appropriate.

(7) No candidate shall be granted the degree until the lapse of three academic sessions in the case of a full-time candidate or four academic sessions in the case of a part-time or external candidate from the date of enrolment. In the case of a candidate who has been awarded the degree of Bachelor with Honours or who had previous research experience the Committee may approve remission of up to one session for a full-time candidate and two sessions for a part-time or external candidate.

(8) A full-time candidate for the degree shall present for examination not later than six academic sessions from the date of enrolment. A part-time or external candidate for the degree shall present, for examination not later than ten academic sessions from the date of enrolment. In special cases an extension of these times may be granted by the Committee.

Thesis

4. (1) On completing the program of study a candidate shall submit a thesis embodying the results of the original investigation.

(2) The candidate shall give in writing two months notice of intention to submit the thesis.

(3) The thesis shall present an account of the candidate's own research. In special cases work done conjointly with other persons may be accepted, provided the Committee is satisfied about the extent of the candidate's part in the joint research.

(4) The candidate may also submit any work previously published whether or not such work is related to the thesis.

(5) Three copies of the thesis shall be presented in a form which complies with the requirements of the University for the preparation and submission of higher degree theses.

(6) It shall be understood that the University retains the three copies of the thesis submitted for examination and is free to allow the thesis to be consulted or borrowed. Subject to the provisions of the Copyright Act, 1968, the University may issue the thesis in whole or in part, in photostat or microfilm or other copying medium.

Examination

5. (1) There shall be not fewer than two examiners of the thesis, appointed by the Committee, at least one of whom shall be external to the University unless the Committee is satisfied that this is not practicable.

(2) At the conclusion of the examination each examiner shall submit to the Committee a concise report on the merits of the thesis and shall recommend to the Committee that:

(a) the candidate be awarded the degree without further examination;
or

(b) the candidate be awarded the degree without further examination subject to minor corrections as listed being made to the satisfaction of the head of the school; *or*

(c) the candidate be awarded the degree subject to further examination on questions posed in the report, performance in this further examination being to the satisfaction of the Committee; *or*

(d) the candidate be not awarded the degree but be permitted to resubmit the thesis in a revised form after a further period of study and/or research;
or

(e) the candidate be not awarded the degree and be not permitted to resubmit the thesis.

(3) If the performance at the further examination recommended under (2)(c) above is not to the satisfaction of the Committee, the Committee may permit the candidate to re-present the same thesis and submit to a further oral, practical or written examination within a period specified by it but not exceeding eighteen months.

(4) The Committee shall, after consideration of the examiners' reports and the reports of any oral or written or practical examination, recommend whether or not the candidate may be awarded the degree. If it is decided that the candidate be not awarded the degree the Committee shall determine whether or not the candidate may resubmit the thesis after a further period of study and/or research.

Fees

6. A candidate shall pay such fees as may be determined from time to time by the Council.

**'School' is used here and elsewhere in these conditions to mean any teaching unit authorised to enrol research students and includes a department where that department is not within a school, a centre given approval by the Academic Board to enrol students, and an interdisciplinary unit within a faculty and under the control of the Dean of the Faculty. Enrolment is permitted in more than one such teaching unit.*

Note: All new Masters research candidates in the Faculty of Engineering must complete and pass three courses as approved by the Head of School, normally in the first year of candidature.

Academic Rules - Master of Engineering (ME) and Master of Science (MSc) *without supervision*

1. The degree of Master of Engineering or Master of Science without supervision may be awarded by the Council on the recommendation of the Higher Degree Committee of the appropriate faculty (hereinafter referred to as the Committee) to a candidate who has demonstrated ability to undertake research by the submission of a thesis embodying the results of an original investigation.

Qualification

2. A candidate for the degree shall have been awarded an appropriate degree of Bachelor of the University of New South Wales with at least three years relevant standing in the case of Honours graduates and four years relevant standing in the case of Pass graduates, and at a level acceptable to the Committee.

Enrolment and Progression

3. An application to enrol as candidate for the degree without supervision shall be made in the prescribed form which shall be lodged with the Registrar not less than six months before the intended date of submission of the thesis. A graduate who intends to apply in this way should, in his or her own interest, seek at an early stage the advice of the appropriate head of school (or department) with regard to the adequacy of the subject matter and its presentation for the degree. A synopsis of the work should be available.

Thesis

4. (1) A candidate shall submit a thesis embodying the results of the investigation.

(2) The candidate shall give in writing to the Registrar two months notice of intention to submit the thesis.

(3) The thesis shall present an account of the candidate's own research. In special cases work done conjointly with other persons may be accepted, provided the Committee is satisfied about the extent of the candidate's part in the joint research.

(4) The candidate may also submit any work previously published whether or not related to the thesis.

(5) Three copies of the thesis shall be presented in a form which complies with the requirements of the University for the preparation and submission of theses for higher degrees.

(6) It shall be understood that the University retains the three copies of the thesis submitted for examination and is free to allow the thesis to be consulted or borrowed. Subject to the provisions of the Copyright Act, 1968, the University may issue the thesis in whole or in part, in photostat or microfilm or other copying medium.

Examination

5. (1) There shall be not fewer than two examiners of the thesis, appointed by the Committee, at least one of whom shall be external to the University unless the Committee is satisfied that this is not practicable.

(2) Before the thesis is submitted to the examiners, the head of the school in which the candidate is enrolled shall certify that it is prima facie worthy of examination.

(3) At the conclusion of the examination each examiner shall submit to the Committee that:

(a) the candidate be awarded the degree without further examination; *or*

(b) the candidate be awarded the degree without further examination subject to minor corrections as listed being made to the satisfaction of the head of the school (or department); *or*

(c) the candidate be awarded the degree subject to a further examination on questions posed in the report, performance in this further examination being to the satisfaction of the Committee; *or*

(d) the candidate be not awarded the degree but be permitted to resubmit the thesis in a revised form after a further period of study and/or research; *or*

(e) the candidate be not awarded the degree and be not permitted to resubmit the thesis.

(4) If the performance at the further examination recommended under (3)(c) above is not to the satisfaction of the Committee, the Committee may permit the candidate to re-present the same thesis and submit to further examination as determined by the Committee within a period specified by it, but not exceeding eighteen months.

(5) The Committee shall, after consideration of the examiners' reports and the results of any further examination, recommend whether or not the candidate may be awarded the degree. If it is decided that the candidate be not awarded the degree the Committee shall determine whether or not the candidate may resubmit the thesis after a further period of study and/or research.

Fees

6. A candidate shall pay such fees as may be determined from time to time by the Council.

Program Rules and Information – Coursework Degrees

School of Chemical Engineering and Industrial Chemistry

Head of School: Associate Professor Michael Brungs
Administrative Officer: Vivienne Brennan
Research Program Coordinator: Associate Professor John Stubington
Coursework Engineering Program Coordinator: Dr Jayashree Arcot

The School has a vigorous postgraduate training program focused on national and international areas of importance. We have research interests in many leading areas. The School's major research areas are:

Environmental Technology
Electrochemical Engineering
Heat and Mass Transfer
High Temperature Chemistry
Food Science and Technology
Membrane Science and Technology
Minerals and Energy
Particle Technology and Catalysis
Polymer Science and Technology

For a full list, please contact the School or refer to 'Research and Project Areas'.

Research degrees include a Master of Science in Industrial Chemistry (2016), in Chemical Engineering (2010) and Food Science and Technology (2031), a Master of Engineering in Chemical Engineering (2150), a Master of Philosophy in Chemical Engineering (2685, plan CEICAR2685) and a Master of Philosophy in Food Science & Technology (2685, plan FOODAR2685). A doctoral (PhD) research program is offered in Chemical Engineering (1010) , Industrial Chemistry (1016) and Food Science and Techology (1031).

A coursework-based Master degree in Process Engineering (8016) is offered as well as several in Food Science and Technology (8033). The School also has a Graduate Certificate (7334) and Graduate Diploma (5034) in Aluminium Smelting Technology and Graduate Certificicate in Food Science and Technology (7310) and Graduate Diploma in Food Technology (5020).

All enquiries relating to these courses may be directed by email to the following academics in our School:

Postgraduate research enquiries can be directed to Associate Professor John Stubington: pgstudy.ceic@unsw.edu.au

Postgraduate coursework enquiries can be directed to Dr Jayashree Arcot: ceic@unsw.edu.au

Graduate Programs in Aluminium Smelting Technology enquiries can be directed to Professor Maria Skyllas-Kazacos: m.kazacos@unsw.edu.au

Research Programs

The School welcomes enquiries from graduates interested in pursuing research for the award of the following research degrees. Upon applying, applicants for ME, MSc or PhD must attach to their admission form: a statement of about 100 words of a proposed research plan; details of previous research experience; names and addresses of two academic referees from most recent studies who would be willing to support your application; a full academic transcript of your qualifications (a certified English translation is required if this is not in English); and proof that you satisfy English requirements (you may apply to do an intensive English training course if you are not able to satisfy these requirements).

Please contact the School for an information/enrolment package to be sent to you and be sure to include your full address. (Email: pgstudy.ceic@unsw.edu.au)

PhD

Chemical Engineering	1010
Industrial Chemistry	1016
Food Science and Technology	1031

MSc

Chemical Engineering	2010
Industrial Chemistry	2016
Food Science and Technology	2031

ME

Chemical Engineering	2150

Master of Engineering Science Degree Programs

The MEngSc degree programs involve a project that must integrate and apply the principles treated in the program. It may take the form of a design feasibility study or an experimental investigation. Evidence of initiative and of a high level of ability and understanding is required in the student's approach, and the results must be embodied in a report and submitted in accordance with the University's requirements.

8016 Master of Engineering Science in Process Engineering

MEngSc

Typical Duration
1 year

Minimum UOC for Award
48 units of credit

Typical UOC per Session
24 units of credit

Program Description

The MEngSc degree programs involve a project that must integrate and apply the principles treated in the program. It may take the form of a design feasibility study or an experimental investigation. Evidence of initiative and of a high level of ability and understanding is required in the student's approach, and the results must be embodied in a report and submitted in accordance with the University's requirements.

The program will involve full time study at UNSW for overseas students for a period of one year. Australian citizens or permanent residents may elect to take the program in a series of modules over a somewhat longer period. The degree can be obtained by taking a combination of courses to a minimum number of 48 units of credits. Students with a recognised 4 year BE or BSc degree OR students with a recognised three-year BE or BSc plus satisfactory evidence of other academic or professional attainments will be permitted to enrol.

Program Structure

Whilst the program is aimed at maximum flexibility, four courses (6 UOC) from the list of postgraduate courses at CEIC (CEIC81XX, CEIC82XX and CEIC83XX) will be considered as core courses for the total of 24 units of credit. Please note that not all courses are offered in any one session. Students may choose to register in two more postgraduate courses at CEIC from the list below or instead may choose the CEIC8320 (12 UOC) which is a project on relevant aspects of process industries, supervised by academic members of staff. A list of current research areas and supervisors will be given to enrolling students.

The remainder of 12 units of credit can be taken as electives, which may be given as one-week intensive programs or can be taken from other schools at the University.

The Head of School or Graduate Studies Coordinator must approve each student program.

List of Courses (6 units of credit)

CEIC8101	Reaction Engineering and Catalysis	(6 UOC)
CEIC8102	Process Control	(6 UOC)
CEIC8103	Particle & Separation Technology	(6 UOC)
CEIC8104	Topics in Polymer Technology	(6 UOC)
CEIC8201	Minerals Engineering 1	(6 UOC)
CEIC8203	Environmental Management	(6 UOC)
CEIC8204	Topics in Business Management in Chemical Engineering	(6 UOC)
CEIC8205	Fuel and Energy Engineering	(6 UOC)
CEIC8206	Minerals Engineering II	(6 UOC)
CEIC8209	Fuel and Energy Engineering 2	(6 UOC)
CEIC8301	Electrochemical Engineering	(6 UOC)
CEIC8302	Process Heat Transfer	(6 UOC)
CEIC8303	Fouling in Process Industries and Equipment	(6 UOC)
CEIC8310	Computing Studies in the Process Industries	(6 UOC)
CEIC8311	Instrumental Analysis in the Proc Industries	(6 UOC)
CEIC8313	Environmental Technologies	(6 UOC)
CEIC8320	Process Engineering Project for MEngSc program only	(12 UOC)
CEIC8330	Process Engineering in the Petroleum Industry	(6 UOC)
CEIC8331	Process Engineering: Natural Gas and Light Hydrocarbons to Petrochemicals	(6 UOC)
CEIC8332	Process Engineering in the Food Industry	(6 UOC)
CEIC8335	Advanced Computer Methods in the Process Industries	(6 UOC)
CEIC8336	Environmental Chemistry in the Process Industries	(6 UOC)
CEIC8337	Particle Characterisation in the Process Industries	(6 UOC)
CEIC8341	Membrane Technology in the Process Industries	(6 UOC)
CEIC8351	Pharmaceutical Processing	(6 UOC)
CEIC8319	Minor Project	(6 UOC)

5034 Graduate Diploma in Aluminium Smelting Technology

GradDip

Typical Duration
0.8 year

Minimum UOC for Award
36 units of credit

Typical UOC per Session
24 units of credit

Program Description

The School of Chemical Engineering and Industrial Chemistry now offers a Graduate Diploma in Aluminium Smelting Technology. Applicants with a recognised three- or four-year BSc or BE degree will be permitted to enrol directly into the Diploma program. Applicants with no tertiary qualifications but with experience in the aluminium smelting industry will also be considered for entry into the Diploma program after successful completion of the corresponding Graduate Certificate in Aluminium Smelting Technology (7334). Depending on their performance, students enrolled in the GradCert program may also be eligible to upgrade to the Graduate Diploma prior to taking out the Certificate as long as they already hold a three- or four-year relevant degree and have no recorded failures in the courses attempted.

The Graduate Diploma in Aluminium Smelting Technology will be awarded after successful completion of 36 units of credit courses. For the GradDip, the 4 courses offered under the GradCert in Aluminium Smelting Technology must be completed together with a further 12 units of credit. This must include at least one of the following 6 units of credit Elective Courses. Please note that some of these courses may be offered only every two years. Some courses are avilable as distance delivery modules, which include a 3-4 week intensive training period (usuall in June/July) to permit industry personnel to attend on a full-time basis. A further 6 units of credit can be chosen from an approved tertiary program.

Applicants who have already completed the GradCert in Aluminium Smelting Technology will need to choose at least 2 of the specified 6 units of credit Elective Courses. Of the additional 24 units of credit required for the GradDip, at least 12 units of credit must be selected from the Master of Process Engineering (8016) program at UNSW. The balance may be chosen from other approved tertiary programs.

Program Structure

Core Courses

CEIC7001	The Aluminium Industry	(6 UOC)
CEIC7002	Electrochemical Engineering	(6 UOC)
CEIC7003	Process Operation	(6 UOC)
CEIC7004	Material Requirements and Selection	(6 UOC)

Elective Courses

CEIC7005	Quality Control in Smelting	(6 UOC)
CEIC7006	Retrofitting & Advances Cell Design	(6 UOC)
CEIC7007	Emissions and Waste Minimisation	(6 UOC)

Admission requirements

Recognised three- or four-year BSc or BE degree or successful completion of Graduate Certificate in Aluminium Smelting Technology (7334)

7334 Graduate Certificate in Aluminium Smelting Technology

GradCert

Typical Duration
0.5 year

Minimum UOC for Award
24 units of credit

Typical UOC per Session
24 units of credit

Program Description

The School of Chemical Engineering and Industrial Chemistry now offers a Graduate Certificate in Aluminium Smelting Technology to allow a flexible entry mode for experienced applicants with limited tertiary qualifications. Applicants with a recognised three- or four-year BSc or BE degree will be permitted to enrol in the Graduate Certificate program. Applicants with no tertiary qualifications but with experience in the aluminium smelting industry will also be considered for entry into the GradCert program. Admission will be on an individual basis depending on the level of experience. The content for the GradCert program is made up of the four courses (each of 6 units of credit) detailed below. These courses will be offered as flexible delivery modules which will include a 3-4 week intensive training period (in June/July or November/December) to permit industry personnel to attend on a full-time basis.

Students entering the program with an appropriate degree may progress into the GradDip (5034) / Masters Process Engineering (8016) program providing the normal admission requirements are met. Students entering the program without a degree, but with relevant industrial experience may be eligible to upgrade to the GradDip (5034) depending on their performance. This will usually require a credit average (65%) with no failures in the 4 courses attempted.

Program Structure

Core Courses:

CEIC7001	The Aluminium Industry	(6 UOC)
CEIC7002	Electrochemical Engineering	(6 UOC)
CEIC7003	Process Operation	(6 UOC)
CEIC7004	Material Requirements and Selection	(6 UOC)

Admission requirements

Minimum requirement is a recognised threee-year BSc or BE degree or approved experience in the aluminium smelting industry.

8033 Master of Science in Food Science and Technology

MSc

Typical Duration
1 year

Minimum UOC for Award
48 units of credit

Typical UOC per Session
24 units of credit

Program Description

The MSc coursework degree programs in Food Science provide a comprehensive study of theoretical and applied aspects of the science, technology and engineering of foods. The programs are elective in nature providing an opportunity for graduates to apply their basic skills in areas relevant to those fields of science and technology in which the School has developed special expertise. Intending candidates are invited to contact the Program Coordinator for advice and recommendations.

Program Structure

Students are required to complete a program of study totalling 48 UOC made up of compulsory courses, a compulsory project and elective courses. Students who have previously studied compulsory courses or their equivalent may be granted an exemption by the Head of School but the equivalent number of units of credit must be completed by taking other approved courses. The degree will comprise one year of full-time study (normally two sessions of 24 UOC each), or two years of part-time study (normally four sessions of 12 UOC each), and would comprise:

1. A major strand of related material comprising approximately 75% of the total program, including a project comprising not less than 12.5% nor more than 25% of the program.

2. A minor strand of broader based material comprising up to 25% of the total program.

3. Undergraduate material may be included in one or both strands but will not be included in units of credit.

4. At least 60% of the non-project component must be taken in the School of Chemical Engineering & Industrial Chemistry unless otherwise approved by the Program Coordinator. The remainder, subject to approval and availability, may be undertaken elsewhere in the University.

The Master of Science in Food Science and Technology are available in the following specialisations:

Food Microbiology Program - FOODBS8033
Food Engineering Program - FOODAS8033
Food Science and Nutrition Program - FOODDS8033

Food Microbiology – Plan FOODBS8033

The MSc by Coursework program in Food Microbiology is designed for graduates in Food Science, Food Technology, Microbiology, Biochemistry, Biotechnology or related disciplines, who seek specialised knowledge of microorganisms associated with foods. The program provides advanced training in all aspects of food microbiology as well as some fundamental aspects of food science and technology.

A four-year Bachelor degree, Honours degree or equivalent (e.g. three year degree plus sufficient relevant industry experience) involving some basic training in microbiology and biochemistry is the minimum requirement for admission to the program.

Compulsory courses

FOOD2627	Food Microbiology	(6 UOC)
FOOD2637	Quality Assurance and Control	(6 UOC)
FOOD2667	Advanced Food Microbiology	(6 UOC)
either		
FOOD5117	Minor Project	(6 UOC)
or		
FOOD5127	Research Project	(12 UOC)

Elective courses

FOOD1587	Food Preservation: Principles and Applications	(6 UOC)
FOOD1787	Forensic Food Science	(6 UOC)
FOOD2647	Food Safety	(6 UOC)

or other courses as approved by the Program Coordinator to a total of 48 units of credit.

Food Engineering -– Plan FOODAS8033

The MSc by Coursework in Food Engineering is designed for graduates in Engineering or related disciplines who have an interest in the processing of biological resources for human consumption. The formal components of the program provide professional training at an advanced level in food engineering and food science. The studies in food engineering are designed to strengthen and broaden the engineering background of candidates and emphasise the use of fundamental principles in solving problems associated with food processing. Problem solving skills in engineering are developed further in a research project devoted to an area of food engineering.

Compulsory courses
UOC

FOOD1577	Food Processing Principles	(6 UOC)
FOOD1587	Food Preservation: Principles and Applications	(6 UOC)
FOOD1597	Unit Operations in Food Processing	(6 UOC)
FOOD4617	Advanced Food Engineering	(6 UOC)
either		
FOOD5117	Minor Project	(6 UOC)
or		
FOOD5127	Research Project	(12 UOC)

Elective courses

FOOD1787	Forensic Food Science	(6 UOC)
FOOD2637	Quality Assurance and Control	(6 UOC)
FOOD2647	Food Safety	(6 UOC)

or other courses as approved by the Program Coordinator to a total of 48 units of credit.

Food Science and Nutrition– Plan FOODDS8033

The MSc by Coursework in Food Science and Nutrition is designed for graduates in Science, Food Science and Food Technology with principal interests in chemistry, biochemistry, physiology and human nutrition. The program is comprised of a core component (including a project) and an elective component that allows for reasonable flexibility and a choice of courses in human nutrition and food science and technology based on the candidate's background.

Compulsory courses

FOOD1587	Food Preservation: Principles and Applications	(6 UOC)
or		
FOOD1697	Advanced Food Chemistry	(6 UOC)
FOOD2647	Food Safety	(6 UOC)
FOOD3567	Nutrition	(6 UOC)
FOOD3577	Advanced and Applied Nutrition	(6 UOC)
FOOD5117	Minor Project	(6 UOC)
or		
FOOD5127	Research Project	(12 UOC)

Elective courses

PHCM9500	Epidemiology for Public Health	(6 UOC)
PHCM9516	Introduction to Public Health	(4UOC)
PHCM9605	Health in Developing Countries	(4UOC)
PHCM9610	Food and Nutrition Policy Studies	(4UOC)
PHCM9371	Research and Evaluation Methods	(4UOC)

or other courses as approved by the Program Coordinator to a total of 48 UOC.

Academic Rules

For academic rules relating to this program, please refer to the Program Structure above and contact the School Office for further information.

Admission Requirements

A four-year Bachelor degree, Honours degree or equivalent (e.g. three-year degree plus relevant employment experience) is the minimum requirement for admission to the programs.

5020 Graduate Diploma in Food Technology

GradDip

Typical Duration
0.8 year

Minimum UOC for Award
36 units of credit

Typical UOC per Session
24 units of credit

Program Description

The program is a blend of formal lectures and laboratory work. The Graduate Diploma is awarded on the successful completion of one year of full-time study (at least 36 units of credit) or two years of part-time study (at least 18 units of credit per year).

Program Objectives and Learning Outcomes

The Graduate Diploma program is designed to provide professional training at an advanced level for graduates in Science, Science and Technology or Engineering who have not had previous training in Food Technology.

Program Structure

Core Courses

FOOD1577	Food Processing Principles	(6 UOC)
FOOD1587	Food Preservation: Principles and Applications	(6 UOC)
FOOD1597	Unit Operations in Food Processing	(6 UOC)
FOOD2627	Food Microbiology	(6 UOC)
FOOD2637	Quality Assurance and Control	(6 UOC)

Students who have previously studied compulsory courses or their equivalent at an acceptable level may be granted an exemption by the Head of Department but the equivalent number of units of credit must be completed by taking other approved courses.

Elective Courses

The elective courses making up the remainder of the units of credit may be selected from those offered by the School of Industrial Chemistry, or from those offered by other schools in the University subject to approval by the Head of Department. Only graduate courses will count towards units of credit.

Academic Rules

For academic rules relating to this program, please refer to the Program Structure above and contact the School Office for further information.

Admission Requirement

Requirements are a first degree and, in some cases, the successful completion of assignments or examinations as directed by the Head of Department.

7310 Graduate Certificate in Food Science and Technology

GradCert

Typical Duration
0.5 years

Minimum UOC for Award
24 units of credit

Typical UOC per Session
24 units of credit

Program Description

(Full-time or Part-time)

This program provides the opportunity to obtain a Graduate Certificate qualification after successful completion of postgraduate courses totalling 18 UOC. Generally, this will require three courses, each 6 UOC. The Graduate Certificate program will suit practicing food science/technology graduates or other graduates, wishing to upgrade their knowledge and skills in particular areas of the field (e.g. nutrition, food microbiology, food safety, food processing, product development, quality assurance).

Entry to this program generally requires a three year degree in a science based program, but subject to the approval by the Head of School, those with less formal tertiary qualifications but with relevant work experience, may be admitted.

Program Objectives and Learning Outcomes

Please contact the School of Chemical Engineering & Industrial Chemistry, the Faculty of Engineering or refer to their website **www.foodscience.unsw.edu.au** for information.

Program Structure

Please contact the School of Chemical Engineering & Industrial Chemistry, the Faculty of Engineering or refer to their website **www.foodscience.unsw.edu.au** for information.

Academic Rules

For academic rules relating to this program, please refer to the Program Structure above and contact the School Office for further information.

School of Civil and Environmental Engineering

Head of School: Professor NJ Ashbolt
Senior Administrative Officer: Ms KM Irvine
Executive Assistant: Vacant

The School undertakes teaching and research in the specialist disciplines of engineering construction and management (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, bridge engineering and concrete and materials technology), transport engineering (planning design and operation of transport systems, traffic analysis, land use and transport modelling, statistical analysis, economic evaluations and environmental impact studies), and water engineering (hydraulics, hydrology, groundwater, coastal engineering, 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. 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 Centre for Water and Waste Technology is also located within the School.

Program Outlines

Opportunities are provided for graduate research leading to the award of the degrees of Master of Engineering (2650), Master of Science (2750) a Master of Philosophy in Civil Engineering (2685, plan CVPGAR2685) and a Master of Philosophy in Environmental Engineering (2685, plan CVPGBR2685) and Doctor of Philosophy (1630). The School has a large number of full-time research students and it leads the country in research across the breadth of civil and environmental engineering.

The School offers the most extensive range of postgraduate coursework in civil and environmental engineering in Australia. There are formal graduate programs offered in internal mode leading to the award of the degrees of Master of Engineering Science (8612), Master of Environmental Engineering Science (8615), the Graduate Diploma in Engineering (5459) and the Graduate Certificate in Civil or Environmental Engineering (7336 or 7337). These programs are available in specialist areas including project management, construction management, engineering/technology management, infrastructure management, environmental engineering, coastal engineering and management, geotechnical engineering, groundwater studies, hydrology and water resources, structural engineering, transport engineering, waste management, water and wastewater treatment, water quality management and water engineering. Corresponding programs in external mode delivery are 8617, 8618 and 5454. Within the external Master of Engineering Science and Graduate Diploma programs, students may undertake construction management, project management, engineering/technology management, infrastructure management, environmental engineering, water & wastewater treatment and waste management by distance learning. Some specialisations are also taught in offshore delivery in Singapore – the Master of Engineering Science (8607) and Graduate Diploma (5444).

Coursework Programs

Master of Engineering Science and Master of Environmental Engineering Science candidates are required to complete a program totalling 48 units of credit (UOC) which may include a 12 UOC project. Courses are presented in a range of delivery modes including 3 hours per week over a 14 week session (6 UOC), 3 hours per week over a 7 week period (3 UOC), and as 3 day short courses (3 UOC). Some courses are available off-campus in external mode delivery. Subject to approval, candidates may undertake some courses from other schools in the faculty, in other faculties or at other universities.

Students may enrol in a particular academic plan or specialisation. Usually a student undertakes a minimum of 30 UOC from a list of prescribed courses for the particular plan or specialisation and a maximum of 18 UOC from other postgraduate courses available within the School. The Postgraduate Coursework Coordinator may approve variations to the above in special circumstances and must approve elective courses taken outside the School.

Graduate Diploma candidates are required to complete a program of study totalling 36 UOC of coursework and may choose from a range of courses in the discipline of their choice. All courses offered in the Masters program can also be taken in the Graduate Diploma program subject to approval by the Postgraduate Coursework Coordinator. In some cases up to 12 UOC may be derived from approved undergraduate courses.

It should be noted that some candidates who have partially completed the requirements for Graduate Diploma might be considered for upgrading to the relevant Masters program with advanced standing. Further enquiries should be made at the School Office.

Note that not all courses are offered each year and the School Office should be consulted for details of the timetable for any particular year. Consequently not all academic plans are available on a full-time basis.

8612 Master of Engineering Science in Civil & Environmental Engineering *(internal mode)*

MEngSc

Typical Duration
1 year

Minimum UOC for Award
48 units of credit

Typical UOC per Session
24 units of credit

Program Description

Master of Engineering Science candidates are required to complete a program totalling 48 units of credit (UOC) which may include a 12 UOC project. Courses are presented in a range of delivery modes including 3 hours per week over a 14 week session (6 units of credit), 3 hours per week over a 7 week period (3 UOC), and as 3 day short courses (3 UOC). Some courses are available off-campus in external mode delivery. Subject to approval, candidates may undertake some courses from other schools in the faculty, in other faculties or at other universities.

Note that not all courses are offered each year and the School Office should be consulted for details of the timetable for any particular year. Consequently not all academic plans are available on a full-time basis.

Program Structure

Internal Mode Delivery

In each academic plan or specialisation, a minimum of 36 units of credit must be taken from the list of prescribed courses, unless a variation is approved by the Postgraduate Coursework Coordinator. Advice on selection of courses is available from the School Office. If CVEN9930 is undertaken as part of the 30 units of credit minimum requirement, the topic of the research project must be in the area of the relevant specialisation.

CVPGAS 8612 Project Management

Prescribed courses:

CVEN9701	Engineering Economics and Financial Management	(6 UOC)
CVEN9702	Project Planning and Control	(6 UOC)
CVEN9703	Quality and Quality Systems	(6 UOC)
CVEN9706	Human Resources Management	(6 UOC)
CVEN9707	Contracts Management	(6 UOC)
CVEN9710	Management of Risk	(6 UOC)
CVEN9730	International Project Management	(6 UOC)
CVEN9731	Project Management Framework	(6 UOC)
CVEN9930	Masters Project	(12 UOC)

CVPGBS 8612 Construction Management

Prescribed courses:

CVEN9701	Engineering Economics and Financial Management	(6 UOC)
CVEN9702	Project Planning and Control	(6 UOC)
CVEN9703	Quality and Quality Systems	(6 UOC)
CVEN9706	Human Resources Management	(6 UOC)
CVEN9707	Contracts Management	(6 UOC)
CVEN9710	Management of Risk	(6 UOC)
CVEN9723	Design of Construction Operations	(6 UOC)
CVEN9730	International Project Management	(6 UOC)
CVEN9731	Project Management Framework	(6 UOC)
CVEN9930	Masters Project	(12 UOC)

CVPGCS 8612 Engineering and Technology Management

Prescribed courses:

CVEN9701	Engineering Economics and Financial Management	(6 UOC)
CVEN9703	Quality and Quality Systems	(6 UOC)
CVEN9706	Human Resources Management	(6 UOC)
CVEN9707	Contracts Management	(6 UOC)
CVEN9710	Management of Risk	(6 UOC)
CVEN9718	Strategic Management for Engineering	(6 UOC)
CVEN9930	Masters Project	(12 UOC)

CVPGDS 8612 Infrastructure Management

Prescribed courses:

CVEN9701	Engineering Economics and Financial Management	(6 UOC)
CVEN9703	Quality and Quality Systems	(6 UOC)

CVEN9707	Contracts Management	(6 UOC)
CVEN9710	Management of Risk	(6 UOC)
CVEN9718	Strategic Management for Engineering	(6 UOC)
CVEN9930	Masters Project	(12 UOC)

CVPGES 8612 Geotechnical Engineering

Prescribed courses:

CVEN9500	Engineering Geology and Geotechnical Models	(3 UOC)
CVEN9501	Geotechnical Site Investigation Methods	(3 UOC)
CVEN9502	Geotechnical Engineering of Foundations	(3 UOC)
CVEN9503	Advanced Foundation Engineering	(3 UOC)
CVEN9506	Geotechnical Mapping	(3 UOC)
CVEN9507	Advanced Geotechnical Site Investifation	(6 UOC)
CVEN9508	Rock Slope Instability and Stabilization	(3 UOC)
CVEN9773	Introduction to Rock Engineering	(3 UOC)
CVEN9790	Soil Slope Instability and Stabilisation	(6 UOC)
CVEN9793	Geomechanics	(6 UOC)
CVEN9794	Geotechnical Engineering of Dams	(6 UOC)

For courses CVEN9501, CVEN9502 and CVEN9773 If the student has covered similar topics in his/her Bachelor degree, alternative courses may be included from the following list of recommended electives.

Recommended electives:

CVEN7807	Groundwater Hydrology	(3 UOC)
CVEN7808	Investigation of Groundwater Resources	(3 UOC)
CVEN7809	Geophysical Techniques in Groundwater and Geotechnical Studies	(3 UOC)
CVEN9509	Pavement Materials	(3 UOC)
CVEN9770	Introduction to Numerical Methods in Civil Engineering	(3 UOC)
CVEN9776	Rock Engineering for Tunnels and Underground Structures	(3 UOC)
CVEN9784	Pavement Analysis and Design	(6 UOC)
CVEN9786	Industrial, Airport and Heavy Duty Pavements	(3 UOC)
CVEN9799	Geotechnics of Waste Disposal and Site Remediation	(6 UOC)

CVPGQS 8612 Engineering Geology

Prescribed courses:

CVEN7807	Groundwater Hydrology	(3 UOC)
CVEN9500	Engineering Geology and Geotechnical Models	(3 UOC)
CVEN9501	Geotechnical Site Investigation Methods	(3 UOC)
CVEN9502	Geotechnical Engineering of Foundations	(3 UOC)
CVEN9506	Geotechnical Mapping	(3 UOC)
CVEN9508	Rock Slope Instability and Stabilization	(3 UOC)
CVEN9773	Introduction to Rock Engineering	(3 UOC)
CVEN9776	Rock Engineering for Tunnels and Underground Structures	(3 UOC)
CVEN9790	Soil Slope Instability and Stabilisation	(6 UOC)
CVEN9794	Geotechnical Engineering of Dams	(6 UOC)
CVEN9798	Fundamentals of Geomechanics	(3 UOC)

Recommended Electives:

CVEN7808	Investigation of Groundwater Resources	(3 UOC)
CVEN7809	Geophysical Techniques in Groundwater and Geotechnical Studies	(3 UOC)
CVEN9503	Advanced Foundation Engineering	(3 UOC)
CVEN9509	Pavement Materials	(3 UOC)
CVEN9770	Introduction to Numerical Methods in Civil Engineering	(3 UOC)
CVEN9786	Industrial, Airport and Heavy Duty Pavements	(3 UOC)
CVEN9793	Geomechanics	(6 UOC)
CVEN9799	Geotechnics of Waste Disposal and Site Remediation	(6 UOC)

CVPFS8612 Structural Engineering

Prescribed courses:

CVEN9770	Introduction to Numerical Methods in Civil Engineering	(3 UOC)
CVEN9802	Structural Stability	(6 UOC)
CVEN9806	Prestressed Concrete Design	(6 UOC)
CVEN9809	Reinforced Concrete Design	(6 UOC)
CVEN9818	Bridge Engineering	(6 UOC)
CVEN9820	Computational Structural Mechanics	(6 UOC)
CVEN9822	Steel Structures	(6 UOC)
CVEN9824	Advanced Materials Technology	(6 UOC)
CVEN9827	Composite Steel-Concrete Structures	(6 UOC)
CVEN9930	Masters Project	(12 UOC)

CVPGGS 8612 Transport Engineering

Prescribed courses:

CVEN9405	Urban Transport Planning Practice	(6 UOC)
CVEN9414	Transport Systems Part 1	(6 UOC)
CVEN9415	Transport Systems Part 2	(6 UOC)
CVEN9421	Fundamentals of Traffic Engineering	(6 UOC)
CVEN9422	Traffic Management and Control	(6 UOC)
CVEN9930	Masters Project	(12 UOC)
GEOH9018	Transportation Applications of Geographical Information Systems	(6 UOC)

Recommended Electives:

CVEN9509	Pavement Materials	(3 UOC)
CVEN9702	Project Planning and Control	(6 UOC)
CVEN9707	Contracts Management	(6 UOC)
CVEN9731	Project Management Framework	(6 UOC)
CVEN9784	Pavement Analysis and Design	(6 UOC)
CVEN9786	Industrial, Airport and Heavy Duty Pavements	(3 UOC)
GEOH9011	Environmental Impact Assessment	(6 UOC)

CVPGOS 8612 Waste Management

Prescribed courses:

CVEN9851	Unit Operations in Water and Waste Management	(6 UOC)
CVEN9872	Solid Waste Management	(6 UOC)
CVEN9881	Hazardous Waste Management	(6 UOC)
CVEN9884	Environmental Engineering Science 1	(6 UOC)
CVEN7832	Advanced Environmental Life Cycle Assessment and Life Cycle Costing	(3 UOC)
CVEN9799	Geotechnics of Waste Disposal and Site Remediation	(6 UOC)
CVEN9885	Environmental Engineering Science 2	(6 UOC)
CVEN9930	Masters Project	(12 UOC)

Note:

CVEN9884 is the same as a combination of both CVEN7825 andCVEN7826
CVEN9885 is the same as a combination of both CVEN7827 and CVEN7828

CVPGJS 8612 Water and Wastewater Treatment

Prescribed courses:

CVEN9851	Unit Operations in Water and Waste Management	(6 UOC)
CVEN9884	Environmental Engineering Science 1	(6 UOC)
CVEN7832	Advanced Environmental Life Cycle Assessment and Life Cycle Costing	(3 UOC)
CVEN9855	Water and Wastewater Analysis and Quality Requirements	(6 UOC)
CVEN9856	Water Treatment	(6 UOC)
CVEN9857	Wastewater Treatment	(6 UOC)
CVEN9930	Masters Project	(12 UOC)

Note: *CVEN9884 is the same as a combination of both CVEN7825 and CVEN7826*

CVPGKS 8612 Groundwater Studies

Prescribed courses:

CVEN7807	Groundwater Hydrology	(3 UOC)
CVEN7808	Investigation of Groundwater Resources	(3 UOC)
CVEN7809	Geophysical Techniques in Groundwater and Geotechnical Studies	(3 UOC)
CVEN7810	Electrical Methods in Groundwater Investigation	(3 UOC)
CVEN7811	Sediment Transport in Alluvial River Systems	(3 UOC)
CVEN7819	Hydrological Processes	(3 UOC)
CVEN7823	Applied Groundwater Modelling	(3 UOC)
CVEN7830	Physical Aspects of Contaminated Groundwater	(3 UOC)
CVEN9930	Masters Project	(12 UOC)
GEOL9053	Hydrogeochemistry	(3 UOC)
GEOL9054	Analysis and Interpretation of Hydrogeochemical Data	(3 UOC)
GEOL9055	Hydrogeochemical Modelling	(3 UOC)
GEOL9111	Groundwater Environments	(3 UOC)
GEOL9112	Investigation and Management of Salinity	(3 UOC)

CVPGLS 8612 Coastal Engineering and Management

Prescribed Courses:

CVEN7800	Urban Hydrology and Stormwater	(3 UOC)
CVEN7801	Design of Stormwater Structures	(3 UOC)
CVEN7802	Coastal Dynamics	(3 UOC)

CVEN7803	Coastal and Beach Processes	(3 UOC)
CVEN7804	Coastal Structures	(3 UOC)
CVEN7805	Coastal Zone Management	(3 UOC)
CVEN7807	Groundwater Hydrology	(3 UOC)
CVEN7808	Investigation of Groundwater Resources	(3 UOC)
CVEN7811	Sediment Transport in Alluvial River Systems	(3 UOC)
CVEN7812	Natural and Artificial Wetlands	(3 UOC)
CVEN7813	Estuarine Processes	(3 UOC)
CVEN7818	Channel and River Models	(3 UOC)
CVEN7819	Hydrological Processes	(3 UOC)
CVEN7824	Risk Analysis in Water Engineering	(3 UOC)
CVEN9930	Masters Project	(12 UOC)

CVPGMS 8612 Hydrology and Water Resources

Prescribed courses:

CVEN7800	Urban Hydrology and Stormwater	(3 UOC)
CVEN7801	Design of Stormwater Structures	(3 UOC)
CVEN7806	Catchment and Water Quality Management	(3 UOC)
CVEN7807	Groundwater Hydrology	(3 UOC)
CVEN7811	Sediment Transport in Alluvial River Systems	(3 UOC)
CVEN7812	Natural and Artificial Wetlands	(3 UOC)
CVEN7813	Estuarine Processes	(3 UOC)
CVEN7815	Introduction to Catchment Models	(3 UOC)
CVEN7816	Catchment Surface Models	(3 UOC)
CVEN7818	Channel and River Models	(3 UOC)
CVEN7819	Hydrological Processes	(3 UOC)
CVEN7820	Rainfall and Runoff Processes	(3 UOC)
CVEN7824	Risk Analysis in Water Engineering	(3 UOC)
CVEN9930	Masters Project	(12 UOC)
GEOL9112	Investigation and Management of Salinity	(3 UOC)

CVPGNS 8612 Water Quality Management

Prescribed courses:

CVEN7800	Urban Hydrology and Stormwater	(3 UOC)
CVEN7805	Coastal Zone Management	(3 UOC)
CVEN7806	Catchment and Water Quality Management	(3 UOC)
CVEN7807	Groundwater Hydrology	(3 UOC)
CVEN7812	Natural and Artificial Wetlands	(3 UOC)
CVEN7813	Estuarine Processes	(3 UOC)
CVEN7815	Introduction to Catchment Models	(3 UOC)
CVEN7816	Catchment Surface Models	(3 UOC)
CVEN7819	Hydrological Processes	(3 UOC)
CVEN7824	Risk Analysis in Water Engineering	(3 UOC)
CVEN7825	Aquatic Chemistry for Engineering	(3 UOC)
CVEN7826	Microbiology for Engineering	(3 UOC)
CVEN7827	Contaminant Transport in the Environment	(3 UOC)
CVEN7828	Transformation and Fate of Contaminants in the Environment	(3 UOC)
CVEN9930	Masters Project	(12 UOC)

Academic Rules

For academic rules relating to this program, please refer to the Program Structure above and contact the School Office for further information.

8617 Master of Engineering Science in Civil & Environmental Engineering *(external mode)*

MEngSc

Typical Duration
1 year

Minimum UOC for Award
48 units of credit

Typical UOC per Session
24 units of credit

Program Description

Master of Engineering Science candidates are required to complete a program totalling 48 units of credit (UOC) which may include a 12 UOC project. Courses are presented off-campus in external mode delivery. Courses presented in 3 day short course mode are also available to external students. Subject to approval, candidates may undertake some courses from other schools in the faculty, in other faculties or at other universities.

Students may enrol in a particular academic plan or specialisation. Usually a student undertakes a minimum of 30 units of credit from a list of prescribed courses for the particular plan or specialisation and a maximum of 18 units of credit from other postgraduate courses available within the School. The Postgraduate Coursework Coordinator may approve variations to the above in special circumstances and must approve elective courses taken outside the School.

Note that not all courses are offered each year and the School Office should be consulted for details of the timetable for any particular year. Consequently not all academic plans are available on a full-time basis.

Program Structure

External Mode Delivery

In each academic plan or specialisation, a minimum of 36 units of credit must be taken from the list of prescribed courses, unless a variation is approved by the Postgraduate Coursework Coordinator. Advice on selection of courses is available from the School's External Programs Administrator.

Master of Engineering Science in Civil Engineering can be studied in the following specialisations:

CVPGAS 8617 Project Management

Prescribed courses:

CVEN8701	Engineering Economics and Financial Management	(6 UOC)
CVEN8703	Quality and Quality Systems	(6 UOC)
CVEN8706	Human Resources Management	(6 UOC)
CVEN8707	Contracts Management	(6 UOC)
CVEN8710	Management of Risk	(6 UOC)
CVEN8720	Problem Solving and Decision Making	(6 UOC)
CVEN8730	International Project Management	(6 UOC)
CVEN8731	Project Management Framework	(6 UOC)

CVPGBS 8617 Construction Management

Prescribed courses:

CVEN8701	Engineering Economics and Financial Management	(6 UOC)
CVEN8702	Project Planning and Control	(6 UOC)
CVEN8703	Quality and Quality Systems	(6 UOC)
CVEN8706	Human Resources Management	(6 UOC)
CVEN8707	Contracts Management	(6 UOC)
CVEN8710	Management of Risk	(6 UOC)
CVEN8714	Resource Management	(6 UOC)
CVEN8720	Problem Solving and Decision Making	(6 UOC)
CVEN8723	Design of Construction Operations	(6 UOC)
CVEN8727	Construction Estimating and Tendering	(6 UOC)
CVEN8730	International Project Management	(6 UOC)
CVEN8731	Project Management Framework	(6 UOC)

CVPGCS 8617 Engineering and Technology Management

Prescribed courses:

CVEN8701	Engineering Economics and Financial Management	(6 UOC)
CVEN8703	Quality and Quality Systems	(6 UOC)
CVEN8706	Human Resources Management	(6 UOC)
CVEN8707	Contracts Management	(6 UOC)
CVEN8710	Management of Risk	(6 UOC)
CVEN8714	Resource Management	(6 UOC)
CVEN8717	Marketing in Technology and Engineering	(6 UOC)
CVEN8718	Strategic Management in Engineering	(6 UOC)
CVEN8720	Problem Solving and Decision Making	(6 UOC)

CVPGDS 8617 Infrastructure Management

Prescribed courses:

CVEN8701	Engineering Economics and Financial Management	(6 UOC)
CVEN8703	Quality and Quality Systems	(6 UOC)
CVEN8707	Contracts Management	(6 UOC)
CVEN8710	Management of Risk	(6 UOC)
CVEN8714	Resource Management	(6 UOC)
CVEN8717	Marketing in Technology and Engineering	(6 UOC)
CVEN8718	Strategic Management in Engineering	(6 UOC)
CVEN8720	Problem Solving and Decision Making	(6 UOC)

CVPGFS 8617 Transport Engineering

Prescribed courses:

CVEN8414	Transport Systems Part 1	(6 UOC)
CVEN8415	Transport Systems Part 2	(6 UOC)
CVEN8421	Fundamentals of Traffic Engineering	(6 UOC)
CVEN8422	Traffic Management and Control	(6 UOC)
CVEN8701	Engineering Economics and Financial Management	(6 UOC)

CVEN8703	Quality and Quality Systems	(6 UOC)
CVEN8706	Human Resources Management	(6 UOC)
CVEN8888	Environmental Management	(6 UOC)
CVEN8930	Masters Project	(12 UOC)

CVPGOS 8617 Waste Management

Prescribed courses:

CVEN8799	Geotechnics Waste Disposal and Site Remediation	(6 UOC)
CVEN8851	Unit Operations in Water and Waste Management	(6 UOC)
CVEN8872	Solid Waste Management	(6 UOC)
CVEN8881	Hazardous Waste Management	(6 UOC)
CVEN8884	Environmental Engineering Science 1	(6 UOC)
CVEN8885	Environmental Engineering Science 2	(6 UOC)
CVEN8888	Environmental Management	(6 UOC)
CVEN8930	Masters Project	(12 UOC)

CVPGJS 8617 Water and Wastewater Treatment

Prescribed courses:

CVEN8851	Unit Operations in Water and Waste Management	(6 UOC)
CVEN8855	Water and Wastewater Analysis and Quality Requirements	(6 UOC)
CVEN8856	Water Treatment	(6 UOC)
CVEN8857	Wastewater Treatment	(6 UOC)
CVEN8881	Hazardous Waste Management	(6 UOC)
CVEN8884	Environmental Engineering Science 1	(6 UOC)
CVEN8888	Environmental Management	(6 UOC)
CVEN8930	Masters Project	(12 UOC)

Academic Rules

For academic rules relating to this program, please refer to the Program Structure above and contact the School Office for further information.

8607 Master of Engineering Science *(offshore mode)*

MEngSc

Typical Duration
1 year

Minimum UOC for Award
48 units of credit

Typical UOC per Session
24 units of credit

Program Description

Delivered externally in Singapore

This program is delivered externally in Singapore in association with Cornerstone Training Centre. Distance delivery is used in conjunction with intensive seminars. The six core courses are compulsory.

Program Structure

The Master of Engineering Science is available in the following specialisations:

Construction Management – Plan CVPGBS607

Core Courses:

CVEN8701	Engineering Economics and Financial Management	(6 UOC)
CVEN8706	Human Resources Management	(6 UOC)
CVEN8707	Contracts Management	(6 UOC)
CVEN8710	Management of Risk	(6 UOC)
CVEN8714	Resource Management	(6 UOC)
CVEN8718	Strategic Management in Engineering	(6 UOC)
CVEN8723	Design of Construction Operations	(6 UOC)
CVEN8727	Construction Estimating and Tendering	(6 UOC)

Engineering & Technology Management – Plan CVPGCS8607

Core Courses:

CVEN8701	Engineering Economics and Financial Management	(6 UOC)
CVEN8703	Quality and Quality Systems	(6 UOC)
CVEN8706	Human Resources Management	(6 UOC)
CVEN8707	Contracts Management	(6 UOC)
CVEN8710	Management of Risk	(6 UOC)
CVEN8714	Resource Management	(6 UOC)
CVEN8717	Marketing in Technology and Engineering	(6 UOC)
CVEN8718	Strategic Management in Engineering	(6 UOC)

Project Management CVPGAS8607

Core Courses:

CVEN8701	Engineering Economics and Financial Management	(6 UOC)
CVEN8702	Project Planning and Control	(6 UOC)
CVEN8706	Human Resources Management	(6 UOC)
CVEN8707	Contracts Management	(6 UOC)
CVEN8710	Management of Risk	(6 UOC)
CVEN8714	Resource Management	(6 UOC)
CVEN8718	Strategic Management in Engineering	(6 UOC)
CVEN8731	Project Management Framework	(6 UOC)

8615 Master of Environmental Engineering Science *(internal mode)*

MEnvEngSc

Typical Duration
1 year

Minimum UOC for Award
48 units of credit

Typical UOC per Session
24 units of credit

Program Description

Please contact the School of Civil and Environmental Engineering or the Faculty of Engineering for information.

Program Structure

Internal Mode Delivery

The Master of Environmental Engineering Science consists of the following three courses (18 UOC):

CVEN9884	Environmental Engineering Science 1	(6 UOC)
or both		
CVEN7825	Aquatic Chemistry for Engineering	(3 UOC)
CVEN7826	Microbiology for Engineering	(3 UOC)
and		
CVEN9885	Environmental Engineering Science 2	(6 UOC)
or both		
CVEN7827	Contaminant Transport in the Environment	(3 UOC)
CVEN7828	Transformation and Fate of Contaminants in the Environment	(3 UOC)
and		
CVEN9888	Environmental Management	(6 UOC)

plus 30 units of credit taken from a wide range of electives courses offered by the School of Civil and Environmental Engineering or other courses approved by the Postgraduate Coursework Coordinator.

Typically elective courses are taken from the program areas of 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; the Masters Project.

Academic Rules

For academic rules relating to this program, please refer to the Program Structure above and contact the School Office for further information.

8618 Master of Environmental Engineering Science *(external mode)*

MEnvEngSc

Typical Duration
1 year

Minimum UOC for Award
48 units of credit

Typical UOC per Session
24 units of credit

Program Description

Master of Environmental Engineering Science candidates are required to complete a program totalling 48 units of credit (UOC) which may include a 12 UOC project. Courses are presented off-campus in external mode delivery. Courses presented in 3 day short course mode are also available to external students. Subject to approval, candidates may undertake some courses from other schools in the faculty, in other faculties or at other universities.

Note that not all courses are offered each year and the School Office should be consulted for details of the timetable for any particular year. Consequently not all academic plans are available on a full-time basis.

Please contact the School of Civil and Environmental Engineering or the Faculty of Engineering for information.

Program Structure

External Mode Delivery

The program consists of the following three courses (18 UOC):

CVEN8884	Environmental Engineering Science 1	(6 UOC)
CVEN8885	Environmental Engineering Science 2	(6 UOC)
CVEN8888	Environmental Management	(6 UOC)

Plus 30 units of credit from the following list of electives:

CVEN8799	Geotechnics Waste Disposal and Site Remediation	(6 UOC)
CVEN8851	Unit Operations in Water and Waste Management	(6 UOC)
CVEN8855	Water and Wastewater Analysis and Quality Requirements	(6 UOC)
CVEN8856	Water Treatment	(6 UOC)
CVEN8857	Wastewater Treatment	(6 UOC)
CVEN8872	Solid Waste Management	(6 UOC)
CVEN8881	Hazardous Waste Management	(6 UOC)
CVEN8930	Masters Project	(12 UOC)

Approval may be sought to substitute one or more of the electives for appropriate 3 UOC courses offered in 3-day short course mode. Please check availability with School Office.

Academic Rules

For academic rules relating to this program, please refer to the Program Structure above and contact the School Office for further information.

5459 Graduate Diploma in Civil & Environmental Engineering *(internal mode)*

GradDip

Typical Duration
0.8 years

Minimum UOC for Award
36 units of credit

Typical UOC per Session
24 units of credit

Program Description

Internal Mode Delivery

Graduate Diploma students undertake 36 UOC of coursework. Candidates may choose from a range of courses in the specialist area of their choice.

Subject to the approval of the Postgraduate Coursework Coordinator, all courses offered in the Masters programs can also be taken in the Graduate Diploma program. There are also opportunities to select courses from other professional areas in which candidates may be interested. In some circumstances and with the approval of the Postgraduate Coursework Coordinator, 12 UOC may be derived from approved undergraduate courses and the programs may contain courses from other schools in the Faculty, other faculties of the University and other universities.

It should be noted that some candidates who have partially or fully completed the requirements but not taken out the diploma might be considered for upgrading to the MEngSc program with advanced standing.

Courses offered are the same as those for 8612.

Program Structure

Please refer to the Program Description or contact the School of Civil and Environmental Engineering and the Faculty of Engineering for information.

Academic Rules

For academic rules relating to this program, please refer to the Program Structure above and contact the School Office for further information.

5454 Graduate Diploma in Civil & Environmental Engineering *(external mode)*

GradDip

Typical Duration
0.8 years

Minimum UOC for Award
36 units of credit

Typical UOC per Session
24 units of credit

Program Description

External Mode Delivery

Graduate Diploma students undertake 36 UOC of coursework. Candidates may choose from a range of courses in the specialist area of their choice.

Subject to the approval of the Postgraduate Coursework Coordinator, all courses offered in the Masters programs can also be taken in the Graduate Diploma program. There are also opportunities to select courses from other professional areas in which candidates may be interested. In some circumstances and with the approval of the Postgraduate Coursework Coordinator, 12 UOC may be derived from approved undergraduate courses and the programs may contain courses from other schools in the Faculty, other faculties of the University and other universities.

It should be noted that some candidates who have partially or fully completed the requirements but not taken out the diploma might be considered for upgrading to the MEngSc program with advanced standing.

Courses offered are the same as those for 8617.

Program Structure

Please contact the School of Civil and Environmental Engineering or the Faculty of Engineering for information.

Academic Rules

For academic rules relating to this program, please refer to the Program Structure above and contact the School Office for further information.

5444 Graduate Diploma in Engineering *(offshore mode)*

GradDip

Typical Duration
1 year

Minimum UOC for Award
36 units of credit

Typical UOC per Session
24 units of credit

Program Description

External delivery in Singapore

This program is delivered externally in Singapore in association with Cornerstone Training Centre.

Program Structure

To satisfy the requirements for the diploma, students are required to complete 36 UOC of courses, that is, six courses since each course is worth 6 UOC.

Courses are to be selected from those listed under the Master of Engineering Science program (8607). Selection of suitable courses, particularly core courses, is important for students intending to upgrade from a Graduate Diploma program to a Master of Engineering Science program.

Academic Rules

For academic rules relating to this program, please refer to the Program Structure above and contact the School Office for further information.

7336 Graduate Certificate in Civil Engineering

GradCert

7337 Graduate Certificate in Environmental Engineering

GradCert

Typical Duration
0.5 years

Minimum UOC for Award
24 units of credit

Typical UOC per Session
24 units of credit

Program Description

A Graduate Certificate in either Civil Engineering or Environmental Engineering is awarded on the successful completion of postgraduate courses totalling 24 UOC.

There is a wide range of courses available (see lists of courses for the Master of Engineering Science programs 8612 and 8617) in a range of delivery modes including internal, external and short-course modes. Most courses offered in the Masters programs can also be taken in the Graduate Certificate programs subject to the approval of the Postgraduate Coursework Coordinator.

The Graduate Certificate program is suited to practising engineers and other graduates, wishing to pursue a specialised range of courses to enhance their career opportunities in a particular area. It also provides an opportunity to those who have relevant professional experience but limited formal qualifications to study in a specialist area at the graduate level. Enquiries and applications should be directed to the School Office.

Subject to satisfactory performance, students may continue with their postgraduate studies by subsequently enrolling in a Graduate Diploma or Master of Engineering Science degree program and may be granted advanced standing.

Program Structure

Please contact the School of Civil and Environmental Engineering for information.

Academic Rules

For academic rules relating to this program, please refer to the Program Structure above and contact the School Office for further information.

School of Computer Science and Engineering

Head of School: Professor P Compton
Associate Head of School: Associate Professor WH Wilson
Student Office Manager: Miss CJ Nock
Postgraduate Coordinators:
Miss CJ Nock (Admission, Enrolment, Progression),
Dr E Martin (Academic Matters),
Associate Professor A Nymeyer (Research)

The School of Computer Science and Engineering (CSE) has grown to become one of the largest schools in UNSW and one of the largest information technology schools in Australia.

The School has a strong research commitment, with research focused in the areas of artificial intelligence, computer architecture, computer systems, databases, networks, and software engineering. The School is also committed to incorporating the latest research into its curriculum, and courses in the above areas are available to all students undertaking major studies in the School. Introductory-level computing courses are also available more generally to students studying Science, Arts or Engineering.

Computing has links to many other areas of study. Discrete mathematics furnishes the theory behind algorithms and computing systems. Electrical engineering supplies the current technology underlying physical computing devices. Information systems deal with the application of computing technology within organisations. Biology, and biotechnology in particular, are increasingly making use of advanced computing techniques in the analysis and synthesis of new biological systems. As a result of these links, many of the School's degree programs are run in conjunction with other schools at UNSW.

At the postgraduate level, the School offers an advanced Masters program and one re-training programs that can be taken at either Masters or Graduate Diploma level. Entry to these programs is competitive and candidates must have performed at a reasonable level in their previous degree in order to be accepted. The Master of Information Technology (8684) is designed for students with an undergraduate computing degree to extend their knowledge and skills via advanced electives. The Master of Computing and Information Technology is designed for students who possess a 4 year undergraduate degree including some year two level mathematics but limited or no computing, enabling them to acquire sufficient knowledge and skills to work in the IT industry. The Graduate Diploma in Computing and Information Technology is designed for students with a 3 year undergraduate degree. There is also a Graduate Certificate in Computing, and Graduate Certificate Advanced Computing, for those who require a shorter qualification, or who are not eligible for direct entry to the higher level programs

The Masters and Graduate Diploma program offer students the opportunity to specialize in one of several areas. The following majors are available: Autonomous Systems, Bioinformatics, Computing and Information Technolgy (default major), Database Systems, e_Commerce Systems, Internetworking, Knowledge Systems and Data Mining.

Opportunities are also provided for graduate research leading to the award of the degree of Master of Engineering (2665), Master of Science (2765) a Master of Philosophy in Computer Engineering (2685, plan COMPAR2685) and Doctor of Philosophy (1650).

Program Outlines

The formal graduate programs offered in CSE are: Master of Computing and Information Technology (8682), Master of Information Technology (8684), Graduate Diploma in Computing and Information Technology (5432), Graduate Certificate in Computing (7342), and Graduate Certificate Advanced Computing (7344).

Opportunities are also provided for graduate research leading to the award of the degree of Master of Engineering (2665), Master of Science (2765), and Doctor of Philosophy (1650).

Coursework Programs

The postgraduate programs offered by the School allow for flexibility of choice between formal coursework and research. They are available on a full or part-time basis, which will be attractive to people working in industry. Most compulsory courses are available in an evening (6pm–9pm) or late afternoon (3pm–6pm) pattern.

All degree programs have an option for high-achieving students to replace some coursework by a small research project. The project option is available only to full-time students in the final semester of their program, and must be completed within a single semester. In order to undertake a project, students must (a) achieve a Distinction (75%) average over all courses prior to their final semester, (b) obtain prior approval for a topic from a potential academic supervisor, (c) obtain approval from the Postgraduate Coordinator.

Most courses offered by CSE require the completion of practical work, which is typically completed outside class hours by students working unsupervised. CSE practical work can be quite demanding, and students should not underestimate the amount of time that they will need to commit to their coursework. The maximum full-time load is four courses per semester, but students would be well advised to consider taking only two or three courses if they have other commitments such as significant outside employment.

The range of choice in courses is wide, allowing individuals to specialise and satisfy a breadth of aspirations. There is opportunity to choose courses from other disciplines offered by this university. Any non-CSE course chosen must be of a suitable postgraduate standard and the student must seek *prior* approval from the Postgraduate Coordinator for appropriateness. Courses from other schools also require *prior* approval from the school or faculty offering the course.

Advice on the specific course groupings in CSE (Group A/B/C/D) can be found on the CSE website: **www.cse.unsw.edu.au/postgrad/programs/index.html**

8682 Master of Computing and Information Technology

MCompIT

Typical Duration
2 years

Minimum UOC for Award
96 units of credit

Typical UOC per Session
24 units of credit

Program Description

This program replaces the degree programs 8680 and 8508 Master of Engineering Science.

The Master of Computing and Information Technology is intended for students with no, or minimal, prior computing background. Students with some computing background who want to obtain a broad understanding of computing might also find the program attractive.

Program Objectives and Learning Outcomes

The aim of the Master of Computing and Information Technology program is to provide students with a broad-based IT education, enabling them to work in a range of positions in the IT industry. It is similar in scope to CSE's undergraduate BE program.

Program Structure

4 semesters full-time or
8 semesters part-time

Entry Requirements

At least a four-year undergraduate degree equivalent to a standard Australian Bachelor degree in science or engineering; and a Credit average achieved over the final two years of study.

or

a four-year undergraduate degree equivalent to a standard Australian Bachelor degree in a discipline that included Mathematics up to at least year two level; and a credit average achieved over the final two years of study.

or

completion of the Grad Dip in Computing and Information Technology where the GradDip has not been conferred.

Advanced Standing

Advanced standing in up to four Group A courses may be possible on completion of a formal exemption exam or other clear evidence of having covered this material previously. This would reduce the length of the program by up to 4 courses.

Program Requirements

GroupA courses	24 UOC (4 courses)
Group B/C courses	36 UOC (6 courses)
Group D courses	24 UOC (4 courses)
Group A/B/C/D electives	12 UOC (2 courses)
TOTAL	96 UOC (16 courses)

Up to one elective course can be substituted for a non-advanced UNSW free elective.

Up to 24 UOC can be substituted with non-CSE electives.

Majors/Specialisations

The 96 UOC must include 18 UOC (3 courses) in a chosen area to satisfy one of the following majors:

COMPAS8682	Autonomous Systems
COMPBS8682	Bioinformatics
COMPCS8682	Computer & Information Technology (default)
COMPDS8682	Database Systems
COMPES8682	e-Commerce Systems
COMPIS8682	Internetworking
COMPKS8682	Knowledge Systems & Data Mining

Autonomous Systems, Bioinformatics, and Knowledge Systems and Data Mining have an additional 12 UOC (2 courses) requirement where Group A courses COMP9020 and COMP9032 are replaced by more suitable entry level courses. Full details of these majors are available on the CSE website: http://www.cse.unsw.edu.au/postgrad/programs/index.html

Project Option - COMP9596 12UOC Research Project

12 UOC electives or 12 UOC Group D can be replaced with a small research project. Students must have a distinction average, and the project is to be completed in the final semester of study.

Academic Rules

For academic rules relating to this program, please refer to the Program Structure above and contact the Student Office for further information.

5432 Graduate Diploma in Computing and Information Technology

GradDip

Typical Duration
1.5 years

Minimum UOC for Award
72 units of credit

Typical UOC per Session
24 units of credit

Program Description

This program replaces Graduate Diploma programs 5452 and 5453.

The Graduate Diploma of Computing and Information Technology is intended for students with no, or minimal, prior computing background. Students with some computing background who want to obtain a broad understanding of computing might also find the program attractive.

Program Objectives and Learning Outcomes

The aim of the GradDip program is to provide students with a broad-based IT education, enabling them to work in a range of positions in the IT industry. It is similar in scope to CSE's undergraduate BSc program.

Program Structure

3 semesters full-time or
6 semesters part-time

Entry Requirements

At least a three-year undergraduate degree equivalent to a standard Australian Bachelor degree in science or engineering; and a credit average achieved over the final two years of study.

or

A three-year undergraduate degree equivalent to a standard Australian Bachelor degree in a discipline that included Mathematics up to at least year two level; and a credit average achieved over the final two years of study.

or

Completion of the GradCert in Computing where the certificate has not been conferred.

Completion Options

After successful completion of twelve courses students have two options:

- Graduate from the Graduate Diploma; or
- Apply to articulate to the Masters program with credit for the twelve completed courses.

Program Requirements:

Group A courses	24 UOC (4 courses)
Group B/C courses	30 UOC (5 courses)
Group D courses	18 UOC (3 courses)
TOTAL	72 UOC (12 courses)

Up to 24 UOC can be substituted with non-CSE electives.

Articulation

Students who have not failed any courses can apply to articulate from the Graduate Diploma in Computing and Information Technology program to the Master of Computing and Information Technology program 8682. Full credit may be granted where the student does not take out the GradDip.

Students intending to articulate to the Masters should pay careful attention when selecting their courses to ensure they align with the program for their preferred major. It may not be possible to transfer between the Graduate Diploma and Masters program majors without the completion of extra course.

Advanced Standing

Advanced standing in up to four Group A courses may be possible on completion of a formal exemption exam or other clear evidence of having covered this material previously. This would reduce the length of the program by up to 4 courses.

Majors/Specialisations

The 72 UOC must include 18 UOC (3 courses) in a chosen area to satisfy one of the following majors:

COMPAS5432	Autonomous Systems
COMPBS5432	Bioinformatics
COMPCS5432	Computer & Information Technology (default)
COMPDS5432	Database Systems
COMPES5432	e-Commerce Systems
COMPIS5432	Internetworking
COMPKS5432	Knowledge Systems & Data Mining

Autonomous Systems, Bioinformatics, and Knowledge Systems and Data Mining have an additional 12 UOC (2 courses) requirement where Group A courses COMP9020 and COMP9032 are replaced by more suitable entry level courses. Full details of these majors are available on the CSE website: http://www.cse.unsw.edu.au/postgrad/programs/index.html

Academic Rules

For academic rules relating to this program, please refer to the Program Structure above and contact the Student Office for further information.

7342 Graduate Certificate in Computing

GradCert

Typical Duration
0.5 year

Minimum UOC for Award
24 units of credit

Typical UOC per Session
24 units of credit

Program Description

The Graduate Certificate in Computing is designed for students with no prior computing background, or those who are not eligible for direct entry to the Graduate Diploma in Computing and Information Technology program.

Program Objectives and Learning Outcomes

The aim of the GradCert is to provide students with introductory level knowledge which may be used to gain admission to the GradDip program or to compliment any informal education they may have acquired in this area through work.

Entry Requirements

At least a three-year undergraduate degree equivalent to a standard Australian Bachelor degree in science or engineering.

or

Formal technical work experience in the area of science or engineering of at least five years.

Applicants must have completed some studies in mathematics.

Completion Options

After successful completion of 4 courses students have two options:

- Graduate from the Graduate Certificate; or
- Apply to articulate to the Graduate Diploma program with credit for the four completed courses.

Program Requirements

Group A courses	Maximum 12 UOC (2 courses)
Group B/C/D courses:	Minimum 12 UOC (2 courses)
TOTAL	24 UOC (4 courses)

Articulation

Students who have not failed any courses can apply to articulate from the Graduate Certificate in Computing program to the Graduate Diploma program 5432. Full credit may be granted where the student does not take out the award.

Students should pay careful attention when selecting their courses to ensure that they align with the program for the major of their preference.

Graduate Certificate in Computing students take 4 courses. The following courses are suitable:

Group A

COMP9020	Foundations of Computer Science	(6 UOC)
COMP9021	Principles of Programming	(6 UOC)
COMP9032	Microprocessors and Interfacing	(6 UOC)
COMP9024	Data Structures and Algorithms	(6 UOC)
COMP9041	Software Construction: Techniques and Tools	(6 UOC)

Group B

COMP9031	Internet Programming	(6 UOC)
COMP9311	Database Systems	(6 UOC)
COMP9414	Artificial Intelligence	(6 UOC)

Group C

COMP9511	Human Computer Interaction	(6 UOC)

Academic Rules

For academic rules relating to this program, please refer to the Program Structure above and contact the Student Office for further information.

8684 Master of Information Technology

MIT

Typical Duration
1 year

Minimum UOC for Award
48 units of credit

Typical UOC per Session
24 units of credit

Program Description

This program replaces 8685 Master of Engineering Science.

The Master of Information Technology is designed for students with a substantial and broad computing background. It is expected that students will have knowledge of all foundation and most core courses (Group A/B/C) before they commence this program.

Program Objectives and Learning Outcomes

The aim of the program is to give computing graduates a chance to deepen their knowledge and to extend it in new directions. In addition, there is some scope to undertake core courses not studied in their undergraduate degree, to round out their computing background.

Program Structure

Entry Requirements

At least a four-year undergraduate degree equivalent to a standard Australian Bachelor degree in computing; and a credit average achieved over the final two years of study.

or

a three year undergraduate degree equivalent to a standard Australian Bachelor degree in computing; a credit average achieved over the final two years of study; and formal work experience in the area of computer science and engineering of at least one year.

or

completion of the Graduate Certificate in Advanced Computing where the Graduate Certificate has not been conferred.

Applicants for this degree must have completed studies in a broad range of computing areas.

Program Requirements

Group A courses	All courses are excluded
Group B/C courses	Maximum 18 UOC (3 courses)
Group D courses	Minimum 30 UOC (5 courses)
TOTAL	48 UOC (8 courses)

Note: it is possible to complete the program using only Group D courses.

Up to one Group B/C course can be substituted for a non-advanced UNSW free elective.

Up to one Group D course can be substituted for a non-CSE course of equivalent level.

Articulation

Students can apply to articulate from the Graduate Certificate in Advanced Computing program 7344 to the Master of Information Technology program 8684. Full credit will be granted where the students does not take out the Graduate Certificate.

Majors/Specialisations

The 48 UOC must include 18 UOC (3 courses) in a chosen area to satisfy one of the following majors:

COMPAS8684	Autonomous Systems
COMPBS8684	Bioinformatics

COMPCS8684	Information Technology (default major)
COMPDS8684	Database Systems
COMPES8684	e-Commerce Systems
COMPIS8684	Internetworking
COMPKS8684	Knowledge Systems & Data Mining

Autonomous Systems, Bioinformatics, and Knowledge Systems and Data Mining have an additional 12 UOC (2 courses) requirement where Group B and C courses are replaced by more suitable intermediate level courses. Full details of these majors are available on the CSE website: http://www.cse.unsw.edu.au/postgrad/programs/index.html

Project Option: COMP9596-12 UOC Research Project

The free elective and non-CSE course can be replaced with a small research project. Students must have a distinction average, and the project must be completed in final semester. Projects of other lenghts may be available after discussion with the Postgraduate Coordinator.

Academic Rules

For academic rules relating to this program, please refer to the Program Structure above and contact the School Office for further information.

7344 Graduate Certificate in Advanced Computing

GradCert

Typical Duration
0.5 year

Minimum UOC for Award
24 units of credit

Typical UOC per Session
24 units of credit

Program Objectives and Learning Outcomes

The aim of this program is to give computing graduates a chance to deepen their knowledge and to extend it in new directions. In addition, there is some scope to undertake courses not studied in their undergraduate degree, to round out their computing background.

Program Requirements:

Group A	All courses excluded
Group B/C	Maximum 12 UOC (2 courses)
Group D	Minimum 12 UOC (2 courses)
TOTAL	24 UOC (4 courses)

Entry Requirements

At least a three-year Bachelor degree in computing equivalent to a standard Australian Bachelor degree.

or

Formal technical work experience in the area of computer science and engineering of at least five years.

Applicants for this certificate must have completed some studies in mathematics and have knowledge of all foundation and most core courses. (Groups A/B/C)

Completion Options

After successful completion of four courses students have two options. They may:

- Graduate from the Graduate Certificate; or
- Apply to articulate to the Masters program with credit for the 4 completed courses.

Students intending to articulate to the Masters should pay careful attention when selecting their courses to ensure they align with the program for the major of their preference.

Articulation

Students who have not failed any courses can apply to articulate from the Graduate Certificate in Advanced Computing to the Master of Information Technology program 8684. Full credit will be granted where the student does not take out the award.

Academic Rules

For academic rules relating to this program, please refer to the Program Structure above and contact the Student Office for further information.

School of Electrical Engineering and Telecommunications

Head of School: Professor BG Celler
Director of Academic Studies: Associate Professor E Ambikairajah
Administrative Officer: Ms. Gladys Fong
Postgraduate Coordinator: Associate Professor C.Y. Kwok

The School comprises several discipline areas, indicating shared research interests and teaching commitments: Telecommunications; Photonics; Energy Systems; Microelectronics; 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 Cooperative Research Centre which conducts research into optical fibre communication devices and technology.

Program Outlines

The formal postgraduate coursework programs offered by the School of Electrical Engineering and Telecommunications are:

8501 – Plan ELECXS8501
Master of Engineering Science in Electrical Engineering

8503 – Plan TELEAS8503
Master of Engineering Science in Telecommunications

5458 – Plan ELECXS5458
Graduate Diploma in Electrical Engineering

5448 – Plan TELEAS5448
Graduate Diploma in Telecommunications

Opportunities are provided for graduate research programs leading to the award of the degrees of Master of Engineering 2660 a Master of Philosophy in Electrical Engineering (2685, plan ELECAR2685), a Master of Philosophy in Telecommunications (2685, plan TELEAR2685) and Doctor of Philosophy 1640.

8501 Master of Engineering Science in Electrical Engineering

MEngSc

Typical Duration
1 year

Minimum UOC for Award
48 units of credit

Typical UOC per Session
24 units of credit

Program Description

Major Areas of Study

Programs consist of 48 units of credit (UOC) of coursework. At least 24 UOC must be taken from one of the following areas of specialisation (plans):

Energy Systems (Plan ELECDS8501)
Program Coordinator: Associate Professor Hugh Outhred

Microelectronics (Plan ELECES8501)
Program Coordinator: Dr. R. Ramer

Photonics (Plan ELECHS8501)
Program Coordinator: Dr G.D Peng

Signal Processing (Plan ELECGS8501)
Program Coordinator: Dr. D. Taubman

Systems and Control (Plan ELECLS8501)
Program Coordinator: Dr. D.J. Clements

The courses satisfying the 48 UOC requirement must comprise of the following:

1. At least 24 UOC from the postgraduate elective courses related to the area of specialisation, including 12 UOC from the two core postgraduate electives in the area of specialisation.

2. Remaining UOC may comprise of courses from:

- Postgraduate core/non-core electives in or outside the area of specialisation
- One (only) Year 4 professional elective

One Year 4 Elective may be selected to make up prerequisite requirements for an area of study within the postgraduate program. These courses are taught by lecture during the day and require attendance at laboratory sessions.

Core Postgraduate Electives are taught in-session at Kensington, and may include a component of web-based learning.

The Postgraduate Project must be supervised by a member of the academic staff of the University. The project must relate to the major area of study being undertaken by the candidate; only a limited number of projects are offered. Candidate must enroll in ELEC9912 and ELEC9913 in consecutive order for the project report. The project may take one of two forms:

- **Industry-related project**: Such a project will require the agreement of an industry "sponsor", who will define the industrial requirements of the project. The project must still meet academic requirements, defined by the academic supervisor. An industry co-supervisor may be appointed from persons with appropriate academic standing or industrial experience, acceptable to the Committee.
- **Academic project**: Such projects will be undertaken in the School's laboratories. The project may be motivated by an industrial problem, or it may be theoretical, experimental or design-based.

Completion Time: Students are expected to attempt and successfully 24 UOC per session, and complete the program in one year.

Postgraduate Electives may each contribute 6 units of credit, and may take one of several forms:

- **Formal Coursework**: These courses will have the same format as the Core Postgraduate Electives above.
- **Distance Education**: Such courses will be taught using web-based material, formal course notes, books and papers, and will require extensive self-study by the candidate. The subjects may require a component of attendance at lectures given within the School, or at other suitable venues.
- **Short Courses**: Short courses are oriented toward continuing education. Each course will deal with a topical subject, and will provide UOC which may be counted toward the MEngSc, or may be taken as a non-award course. Short courses may contribute either 3 UOC or 6 UOC (the equivalent of 75-90 hours or 150-180 hours of work on the part of the candidate). Short courses will typically require attendance at lectures, either periodically or in a block, supplemented by self-study and assignment work.
- **Symposia**: Symposia will be similar to short courses, except that material will be delivered in a conference format, by the course candidates themselves, and/or by members of academic staff and invited speakers.

Program Structure

Core Postgraduate Electives (offered yearly by the School of EE&T)

Energy Systems

ELEC9213	Electrical Energy Systems	(6 UOC)
ELEC9240	Power Electronics	(6 UOC)

Microelectronics

ELEC9340	Electronic Communication Systems	(6 UOC)
ELEC9503	Microelectronics Design	(6 UOC)

Photonics

ELEC9350	Optical Fibres	(6 UOC)
ELEC9355	Optical Communications Systems	(6 UOC)

Signal Processing

ELEC9342	Digital Signal Processing and Applications	(6 UOC)
ELEC9370	Digital Image Processing Systems	(6 UOC)

Systems and Control

ELEC9421	Robust and Linear Control Systems	(6 UOC)
ELEC9422	Analysis and Design of Nonlinear Controls	(6 UOC)

Postgraduate Electives

Postgraduate Electives to be offered will be determined for a two-year rolling program, providing information for potential candidates about electives that will be offered for the foreseeable duration of a part-time program. Information regarding offerings for a specific session is available from the School Office or from the Postgraduate Coordinator.

If so desired, students are permitted to select not more than 12 UOC from the Special Electives from the MBT program. Admission to MBT courses require four years of previous working experience.

Energy Systems

ELEC9201	Electricity Industry Planning and Economics	(6 UOC)
ELEC9202	Power System Operation and Control	(6 UOC)
ELEC9214	Power Systems Equipment	(6 UOC)
ELEC9226	Electrical Services in Building	(6 UOC)
ELEC9231	Electrical Drive Systems	(6 UOC)
ELEC9232	Motion Control Systems	(6 UOC)
ELEC9233	Electrical Safety	(6 UOC)

Microelectronics

COMP9231	Integrated Digital Systems	(6 UOC)
ELEC9353	Microwave Circuits: Theory & Techniques	(6 UOC)
ELEC9501	Advanced Semiconductor Devices	(6 UOC)
ELEC9502	VLSI Technology	(6 UOC)
ELEC9505	Microsystems Technology: Design and Microfabrication	(6 UOC)

Signal Processing

COMP9444	Neural Networks	(6 UOC)
ELEC9344	Speech and Audio Processing	(6 UOC)

Systems and Control

ELEC9403	Real Time Computing and Control	(6 UOC)
ELEC9405	Human Movement Control Topics	(6 UOC)
ELEC9412	Biomedical Instrumentation and Informatics	(6 UOC)
ELEC9450	Engineering Finance: From Random Processes to Derivative Pricing	(6 UOC)

Telecommunications

COMP9008	Software Engineering	(6 UOC)
COMP9311	Database Systems	(6 UOC)
TELE9337	Advanced Networking	(6 UOC)
TELE9343	Principles of Digital Communication	(6 UOC)
TELE9344	Cellular Mobile Communications	(6 UOC)
TELE9345	Adaptive Signal Processing in Telecommunications	(6 UOC)

Special Electives

GBAT9101	Project Management	(6 UOC)
GBAT9105	Risk Management	(6 UOC)
GBAT9113	Strategic Management of Business and Technology	(6 UOC)
GMAT9200	Principles of GNSS Positioning	(6 UOC)
GMAT9201	GPS Receivers and how they work	(6 UOC)
GMAT9202	Designing GNSS Receivers	(6 UOC)
GMAT9210	Modern Positioning Technologies and Applications	(6 UOC)
MGMT5690	Strategic People Management	(6 UOC)

Project

TELE9913	Project Report B	(6 UOC)
ELEC9912	Project Report A	(6 UOC)
ELEC9913	Project Report B	(6 UOC)
TELE9912	Project Report A	(6 UOC)

Offered yearly: ELEC9226, ELEC9231, ELEC9233, ELEC9505, COMP9231, ELEC9344, ELEC9412, TELE9337, TELE9343, TELE9344, TELE9345

Offered once every 2 years: ELEC9201, ELEC9202, ELEC9214, ELEC9232, ELEC9353, ELEC9501, ELEC9502, ELEC9403, ELEC9405 ELEC9450

Academic Rules

Entry Qualifications for Master of Engineering Science (8501, 8503)

A candidate for the degree shall have been awarded a Bachelor of Engineering from the University of NSW in an appropriate discipline, or a qualification considered equivalent from another university or tertiary institution at a level acceptable to the Higher Degree Committee of the Faculty of Engineering (hereinafter referred to as the Committee).

Articulation from a UNSW Graduate Diploma, or upgrading from a Graduate Diploma program with advanced standing may be allowed by the Committee. Upgrading in other circumstances may be permitted by the Higher Degree Committee on the recommendation of the Head of School, and may be offered with a reduced level of advanced standing. Upgrading to the MEngSc will be allowed after satisfactory progress and completion of at least 18 units of credit, with advanced standing in subjects which meet the requirements for the MEngSc. Progress will not be deemed to be satisfactory unless all subjects are passed at the first attempt at Credit level.

In exceptional cases, an applicant who submits evidence of such other academic and professional qualifications as may be approved by the Committee may be permitted to enrol for the degree.

Where a potential candidate does not meet the prerequisite required knowledge, a qualifying program can be arranged which will generally require enrolment in the Graduate Diploma, with the inclusion of Year 4 Electives. Progression to the MEngSc is subject to the articulation and upgrading rules mentioned above.

Enrolment with advanced standing will be permitted where a candidate has completed non-award courses which would otherwise be acceptable for the MEngSc.

Enrolment and Progression

An application to enrol as a candidate for the degree shall be made on the prescribed form which shall be lodged with the Registrar at least two calendar months before the commencement of the session in which enrolment is to begin. Candidates may commence in Session 1 or Session 2.

All candidates elect to study in at least one of the Major programs offered by the School of Electrical Engineering and Telecommunications: each Program Coordinator will advise if applicants are adequately qualified to undertake the proposed courses and must recommend the chosen program to the Committee.

A candidate for the degree shall be required to undertake such courses and pass such assessment as prescribed.

The progress of a candidate shall be reviewed at least once annually by the Committee and as a result of its review the committee may cancel enrolment, permit the candidate to re-enrol in a Graduate Diploma, or take such other action as it considers appropriate. A candidate will not normally be permitted to re-enrol after failing more than two courses.

5458 Graduate Diploma in Electrical Engineering

GradDip

Typical Duration
1.1 years

Minimum UOC for Award
54 units of credit

Typical UOC per Session
24 units of credit

Program Description

Students will enrol in the Graduate Diploma for one of three reasons:

- A student may wish to undertake postgraduate coursework in one area of electrical engineering or telecommunications with a specialised focus.
- A student may wish to transfer from a related discipline such as science into electrical engineering or telecommunications.
- A student may use the Graduate Diploma as a qualifying program for the MEngSc.

Program coordinators are as listed in the MEngSc program.

Program Structure

Major Areas of Study

A usual program will comprise 36 units of credit (UOC). A full program consists of 54 UOC of coursework, taken over three sessions. Advanced standing for 18 UOC of undergraduate courses will be given for students suitably qualified in electrical engineering.

The Graduate Diploma Program comprises coursework only (there is no project in the Graduate Diploma program).

The courses satisfying the 54 UOC requirement are comprised of the following:

- 18 UOC from suitable Year 3 and Year 4 courses (unless advanced standing granted)
- At least 24 UOC from the postgraduate elective courses related to the area of specialisation, including the 12 UOC from the two Core Postgraduate Electives in the area of specialisation (for ELEC(A-F)5458) or 18 UOC from the three Core Postgraduate Telecommunications Electives (for TELES5448)

Remaining UOC may be comprised of courses from

- Postgraduate core/non-core electives in or outside the area of specialisation
- One (only) Year 4 professional elective

Undergraduate courses and core postgraduate courses and electives are listed in the Master of Engineering Science programs.

Academic Rules

Entry Qualifications for Graduate Diploma (5458, 5448)

A candidate for the degree shall have been awarded a Bachelor of Engineering from the University of NSW in an appropriate discipline, or a qualification considered equivalent from another university or tertiary institution at a level acceptable to the Higher Degree Committee of the Faculty of Engineering (hereinafter referred to as the Committee).

In exceptional cases an applicant who submits evidence of such other academic and professional qualifications as may be approved by the Committee may be permitted to enrol for the degree.

Where a potential candidate does not meet the prerequisite required knowledge, a non-award qualifying program can be arranged which will generally require enrolment in undergraduate courses, recommended by the relevant Program Coordinator.

Enrolment with advanced standing may be permitted where a candidate has completed non-award courses which would otherwise be acceptable for the Graduate Diploma.

Enrolment and Progression

An application to enrol as a candidate for the degree shall be made on the prescribed form which shall be lodged with the Registrar at least two calendar months before the commencement of the session in which enrolment is to begin. Candidates may commence in Session 1 or Session 2.

All candidates elect to study in at least one of the major programs offered by the School of Electrical Engineering and Telecommunications: each Program Coordinator will advise if applicants are adequately qualified to undertake the proposed courses and must recommend the chosen program to the Committee.

A candidate for the degree shall be required to undertake such courses and pass such assessment as prescribed.

The progress of a candidate shall be reviewed at least once annually by the Committee and as a result of its review the committee may cancel enrolment, permit the candidate to re-enrol in a Graduate Diploma, or take such other action as it considers appropriate. A candidate will not normally be permitted to re-enrol after failing more than two courses.

Students who have previously undertaken an electrical engineering undergraduate qualification at a sufficiently high standard (Credit level) will normally be offered advanced standing for 18 units of credit.

8503 Master of Engineering Science in Telecommunications

MEngSc

Typical Duration
1 year

Minimum UOC for Award
48 units of credit

Typical UOC per Session
24 units of credit

Program Description

Program Coordinator: Dr Tim Moors

Please contact the School of Electrical Engineering and Telecommunications or the Faculty of Engineering for information.

Program Structure

Major Areas of Study

The program consists of 48 units of credit (UOC) of coursework. Courses satisfying the 48 UOC requirement must be comprised of the following:

1. At least 30 UOC from the postgraduate elective courses related to the area of Telecommunications, including the 18 UOC from the three Core Postgraduate Telecommunications Electives.

2. Remaining UOC may comprise of courses from

- Postgraduate core/non-core electives in or outside the area of specialisation.
- One (only) Year 4 professional elective.

One Year 4 Telecommunications Elective

may be selected to make up prerequisite requirements for an area of study within the postgraduate program. These courses are taught by lecture during the day, and require attendance at laboratory sessions.

Core Postgraduate Telecommunications Electives

are taught in-session at Kensington, and may include a component of web-based learning. However, these courses will require attendance at formal lectures.

Completion Time

If students attempt successfully 24 UOC per session, the program can be completed in one year.

The Postgraduate Telecommunications Research Project

must be supervised by a member of the academic staff of the University. Only a limited number of projects are offered. Candidate must enroll in TELE9912 and TELE9913 in consecutive order for the Project Report.

Core Postgraduate Telecommunications Electives(offered yearly by the School of EE&T)

TELE9301	Switching System Design	(6 UOC)
TELE9302	Computer Networks	(6 UOC)
TELE9303	Network Management	(6 UOC)

Postgraduate Electives

As for program 8501

Supporting Program

The Telecommunications Program Coordinator will ensure that each student has prior knowledge equivalent to that embodied in the courses given below. Where such prior knowledge is lacking, candidates may be asked to undertake a qualifying program, usually in the form of a Graduate Diploma, which will ensure that prior knowledge requirements are met. Note that one undergraduate course may be included as part of the requirements for the MEngSc (Telecommunications).

COMP3231	Operating Systems	(6 UOC)
ELEC3004	Signal Processing and Transform Methods	(6 UOC)
ELEC3006	Electronics A	(6 UOC)
ELEC3016	Electronics B	(6 UOC)
ELEC3041	Real Time Engineering	(6 UOC)
TELE3018	Data Networks 1	(6 UOC)
TELE4333	Wireless Data Communication Systems	(6 UOC)
TELE4353	Mobile and Satellite Communication Systems	(6 UOC)
TELE4354	Network Management	(6 UOC)
TELE4363	Telecommunications Systems 2	(6 UOC)

Other Year 4 Telecommunications Professional Electives

Academic Rules

Entry Qualifications for Master of Engineering Science (8501, 8503)

A candidate for the degree shall have been awarded a Bachelor of Engineering from the University of NSW in an appropriate discipline, or a qualification considered equivalent from another university or tertiary institution at a level acceptable to the Higher Degree Committee of the Faculty of Engineering (hereinafter referred to as the Committee).

Articulation from a UNSW Graduate Diploma, or upgrading from a Graduate Diploma program with advanced standing may be allowed by the Committee. Upgrading in other circumstances may be permitted by the Higher Degree Committee on the recommendation of the Head of School, and may be offered with a reduced level of advanced standing. Upgrading to the MEngSc will be allowed after satisfactory progress and completion of at least 18 units of credit, with advanced standing in subjects which meet the requirements for the MEngSc. Progress will not be deemed to be satisfactory unless all subjects are passed at the first attempt at Credit level.

In exceptional cases, an applicant who submits evidence of such other academic and professional qualifications as may be approved by the Committee may be permitted to enrol for the degree.

Where a potential candidate does not meet the prerequisite required knowledge, a qualifying program can be arranged which will generally require enrolment in the Graduate Diploma, with the inclusion of Year 4 Electives. Progression to the MEngSc is subject to the articulation and upgrading rules mentioned above.

Enrolment with advanced standing will be permitted where a candidate has completed non-award courses which would otherwise be acceptable for the MEngSc.

Enrolment and Progression

An application to enrol as a candidate for the degree shall be made on the prescribed form which shall be lodged with the Registrar at least two calendar months before the commencement of the session in which enrolment is to begin. Candidates may commence in Session 1 or Session 2.

All candidates elect to study in at least one of the Major programs offered by the School of Electrical Engineering and Telecommunications: each Program Coordinator will advise if applicants are adequately qualified to undertake the proposed courses and must recommend the chosen program to the Committee.

A candidate for the degree shall be required to undertake such courses and pass such assessment as prescribed.

The progress of a candidate shall be reviewed at least once annually by the Committee and as a result of its review the committee may cancel enrolment, permit the candidate to re-enrol in a Graduate Diploma, or take such other action as it considers appropriate. A candidate will not normally be permitted to re-enrol after failing more than two courses.

5448 Graduate Diploma in Telecommunications

GradDip

Typical Duration
1.1 years

Minimum UOC for Award
54 units of credit

Typical UOC per Session
24 units of credit

Program Description

Students will enrol in the Graduate Diploma for one of three reasons:

- A student may wish to undertake postgraduate coursework in one area of electrical engineering or telecommunications with a specialised focus.
- A student may wish to transfer from a related discipline such as science into electrical engineering or telecommunications.
- A student may use the Graduate Diploma as a qualifying program for the MEngSc.

Program coordinators are as listed in the MEngSc program.

Program Structure

Major Areas of Study

A usual program will comprise 36 units of credit (UOC). A full program consists of 54 UOC of coursework, taken over three sessions. Advanced standing for 18 UOC of undergraduate courses will be given for students suitably qualified in electrical engineering.

The Graduate Diploma Program comprises coursework only (there is no project in the Graduate Diploma program).

The courses satisfying the 54 UOC requirement are comprised of the following:

- 18 UOC from suitable Year 3 and Year 4 courses (unless advanced standing granted)
- At least 24 UOC from the postgraduate elective courses related to the area of specialisation, including the 12 UOC from the two Core Postgraduate Electives in the area of specialisation (for ELEC(A-F)5458) or 18 UOC from the three Core Postgraduate Telecommunications Electives (for TELES5448)

Remaining UOC may be comprised of courses from

- Postgraduate core/non-core electives in or outside the area of specialisation
- One (only) Year 4 professional elective

Undergraduate courses and core postgraduate courses and electives are listed in the Master of Engineering Science programs.

Academic Rules

Entry Qualifications for Graduate Diploma (5458, 5448)

A candidate for the degree shall have been awarded a Bachelor of Engineering from the University of NSW in an appropriate discipline, or a qualification considered equivalent from another university or tertiary institution at a level acceptable to the Higher Degree Committee of the Faculty of Engineering (hereinafter referred to as the Committee).

In exceptional cases an applicant who submits evidence of such other academic and professional qualifications as may be approved by the Committee may be permitted to enrol for the degree.

Where a potential candidate does not meet the prerequisite required knowledge, a non-award qualifying program can be arranged which will generally require enrolment in undergraduate courses, recommended by the relevant Program Coordinator.

Enrolment with advanced standing may be permitted where a candidate has completed non-award courses which would otherwise be acceptable for the Graduate Diploma.

Enrolment and Progression

An application to enrol as a candidate for the degree shall be made on the prescribed form which shall be lodged with the Registrar at least two calendar months before the commencement of the session in which enrolment is to begin. Candidates may commence in Session 1 or Session 2.

All candidates elect to study in at least one of the major programs offered by the School of Electrical Engineering and Telecommunications: each Program Coordinator will advise if applicants are adequately qualified to undertake the proposed courses and must recommend the chosen program to the Committee.

A candidate for the degree shall be required to undertake such courses and pass such assessment as prescribed.

The progress of a candidate shall be reviewed at least once annually by the Committee and as a result of its review the committee may cancel enrolment, permit the candidate to re-enrol in a Graduate Diploma, or take such other action as it considers appropriate. A candidate will not normally be permitted to re-enrol after failing more than two courses.

Students who have previously undertaken an electrical engineering undergraduate qualification at a sufficiently high standard (Credit level) will normally be offered advanced standing for 18 units of credit.

School of Mechanical and Manufacturing Engineering (incorporating Aerospace Engineering, Mechatronic Engineering and Naval Architecture)

Head of School: Professor H Kaebernick
Executive Assistant to Head of School: Associate Professor P Mathew
Administrative Officer: Mrs G Jance

Program Outlines

Formal graduate coursework programs are offered in the areas of Mechanical Engineering or Manufacturing Engineering. The programs lead either to a Graduate Diploma, or Master of Engineering Science degree. For more information about these programs, please contact Mrs SM Turnbull, telephone: (02) 9385 4085, email: s.turnbull@unsw.edu.au.

Opportunities are also provided for postgraduate research through program 2692 leading to the award of the degree Master of Engineering, a Master of Philosophy in Mechanical Engineering (2685, plan MECHAR2685) and program 1662 leading to the award of the degree Doctor of Philosophy. For more information about these programs, please contact Mrs M Rolfe, telephone: (02) 9385 5782, email: mary.rolfe@unsw.edu.au or Professor RB Randall, telephone: (02) 9385 5697, email: b.randall@unsw.edu.au.

Master of Engineering Science Programs

To satisfy the requirements for the MEngSc degree, students are required to complete 48 units of credit (UOC) of courses, that is, eight courses, since each course is worth 6 UOC. At the discretion of the Head of School, a 12 UOC project may replace two courses.

8710 Master of Engineering Science in Mechanical & Manufacturing Engineering

MEngSc

Typical Duration
1 year

Minimum UOC for Award
48 units of credit

Typical UOC per Session
24 units of credit

Program Description

Formal graduate coursework programs are offered in the areas of Mechanical and Manufacturing Engineering. The programs lead to a Master of Engineering Science degree. For more information about these programs, please contact Mrs SM Turnbull, telephone: (02) 9385 4085, email: s.turnbull@unsw.edu.au.

Program Structure

To satisfy the requirements for the degree, students are required to complete 48 units of credit (UOC) of courses; that is, eight courses since each course is worth 6 UOC. At the discretion of the Head of School, a 12 UOC project may replace two courses.

Students can enrol in a general program in the areas of Mechanical Engineering or Manufacturing Engineering. These are for students wishing to select courses to suit their personal requirements rather than specialise in a particular area.

For those students wishing to specialise, the following plans are available:

Manufacturing Engineering and Management, Plan MANFAS8710
Refrigeration and Air Conditioning, Plan MECHGS8710
Mechatronic Engineering, Plan MTRNAS8710

Plan Structure

Manufacturing Engineering and Management, plan **MANFAS8710**

Staff Contact: Dr B Kayis

MANF9340	Factory Automation	(6 UOC)
MANF9400	Industrial Management	(6 UOC)
MANF9410	Total Quality Management	(6 UOC)
MANF9420	Managing Manufacturing Operations	(6 UOC)
MANF9471	Manufacturing Strategy	(6 UOC)
MANF9472	Production Planning and Control	(6 UOC)
MANF9543	CAD/CAM	(6 UOC)
MANF9544	Concurrent Product and Process Design	(6 UOC)
MANF9560	Computer Integrated Manufacturing	(6 UOC)
MANF9601	Economic Decisions in Industrial Management	(6 UOC)

The testamur, awarded on successful completion, will state Master of Engineering Science in Manufacturing Engineering and Management.

Refrigeration and Air Conditioning, plan **MECHGS8710**

Staff Contact: Professor E Leonardi

MECH9325	Fundamentals of Noise	(6 UOC)
MECH9620	Computational Fluid Dynamics	(6 UOC)
MECH9720	Solar Thermal Energy Design	(6 UOC)
MECH9751	Refrigeration and Air Conditioning 1	(6 UOC)
MECH9758	Air Conditioning Design	(6 UOC)

The testamur, awarded on successful completion, will state Master of Engineering Science in Refrigeration and Air Conditioning.

Mechatronic Engineering, plan **MTRNAS8710**

Staff Contact: Dr J Katupitiya

MTRN9201	Digital Logic Fundamentals for Mechanical Engineers	(6 UOC)
MTRN9202	Microprocessor Fundamentals for Mechanical Engineers	(6 UOC)
MTRN9211	Modelling and Control of Mechatronic Systems	(6 UOC)
MTRN9221	Industrial Robotics	(6 UOC)
MTRN9222	Artificially Intelligent Machines	(6 UOC)
MTRN9224	Robot Design	(6 UOC)

The testamur, awarded on successful completion, will state Master of Engineering Science in Mechatronic Engineering.

Distance Programs:

Full or partial distance delivery is possible. It is advisable to discuss this option with the School's P/G Coursework Corodinator, Mrs Sharon Turnbull (s.turnbull@unsw.edu.au, phone: (02) 9385 4085).

Academic Rules

Please contact the School of Mechanical & Manufacturing Engineering or the Faculty of Engineering for further information.

5710 Graduate Diploma in Mechanical & Manufacturing Engineering

GradDip

Typical Duration
1 year

Minimum UOC for Award
36 units of credit

Typical UOC per Session
24 units of credit

Program Description

To satisfy the requirements for the diploma, students are required to complete 36 UOC of courses, that is, six courses since each course is worth 6 UOC.

Courses are to be selected from those listed under the corresponding Master of Engineering Science programs. Selection of suitable courses, particularly core courses, if applicable, is important for students intending to upgrade from a Graduate Diploma program to a Master of Engineering Science program.

The following plans are available under this diploma:

Manufacturing Engineering and Management, plan **MANFAS5710**
Mechanical Engineering, plan **MECHAS5710**
Mechatronic Engineering, plan **MTRNAS5710**

Program Requirements

To satisfy the requirements for the diploma, students are required to complete 36 UOC of courses, that is, six courses since each course is worth 6 UOC.

Courses are to be selected from those listed under the corresponding Master of Engineering Science programs. Selection of suitable courses, particularly core courses, if applicable, is important for students intending to upgrade from a Graduate Diploma program to a Master of Engineering Science program.

Academic Rules

Please contact the School of Mechanical & Manufacturing Engineering for information.

7710 Graduate Certificate in Good Manufacturing Practice

GradCert

Typical Duration
1 year

Typical UOC per Session
12 units of credit

Minimum UOC for Award

24 units of credit

Program Description

The Graduate Certificate in Good Manufacturing Pracitce covers a wide range of manufacturers. A sound understanding of Good Manufacturing Practice(GMP), regulatory and legal requirements for industry is essential to meet not only industry's needs for legal and safety issues but also to be better placed in global markets to ensure adherence to international standards.

It is recommended that persons working in industries associated with Good Manufacturing Practices apply for this program. This will allow them to relate the course material and assignments to the working practices associated with regulatory, safety and legal requirements as well as meet the worldwide competition in terms of quality and delivery at optimum cost.

Program Objectives and Learning Outcomes

This would enable the Authorised Persons in Australia and in New Zealand (the Qualified person in Europe) who shoulders the responsibility to verify, certify and release for sale of manufactured product in accordance with GMP and regulatory and legal requirements. It will also enable them to move towards achieving high quality, timely delivery, minimum cost and flexible manufacturing in industries where stringent application of GMP is essential.

Admission Requirements

Either a 4 year undergraduate degree equivalent to a standard Australian Bachelor's degree.

or

A 3 year undergraduate degree equivalent to a standard Australian Bachlor's degree AND formal technical work in a related industry or engineering of more than a year.

or

A 2 year formal technical training equivalent to a standard Australian TAFE degree in a related industry AND formal technical work in a related industry or engineering of more than FIVE years,

or

Applicants with no formal qualification but substantial experience might be considered for admission on a case by case basis.

Program Structure

This program consists of four courses (listed below), each of 6 Units of Credit and is offered via part-time distance learning. It takes a minimum of one year to complete the program.

MANF8420	Managing Manufacturing Operations	(6 UOC)
MANF8430	Understanding Manufacturing Practice	(6 UOC)
MANF8471	Manufacturing Strategy	(6 UOC)
PHPH9104	Law, Ethics and Regulations of Medicine	(6 UOC)

School of Mining Engineering

Head of School: Professor BK Hebblewhite
Administrative Assistant: Mrs Kim Russelll

Mining Engineering offers a diverse range of career paths, challenging jobs, 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. The 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, civil tunnelling, quarrying risk management, project management, education and training and Government. 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 at least one to three years gaining work experience at mine sites and may then elect to gain their statutory mine manager 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.

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.

The School of Mining Engineering offers formal postgraduate programs including a Graduate Certificate, several Graduate Diplomas and a Master of Engineering Science, plus ongoing professional development short courses.

In addition, the School offers the research degrees a Master of Philosophy in Mining Engineering (2685, plan MINEAR2685), Doctor of Philosophy PhD in Mining Engineering (1050) and Master of Engineering ME in Mining Engineering (2180). The research degrees may also be undertaken externally, over a longer duration, by staff employed full-time in the industry.

8055 Master of Engineering Science in Mining Engineering

MEngSc

Typical Duration
1 year

Minimum UOC for Award
48 units of credit

Typical UOC per Session
24 units of credit

Program Description

The Master of Engineering Science in Mining Engineering will be awarded after successful completion of 48 units of credit points of coursework, either full time or part time. A majority of the courses will be offered as modules over a short period to permit mineral industry personnel to attend on a part-time basis. Please note that some electives may only be offered every two years.

The Master of Engineering Science in Mining Engineering will be awarded after successful completion of 48 units of credit (UOC) of coursework, either full-time or part-time. A majority of the courses will be offered as modules over a short period to permit mineral industry personnel to attend on a part-time basis. Please note that some electives may only be offered every two years.

Program Structure

Master of Engineering Science may be studied under the following specialisations:

Mining Geomechanics: - Plan MINEKS8055

Core courses

MINE8110	Mining Processes and Systems	(6 UOC)
MINE8120	Hazard Identification, Risk and Safety Management in Mining	(6 UOC)
MINE8140	Mining Geomechanics	(6 UOC)
MINE8760	Mine Geology and Geophysics for Mining Operations	(6 UOC)

Elective courses

Select four 6 UOC courses from the following list:

MINE8130	Technology Management in Mining	(6 UOC)
MINE8230	Mine Sampling, Grade Control and Reserves Definition	(6 UOC)
MINE8710	Mine Slope Stability	(6 UOC)
MINE8720	Advanced Rock Mechanics	(6 UOC)
MINE8730	Mechanised Excavation Engineering	(6 UOC)
MINE8740	Blasting and Rock Fragmentation	(6 UOC)
MINE8750	Advanced Soil Mechanics and Mine Fill Technology	(6 UOC)

Mining Industry Management - Plan MINEJS8055

Core courses:

MINE8110	Mining Processes and Systems	(6 UOC)
MINE8120	Hazard Identification, Risk and Safety Management in Mining	(6 UOC)
MINE8210	Management Systems – Projects, Processes, Contracts, Contractors	(6 UOC)
MINE8220	Mine Feasibility, Planning and Project Evaluation	(6 UOC)

Elective courses:

Select four from the following list of 6 UOC electives

GBAT9104	Management of Innovation and Technical Change	(6 UOC)
GBAT9106	Information Systems Management	(6 UOC)
GBAT9112	Managing Occupational Health and Safety	(6 UOC)
IROB5690	Strategic People Management	(6 UOC)
MINE8130	Technology Management in Mining	(6 UOC)
MINE8230	Mine Sampling, Grade Control and Reserves Definition	(6 UOC)
MINE8760	Mine Geology and Geophysics for Mining Operations	(6 UOC)
MINE8770	Mining Law	(6 UOC)
MINE8780	Environmental Management for the Mining Industry	(6 UOC)
MINE8790	Advanced Mineral Economics and Commodity	(6 UOC)
MINE9910	Mine Ventilation	(6 UOC)

Academic Rules

For academic rules relating to this program, please refer to the Program Structure above and contact the School Office for further information.

5040 Graduate Diploma in Mining Engineering

GradDip

Typical Duration
0.8 year

Minimum UOC for Award
36 units of credit

Typical UOC per Session
24 units of credit

Program Description

The Graduate Diploma program in Mining Engineering serves two purposes. It can provide a professional introduction to the mining industry for graduates in Science and Technology or Engineering and as a qualifying course for entry to the Master of Engineering Science or Masters by Research programs.

The Graduate Diploma will be awarded after successful completion 36 units of credit of coursework, either full time or part time. A majority of the courses will be offered as modules over a short period to permit mineral industry personnel to attend on a part-time basis. Please note that some electives may be offered only every two years.

The level of the Graduate Diploma is designed to be equivalent to a four-year Honours degree.

This program is available to local students only.

Program Structure

Two specialisation plans are offered in this program:

Mining Engineering - Plan MINEFS5040

Core courses:

MINE8110	Mining Processes and Systems	(6 UOC)
MINE8120	Hazard Identification, Risk and Safety Management in Mining	(6 UOC)

Elective courses:

Select four from the following list of 6 UOC courses

MINE8130	Technology Management in Mining	(6 UOC)
MINE8140	Mining Geomechanics	(6 UOC)
MINE8210	Management Systems – Projects, Processes, Contracts Contractors	(6 UOC)
MINE8220	Mine Feasibility, Planning and Project Evaluation	(6 UOC)
MINE8230	Mine Sampling, Grade Control and Reserves Definition	(6 UOC)
MINE8710	Mine Slope Stability	(6 UOC)
MINE8720	Advanced Rock Mechanics	(6 UOC)
MINE8730	Mechanised Excavation Engineering	(6 UOC)
MINE8740	Blasting and Rock Fragmentation	(6 UOC)
MINE8750	Advanced Soil Mechanics and Mine Fill Technology	(6 UOC)
MINE8760	Mine Geology and Geophysics for Mining Operations	(6 UOC)
MINE8770	Mining Law	(6 UOC)
MINE8780	Environmental Management for the Mining Industry	(6 UOC)
MINE8790	Advanced Mineral Economics and Commodity Marketing	(6 UOC)
GBAT9104	Management of Innovation and Technical Change	(6 UOC)
GBAT9106	Information Systems Management	(6 UOC)
GBAT9112	Managing Occupational Health and Safety	(6 UOC)
IROB5690	Strategic People Management	(6 UOC)

Coal Mine Strata Control - Plan MINESC5040

The program consists of six core courses, each worth 6 UOC, to satisfy the program requirement of 36 UOC. All courses will be presented in a block or distance mode. It is envisaged that a student would normally complete the program in three sessions (18 months). The six courses are as follows:

MNNG5010	Fundamentals of rock behaviour for underground mining
MNNG5020	Geotechnical assessment for underground mining
MNNG5030	Mining excavations in rock
MNNG5040	Coal mining methods, mine planning and applied geomechanics
MNNG5050	Ground control principles and practice in underground coal mining

MNNG5060 Operational geotechnical management (underground coal mining)

MNNG5010, MNNG5020 and MNNG5030 are prerequisites for the three remaining courses. All other five courses are pre-requisites for MNNG5060. (Prerequisite requirements may be waived, at the discretion of the Head of School).

Academic Rules

For academic rules relating to this program, please refer to the Program Structure above and contact the School Office for further information.

7335 Graduate Certificate in Mining Engineering

GradCert

Typical Duration
0.5 year

Minimum UOC for Award
24 units of credit

Typical UOC per Session
24 units of credit

Program Description

The School of Mining Engineering offers a Graduate Certificate in Mining Engineering to allow a more flexible entry mode for applicants who have limited tertiary qualifications. Admission will be considered on an individual basis and will be based on level of experience within the mining industry. Students may be eligible to upgrade to a Graduate Diploma depending upon satisfactory academic progress. This usually requires maintaining at least a credit average in each course attempted. Please note that some electives may be offered only every two years.

Students will be required to complete two core courses plus 2 electives.

This program is available to local students only.

Program Structure

Core Courses

MINE8110	Mining Processes and Systems	(6 UOC)
MINE8120	Hazard Identification, Risk and Safety Management in Mining	(6 UOC)

Elective Courses

Select 2 from the following list of 6 units of credit courses

1 course to be undertaken in Session 1 and one in Session 2

GBAT9104	Management of Innovation and Technical Change (6 UOC)	
GBAT9106	Information Systems Management	(6 UOC)
GBAT9112	Managing Occupational Health and Safety	(6 UOC)
MGMT5690	Strategic People Management	(6 UOC)
MINE8130	Technology Management in Mining	(6 UOC)
MINE8140	Mining Geomechanics	(6 UOC)
MINE8210	Management Systems - Projects, Processes, Contracts, Contractors	(6 UOC)
MINE8220	Mine Feasibility, Planning and Project Evaluation	(6 UOC)
MINE8230	Mine Sampling, Grade Control and Reserves Definition	(6 UOC)
MINE8710	Mine Slope Stability	(6 UOC)
MINE8720	Advanced Rock Mechanics	(6 UOC)
MINE8730	Mechanised Excavation Engineering	(6 UOC)
MINE8740	Blasting and Rock Fragmentation	(6 UOC)
MINE8750	Advanced Soil Mechanics and Mine Fill Technology	(6 UOC)
MINE8760	Mine Geology and Geophysics for Mining Operations	(6 UOC)
MINE8770	Mining Law	(6 UOC)
MINE8780	Environmental Management for the Mining Industry	(6 UOC)
MINE8790	Advanced Mineral Economics and Commodity Marketing	(6 UOC)
MINE9910	Mine Ventilation	(6 UOC)

Academic Rules

For academic rules relating to this program, please refer to the Program Structure above and contact the School Office for further information.

5045 Graduate Diploma in Mine Ventilation

GradDip

Typical Duration
0.8 year

Minimum UOC for Award
36 units of credit

Typical UOC per Session
24 units of credit

Program Description

This program provides professional development in mine ventilation and environment for mining engineers and other mining personnel. It is delivered in a distant, flexible format using an internet platform. The Diploma is structured so that it can be tailored to the needs of either the metalliferous or coal mining sectors. The accredited programs offered by UNSW for the appointment of Statutory Coal Mine Ventilation Officers in both NSW and Qld can be taken as options in the Diploma. The course contents have been developed from standard texts, industry guidelines and case studies. These are delivered from both a theoretical and operational perspective with the aim that course contents will be immediately relevant to industry. The program is affiliated to the Australian National Centre for Mine Ventilation (ANCMV), established in 1999 as an initiative of MTEC, the tertiary minerals education arm of the Minerals Council of Australia.

Program Structure

This program consists of 6, 6 units of credit core courses, each presented in Block Teaching format.

Core courses

MNNG9901	Ventilation and Mine Services	(6 UOC)
MNNG9902	Environmental Contaminants	(6 UOC)
MNNG9903	Heat in Underground Mines	(6 UOC)
MNNG9904	Ventilation System Management	(6 UOC)

Coal Mine Electives

MNNG9905	Coal Mine Hazards and Control	(6 UOC)
MNNG9906	Coal Mine Ventilation Planning	(6 UOC)

Metalliferous Mine Electives

MNNG9907	Metalliferous Mine Hazards and Control	(6 UOC)
MNNG9908	Metalliferous Mine Ventilation Planning	(6 UOC)

Academic Rules

For academic rules relating to this program, please refer to the Program Structure above and contact the School Office for further information.

Further Information

It is assumed that applicants for this program are currently employed in the Australian mining industry, as much of the assessment will depend on students having access to a mine site. Intending applicants should contact the Head of School before applying for entry as all applications must be approved by the Head, School of Mining Engineering.

School of Petroleum Engineering

The School of Petroleum Engineering is recognised as one of the leading teaching and research institution in Australia and the South-East Asia region. Graduates from the School are keenly sought by national and international petroleum companies and work throughout the world.

The School conducts internationally recognised leading-edge research in a wide range of subjects of relevance to the upstream oil and gas business, and is part of the Australian Petroleum Cooperative Research Centre (APCRC) and is a core member of CO2CRC Australia's foremost provider of research and development to the upstream petroleum industry. The School also conducts research programs in geothermal energy and alternative geothermal energy resources.

Formal postgraduate programs lead to the awards of Master of Engineering (2156), Master of Philosophy in Petroleum Engineering (2685, plan PETRAR2685) and Doctor of Philosophy (1017).

The School of Petroleum Engineering offers coursework programs which lead to the award of the Master of Engineering Science in Petroleum Engineering (8655), Graduate Diploma in Petroleum Engineering (5031) and Graduate Certificate in Petroleum Engineering (7341).

Staff Contact:

Associate Professor S. Rahman
Tel: (+61 2) 9385 5297
Fax: (+61 2) 9385 5936
Email: sheik.rahman@unsw.edu.au

8655 Master of Engineering Science in Petroleum Engineering

MEngSc

Typical Duration
1 year

Minimum UOC for Award
48 units of credit

Typical UOC per Session
24 units of credit

Program Description

This program is designed to cater for upstream oil and gas personnel who are interested in expanding their knowledge base and improving their technical understanding in the area of petroleum engineering. The candidates shall have an appropriate degree in Engineering or Science and a minimum of one year of petroleum industry experience.

Program Structure

Courses

CVEN8707	Contracts Management	(6 UOC)
CVEN8710	Management of Risk	(6 UOC)
CVEN8888	Environmental Management	(6 UOC)
GEOL9151	Petroleum Geology	(6 UOC)
GEOL9152	Petroleum Geophysics	(6 UOC)
PTRL6001	Reservoir Engineering 1	(6 UOC)
PTRL6003	Well Pressure Testing	(6 UOC)
PTRL6004	Numerical Reservoir Simulation	(6 UOC)
PTRL6007	Reservoir Engineering II	(6 UOC)
PTRL6008	Petroleum Production Economics	(6 UOC)
PTRL6009	Well Drilling Equipment and Operations	(6 UOC)
PTRL6016	Well Completions and Stimulation	(6 UOC)
PTRL6021	Reservoir Characterisation	(6 UOC)
PTRL6025	Well Control & Blowout Prevention	(6 UOC)
PTRL6027	Casing Design & Cementing	(6 UOC)
PTRL6028	Practical Aspects of Well Planning and Drilling Cost Estimates	(6 UOC)
PTRL6029	Directional Horizontal and Multilateral Drilling	(6 UOC)
PTRL6107	Formation Evaluation	(6 UOC)

Academic Rules

To qualify for a MEngSc in Petroleum Engineering, candidates will have to pass a minimum of 48 units of credit. The final composition of the proposed program will require Head of School or nominee's approval.

5031 Graduate Diploma in Petroleum Engineering

GradDip

Typical Duration
0.8 year

Minimum UOC for Award
36 units of credit

Typical UOC per Session
24 units of credit

Program Description

This program is designed to cater for upstream oil and gas personnel who are interested in expanding their knowledge base and improving their technical understanding in the area of Petroleum Engineering. The candidates must have an appropriate degree or diploma from a tertiary institution.

The petroleum industry traditionally relies on 'on-the-job' training programs, supplemented by in-house and external short courses to train and update petroleum engineers and earth scientists. The School of Petroleum Engineering has developed a graduate diploma program which is delivered by lecture as well as distance learning mode.

The GradDip Open Learning Program is specifically designed to cater for personnel who are currently working in the industry and unable to attend classes on campus. Students are provided with specially written resource material/study guides and pre-prepared computer-based software for problem solving and self-study. Contact with the subject facilitator is via the web using WebCT Software, which provides an interactive learning environment.

Applicants for the Grad Dip (internal) must have a Bachelor of Science or Bachelor of Engineering degrees.

Applicants for the Grad Dip (external) must have a Bachlor of Science or Bachelor of Engineering degree or equivalent and extensive experience in upstream gas and oil industry.

To qualify for a GradDip in Petroleum Engineering, candidates must pass a minimum of 36 units of credit (UOC). The final composition of a program requires Head of School or his nominee's approval.

Program Structure

Graduate Diploma by Lecture Mode

PTRL5001	Fluid Dynamics in Porous Media	(6 UOC)
PTRL5003	Well Pressure Testing	(6 UOC)
PTRL5004	Numerical Reservoir Simulation	(6 UOC)
PTRL5005	Design Project for Petroleum Engineers	(6 UOC)
PTRL5006	Field Development Geology for Petroleum Engineers	(6 UOC)
PTRL5007	Reservoir Engineering	(6 UOC)
PTRL5008	Petroleum Production Economics	(6 UOC)
PTRL5009	Well Drilling Equipment and Operations	(6 UOC)
PTRL5010	Natural Gas Engineering	(6 UOC)
PTRL5011	Petroleum Production Engineering	(6 UOC)
PTRL5012	Drilling Mud - Formulation, Selection & Maintenance	(6 UOC)
PTRL5015	Overview of the Petroleum Industry	(6 UOC)
PTRL5016	Well Completions and Stimulation	(6 UOC)
PTRL5021	Reservoir Characterisation	(6 UOC)
PTRL5022	Drilling Systems Design & Optimisation	(6 UOC)
PTRL5107	Formation Evaluation	(6 UOC)

Graduate Diploma by External Mode

CVEN8707	Contracts Management	(6 UOC)
CVEN8710	Management of Risk	(6 UOC)
CVEN8888	Environmental Management	(6 UOC)
GEOL9151	Petroleum Geology	(6 UOC)
GEOL9152	Petroleum Geophysics	(6 UOC)
PTRL6001	Reservoir Engineering 1	(6 UOC)
PTRL6003	Well Pressure Testing	(6 UOC)
PTRL6004	Numerical Reservoir Simulation	(6 UOC)
PTRL6007	Reservoir Engineering II	(6 UOC)
PTRL6008	Petroleum Production Economics	(6 UOC)
PTRL6009	Well Drilling Equipment and Operations	(6 UOC)
PTRL6016	Well Completions and Stimulation	(6 UOC)
PTRL6025	Well Control & Blowout Prevention	(6 UOC)
PTRL6027	Casing Design & Cementing	(6 UOC)
PTRL6028	Practical Aspects of Well Planning and Drilling Cost Estimates	(6 UOC)
PTRL6029	Directional Horizontal and Multilateral Drilling	(6 UOC)
PTRL6107	Formation Evaluation	(6 UOC)

Open Learning Programs (external)

Staff Contact: Associate Professor S. Rahman/Dr D. Nguyen
Tel: (+61 2) 9385 6970/5184
Fax: (+61 2) 9385 5182/5936
Email: openlearn.pe@unsw.edu.au
Website: **www.petrol.unsw.edu.au/online/oplearn.html**

Academic Rules

For academic rules relating to this program, please refer to the Program Structure above and contact the School Office for further information.

7341 Graduate Certificate in Petroleum Engineering

GradCert

Typical Duration
0.5 year

Minimum UOC for Award
24 units of credit

Typical UOC per Session
24 units of credit

Program Description

This program is designed to cater for upstream oil and gas personnel who, although working as petroleum engineers, have no formal qualifications in petroleum engineering; or personnel with a formal petroleum engineering background but interested in expanding their knowledge base to allow them to operate more effectively in interdisciplinary teams.

The applicants must have completed Year 12 secondary school and have an extensive experience in upstream oil and gas industry.

To qualify for the GradCert in Petroleum Engineering, candidates will have to pass a minimum of 24 UOC. The final composition of the proposed program will require Head of School or nominee's approval.

Program Structure

Courses

GEOL9151	Petroleum Geology	(6 UOC)
PTRL6001	Reservoir Engineering 1	(6 UOC)
PTRL6007	Reservoir Engineering II	(6 UOC)
PTRL6009	Well Drilling Equipment and Operations	(6 UOC)
PTRL6016	Well Completions and Stimulation	(6 UOC)
PTRL6027	Casing Design & Cementing	(6 UOC)
PTRL6107	Formation Evaluation	(6 UOC)

Academic Rules

For academic rules relating to this program, please refer to the Program Structure above and contact the School Office for further information.

School of Photovoltaic and Renewable Energy Engineering

Head of School: Dr R.P. Corkish
Director of Academic Studies: Scientia Prof S.R. Wenham
Director of Research: Scientia Prof M.A Green
Undergraduate Coordinator: Dr J.E. Cotter
Postgraduate Coordinator: Dr A. B. Sproul
Research Coordinator: A/Prof A.G. Aberle
Student Administration Manager: Ms T. Burns

The need for the School of Photovoltaic and Renewable Energy Engineering has arisen due to rapid growth and evolution in the photovoltaic industry in recent years, with considerable demand by industry for UNSW developed technologies and appropriately trained engineers across the entire photovoltaic and renewable energy sectors.The School of Photovoltaic and Renewable Energy Engineering offers undergraduate and postgraduate training encompassing all aspects of the photovoltaic sector. Innovative teaching techniques have been developed to enhance the learning environment. 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 two decades, and has been responsible for developing the most successfully commercialised photovoltaic technology internationally throughout the same period.

The School of Photovoltaic and Renewable Energy Engineering offers one postgraduate coursework program and three research programs, a Master of Engineering (2655) a Master of Philosophy in Photovoltaic Engineering (2685, plan PHTNAR2685) and a Doctor of Philosophy (1655). Research topics are available for research students covering the entire photovoltaic sector, but with greatest emphasis on device theory, device and module design, balance of system components, photovoltaic systems and applications. Further information on the specific areas of interest of academic staff can be obtained from the School. These degrees are intended to provide students with an exceptional basis in advanced concepts and research in the photovoltaic area.

8512 Master of Engineering Science in Photovoltaics and Solar Energy

MEngSc

Typical Duration
1 year

Minimum UOC for Award
48 units of credit

Typical UOC per Session
24 units of credit

Program Description

This one year full-time postgraduate coursework program is designed to build on the previous education of engineers from other engineering disciplines who are currently being attracted to the growing photvoltaics and renewable energy industries. Students study courses from the areas of photovoltaic devices, photovoltaic systems and applications, and renewable energy technologies.

Program Objectives and Learning Outcomes

The objective of the program is to produce well educated postgraduate qualified engineers with the skills, attributes and knowledge required to practice as professional engineers in the photovoltaics and renewable energy industries.

Students in each course are assessed by way of assignments, tutorials, laboratory/project work and formal examinations.

Program Structure

The courses satisfying the 48 units of credit requirement may be selected from the following:

- Year 4 Electives (0-6 units of credit)
- Core Postgraduate Course (6 units of credit)
- Postgraduate Research Project (0 or 12 units of credit)
- Postgraduate Electives (0-42 units of credit)

18 units of credit must be taken in the area of specialisation.

Year 4 Electives only available to students who have not completed a BE in Photovoltaics and Solar Energy at UNSW.

Variations from the above combinations of courses comprising the 48 units of credit can be approved by the Head of School or Program Authority.

One Year 4 Elective

This may be selected to make up prerequisite requirements for an area of study within the postgraduate program. These courses are taught by lecture during the day, and require attendance at laboratory sessions.

Core Postgraduate Course

The core course is taught in-session at Kensington, and may include a component of web-based learning. However, these courses will require attendance at formal lectures.

The Postgraduate Research Project

The Postgraduate Research Project must be supervised by a member of the Academic Staff of the University. The project must relate to the major area of study being undertaken by the candidate. The project may take one of two forms:

- **Industry Related Project**: Such a project will require the agreement of an industry "sponsor", who will define the industrial requirements of the project. The project must still meet academic requirements, defined by the academic supervisor. An industry co-supervisor may be appointed from persons with appropriate academic standing or industrial experience, acceptable to the Committee.
- **Academic Project**: Such projects will be undertaken in the School's laboratories. The project may be motivated by an industrial problem, or it may be theoretical, experimental or design-based.

Postgraduate Electives

Electives may each contribute 3 or 6 units of credit, and may take one of several forms:

- **Formal Coursework**: These courses will have the same format as the core postgraduate course above.
- **Distance Education**: Such courses will be taught using web-based material, formal course notes, books, CD-ROMs and papers, and will require extensive self-study by the candidate. The subjects may require a component of attendance at lectures given within the School, or at other suitable venues.
- **Short Courses**: Short Courses are oriented toward continuing education. Each course will deal with a topical subject, and will provide units of credit which may be counted toward the MEngSc, or may be taken as a non-award course. Short courses may contribute either 3 units of credit or 6 units of credit, (the equivalent of 75-90 hours or 150-180 hours of work on the part of the candidate). Short courses will typically require attendance at lectures, either periodically or in a block, supplemented by self-study and assignment work.
- **Symposia**: Symposia will be similar to Short Courses, except that material will be delivered in a conference format, by the course candidates themselves, and/or by members of academic staff and invited speakers

PROGRAM OUTLINE

Major Areas of Study:

Programs consist of 48 units of credit of Coursework, with 6 units of credit comprising the core postgraduate course:

SOLA9001	Photovoltaics	(6 UOC)

At least 18 units of credit must be taken from one of the following areas of specialisation:

Photovoltaic Devices

SOLA9002	Advanced Solar Cells	(6 UOC)
SOLA9003	High Efficiency Silicon Solar Cells	(6 UOC)
SOLA9005	Advanced Semiconductor Devices	(6 UOC)
SOLA9006	Solar Cell Technology and Manufacturing	(6 UOC)
SOLA9008	Special Topic in Photovoltaics	(6 UOC)

The following courses are offered every second year and will not be offered in 2006:
SOLA9002, SOLA9003, SOLA9005, and SOLA9008.

Photovoltaic Systems and Applications

SOLA9002	Advanced Solar Cells	(6 UOC)
SOLA9007	Grid-Connected Photovoltaics	(6 UOC)
SOLA9009	Photovoltaics in Buildings	(6 UOC)
SOLA9014	Photovoltaic Stand-Alone System Design & Installation	(6 UOC)
SOLA9028	Special Topic in PV Systems and Applications	(6 UOC)

The following courses courses are offered every second year and will not be offered in 2006:
SOLA9002, SOLA9007, SOLA9014.

For course descriptions, please refer to 'Course Descriptions' by course code at the back of this Handbook or in the Online Handbook at **www.handbook.unsw.edu.au**

Renewable Energy Technologies

MECH9720	Solar Thermal Energy Design	(6 UOC)
SOLA9004	Solar Energy	(6 UOC)
SOLA9010	Wind Energy	(6 UOC)
SOLA9011	Biomass Energy Sources	(6 UOC)
SOLA9012	Renewable Energy Policy	(6 UOC)
SOLA9018	Special Topic Renewable Energy	(6 UOC)

SOLA9010 is offered every second year and will not be offered in 2006. For course descriptions refer to courses by course code.

Postgraduate Electives

Not all the postgraduate electives listed above are offered every year. Some are organised as part of a two-year rolling program. Students should consult with course advisors prior to completing enrolment to ascertain course availability.

Students not enrolling in the project are permitted to select not more than 12 units of credit from the Special Electives from the MBT program.

Academic Rules

Qualifications

1. A candidate for the degree shall have been awarded a Bachelor of Engineering from the University of New South Wales in an appropriate discipline, or a qualification considered equivalent from another university or tertiary institution at a level acceptable to the Higher Degree Committee of the Faculty of Engineering (hereinafter referred to as the Committee).

2. Articulation from a Graduate Diploma, or upgrading from a Graduate Diploma program with advanced standing may be allowed by the Committee. Upgrading in other circumstances may be permitted by the Higher Degree Committee on the recommendation of the Head of School, and may be offered with a reduced level of advanced standing.

3. In exceptional cases an applicant who submits evidence of such other academic and professional qualifications as may be approved by the Committee may be permitted to enrol for the degree.

4. Where a potential candidate does not meet the prerequisite required knowledge, a qualifying program can be arranged which will generally require enrolment in the Graduate Diploma, with the inclusion of Year 4 Electives. Upgrading to the MEngSc will be allowed after satisfactory progress and completion of at least 18 units of credit, with advanced standing in courses which meet the requirements for the MEngSc. Progress will not be deemed to be satisfactory unless all courses are passed at the first attempt.

5. Enrolment with advanced standing will be permitted where a candidate has completed non-award courses which would otherwise be acceptable for the MEngSc.

Enrolment and Progression

1. An application to enrol as a candidate for the degree shall be made on the prescribed form which shall be lodged with the Registrar at least two calendar months before the commencement of the session in which enrolment is to begin. Candidates may commence in Session 1 or Session 2.

2. All candidates elect to study in the Photovoltaics and Solar Energy program offered by the School of Photovoltaic and Renewable Energy Engineering. The Program Coordinator will advise if applicants are adequately qualified to undertake the proposed courses and must recommend the chosen program to the Committee.

3. A candidate for the degree shall be required to undertake such courses and pass such assessment as prescribed.

4. The progress of a candidate shall be reviewed at least once annually by the Committee and as a result of its review the committee may cancel enrolment, permit the candidate to re-enrol in a Graduate Diploma, or take such other action as it considers appropriate.

School of Surveying & Spatial Information Systems

Head of School: Professor C Rizos
Administrative Officer: Mr L Daras

The School offers two postgraduate coursework programs, as well as research degree programs at the Masters and PhD level. The coursework programs can be taken at both the Masters and the Graduate Diploma level, and include the general program in Surveying and Spatial Information Systems, and specialist programs in GIS and Remote Sensing (with the School of Biological, Earth and Environmental Science). Courses offered in these programs include GPS and Geodesy, Data Adjustment/ Estimation, GIS, Remote Sensing and Modern Technologies such as 3D Laser Scanners, Inertial Navigation Systems, Pseudolites, GNSS, and Radar Interferometry. Spatial Information underpins many applications in modern society and the range of spatial technologies and applications is expanding rapidly.

An education in surveying deals with topics such as GPS positioning, geodesy, mapping, survey measurement technologies and computations, as applied to applications such as engineering and cadastral surveying, and land management and development in general. With the selection of the appropriate elective courses a graduate may choose instead to specialise in Spatial Information Systems (SIS), a fast moving IT area. Topics include computing, databases, geographic information systems, GPS technologies, digital mapping, remote sensing and image analysis. SIS applications include land information and resource management, navigation, and telematics/telegeoinformatics.

Program Outlines

Formal postgraduate programs lead to the award of the degree of Master of Engineering Science (8651). Specialisation is available in Spatial Information (8652). Programs are also available leading to Graduate Diplomas in Surveying and Spatial Information Systems (5492), and Spatial Information (5496).

Opportunities are provided for graduate research leading to the award of the degrees of Master of Engineering (2721) a Master of Philosophy in Surveying & Spatial Information Systems (2685, plan GMATAR2685) and Doctor of Philosophy (1681).

8651 Master of Engineering Science in Surveying & Spatial Information Systems

MEngSc

Typical Duration
1 year

Minimum UOC for Award
48 units of credit

Typical UOC per Session
24 units of credit

Program Description

Programs of study leading to the degree of MEngSc are offered by the School of Surveying and Spatial Information Systems in a range of topics including:

- advanced surveying
- geodesy

- GPS/GNSS technology
- image analysis
- geographic information systems
- remote sensing

Candidates are allowed a wide choice in selecting courses. These can be selected to suit individual student needs and typical course structures can be supplied by the School on request. The program of study must total at least 48 units of credit (UOC). About 2 UOC are normally equal to attendance for one hour per week for one session. Some senior undergraduate courses may be taken for partial credit towards the degree. Postgraduate courses in Surveying and Spatial Information Systems are only run if there are sufficient enrolment numbers. The School should be contacted directly for information on which courses are running.

Program Structure

Candidates are required to complete a program totalling at least 48 UOC.

Additional courses can be selected from those offered by the Schools of Computer Science and Engineering; Civil & Environmental Engineering; Biological,Earth and Environmental Sciences; and School of Information Systems, Technology and Management. Credit can also be gained from attendance at approved industry short courses.

Academic Rules

Please refer to the Program Structure above and contact the School Office for further information.

5492 Graduate Diploma in Surveying & Spatial Information Systems

GradDip

Typical Duration

0.8 year

Minimum UOC for Award

36 units of credit

Typical UOC per Session

24 units of credit

Program Description

5492 Graduate Diploma in Surveying & Spatial Information Systems

Candidates are required to complete a program totalling 36 units of credit. Details of the recommended programs of study may be obtained from the Head of the School of Surveying and Spatial Information Systems. Courses from the Masters programs can be taken in the Graduate Diploma programs subject to the approval of the Postgraduate Coordinator.

Program Objectives and Learning Outcomes

Please contact the School of Surveying and Spatial Information Systems or the Faculty of Engineering for information.

Program Structure

Please contact the School of Surveying and Spatial Information Systems or the Faculty of Engineering for information.

Academic Rules

Please contact the School of Surveying and Spatial Information Systems or the Faculty of Engineering for information.

8652 Master of Engineering Science in Spatial Information

MEngSc

Typical Duration
1 year

Minimum UOC for Award
48 units of credit

Typical UOC per Session
24 units of credit

Program Description

Candidates are required to complete a program totalling at least 48 UOC made up of core courses and electives. Compulsory courses not offered in a particular year may be substituted by an equivalent course approved by the appropriate Head of School. The degree will normally comprise one year of full-time study (two sessions of 24 UOC) or two years of part-time study.

Program Objectives and Learning Outcomes

Please contact the School of Surveying & Spatial Information Systems or the Faculty of Engineering for information on the Program Objectives and Learning Outcomes.

Program Structure

Core Courses

GEOS9016	Principles of Geographic Information Systems and Science	(6 UOC)
GEOS9021	Image Analysis in Remote Sensing	(6 UOC)
GMAT9600	Principles of Remote Sensing	(6 UOC)
GMAT9205	Fundamentals of Geopositioning	(6 UOC)

Elective Courses

Candidates may include additional courses selected from the following listed elective courses, or from other relevant courses offered within the University, as approved by the appropriate Head of School.

GEOH9018	Transportation Applications of Geographical Information Systems	(6 UOC)
GEOS0310	Image Processing in Geophysics	(6 UOC)
GEOS0360	Hyperspectral Remote Sensing	(6 UOC)
GEOS9017	Advanced Geographic Information Systems and Science	(6 UOC)
GMAT9023	Innovations in Spatial Information 1	(3 UOC)
GMAT9024	Innovations in Spatial Information 2	(3 UOC)
GMAT9106	Special Topic in Geomatic Engineering A	(6 UOC)
GMAT9107	Special Topic in Geomatic Engineering B	(6 UOC)
GMAT9200	Principles of GNSS Positioning	(6 UOC)
GMAT9201	GPS Receivers & How They Work	(6 UOC)
GMAT9202	Designing GNSS Receivers	(6 UOC)
GMAT9210	Modern Positioning Technologies and Applications	(6 UOC)
GMAT9211	Introduction to Geodesy	(6 UOC)
GMAT9212	Introduction to GPS Surveying	(6 UOC)
GMAT9606	Microwave Remote Sensing	(6 UOC)
GMAT9906	Major Assignment	(12 UOC)

The Masters degree program in Spatial Information is offered in both the Faculty of Engineering and the Faculty of Science. Entry into either faculty depends on the background of the applicant and the orientation of the proposed program.

Academic Rules

Please refer to the Program Structure above and contact the School Office for further information.

5496 Graduate Diploma in Spatial Information

GradDip

Typical Duration
0.8 year

Minimum UOC for Award
36 units of credit

Typical UOC per Session
24 units of credit

Program Description

Candidates are required to complete a program totalling 36 units of credit, made up of four compulsory core courses and elective courses. Courses from the Masters programs can be taken in the Graduate Diploma programs subject to the approval of the program co-ordinator.

Program Structure

Core Courses

GEOS9016	Principles of Geographic Information Systems and Science	(6 UOC)
GEOS9021	Image Analysis in Remote Sensing	(6 UOC)
GMAT9205	Fundamentals of Geopositioning	(6 UOC)
GMAT9600	Principles of Remote Sensing	(6 UOC)

Plus 2 Electives

Academic Rules

Please contact the School of Surveying and Spatial Information Systems or the Faculty of Engineering for information.

Graduate School of Biomedical Engineering

Head of School: Professor BK Milthorpe

The Graduate School of Biomedical Engineering is an interdisciplinary unit, which conducts its own teaching programs and research, and also 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, Materials Science 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 Schools of Mechanical and Manufacturing Engineering, Electrical Engineering and Telecommunications, Computer Science and Engineering, Material Science and Engineering, and Chemical Engineering and Industrial Chemistry, offers concurrent degree programs, which allow the completion of a Bachelor of Engineering and a Master of Biomedical Engineering within a five-year period.

Formal graduate courses 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.

Opportunities are provided for graduate research leading to the award of the degrees of Master of Science, Master of Engineering, a Master of Philosophy in Biomedical Engineering (2685, plan BIOMAR2685) and Doctor of Philosophy.

Available research areas are listed in the Faculty listing which appears earlier in this Handbook.

8660 Master of Biomedical Engineering

MBiomedE

Typical Duration
1.5 years

Minimum UOC for Award
72 units of credit

Typical UOC per Session
24 units of credit

Program Description

The MBiomedE degree program is designed to cater for students with either a medical/biological science or engineering/physical science background.

Initially, students with a medical/biological science background study basic engineering subjects such as mathematics, mechanics, electronics and computing, whilst students with a non-medical background take courses in physiology, anatomy, pathology and biochemistry. Later, both groups choose electives from biomechanics, biophysics, biomaterials, medical instrumentation and mass transfer in medicine, as well as undertaking a research project.

This degree is primarily obtained through course work but may include an optional 12 UOC project report conducted in either a hospital or other institution. The course of study offers scope for original research into the application of engineering principles and technology to medical problems. Candidates must complete a program totalling 72 units of credit, 48 of which must be for the study of courses at graduate level. A minimum of 48 units must be from courses offered by the Graduate School of Biomedical Engineering (ie. any courses with BIOM9 prefix).

Period of candidature: The normal period is four academic sessions (full-time) or six academic sessions (part-time) from the date of enrolment. The maximum period of candidature is six academic sessions (full-time) and twelve academic sessions (part-time). In special cases extensions may be granted. A candidate is not permitted to continue in the course if the unit value of the subjects failed totals more than 18.

Strand A courses are directed to candidates with an engineering/physical sciences background and Strand B to those with a medical/biological sciences background. Selection of courses is not limited to those listed below. Commencing students are strongly encouraged to contact the school for advice as Strand A and B offerings are currently under review.

Program Structure

Session One

Strand A Courses, Engineering/Physical Sciences Candidates

ANAT2511	Fundamentals of Anatomy	(6 UOC)
PHPH2101	Physiology 1A	(6 UOC)
PHPH2201	Physiology 1B	(6 UOC)

Strand B Courses, Medical/Life Sciences Candidates

BIOM9501	Computing for Biomedical Engineers	(6 UOC)

Session One

General Courses

BIOM9060	Biomedical Systems Analysis	(6 UOC)
BIOM9332	Biocompatibility	(6 UOC)
BIOM9420	Clinical Laboratory Science	(6 UOC)
BIOM9430	Electromedical Standards	(6 UOC)
BIOM9510	Introductory Biomechanics	(6 UOC)
BIOM9551	Biomechanics of Physical Rehabilitation	(6 UOC)
BIOM9601	Biomedical Applications of Microcomputers 1	(6 UOC)
BIOM9613	Medical Instrumentation	(6 UOC)
BIOM9621	Biological Signal Analysis	(6 UOC)
BIOM9701	Dynamics of the Cardiovascular System	(6 UOC)
BIOM9914	Masters Project	(12 UOC)

Session Two

General Courses

BIOM9012	Biomedical Statistics	(6 UOC)
BIOM9027	Medical Imaging	(6 UOC)
BIOM9311	Mass Transfer in Medicine	(6 UOC)
BIOM9321	Physiological Fluid Mechanics	(6 UOC)
BIOM9333	Cellular and Tissue Engineering	(6 UOC)
BIOM9410	Regulatory Requirements of Biomedical Technology	(6 UOC)
BIOM9432	Chemistry and Physics of Synthetic and Biological Polymers	(6 UOC)
BIOM9440	Biomedical Practical Measures	(6 UOC)
BIOM9450	Clinical Information Systems	(6 UOC)
BIOM9541	Mechanics of the Human Body	(6 UOC)
BIOM9551	Biomechanics of Physical Rehabilitation	(6 UOC)
BIOM9561	Mechanical Properties of Biomaterials	(6 UOC)
BIOM9914	Masters Project	(12 UOC)

Academic Rules

Please refer to Program Structure and contact your School Office for the Academic Requirements relating to this program.

Further Information

1. For students entering the program from an engineering or physical sciences background ANAT2511, PHPH2101 and PHPH2201 are Highly Recommended

2. BIOM9510 is for students with no mechanics background

3. A complete and up to date listing of courses on offer may be found on the Biomedical Engineering website: **www.gsbme.unsw.edu.au**

8665 Master of Engineering Science in Biomedical Engineering

MEngSc

Typical Duration
1 year

Minimum UOC for Award
48 units of credit

Typical UOC per Session
24 units of credit

Program Description

A degree may be awarded for formal coursework only or for the completion of formal coursework and a report on a project depending on the program.

Candidates may undertake interdisciplinary studies and, subject to approval, are able to take courses from any school in the Faculty, other

faculties of the University and other universities or institutions. By means of this system, programs of studies best suited to the needs of the candidates may be selected.

Before enrolment an applicant should submit an intended program for approval by the school or division offering the majority of the units of credit to ensure that the prerequisite background held is adequate for all courses including those taken in other schools or institutions.

All coursework Masters programs are fee-paying. A schedule of fees is available on enquiry.

Period of candidature: The minimum period is 2 academic sessions (full-time) or 4 academic sessions (part-time) from the date of enrolment. The maximum period of candidature is 4 academic sessions (full-time) and 8 academic sessions (part-time). In special cases an extension of time may be granted.

Program Structure

Candidates are required to complete a program totaling a minimum of 48 units of credit composed of graduate level courses, including an optional 12 units of credit project.

Individual study programs, generally selected from the courses listed below, are to be approved by the Head of School or nominee. Although appropriate graduate level courses may be taken from other schools within the University a minimum of 60% of the course work units of credit (i.e. 30 UOC) are to be selected from courses offered by the Graduate School of Biomedical Engineering (BIOM9XXX). The degree will normally comprise one year (two sessions) of full-time study or two years (4 sessions) of part-time study.

Session One

BIOM9060	Biomedical Systems Analysis	(6 UOC)
BIOM9332	Biocompatibility	(6 UOC)
BIOM9420	Clinical Laboratory Science	(6 UOC)
BIOM9430	Electromedical Standards	(6 UOC)
BIOM9510	Introductory Biomechanics*	(6 UOC)
BIOM9551	Biomechanics of Physical Rehabilitation	(6 UOC)
BIOM9601	Biomedical Applications of Microcomputers 1	(6 UOC)
BIOM9613	Medical Instrumentation	(6 UOC)
BIOM9621	Biological Signal Analysis	(6 UOC)
BIOM9701	Dynamics of the Cardiovascular System	(6 UOC)
BIOM9914	Masters Project	(12 UOC)

Session Two

BIOM9012	Biomedical Statistics	(6 UOC)
BIOM9027	Medical Imaging	(6 UOC)
BIOM9311	Mass Transfer in Medicine	(6 UOC)
BIOM9321	Physiological Fluid Mechanics	(6 UOC)
BIOM9333	Cellular and Tissue Engineering	(6 UOC)
BIOM9410	Regulatory Requirements of Biomedical Technology	(6 UOC)
BIOM9432	Chemistry and Physics of Synthetic and Biological Polymers	(6 UOC)
BIOM9440	Biomedical Practical Measures	(6 UOC)
BIOM9450	Clinical Information Systems	(6 UOC)
BIOM9541	Mechanics of the Human Body	(6 UOC)
BIOM9551	Biomechanics of Physical Rehabilitation	(6 UOC)
BIOM9561	Mechanical Properties of Biomaterials	(6 UOC)
BIOM9914	Masters Project	(12 UOC)

**BIOM9510 is for students with no mechanical background.*

The BIOM9914 Masters Project may be done concurrently with coursework during the other sessions.

A complete and up-to-date listing of courses on offer may be found on the Biomedical Engineering website: **www.gsbme.unsw.edu.au**

Academic Rules

For academic rules relating to this program, please refer to the Program Structure above and contact the School Office for further information.

5445 Graduate Diploma in Biomedical Engineering

GradDip

Typical Duration
0.8 year

Minimum UOC for Award
36 units of credit

Typical UOC per Session
24 units of credit

Program Description

A program of study leading to the award of a Graduate Diploma in the Faculty of Engineering provides graduates with opportunities to extend their professional knowledge. In most cases, candidates may choose from a range of courses in the special areas of their choice. There are also opportunities to select courses from other professional areas in which the candidates may be interested.

Program Structure

Details of the recommended programs of study, totalling at least 36 units of credit, may be obtained from the Head of Biomedical Engineering. Graduate courses from the Masters programs can be taken in the Graduate Diploma program subject to the approval of the course coordinators. In general most courses from the Masters programs, with the exception of the 12 UOC project report can be taken by GradDip students.

Academic Rules

For academic rules relating to this program, please refer to the Program Structure above and contact the School Office for further information.

Admission Requirements

Before enrolment an applicant should submit an intended program for approval by the school or centre offering the majority of the units of credit. Candidates must usually complete a program totalling 36 units of credit. The program may contain courses from schools of the faculty, other faculties of the university and other universities or institutions subject to meeting the prerequisite requirements.

It should be noted that some of the candidates who have partially completed the requirements, but not taken out the award, may be considered for upgrading to the relevant Master program with advanced standing. Further enquiries should be made with the school.

Applicants for admission to a program of study leading to the award of a Graduate Diploma commencing in the first session should apply to the Registrar on the prescribed form by 31 October of the year before the year in which the enrolment is to begin. Where application is for registration commencing in the second session, applicants should apply at least two months before the commencement of session.

It may be necessary to limit entry to formal programs due to quota restrictions. In such cases, applications may be placed on a reserve list and considered subject to the availability of places. If a firm offer of admission is made, it will be subject to acceptance within three weeks.

Faculty of Law

A Message from the Dean

On behalf of the UNSW Law Faculty, I extend a warm welcome to you as postgraduate students. An internationally recognised Faculty, our postgraduate students come to us from varied walks of life. They include legal practitioners seeking specialised coursework training, academics pursuing research degrees, and non-lawyers seeking legal and related qualifications complementary to their disciplines. Whatever your legal background or program of study, we are committed to teaching and scholarly excellence within a setting of social responsibility. We aim to ensure your highest satisfaction by extending your educational horizons in the fulfillment of our educational mission as a centre of both academic and professional excellence.

Postgraduate Coursework Programs

The UNSW Law School offers five postgraduate coursework degrees: a Master of Laws, a Graduate Diploma in Law, a Master of Legal Studies, a Graduate Diploma in Legal Studies, and a Master of Law and Management, supported by the Australian Graduate School of Management, the premier management school in Australia.

The postgraduate coursework curriculum provides a legal education in discrete areas of specialisation including: Corporate and Commercial Law; Corporate, Commercial and Taxation Law; Media, Communications and Information Technology Law; International Law; European Union Law; Criminal Justice; Asian and Comparative Law; Financial Services; and Human Rights and Social Justice.

Postgraduate coursework at the UNSW Law School has the specific goal of strengthening the professional knowledge and skills of lawyers and related professionals. As a result, coursework programs often are oriented around the specialised areas of law identified above, and each course contains a significant research component.

Consistent with the career enhancing goals of postgraduate coursework students, LLM and GradDipLaw graduates who have completed a minimum of 24 units of credit from one of the specialisations may elect to have their specialisation noted on their testamur.

In its Tax School (Atax), the Law Faculty offers a Master of Taxation, a Master of International Taxation, a Master of Applied Taxation, a Graduate Diploma in Advanced Taxation and a Graduate Diploma in Taxation Studies. These programs are offered primarily, but not exclusively, through flexible distance education. Over 30 postgraduate courses are available to students throughout the country or located offshore, and the programs offer the most comprehensive range of specialised taxation courses anywhere in the southern hemisphere.

Research Degrees

The UNSW Law Faculty also offers five research degrees under the supervision of leading scholars: the Doctor of Philosophy (Law), Doctor of Philosophy (Taxation), the Doctor of Juridical Science, the Master of Laws and the Master of Taxation.

The Faculty has particular research strengths in Constitutional and Administrative Law, Corporate and Commercial Law, Taxation Law, Criminal Justice and Criminology, European Law and International Law, Japanese Law, Indigenous Law and Human Rights, Information Technology Law, Intellectual Property, Media and Communications Law, Law and Social Theory and Procedure and Evidence.

The Faculty seeks to provide postgraduate research students with an intellectual atmosphere conducive to research. While research students have primary contact with their supervisors, UNSW also provides a collegial setting where research students can exchange ideas with one another and the Faculty at large.

The Faculty also provides research students with a reflective atmosphere in which to develop their ideas. Illustrating that atmosphere are the two new postgraduate rooms in which access is provided to computer work terminals and the opportunity to enjoy quiet, reflective space.

Specialised Research Centres

Both postgraduate coursework and research students have the opportunity to draw upon the services of UNSW's important specialist research centres. These centres include: the Australian Human Rights Centre; the Indigenous Law Centre; the Australasian Legal Information Institute (AustLII); the Baker & McKenzie Cyberspace Law and Policy Centre; the European Law Centre; the Gilbert + Tobin Centre of Public Law; the Financial Services Consumer Policy Centre; the National Pro Bono Resource Centre; and the National Children's Youth Law Centre.

I wish you every success in your postgraduate studies at the UNSW Law Faculty.

Leon Trakman, SJD (Harvard)
Dean and Professor of Law
Faculty of Law

Contents

Faculty of Law

Faculty Centres and Units

Australasian Legal Information Institute (AustLII) 177
Australian Human Rights Centre 177
Baker & McKenzie Cyberspace Law and Policy Centre 177
Continuing Legal Education Centre 178
Diplomacy Training Program 178
European Law Centre 178
Financial Services Consumer Policy Centre 178
Gilbert + Tobin Centre of Public Law 178
Indigenous Law Centre 179
Kingsford Legal Centre 179
National Children's and Youth Law Centre 179
National Pro Bono Resource Centre 179
Social Justice Project 179

School of Law

Information and Assistance

Who Can Help? 179
Advanced Standing 179
Computing Information 180
Course Descriptions 180
Enrolment Procedures 180
Cross-Institutional Studies and Exchange Programs 180
Professional Associates 180
Student Representatives 180
The Law Society 180

Summary of Programs

Program Rules and Information – Research Degrees

1730 Doctor of Philosophy 181
1740 Doctor of Juridical Science 181
2400 Master of Laws by Research 182

Program Rules and Information – Coursework Degrees

9200 Master of Laws by Coursework 183
9210 Master of Law and Management 185
9220 Master of Legal Studies 185
5740 Graduate Diploma in Law 186
5750 Graduate Diploma in Legal Studies 187

Atax (Australian Taxation Studies Program)

Information and Assistance

Who Can Help? 187
Academic Support 188
Library Support 188
Enrolment Procedures 188
Sources of Information 188
Delivery modes 188

Summary of Programs

Program Titles and Codes 188
Course Codes 189
Course Availability 189
Program Completion 189
Overview of Programs 189
Student Work Load 189

Program Rules and Information – Research Programs

1745 Doctor of Philosophy 189
2455 Master of Taxation by Research 189

Program Rules and Information - Coursework Programs

9250 Master of Taxation 190
9255 Master of International Taxation 191
9260 Master of Applied Taxation 192
5540 Graduate Diploma in Advanced Taxation 193
5541 Graduate Diploma in Taxation Studies 194
Non-Award (Single Course), Cross-Institutional and Cross-Group (Faculty) Enrolments 194

Faculty of Law

The Faculty of Law comprises the School of Law, Atax (Australian Taxation Studies Program) and various centres and units. Information concerning the School of Law and Atax can be found in the relevant sections below.

Faculty Centres and Units

Australasian Legal Information Institute (AustLII)

The Australasian Legal Information Institute **(www.austlii.edu.au)** provides free internet access to Australian legal materials and to global legal materials through its WorldLII service.

AustLII is one of the largest sources of legal materials on the net. AustLII publishes public legal information, both 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 all Australian legislation and Superior Court decisions. It includes most federal courts (High Court, Federal Court, Family Court, AAT etc) and most significant State and Territory courts and tribunals. AustLII also includes a number of more subject specific databases.

AustLII has provided its software and expertise to assist in the creation of legal information institutes in the South Pacific **(www.paclii.org)**, United Kingdom and Ireland **(www.bailii.org)**, Hong Kong **(www.hklii.org)** and Canada **(www.canlii.org)**. In cooperation with all these organisations, AustLII has created and runs WorldII, the World Legal Information Institute **(www.worldlii.org)**. WorldII is also developing its own databases of decisions of international courts and tribunals. In addition to over 300 legal databases, WorldLII includes the WorldLII Catalogue of over 5,100 different categories into which over 15,000 legal websites are classified.

AustLII and WorldLII provide access to over 700,000 pages of information daily. AustLII's users span the whole community, including educational institutions, the legal profession, business and government.

Through project DIAL, funded by the Asian Development Bank, AustLII has carried out in-country training of government lawyers in Mongolia, China, Vietnam, Indonesia, Pakistan, Cambodia and other countries.

AustLII is operated jointly by the Faculties of Law at the University of Technology, Sydney and UNSW. It is funded by grants averaging $800,000 per year from sources such as its host universities, the Australian Research Council, Australian Business Ltd, Asian Development Bank, Ausaid, CCH Australia Ltd, the Department of Defence, the Department of Foreign Affairs and Trade and other bodies.

For more information about AustLII, please contact feedback@austlii.edu.au

Australian Human Rights Centre

The Australian Human Rights 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, telephone: (02) 9385 3637.

Baker & McKenzie Cyberspace Law and Policy Centre

The Baker & McKenzie Cyberspace Law and Policy Centre facilitates research, education and public interest advocacy on legal and policy issues concerning transactions in cyberspace. The distinctive aim of the Centre is to assess these frequently technical issues from a public interest perspective.

Core Centre activities include the organisation of conferences and symposia for the public or various professions, the support of research and publications by our research associates and postgraduate research associates, and promotion of awareness of public interest aspects of online and IT issues. Major past conferences topics include 'e-Commerce and Content', 'e-Crime and e-Security', 'International aspects of Internet regulation' and 'e-Authentication'. These dealt with a range of cutting-edge topics such as mechanisms for ensuring trust in online transactions, the extension of privacy rules to the private sector, new legislative initiatives on cyber-crime and Internet censorship, and the resolution of jurisdictional issues in relation to disputes arising out

of cross-national online transactions. The symposia provide a forum for free–ranging discussion between experts about the issues involved. The symposia thus avoid the usual conference format and allow experts a unique opportunity to exchange views.

The Centre is conducting a number of projects with a strong research element. These include: a review of the practical effectiveness of various proposed legal policy and technical solutions to the scourge of 'Spam'; the initiation of the Asia-Pacific Privacy Charter Council to encourage debate about emerging privacy protection in countries in the region, particularly in the light of the limited APEC initiatives in this area; and, in co-operation with Oz NetLaw (the Internet Legal Practice of the Communications Law Centre), 'Making privacy laws work', which examines Australian privacy laws from a complaints and casework perspective. A highlight in this project was the major international conference held in September 2003, "Terrorists and Watchdogs: Privacy and Surveillance 2003".

For more information, see the Centre's website at: **www.BakerCyberLawCentre.org**

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 Director, Christopher Lemercier, telephone (02) 9385 3227, fax 9385 3227, website **www.cle.unsw.edu.au**

Diplomacy Training Program

The Diplomacy Training Program (DTP) is a non-government organisation, 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 3-4 weeks in Bangkok, Manila, Sydney and Darwin, as well as 16 in-country sessions of 1-2 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), Emeritus Professor Garth Nettheim (UNSW), Dr Sarah Pritchard, Ms Louise Sylvan (Australian Consumers Association), John Pace, Janet Hunt (adjunct Professor, Deakin and former Director of Australian Council for Overseas Aid), Philip Chung (AUSTLII). 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 cooperation between Europe and the Australasian region;
- workable models for regional economic and political cooperation which may be of use in Australia's own region.

For further information contact the Directors: Dr. Adam Czarnota, telephone (02) 9385 2255, and Professor Martin Krygier, telephone (02) 9385 2240.

Financial Services Consumer Policy Centre (FSCPC)

The Financial Services Consumer Policy Centre (FSCPC) is a non-profit research and advocacy organisation. The FSCPC was set up with a grant from the National Consumer Trust Fund. The Centre conducts 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 also teaches a range of courses in the Masters of Law program, including Financial Services Law & Compliance, Superannuation Law and Insurance Law.

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; insurance law reform; small business access to banking; and consumer protection in electronic commerce.

For further information phone (02) 9385 1208 or visit **www.fscpc.org.au**

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 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 work of the Centre is concentrated on specific long and short-term projects. Its 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 postgraduate students.

Professor George Williams, the Centre Director, can be contacted on (02) 9385 2259 or george.williams@unsw.edu.au. The Centre's website can be found at **www.gtcentre.unsw.edu.au**

Indigenous Law Centre

The Indigenous Law Centre was established (originally as the Aboriginal Law Research Unit, then the Aboriginal Law Centre) within the University in 1981. Since its inception, the Centre has made a consistent contribution to the development of scholarship, the appropriate reform of laws and policy, the education of law students and others.

The Centre aims to develop and coordinate research, teaching and the dissemination of information in the multi-disciplinary area of the relationship between indigenous peoples and the law. The Centre has focused largely on the indigenous peoples of Australia but demonstrated an interest also in matters of comparative law and policy.

The Centre has published the *Indigenous Law Bulletin* (previously the Aboriginal Law Bulletin) continuously since 1981 and currently produces eight issues per year. The *Australian Indigenous Law Reporter*, a quarterly journal, is edited by the Centre and published by Butterworths Lexis/Nexis.

Staff and associates of the Centre teach both undergraduate and graduate electives in the Faculty of Law. Staff and associates are regularly called up on to give occasional presentations in other faculties and outside the University.

For more information, call the Centre on (02) 9385 2252 or email us at ilc@unsw.edu.au

Kingsford Legal Centre

Kingsford Legal Centre is the Faculty of Law's legal 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 NSW 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 the Centre: 11 Rainbow Street Kingsford NSW 2032 Australia, telephone (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 commenced in 1993 as 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 UNSW 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 children and young people in Australia. The Centre has a website **(www.lawstuff.org.au)** which provides legal information to young people on a broad number of issues in an accessible, colourful and approachable format, in addition to an email facility (LawMail) where young people may email the Centre for advice, information or referral from solicitors. *Article Thirteen* (formerly known as *Rights Now*) is a leading journal on young people and law containing news, discussion and debate on a variety of children's legal and rights issues.

For further information contact the Centre: telephone (02) 9398 7488, fax (02) 9398 7416, email cylc@unsw.edu.au, website **www.ncylc.org.au**

National Pro Bono Resource Centre

The National Pro Bono Resource Centre (NPBRC) was established in August 2002 as an initiative of the Commonwealth Attorney-General. The Centre's main objective is to promote and support high quality pro bono services in Australia. Funded by the Commonwealth Attorney-General's Department, the NPBRC aims to meet its objectives by:

- producing materials and setting up systems which will be of practical assistance to pro bono providers and people and organisations that are likely to benefit from pro bono services;
- investigating, developing and promoting ways of delivering pro bono that provide maximum benefit to disadvantaged communities and individuals;
- promoting discussion and information exchange including through a website **(www.nationalprobono.org.au)**, an e-newsletter and conferences;
- addressing barriers to effective pro bono including advocating changes to the legal system that will facilitate pro bono; and
- undertaking consultation and research that will support the promotion of effective pro bono work.

The NPBRC is located in The White House (Fig Tree Lane, Gate 4 High Street), telephone (02) 9385 7381, email info@nationalprobono.org.au

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. He also provides advice to the Dean in relation to other developments that the Faculty may consider to strengthen its research, teaching and community service role in the social justice area.

School of Law

Information and Assistance

Who Can Help?

If you require advice about enrolment, degree requirements, progression within programs or information about course content and requirements, contact the School of Law Student Administration Office, Level 10, Library Tower, telephone (02) 9385 2227.

Please refer to the School of Law homepage for timetables and general information: **www.law.unsw.edu.au**

For enquiries relating to Atax, please contact the Atax Student Services Office, telephone (02) 9385 9333.

Advanced Standing

The policy of the School of Law is to grant credit for courses which have been successfully completed at postgraduate level in another Faculty of Law where those courses, in the opinion of the School, are equivalent in content and depth to comparable courses at UNSW. Advanced standing for up to 50% of the program may be approved at the discretion of the Associate Dean (Postgraduate). There is an overriding requirement that

at least 50% of the program must be completed within the Law School. Where advanced standing for up to 50% of the program is approved, there is no further right to undertake cross-institutional study.

Computing Information

The School of Law manages a multimedia computer laboratory equipped with 26 PCs for instructional purposes. Research students have access to two dedicated computer workspaces equipped with 21 multimedia computers and printing facilities. The School maintains a World Wide Web server, a CD-ROM server and a document scanning and Character Recognition facility. All students have access to a range of research tools from the computer desktops including email, online and CD-ROM based national and international legal databases, library catalogues and WWW access. For more information, please refer to the booklet 'IT Resources for Students' or visit the Faculty website at **www.law.unsw.edu.au**

Course Descriptions

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

Enrolment Procedures

New students are informed of enrolment procedures at the time of offer.

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. Students must note that the School requires that at least 50% of Law studies be completed at UNSW. Where advanced standing for up to 50% of the program is approved there is no further right to undertake cross-institutional study. Courses undertaken on a cross-institutional basis will be awarded 6 units of credit towards postgraduate Law programs. Students should discuss their plans for cross-institutional studies with the Postgraduate Coordinator.

Professional Associates

In addition to full-time teaching staff in the School of Law, each year there are a small number of distinguished members of the Australian legal profession and international visitors who work in close association with full-time teachers. They participate in all aspects of the presentation of programs covered by their professional specialisation.

Student Representatives

Each year two postgraduate students – one from coursework programs and one from research – are elected to Faculty membership for the following year. Student representatives attend Faculty meetings and sit on various Faculty and School Committees.

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 and various committees. Members of the Executive 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, careers events, student publications, competitions and various other activities. The social events include first year law 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 within the faculty known as *Innominate*; the *Law Annual*; the *Alternative Law Handbook* and careers guides. The Law Society also runs the internal mooting, witness examination, client counselling and negotiation competitions. A speakers' forum with guest speakers from the judiciary, legal practitioners and public figures is held every couple of weeks. The Law Society and the Law Faculty also hold an annual Valedictory Dinner. The Society has officers representing the concerns of international and graduate law students, and is involved in the Australasian Law Students' Association. All students are welcome to be involved.

The Law Society office is Room 1112, telephone (02) 9385 2271, email lawsoc@unsw.edu.au, website **www.unswlawsoc.org**

Summary of Programs

The University provides facilities for approved students to engage in advanced studies and research in Law leading to the award of higher degrees.

The degree of Doctor of Philosophy (PhD) is available in the Faculty of Law (program 1730). This degree requires the completion of a program of research over a period of at least three years full-time study leading to the preparation of a thesis of not more than 100,000 words. The degree of Doctor of Juridical Science (SJD) (program 1740) requires completion of at least three years of full-time study (one year of coursework and two years of research leading to the preparation of a thesis).

The degree of Master of Laws (LLM) may be undertaken either by coursework (program 9200 – one year full-time study) or by research (program 2440 – a program of research over a period of at least three semesters of full-time study leading to the preparation of a thesis). The degree of Master of Law and Management (MLM) (program 9210) is offered in part-time mode only over a minimum of five semesters in conjunction with the Australian Graduate School of Management.

The Graduate Diploma in Law (GradDip, program 5740) is undertaken by coursework and requires the completion of two sessions of part-time study.

The Master of Legal Studies (MLS) and the Graduate Diploma in Legal Studies (GradDipLS) are coursework programs offered over a minimum of two semesters to non-law professionals. The aim is to provide knowledge, skills and techniques needed to identify legal issues in the workplace. The framework allows for postgraduate law courses to be combined with postgraduate courses drawn from other disciplines. Entry to Legal Studies programs is available in Semester 1 only. Further information is available on the Law Faculty website at **www.law.unsw.edu.au**

Program Rules and Information – Research Degrees

1730 Doctor of Philosophy

PhD

Typical Duration
4 years

Minimum UOC for Award
144 units of credit

Typical UOC per Session
24 units of credit

Program Description

The Doctor of Philosophy (PhD) degree is offered in all faculties of the University of New South Wales and encourages initiative and originality in research. Candidates should make a significant contribution to knowledge in their field.

As a general guide, the UNSW entry requirements for the degree of Doctor of Philosophy are as follows:

- A candidate for the degree shall have been awarded an appropriate degree of Bachelor with Honours from the University of New South Wales or a qualification considered equivalent from another university or tertiary institution at a level acceptable to the Research Committee of the Faculty.
- Candidates may be admitted to the PhD program after one year's full-time enrolment in a Masters by Research program, with the approval of the Faculty Postgraduate Affairs Committee.
- In exceptional cases an applicant who submits evidence of such other academic and professional qualifications as may be approved by the Committee may be permitted to enrol for the degree.

However, as each faculty manages its own PhD programs, prospective local and international research students should check with the relevant faculty and/or school for specific entry requirements.

English language requirements also apply. Please refer to the UNSW website: **www.unsw.edu.au/futureStudents/postgradResearch/res/fspgrengreqpolicy.html**

Program Objectives and Learning Outcomes

The Doctor of Philosophy (PhD) degree encourages initiative and originality in research. Students will make a significant contribution to knowledge in their field and will be competent to carry out research in their chosen area.

Program Structure

This program involves a minimum of three years full-time study. Students undertake supervised research leading to the production of the thesis.

The length of a doctoral thesis normally should not exceed 100,000 words of text and should be submitted for examination within 4 years of full-time study.

In some faculties advanced coursework is also prescribed.

Academic Rules

Please refer to the PhD Academic Rules in the Arts and Social Sciences section of this Handbook. Law School policy requires that the thesis not exceed 100,000 words.

Further Information

If you are considering applying for a PhD at UNSW you will need to make contact with the relevant school or faculty. This is necessary in order to establish that your research interests and those of the school and faculty are aligned, and that there is a suitable supervisor for your particular area of research.

Prospective students are strongly advised to make contact with potential supervisors before applying for research study at the University.

Please refer to the relevant faculty home page for contact details of schools and departments.

Please refer to the following web-page for further information on how to apply, scholarships, English language requirements, thesis preparation and other research related matters: **www.unsw.edu.au/futurestudents/research**

1740 Doctor of Juridical Science

SJD

Typical Duration
4 years

Minimum UOC for Award
144 units of credit

Typical UOC per Session
24 units of credit

Program Description

The Doctor of Juridical Science degree provides an opportunity to combine a doctoral thesis with the coursework component of an LLM degree. In addition to the contact with academic staff fostered by the program, SJD students will become part of the mainstream student body of the law school and enjoy the advantages of contact with other committed research students. The degree consists of one-third coursework (equivalent to one year full-time) and two-thirds research (equivalent to two years full-time) which may be in an area encountered by the student while undertaking coursework.

The SJD is intended to be equivalent to a PhD and therefore one of the highest degrees that a university can award. The degree is intended to prepare candidates for an academic career, or for high level research and policy formulation. While exceeding the requirements of most practising lawyers who wish to undertake a higher degree, the SJD is widely accepted by the profession as an indicator of expertise and original contribution to an area of knowledge as is the case in North America and elsewhere overseas.

The coursework component of the degree is described under the entry for LLM by Coursework. All coursework units must be completed before the commencement of the dissertation. After completion of at least four coursework units, students intending to enrol in the dissertation may submit an outline of a proposed topic to the Associate Dean (Postgraduate). The topic of the dissertation, which may be a development of one or more coursework units, must be nominated by the candidate and approved by the Research Committee of the Faculty of Law. The dissertation must amount to an original contribution to a field of study, and be of publishable quality. It will be assessed by not less than three examiners appointed by the Faculty Research Committee. Assessment is as for other final research degrees, i.e. award / not award / re-submit.

Program Objectives and Learning Outcomes

Please contact the Faculty of Law for information regarding Program Objectives and Learning Outcomes.

Program Structure

Please contact the Faculty of Law for information.

Please refer to Program 9200 (LLM) for a list of Postgraduate Elective Courses for the Doctor of Juridical Science (coursework component).

Academic Rules

Award of the Degree

1. The degree of Doctor of Juridical Science may be awarded by the Council on the recommendation of the Faculty Research Committee of the Faculty of Law (hereinafter referred to as the Committee) to a candidate who after satisfactorily completing a qualifying program comprising 48 units of credit in the LLM by coursework degree has through the submission of a thesis based on his or her research made an original and significant contribution to knowledge in the field of law.

Qualifications

2. (1) A candidate for the degree shall have been awarded an appropriate degree of Bachelor of Laws from the University of New South Wales or a qualification considered equivalent from another university or tertiary institution at a level acceptable to the Committee, and shall have completed the qualifying program to an approved standard. The standard required is an average of 75% or better in the candidate's qualifying program. In addition, a research proposal must be submitted as soon as feasible after completion the qualifying program. Admission to the SJD will be conditional on the viability of the research proposal.

(2) In exceptional cases an applicant who submits evidence of such other academic and professional qualifications as may be approved by the Committee may be permitted to enrol for the degree.

(3) If the Committee is not satisfied with the qualifications submitted by an applicant, the Committee may require the applicant to undergo such assessment or carry out such work as the Committee may prescribe before permitting enrolment.

Enrolment

3. (1) An application to enrol as a candidate for the degree shall be made on the prescribed form which shall be lodged with the Registrar by the advertised due date.

(2) In every case before making the offer of a place the Committee shall be satisfied that initial agreement has been reached between the School and the applicant on the provision of adequate facilities to be prescribed and that these are in accordance with the provisions of the guidelines for promoting postgraduate study within the University.

(3) The candidate shall be enrolled as either a full-time or part-time student.

(4) A full-time candidate will present the thesis for examination no earlier than four academic semesters and no later than six academic semesters from the date of enrolment for the SJD degree (i.e. after completion of the qualifying program) and a part-time candidate will present the thesis no earlier than six academic semesters and no later than ten academic semesters from the date of enrolment, except with the approval of the committee.

(5) The candidate must complete the qualifying program as an internal student; that is at a campus, or other approved facility with which the University is associated. He or she may undertake the research as an internal student or as an external student who is not in attendance at the University except for such periods as may be prescribed by the Committee.

(6) An internal candidate will normally carry out the research on a campus or at a teaching or research facility of the University except that the Committee may permit a candidate to spend a period in the field, within another institution or elsewhere away from the University provided that the work can be supervised in a manner satisfactory to the Committee. In such instances the Committee shall be satisfied that the location and period of time away from the University are necessary to the research program.

(7) The research shall be supervised by a supervisor and where possible a co-supervisor who are members of the academic staff of the School or under other appropriate supervision arrangements approved by the Committee. Normally an external candidate within another organisation or institution will have a co-supervisor at that institution.

Progression

4. The progress of the candidate shall be considered by the Committee following a report from the School in accordance with the procedures established within the School and previously noted by the Committee.

(1) The progress of a candidate during both the qualifying program and the period of research shall be reviewed at least once annually, and as a result of any such review the Committee may cancel enrolment or take such other action as it considers appropriate.

Thesis

5. (1) On completing the program of study a candidate shall submit a thesis which normally would not exceed 70,000 words and which makes an original and significant contribution in the field of law.

(2) The candidate shall give in writing to the Registrar two months notice of intention to submit the thesis.

(3) The thesis shall present an account of the candidate's own research.

(4) Four copies of the thesis shall be presented in a form which complies with the requirements of the University for the preparation and submission of theses for higher degrees.

(5) It shall be understood that the University retains the three copies of the thesis submitted for examination and is free to allow the thesis to be consulted or borrowed. Subject to the provisions of the Copyright Act, 1968, the University may issue the thesis in whole or in part, in photostat or microfilm or other copying medium.

Examination

6. (1) There shall be not fewer than three examiners of the thesis, appointed by the Committee, at least two of whom shall be external to the University unless the Committee is satisfied that this is not practicable.

(2) At the conclusion of the examination each examiner shall submit to the Committee a concise report on the thesis and shall recommend to the Committee that:

(a) The thesis merits the award of the degree, or

(b) The thesis merits the award of the degree subject to minor corrections as listed being made to the satisfaction of the Head of School, or

(c) The thesis requires further work on matters detailed in the examiner's report. Should performance in this further work be to the satisfaction of the Faculty Research Committee, the thesis would merit the award of the degree, or

(d) The thesis does not merit the award of the degree in its present form and further work as described in the examiner's report is required. The revised thesis should be subject to re-examination, or

(e) The thesis does not merit the award of the degree and does not demonstrate that resubmission would be likely to achieve that merit.

(3) If the performance at the further work recommended under (2)(c) above is not to the satisfaction of the Committee, the Committee may permit the candidate to re-present the same thesis and submit to further examination as determined by the Committee within a period specified by it but not exceeding eighteen months.

(4) The Committee shall, after consideration of the examiners' reports and the results of any further work, recommend whether or not the candidate may be awarded the degree. If it is decided that the candidate be not awarded the degree the Committee shall determine whether or not the candidate be permitted to resubmit the thesis after a further period of study and/or research. If the decision of the Committee results non-award of the SJD the candidate may take out a Master of Laws degree on the basis of the coursework completed before the SJD thesis.

Fees

7. A candidate shall pay such fees as may be determined from time to time by the Council.

2440 Master of Laws by Research

LLM

Typical Duration
2 years

Minimum UOC for Award
96 units of credit

Typical UOC per Session
24 units of credit

Program Description

The degree of Master of Laws (LLM) may be undertaken either by coursework (program **9200** - one year full-time study) or by research (program **2440** - a program of research over a period of at least three semesters of full-time study leading to the preparation of a thesis).

Program Objectives and Learning Outcomes

Please contact the Faculty of Law for information regarding Program Objectives and Learning Outcomes.

Program Structure

Please contact the Faculty of Law for information.

Academic Rules

Award of the Degree

1. The degree of Master of Laws by Research may be awarded by the Council on the recommendation of the Faculty Research Committee of the Faculty of Law (hereinafter referred to as the Committee) to a candidate who has demonstrated ability to undertake research by the submission of a thesis embodying the results of an original investigation.

Qualifications

2. (1) A candidate for the degree shall have been awarded an appropriate degree of Bachelor of Laws from the University of New South Wales or a qualification considered equivalent from another university or tertiary institution at a level acceptable to the Committee.

(2) In exceptional cases an applicant who submits evidence of such other academic and professional qualifications as may be approved by the Committee may be permitted to enrol for the degree.

(3) When the Committee is not satisfied with the qualifications submitted by an applicant the Committee may require the applicant, before being permitted to enrol, to undergo such examination or carry out such work as the Committee may prescribe.

Enrolment and Progression

3. (1) An application to enrol as a candidate for the degree shall be made on the prescribed form which shall be lodged with the Registrar by the advertised due date.

(2) In every case before making the offer of a place the Committee shall be satisfied that initial agreement has been reached between the School and the applicant on the topic area, supervision arrangements, provision of adequate facilities and any coursework to be prescribed and that these are in accordance with the provisions of the guidelines for promoting postgraduate study within the University.

(3) The candidate shall be enrolled as either a full-time or part-time student.

(4) A candidate shall be required to undertake an original investigation on an approved topic. The candidate may also be required to undergo such examination and perform such other work as may be prescribed by the Committee.

(5) The research shall be supervised by a supervisor or supervisors who are members of the academic staff of the School, or under other appropriate supervision arrangements approved by the Committee. Normally an external candidate within another organisation or institution will have a co-supervisor at that institution.

(6) Full-time and part-time candidates for the degree shall submit, within one or two semesters of enrolment respectively, a substantial piece of written work forming part of or relating to the approved topic. If this work is unsatisfactory or not forthcoming, the Committee will review the candidate's enrolment. In any case, the progress of a candidate shall be reviewed annually by the Committee following a report by the candidate, the supervisor and the Associate Dean (Research), and as a result of such review the Committee may cancel enrolment or take such other action as it considers appropriate.

(7) No candidate shall be granted the degree until the lapse of three academic semesters in the case of a full-time candidate or four academic semesters in the case of a part-time candidate from the date of enrolment.

(8) The candidate may undertake the research as an internal student, i.e. at a campus or other research facility with which the University is associated, or as an external student not in attendance at the University except for periods as may be prescribed by the Committee.

(9) An internal candidate will normally carry out the research on a campus or at a teaching or research facility of the University except that the Committee may permit a candidate to spend a period in the field, within another institution or elsewhere away from the University provided that the work can be supervised in a manner satisfactory to the Committee. In such instances the Committee shall be satisfied that the location and period of time away from the University are necessary to the research program.

Thesis

4. (1) On completing the program of study a candidate shall submit a thesis embodying the results of the original investigation. The thesis normally would not exceed 70,000 words.

(2) The candidate shall give in writing two months notice of intention to submit the thesis.

(3) The thesis shall present an account of the candidate's own research. In special cases work done conjointly with other persons may be accepted, provided the Committee is satisfied about the extent of the candidate's part in the joint research.

(4) Three copies of the thesis shall be presented in a form which complies with the requirements of the University for the preparation and submission of higher degree theses.

(5) It shall be understood that the University retains the three copies of the thesis submitted for examination and is free to allow the thesis to be consulted or borrowed. Subject to the provisions of the Copyright Act, 1968, the University may issue the thesis in whole or in part, in photostat or microfilm or other copying medium.

Examination

5. (1) There shall be not fewer than two examiners of the thesis, appointed by the Committee, at least one of whom shall be external to the University unless the Committee is satisfied that this is not practicable.

(2) At the conclusion of the examination each examiner shall submit to the Committee a concise report on the merits of the thesis and shall recommend to the Committee that:

(a) the thesis merits the award of the degree; or

(b) the thesis merits the award of the degree subject to minor corrections as listed being made to the satisfaction of the Head of School; or

(c) the thesis requires further work on matters detailed in the examiner's report. Should performance in this further work be to the satisfaction of the Faculty Research Committee, the thesis would merit the award of the degree; or

(d) the thesis does not merit the award of the degree in its present form and further work as described in the examiner's report is required. The revised thesis should be subject to re-examination; or

(e) the thesis does not merit the award of the degree and does not demonstrate that resubmission would be likely to achieve that merit.

(3) If the performance at the further examination recommended under (2)(c) above is not to the satisfaction of the Committee, the Committee may permit the candidate to re-present the same thesis and submit to a further oral, practical or written examination within a period specified by it but not exceeding eighteen months.

(4) The Committee shall, after consideration of the examiners' reports and the reports of any oral or written or practical examination, recommend whether or not the candidate may be awarded the degree. If it is decided that the candidate be not awarded the degree the Committee shall determine whether or not the candidate may resubmit the thesis after a further period of study and/or research.

Fees

6. A candidate shall pay such fees as may be determined from time to time by the Council.

Program Rules and Information – Coursework Degrees

9200 Master of Laws

LLM

Typical Duration
1 year

Minimum UOC for Award
48 units of credit

Typical UOC per Session
24 units of credit

Program Description

The Master of Laws by Coursework offers law graduates an opportunity to study in an organised fashion areas of specialty and greater difficulty than are met within a Bachelor of Laws program, some of which call for advanced interdisciplinary perspectives. Courses offered in the LLM by Coursework program combine a degree of sophistication or technical difficulty in terms of legal content with a substantial consideration of relevant interdisciplinary aspects of the subject matter and a focus on policy. Each course contains a significant research component. All courses are not necessarily available in any one year.

Program Objectives and Learning Outcomes

Please contact the Faculty of Law for information regarding the Program Objectives and Learning Outcomes.

Program Structure

The LLM by Coursework may be taken full-time in two semesters or part-time in a minimum of three semesters. Students must undertake and satisfactorily complete six semester-long courses or the equivalent. A total of 48 units of credit are required for the award of the degree. Students may elect to complete a major sequence of courses (see below). Postgraduate courses are taught in a variety of formats both during the University's formal academic semesters and over the winter teaching break. While many are taught for two hours per week over a teaching semester, in others the class hours are arranged more intensively to permit students to focus fully on a research project. Some courses of particular interest to students in employment are scheduled in a venue situated in the CBD.

A student may apply to the Associate Dean (Postgraduate) to complete a research paper of about 15,000 words in place of a semester-long course.

A student may apply to the Associate Dean (Postgraduate) for permission to take, as appropriate to the student's overall program, up to 50 per cent of the program from courses offered at postgraduate level by another university or from courses offered by Atax. No student may be permitted to take more than 50 per cent of the program from courses of either type.

Specialisations (Plans)

1. Candidates for the LLM by Coursework may undertake study incorporating a major sequence in any one of the following specialist areas:

- Asian and Comparative Law
- Comparative Law
- Corporate and Commercial Law
- Corporate, Commercial and Taxation Law
- Criminal Justice
- European Union Law
- Financial Services Law *(not offered 2006)*
- Human Rights and Social Justice
- International Law
- Media, Communications and Information Technology Law

2. In order to incorporate a major sequence in the degree a student will be required to obtain no less than 24 of the 48 units of credit required for the award of the degree from the courses allocated to that major sequence. A minimum of 16 UOC must be completed from postgraduate courses offered at UNSW Law School.

3. In the case of the Corporate, Commercial and Taxation Law Specialisation candidates are required to complete 16UOC from the courses nominated in the Corporate and Commercial Law Stream and a minimum of 12UOC from courses offered in Taxation.

4. From time to time the allocation of courses to major sequences may be altered.

5. The Associate Dean (Postgraduate) may when considering it appropriate authorise the inclusion of a Special Elective within, or the deletion of a Special Elective from among, the courses allocated to a major sequence.

6. The Associate Dean (Postgraduate) may when considering it appropriate approve as part of an individual student's major sequence a course or courses taken by that student on a cross-institutional basis.

7. Where a special case is made, or where an individual student's assessment program for the course concerned is tailored specifically to issues relevant to a major sequence, the Associate Dean may approve a course not otherwise allocated to a major sequence as part of that student's major sequence.

8. The Research Thesis course may be counted towards the units of credit required for a major sequence where, in the opinion of the Associate Dean, the subject matter of the thesis topic concerned is substantially related to the specialist area of the major sequence.

9. When a student completes the LLM by Coursework incorporating a major sequence as above, the student's academic transcript will identify the major sequence and the courses which constitute it and the student's

testamur will contain the words 'Master of Laws specialising in... (the major sequence completed)' or words to like effect.

Academic Rules

Award of the Degree

1. The degree of Master of Laws by Coursework may be awarded by the Council to a candidate who has satisfactorily completed a program of advanced study.

Qualifications

2. (1) A candidate for the degree shall have been awarded an appropriate degree of Bachelor of Laws from the University of New South Wales or a qualification considered equivalent from another university or tertiary institution at a level acceptable to the Faculty Education Committee of the Faculty of Law (hereinafter referred to as the Committee).

(2) In exceptional cases an applicant who submits evidence of such other academic and professional qualifications as may be approved by the Committee may be permitted to enrol for the degree.

(3) When the Committee is not satisfied with the qualifications submitted by an applicant the Committee may require the applicant, before being permitted to enrol, to undergo such examination or carry out such work as the Committee may prescribe.

Enrolment and Progression

3. (1) An application to enrol as a candidate for the degree shall be lodged with the Registrar by the advertised due date.

(2) A candidate for the degree shall be required to undertake such formal courses and pass such assessment as is prescribed.

(3) The progress of a candidate shall be reviewed at least once annually by the Committee and as a result of its review the Committee may cancel enrolment or take such other action as it considers appropriate.

(4) No candidate shall be awarded the degree until the lapse of two academic semesters from the date of enrolment in the case of a full-time candidate or three semesters in the case of a part-time candidate. The maximum period of candidature shall be three academic semesters from the date of enrolment for a full-time candidate and six semesters for a part-time candidate. In special cases an extension of these times may be granted by the Committee.

Postgraduate Elective Courses

The following electives are available for credit towards the Master of Laws degree by Coursework (LLM), the Doctor of Juridical Science (coursework component) (SJD), the Master of Law and Management degree (MLM), and the Graduate Diploma in Law (GradDip).

8 unit of credit (UOC) courses:

LAWS4133	Advanced Asian and Comparative Law (Tutorial)	(8 UOC)
LAWS4136	Advanced Chinese Law (Tutorial)	(8 UOC)
LAWS4027	Advanced Debt Capital Markets	(8 UOC)
LAWS9989	Advanced International Trade Law	(8 UOC)
LAWS4081	Advanced Issues in International Law	(8 UOC)
LAWS3049	Advanced Issues in Torts	(8 UOC)
LAWS4132	Advanced Japanese Law (Tutorial)	(8 UOC)
LAWS9194	Animal Law	(8 UOC)
LAWS4120	Asian and Comparative Law	(8 UOC)
LAWS4271	Australian Legal System	(8 UOC)
LAWS4026	Banking and Finance Law	(8 UOC)
LAWS4135	Chinese Law and Economy	(8 UOC)
LAWS4134	Chinese Law in Context	(8 UOC)
LAWS4023	Commercial Contracts	(8 UOC)
LAWS9994	Commercial Fraud	(8 UOC)
LAWS4025	Commercial Property Transactions	(8 UOC)
LAWS4291	Comparative Constitutional Law	(8 UOC)
LAWS3009	Comparative Criminal Justice:	(8 UOC)
LAWS4019	Competition Law	(8 UOC)
LAWS4156	Constitutionalism in the European Union	(8 UOC)
LAWS4181	Contemporary Issues in International Human Rights	(8 UOC)
LAWS3091	Corporate Control Transactions	(8 UOC)
LAWS4028	Corporate Governance	(8 UOC)
LAWS3095	Corporate Insolvency	(8 UOC)
LAWS3008	Criminal Justice System	(8 UOC)
LAWS3037	Data Surveillance and Information Privacy Law	(8 UOC)
LAWS3033	Defamation, Privacy & Media	(8 UOC)
LAWS3093	Derivatives Regulation	(8 UOC)
LAWS3035	Developing Computer Applications to Law	(8 UOC)
LAWS3044	Electronic Commerce Law and Practice	(8 UOC)
LAWS4188	Environmental Issues in the WTO	(8 UOC)
LAWS4152	EU: Economic & Trade Law	(8 UOC)
LAWS4151	European Union: Institutions and Legal Systems	(8 UOC)
LAWS4191	Feminist Perspectives on Law and Human Rights	(8 UOC)
LAWS9997	Financial Services Law and Compliance	(8 UOC)
LAWS7003	Global Issues in Competition Policy	(8 UOC)
LAWS4084	History and Theory of International Law	(8 UOC)
LAWS4184	Human Rights in International Trade	(8 UOC)
LAWS4292	Human Rights under the Australian Constitution	(8 UOC)
LAWS3080	Insurance Law	(8 UOC)
LAWS4017	Intellectual Property: Regulation and Policy	(8 UOC)
LAWS9993	International Business Trans.	(8 UOC)
LAWS7004	International Child Law	(8 UOC)
LAWS4083	International Commercial Arbitration	(8 UOC)
LAWS4016	International Context of Intellectual Property	(8 UOC)
LAWS9991	International Criminal Law	(8 UOC)
LAWS9119	International Environmental Law	(8 UOC)
LAWS4091	International Law of Equality and Discrimination	(8 UOC)
LAWS8549	International Organisations	(8 UOC)
LAWS4182	International Aspects of Social Justice	(8 UOC))
LAWS9972	International Trade Law	(8 UOC)
LAWS4187	International Trade Law: Environment & Development	(8 UOC)
LAWS3040	Internet Content Regulation	(8 UOC)
LAWS9977	Internet Governance	(8 UOC)
LAWS3029	Issues in Broadcasting Regulation	(8 UOC)
LAWS9190	Issues in Immigration Law	(8 UOC)
LAWS4021	Issues in Intellectual Property	(8 UOC)
LAWS4131	Japanese Law and Language (Tutorial)	(8 UOC)
LAWS4128	Japanese Law and Politics	(8 UOC)
LAWS4129	Japanese Law and Society	(8 UOC)
LAWS4130	Japanese Law and the Economy	(8 UOC)
LAWS4127	Japanese Law in Context	(8 UOC)
LAWS4034	Law and Valuation	(8 UOC)
LAWS3039	Law and Internet Cultures	(8 UOC)
LAWS4290	Law, Constitutionalism and Cultural Difference	(8 UOC)
LAWS4088	Law of Armed Conflict	(8 UOC)
LAWS4086	Law of the Sea	(8 UOC)
LAWS4087	Legal Regulation of the Use of Force	(8 UOC)
LAWS4212	Native Title Law, Policy and Practice	(8 UOC)
LAWS4200	Occupational Health and Safety Law	(8 UOC)
LAWS4150	Parliaments, Politics & Legislation	(8 UOC)
LAWS4082	Peaceful Settlement of International Disputes	(8 UOC)
LAWS3006	Policing	(8 UOC)
LAWS9980	Principled Negotiations	(8 UOC)
LAWS3090	Principles of Australian Corporations Law	(8 UOC)
LAWS4190	Refugee Law	(8 UOC)
LAWS3088	Regulation of Online Investing	(8UOC)
LAWS4423	Research Thesis: 8 UOC	(8 UOC)
LAWS4036	Restitution and Unjust Enrichment Law	(8 UOC)
LAWS4037	Securitisation	(8 UOC)
LAWS3092	Securities and Financial Markets Regulation	(8 UOC)
LAWS3083	Sports Sponsorship & Marketing	(8 UOC)
LAWS4120	Themes in Asian and Comparative Law	(8 UOC)
LAWS4189	Transnational Business and Human Rights	(8 UOC)
LAWS4035	Water Rights Law	(8 UOC)

4 unit of credit (UOC) courses:

LAWS4183	Aspects of International Governance	(4 UOC)
LAWS3042	Censorship and Free Speech	(4 UOC)
LAWS3041	Contempt and the Media	(4 UOC)
LAWS4092	Issues in Discrimination Law	(4 UOC)
LAWS3082	Risk Management in Sport	(4 UOC)
LAWS4335	Studies in Contemp Legal & Social Theory – Jürgen Habermas 1	(4 UOC)
LAWS4336	Studies in Contemp Legal & Social Theory – Jürgen Habermas II	(4UOC)

Legal Studies core courses:

LAWS4272	Australian Legal System and Process	(8 UOC)
LAWS4029	Elements of Contract	(4 UOC)
LAWS4273	Introduction to Property Law	(4 UOC)
LAWS4274	Introduction to Public Law	(4 UOC)
LAWS4430	Research and Writing in a Legal Environment	(4 UOC)

Legal Studies courses

LAWS4032	Construction Law for Non-Lawyers	(8 UOC)
LAWS3089	Corporate Law and Regulation	(8 UOC)
LAWS4031	Discharge of Contracts	(8 UOC)

9210 Master of Law and Management

MLM

Typical Duration
2.5 years

Minimum UOC for Award
60 units of credit

Typical UOC per Session
24 units of credit

Program Description

The Master of Law and Management by coursework is a specially designed Masters degree which provides advanced study in the disciplines of law and management. Participants will be able to establish or reinforce a legal specialisation whilst acquiring or consolidating an understanding of the functional areas of management.

The degree is primarily directed towards three target groups. First, practitioners who have management responsibilities in a firm. Second, lawyers dealing with corporations who need advanced legal knowledge and a solid understanding of the language and core concepts of management. Third, practising managers in industry who seek to broaden both their management and legal expertise.

The MLM is offered by the Faculty of Law supported by the Australian Graduate School of Management (AGSM).

Program Objectives and Learning Outcomes

Please contact the Faculty of Law for information regarding the Program Objectives and Learning Outcomes.

Program Structure

A minimum of three courses (24 units of credit) must be drawn from the choice offered by Law and Atax and a minimum of four core management courses from the AGSM. The Law courses include most of those listed for the LLM. Atax courses are listed in the relevant section of this Handbook. All courses will not necessarily be available in any one year.

The AGSM compulsory courses for the MLM are: Managing People and Organisations; Marketing Management; Economics in Management Practice; and Corporate Finance. A further two courses may be selected from: Data Analysis and Statistical Modelling for Business; Accounting and Financial Management; Managerial Skills; Managing Change; and IT and Organisational Performance.

The Law courses will normally be taught in the evening. Many courses are available in alternative formats both during the academic sessions and over the summer and winter teaching break. The AGSM courses are available in four locations in the Sydney CBD and in five other major city venues interstate (participants may attend these synchronised classes if travelling). Atax courses are available by distance learning with audio-conferences scheduled to suit busy professionals. Most classes are between 1.5 and 2 hours in duration and some courses are offered in a Sydney CBD location. Please consult the Atax website for timetables. In addition, the AGSM courses have on average two half-day Saturday workshops. Both the AGSM and Atax courses are supported by comprehensive open learning self-directed study materials. For AGSM courses no other study resources need be obtained.

A total of 60 units of credit are required for the award of the degree. The MLM by coursework is offered part-time only over a minimum of five semesters.

In relation to law courses, students may apply to the Associate Dean (Postgraduate) for permission to take, as appropriate, one or two single-semester courses (or the equivalent in year-long courses) offered at postgraduate level by another university.

Please refer to the program entry for 9200 Master of Laws (LLM) for a list of Postgraduate Elective Courses.

Academic Rules

Award of the Degree

1. The degree of Master of Law and Management may be awarded by the council to a candidate who has satisfactorily completed a program of advanced study approved by the Faculty Education Committees of the Faculty of Law and the Australian Graduate School of Management (hereinafter referred to as the Committees).

Qualifications

2. (1) Applicants for enrolment in the degree shall have been awarded an appropriate degree of Bachelor from the University of New South Wales or a qualification considered equivalent from another university or tertiary institution at a level acceptable to the Committees.

(2) Applicants shall in addition have had a minimum of two years' relevant work experience.

(3) In exceptional cases an applicant who submits evidence of such other academic and professional qualifications as may be approved by the Committees may be permitted to enrol for the degree.

(4) If the Committees are not satisfied with the qualifications submitted by an applicant the Committees may require the applicant to undergo such assessment or carry out such work as the Committees may prescribe, before permitting enrolment.

Enrolment and Progression

3. (1) An application to enrol as a candidate for the degree shall be lodged with the Registrar by the advertised due date.

(2) A candidate for the degree shall be required to undertake such formal courses and pass such assessment as is prescribed by the Committees.

(3) The progress of a candidate during the period of candidature shall be reviewed at least once annually, and as a result of any such review the Committees may cancel enrolment or take such other action as they consider appropriate.

(4) No candidate shall be awarded the degree until the lapse of four academic semesters from the date of enrolment. The maximum period of candidature shall be nine academic semesters from the date of enrolment. In special cases an extension of these times may be granted by the Committees.

9220 Master of Legal Studies (MLS)

Typical Duration
1 year

Minimum UOC for Award
48 units of credit

Typical UOC per Session
24 units of credit

Program Description

The Master of Legal Studies is a coursework program offered to professionals with a non-law background. The program is specifically designed to provide an understanding of the law within the area of expertise of the candidate. Courses offered in the MLS program combine a degree of sophistication or technical difficulty in terms of legal content with a substantial consideration of relevant interdisciplinary aspects of the subject matter and a focus on policy. Each course contains a significant research component. All courses are not necessarily available in any one year.

The MLS allows cross-disciplinary study in postgraduate courses from other UNSW faculties enabling students to advance their professional skills while acquiring knowledge of the law.

Research Thesis Options are not permitted in the MLS other than in exceptional circumstances. Candidates wishing to include a Research Thesis course within their program should contact the Postgraduate Co-ordinator.

Completion of the MLS by formal coursework will not lead to a professional qualification of legal practice.

Program Objectives and Learning Outcomes

Please contact the Faculty of Law for information regarding the Program Objectives and Learning Outcomes.

Program Structure

The following core courses in postgraduate law are mandatory and must be completed prior to enrolment in postgraduate law electives:

LAWS4272	Australian Legal System and Process	(8 UOC)
LAWS4029	Elements of Contract	(4 UOC)
LAWS4273	Introduction to Property Law	(4 UOC)
LAWS4274	Introduction to Public Law	(4 UOC)
LAWS4430	Research and Writing in a Legal Environment	(4 UOC)

The MLS may be taken full-time in two semesters or part-time in a minimum of three semesters. Students must undertake and satisfactorily complete six single-semester courses or the equivalent. A total of 48 units of credit are required for the award of the degree. Postgraduate law courses are taught in a variety of formats both during the University's formal academic semesters and over the winter teaching break. While many are taught for two hours per week over a teaching semester, in others the class hours are arranged more intensively to permit students to focus fully on a research project. Some courses of particular interest to students in employment are scheduled in a venue situated in the CBD.

A student may apply to the Associate Dean (Postgraduate) for permission to take, as appropriate to the student's overall program, up to 50 per cent of the program from courses offered at postgraduate level by another UNSW faculty, another university or from courses offered by Atax. No student may be permitted to take more than 50 per cent of the program from courses of either type.

Academic Rules

Award of the Degree

1. The degree of Master of Legal Studies may be awarded by the Council to a candidate who has satisfactorily completed a program of advanced study.

Qualifications

2. (1) A candidate for the degree shall have been awarded an appropriate degree of Bachelor from the University of New South Wales or a qualification considered equivalent from another university or tertiary institution at a level acceptable to the Faculty Education Committee of the Faculty of Law (hereinafter referred to as the Committee).

(2) In exceptional cases an applicant who submits evidence of such other academic and professional qualifications as may be approved by the Committee may be permitted to enrol for the degree.

(3) When the Committee is not satisfied with the qualifications submitted by an applicant the Committee may require the applicant, before being permitted to enrol, to undergo such examination or carry out such work as the Committee may prescribe.

Enrolment and Progression

3. (1) An application to enrol as a candidate for the degree shall be made on the prescribed form which shall be lodged with the Registrar by the advertised due date. Entry to the program is available in Semester 1 only.

(2) A candidate for the degree shall be required to undertake such formal courses and pass such assessment as is prescribed.

(3) The progress of a candidate shall be subject to the approval of the Associate Dean (Postgraduate) and will be reviewed at least once annually by the Committee. As a result of its review the Committee may cancel enrolment or take such other action as it considers appropriate.

(4) No candidate shall be awarded the degree until the lapse of two academic semesters from the date of enrolment in the case of a full-time candidate or three semesters in the case of a part-time candidate. The maximum period of candidature shall be three academic semesters from the date of enrolment for a full-time candidate and six semesters for a part-time candidate. In special cases an extension of these times may be granted by the Committee.

5740 Graduate Diploma in Law

GradDip

Typical Duration
0.7 years

Minimum UOC for Award
32 units of credit

Typical UOC per Session
24 units of credit

Program Description

The Graduate Diploma in Law by formal coursework offers law graduates the opportunity of advanced graduate study in law either generally or within specialised areas without undertaking a full Master of Laws degree.

Courses within the program are also available to students enrolled in the Master of Laws degree. There is no difference between the Graduate Diploma and the Master of Laws by formal coursework degree in terms of the content and depth with which particular courses are studied - the Graduate Diploma merely requires completion of fewer courses than would be required for a Master of Laws degree. Courses combine a degree of sophistication or technical difficulty in terms of legal content with a substantial consideration of relevant interdisciplinary aspects of the subject matter and a focus on policy.

Program Objectives and Learning Outcomes

Please contact the Faculty of Law for information regarding Program Objectives and Learning Outcomes.

Program Structure

The Graduate Diploma may be completed in two semesters. Students must undertake and satisfactorily complete four semester-long courses or the equivalent. A total of 32 units of credit are required for the award of the diploma. Students may elect to complete a major sequence of courses. All courses will not necessarily be available in any one year.

A student may apply to the Associate Dean (Postgraduate) to complete a research paper of about 15,000 words in place of one semester-long course.

A student may apply to the Associate Dean (Postgraduate) for permission to take, as appropriate to the student's overall program, up to 50 per cent of the program from courses offered at postgraduate level by another university or from courses offered by Atax. No student may be permitted to take more than 50 per cent of the program from courses of either type.

Specialisations

1. Candidates may undertake study incorporating a major sequence in any one of the following specialist areas:

- Asian and Comparative Law
- Comparative Law
- Corporate and Commercial Law
- Corporate, Commercial and Taxation Law
- Criminal Justice
- European Union Law
- Financial Services Law *(not offered 2006)*
- Human Rights and Social Justice
- International Law
- Media, Communications and Information Technology Law

2. In order to incorporate a major sequence in the degree a student will be required to obtain no less than 24 of the 32 units of credit required for the award of the degree from the courses allocated to that major sequence. A minimum of 16 UOC must be completed from postgraduate courses offered at UNSW Law School.

3. In the case of the Corporate, Commercial and Taxation Law Specialisation candidates are required to complete 16UOC from the courses nominated in the Corporate and Commercial Law Stream and a minimum of 12 UOC from courses offered in Taxation.

4. From time to time the allocation of courses to major sequences may be altered.

5. The Associate Dean (Postgraduate) may when considering it appropriate authorise the inclusion of a Special Elective within, or the deletion of a Special Elective from among, the courses allocated to a major sequence.

6. The Associate Dean (Postgraduate) may when considering it appropriate approve as part of an individual student's major sequence a course or courses taken by that student on a cross-institutional basis.

7. Where a special case is made, or where an individual student's assessment program for the course concerned is tailored specifically to issues relevant to a major sequence, the Associate Dean (Postgraduate) may approve a course not otherwise allocated to a major sequence as part of that student's major sequence.

8. Research Thesis courses may be counted towards the units of credit required for a major sequence where, in the opinion of the Associate Dean (Postgraduate), the subject matter of the thesis topic concerned is substantially related to the specialist area of the major sequence.

9. When a student completes the Graduate Diploma in Law incorporating a major sequence as above, the student's academic transcript will identify the major sequence and the courses which constitute it and the student's testamur will contain the words 'Graduate Diploma in Law specialising in... (the major sequence completed)' or words to like effect.

Please refer to the program entry for 9200 Master of Laws (LLM) for a list of Postgraduate Elective Courses.

Academic Rules

Award of the Degree

1. A Graduate Diploma may be awarded by the Council to a candidate who has satisfactorily completed an approved program of study.

Qualifications

2. (1) A candidate for the Diploma shall have been awarded an appropriate degree of Bachelor of Laws from the University of New South Wales or a qualification considered equivalent from another university or tertiary institution, at a level acceptable to the Faculty Education Committee of the Faculty of Law (hereinafter referred to as the Committee).

(2) An applicant who submits evidence of such other academic and professional attainment, as may be approved by the Committee, may be permitted to enrol for the Diploma.

(3) If the Committee is not satisfied with the qualification submitted by an applicant the Committee may require the applicant to undergo such assessment or carry out such work as the Committee may prescribe, before permitting enrolment.

Enrolment and Progression

3. (1) An application to enrol as a candidate for the diploma shall be made on the prescribed form which shall be lodged with the Registrar by the advertised due date.

(2) A candidate for the diploma shall be required to undertake the courses, and pass any assessment, prescribed.

(3) The progress of a candidate shall be reviewed by the end of two semesters by the Committee and as a result of its review the Committee may cancel the enrolment or take such other action as it considers appropriate.

(4) The normal duration of the program is two academic semesters from the date of enrolment in the case of a full-time candidate or four semesters in the case of a part-time candidate. In special circumstances a variation of these times may be approved by the Head of School.

5750 Graduate Diploma in Legal Studies

GradDipLS

Typical Duration
0.7 years

Minimum UOC for Award
32 units of credit

Typical UOC per Session
24 units of credit

Program Description

The Graduate Diploma in Legal Studies by formal coursework offers the opportunity of study in law for non-law professionals.

Courses within the program are also available to students enrolled in the Master of Legal Studies (MLS). There is no difference between the Graduate Diploma and the MLS degree in terms of the content and depth with which particular courses are studied. The Graduate Diploma merely requires completion of fewer courses than would be required for an MLS degree. Courses combine a degree of sophistication or technical difficulty in terms of legal content with a substantial consideration of relevant interdisciplinary aspects of the subject matter and a focus on policy. Candidates must complete the core courses prior to enrolment in postgraduate law electives.

Research Thesis Options are not permitted in the Graduate Diploma other than in exceptional circumstances. Candidates wishing to include a Research Thesis course within their program should contact the Postgraduate Co-ordinator.

Completion of the Graduate Diploma by formal coursework will not lead to a professional qualification of legal practice.

Program Objectives and Learning Outcomes

Please contact the Faculty of Law for information regarding Program Objectives and Learning Outcomes.

Program Structure

The Graduate Diploma may be completed in two semesters. Students must undertake and satisfactorily complete four single- semester courses or the equivalent. A total of 32 units of credit are required for the award of the diploma. All courses will not necessarily be available in any one year.

The following core courses in postgraduate law are mandatory and must be completed prior to enrolment in postgraduate law electives:

LAWS4272	Australian Legal System and Process	(8 UOC)
LAWS4029	Elements of Contract	(4 UOC)
LAWS4273	Introduction to Property Law	(4 UOC)
LAWS4274	Introduction to Public Law	(4 UOC)
LAWS4430	Research and Writing in a Legal Environment	(4 UOC)

A student may apply to the Associate Dean (Postgraduate) for permission to take, as appropriate to the student's overall program, up to 50 per cent of the program from courses offered at postgraduate level by another UNSW faculty, another university or from courses offered by Atax. No student may be permitted to take more than 50 per cent of the program from courses of either type.

Academic Rules

Award of the Degree

1. A Graduate Diploma may be awarded by the Council to a candidate who has satisfactorily completed an approved program of study.

Qualifications

2. (1) A candidate for the Diploma shall have been awarded an appropriate degree of Bachelor from the University of New South Wales or a qualification considered equivalent from another university or tertiary institution, at a level acceptable to the Faculty Education Committee of the Faculty of Law (hereinafter referred to as the Committee).

(2) An applicant who submits evidence of such other academic and professional attainment, as may be approved by the Committee, may be permitted to enrol for the Diploma.

(3) If the Committee is not satisfied with the qualification submitted by an applicant the Committee may require the applicant to undergo such assessment or carry out such work as the Committee may prescribe, before permitting enrolment.

Enrolment and Progression

3. (1) An application to enrol as a candidate for the diploma shall be lodged with the Registrar by the advertised due date. Entry to the program is available in Semester 1 only.

(2) A candidate for the diploma shall be required to undertake the courses, and pass any assessment, prescribed.

(3) The progress of a candidate shall be subject to the approval of the Associate Dean (Postgraduate) and will be reviewed at the end of two semesters by the Committee. As a result of its review the Committee may cancel enrolment or take such other action as it considers appropriate.

(4) The normal duration of the program is two academic semesters from the date of enrolment in the case of a full-time candidate or four semesters in the case of part-time candidate. In special circumstances a variation of these times may be approved by the Head of School.

Atax (Australian Taxation Studies Program) Information and Assistance

Atax delivers tax education across Australia and overseas. It aims to educate tax professionals from all sectors of the tax profession – accounting and legal majors, the tax groups of large and medium sized corporations, smaller accounting and law firms and the Australian Taxation Office, Federal Treasury, State Government Treasury Departments and Revenue Offices. The programs we offer have been developed through intensive consultation with a wide range of experts with interests in the accounting and legal professions and within UNSW.

Who Can Help?

General correspondence and telephone enquiries relating to Student and Program Administration should be directed to:

Atax Student Services Office
Tel: (02) 9385 9333
Email: atax@unsw.edu.au
Fax: (02) 9385 9380

Postal Address:
Atax
The University of New South Wales
UNSW Sydney NSW 2052
AUSTRALIA

Academic or general staff contact details may be found in the *Atax Student Guide* or on the Atax website: **www.atax.unsw.edu.au/contact**

Academic Support

A range of different academic support services is provided by Atax through the Academic Support Coordinator. These include support packages on general study skills, basic grammar and writing skills and advanced tax research and writing skills.

Atax recognises students come to the program from a broad range of backgrounds. We are responsive to the diverse needs of students and provide both formal and informal academic support options.

Two audio conferences are conducted each semester for new students. These are intended for new students, although continuing students are also welcome to participate. These Audio Conferences provide an opportunity for students to discuss general study skills and examination preparation issues in a relatively informal environment. Students are also encouraged to refer to the UNSW Learning Centre (**www.lc.unsw.edu.au**) and the *Atax Student Guide*.

The Academic Support Coordinator is regularly available for informal consultation and can direct students to appropriate resources and services. Additional support services are provided through the UNSW Learning Centre and other units. The Atax Academic Support Coordinator is the primary contact person for students seeking access to such services. The Student Services Office is able to provide contact details.

Library Support

The Atax library staff can help you to utilise online library resources and access hard copy reference materials. Atax's library team has a strong commitment to helping students achieve their professional and academic goals. If you have difficulty in accessing or operating online resources, our staff will provide you with telephone support that will enable you to access additional reference materials. Additional information may be found in the *Atax Student Guide* in the 'Library Guide' section. Also refer to Atax Library Online at **www.atax.unsw.edu.au** or contact the Atax library staff directly: Librarian, telephone (02) 9385 9327 or Library Assistant, telephone (02) 9385 9312**.**

Enrolment Procedures

Enrolment procedures for Atax programs vary slightly from conventional mode programs. Closing dates for enrolment are usually earlier and students should refer to information distributed by the Atax Student Services and the Atax website prior to the commencement of each semester.

Sources of Information

It is important that students familiarise themselves with various documents and sources of information available. These include the Atax website **(www.atax.unsw.edu.au)** and the *Atax Student Guide.*

Atax Website

You can access the Atax website at **www.atax.unsw.edu.au**. In addition to general information about Atax, program and course information is available. The website also includes details of conferences and special events, links to individual lecturers' web pages, continuing education opportunities, relevant research links and Atax Library Online.

Atax Student Guide

The *Atax Student Guide* provides ready access to the basics of Atax administration and contains other study resource materials. This guide provides an essential reference point for the Atax student, with contact lists, administration information, calendar of events, assessment procedures and a Library Guide. The Student Guide is a concise, one-stop source of information for the majority of your needs as an Atax student. Information will also be updated by way of the Atax website.

Orientation

Orientation sessions for new students are usually held in most Australian cities prior to the commencement of each semester. Study Materials will be dispatched to students prior to Orientation. Orientation serves both academic and administrative purposes, as well as giving students the opportunity to meet lecturers and fellow students.

It is expected that all new students will attend their local Orientation.

Delivery modes

Courses in the Atax postgraduate programs can be studied via flexible distance study, in face to face classes or intensive classes. Assessment remains the same for all modes of delivery. Students will be able to choose the delivery mode that suits best. All Atax students will receive a set of Study Materials for each course they are enrolled in and have access to Web Course Tools (WebCT). WebCT is a web-based site to complement Atax's teaching resources - Study Materials, past examination papers, feedback, discussion forums and online links are available from this site.

Flexible Distance

This mode of study utilises a combination of Audio Conferences, Regional Classes and WebCT, allowing study from anywhere in Australia or overseas. For each course there are usually five Audio Conferences per session and students are encouraged to attend. These Audio Conferences are held at Atax's Learning Centres located in metropolitan and regional centres throughout Australia. There is also a one-day Regional Class for most courses and these are usually held in metropolitan centres across the country during Weeks 9 or 10 of the session.

Students may find the learning environment differs significantly from traditional campus-based study. Students should refer to the *Atax Student Guide* (provided with Study Materials) or visit **www.atax.unsw.edu.au** for full information regarding facilities available:

- Study Materials
- Audio Conferences
- Web Course Tools (WebCT)
- Regional Classes*
- Learning Centre
- Informal Study Groups

** a one-day face to face class held in capital cities across Australia*

Face-to-face weekly classes

Atax offers face-to-face evening classes in Sydney's CBD for a selection of postgraduate courses. The classes are held at AGSM, Level 6, 1 O'Connell Street, Sydney between 6.00 pm and 8.00 pm on a weekday evening (depending on course selected). Class sizes are limited to a maximum of 40 students, so students are assured of a quality educational experience.

Students studying via this mode are provided with Study Materials, but do not attend Audio Conferences or Regional Classes. Students are required to maintain a minimum 80% attendance rate. Further information on the courses on offer in this mode is available on the Atax website: **www.atax.unsw.edu.au/students/facetoface.htm**

Intensive Courses

Some Atax courses can also be studied face to face via Intensive mode. Intensive classes enable students to complete the required coursework for the course in five days. These classes are held at Atax UNSW. Classes will normally run from 9.30 - 5.00 pm. For information on courses offered and dates, please refer to the Atax website at **www.atax.unsw.edu.au/students/facetoface.htm**

Summary of Programs

Program Titles and Codes

Program code: **1745**
Program Title: **Doctor of Philosophy**
Qualification abbreviation: **PhD**

Program code**: 2455**
Program title: **Master of Taxation by Research**
Qualification abbreviation **MTax (Research)**

Program code: **9250**
Program title: **Master of Taxation**
Qualification abbreviation: **MTax**

Program code: **9255**
Program title: **Master of International Taxation**
Qualification abbreviation: **MIntTax**

Program code: **9260**
Program title: **Master of Applied Taxation**
Qualification abbreviation: **MAppTax**

Program code: **5540**
Program title: **Graduate Diploma in Advanced Taxation**
Qualification abbreviation: **GradDipAdvTax**

Program code: **5541**
Program title: **Graduate Diploma in Taxation Studies**
Qualification abbreviation: **GradDipTaxStud**

Program code: **6066**
Program title: **Postgraduate Non-Award Course (Single Course Study**)

Program code: **6067**
Program title: **Postgraduate Cross-Institutional Course**

Program code: **6256**
Program title: **Postgraduate Non-Award Course** (Single Course Study) – ATO Sponsored

Program code: **6258**
Program title: **Postgraduate Cross-Institutional Course** – ATO Sponsored

Program code: **6894**
Program title: **Postgraduate Qualifying**

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 (e.g. ATAX)
- a four digit code. The first two numbers indicate the program to which it 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:

ATAX01**	Graduate Diploma in Taxation Studies courses – parallels some ATAX00** courses
ATAX03**	Graduate Diploma in Advanced Taxation courses – mostly parallel ATAX04** courses
ATAX04**	Masters courses

Course Availability

Prior to the commencement of each semester, course availability is included as part of the enrolment/re-enrolment information pack. Course descriptions for courses offered in 2006 can be found in alphabetical order by the course code at the back of this Handbook.

Program Completion

There is no University-wide rule requiring students to complete a program within a specified period of time. Atax will not usually recognise courses as part of a degree program where those courses are more than eight years old. Thus a postgraduate program should ordinarily be completed within 8 years of commencement. It is also the accepted practice for the University to notify students if they are not progressing satisfactorily. Please refer to the section on 'Academic Standing' in the *General University Rules and Student Information* section earlier in this Handbook.

Overview of Programs

The postgraduate coursework programs currently offered by Atax are the Master of Taxation, Master of International Taxation, Master of Applied Taxation, Graduate Diploma in Advanced Taxation and Graduate Diploma in Taxation Studies. Two postgraduate programs by research are also available: the PhD program which requires the completion of a supervised thesis (approximately 100,000 words) and the Master of Taxation by Research (proposed new program for 2006).

Atax serves the whole tax profession. In the context of recent and continuing fundamental changes to the Australian taxation system, experienced practitioners require the thorough upgrading of their skills and knowledge provided by postgraduate studies. Atax provides access to tax education to students across Australia, and provides mobility advantages for the many students who move around Australia or overseas in their jobs.

The Atax postgraduate tax programs build on the foundation provided by undergraduate study. Atax offers advanced postgraduate tax programs for existing taxation specialists with degrees in law or commerce and for graduates of the Atax undergraduate tax program. Entrants from other disciplines are offered a Graduate Diploma in Taxation Studies to bring them up to similar standards in core areas, consistent with tight time constraints, as Bachelor of Taxation graduates. The Masters programs and Graduate Diploma in Advanced Taxation program offer exposure to the more advanced aspects of the discipline and a critical understanding of the Australian tax system. The Masters programs emphasise skills in sustained self-directed writing, including relevant research skills. The Master of Applied Taxation is designed for Chartered Accountants who are regularly faced with tax issues in their professional work. In addition to developing research skills, the program focuses on specific studies in taxation in a business context.

Student Workload

Part-time students will normally complete one or two courses per semester. Full-time students will normally complete four courses per semester. 'Full-time' students are defined as having a load of 0.75 or more (0.375 per semester). Each semester 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.

In special circumstances with approval from the program convenor, a heavier load could be taken. That would depend to some extent on the student's prior academic record.

Program Rules and Information – Research Programs

1745 Doctor of Philosophy

PhD

Atax currently offers a Doctor of Philosophy (PhD) program. This postgraduate degree can be completed over a minimum of three years full time study or five to eight years part time study. The program requires an integrated piece of research that culminates in the submission of a thesis of approximately 100,000 words on an area that is related to taxation as a key discipline. The work must be an original and significant contribution to the knowledge in a specific area of taxation.

Interested candidates should contact the Atax PhD coordinator in relation to any questions about entry qualifications, PhD research topics and potential Atax supervisors.

2455 Master of Taxation by Research

MTax (Research)

Typical Duration
1.5 years full-time

Minimum UOC for Award
72 units of credit

Typical UOC per Session
24 units of credit

Program Description

This program is designed as a first step to advanced research in taxation. It is particularly suitable for those students who ultimately plan to undertake a PhD in taxation. Graduates who have been awarded an appropriate degree of Bachelor in taxation; law; or commerce; and with a taxation component, from the University of New South Wales or a qualification considered equivalent from another university or tertiary institution at an average mark of Credit (65%) or better are eligible to apply for admission to the program.

The program consists of a coursework component and a major dissertation. Candidates can only commence writing their dissertations after successfully completing the coursework component. Some parts of the coursework component are currently delivered in external mode (distance education) only, whereas the dissertation can be done in either internal or external mode. Candidates can study full-time or part-time or a mixture of both.

Admission Requirements

Graduates who have been awarded an appropriate degree of Bachelor in taxation, law or commerce, and with a taxation component, from the University of New South Wales or a qualification considered equivalent from another university or tertiary institution at an average mark of Credit (65%) or better are eligible to apply for admission to the program.

In exceptional cases, an applicant who submits evidence of such other academic and professional qualifications as may be approved by an Admissions Committee established by the Faculty of Law, may be permitted to enrol for the degree. If the Committee is not satisfied with the qualifications submitted by the applicant, it may require the applicant to undergo such assessment or carry out such work as the Committee may prescribe, before permitting enrolment.

Program Objectives and Learning Outcomes

The main objectives of the Master of Taxation by Research are:

- to provide a formal academic link between the Bachelor Degree of Taxation (or similar degrees) and the PhD Degree in Taxation;
- to provide students with a range of technical knowledge and research skills in order to successfully conduct postgraduate research in taxation; and
- to provide students with an opportunity to undertake in-depth research in an appropriate taxation topic of their choice.

Program Structure

Coursework component (24 units of credit):

Students must complete three compulsory courses:

ATAX0400	Research Methods in Taxation	(6 UOC)
ATAX0401	Tax Policy	(6 UOC)
ATAX0492	Dissertation Proposal	(6 UOC)

plus any 6 unit of credit elective course approved by the Program convenor (provided that candidates satisfy the prerequisites, if any, of the elective course).

Dissertation (48 units of credit)

In addition, students must also complete:

ATAX0490	Dissertation Full-time or	(48 UOC)
ATAX0491	Dissertation Part-time	(48 UOC)

The dissertation must be an original investigation in taxation not exceeding 50,000 words. It would typically be more limited in scope and in the degree of originality than a PhD thesis.

The research shall be supervised by a supervisor or supervisors who are members of the academic staff of Atax, or under other appropriate supervision arrangements approved by the Atax Assessment Committee

The progress of a candidate shall be reviewed annually by the Committee and as a result of such review the Committee may cancel enrolment or take such other action as it considers appropriate.

No candidate shall be granted the degree until the lapse of three academic semesters in the case of a full-time candidate or four academic semesters in the case of a part-time candidate from the date of enrolment.

The candidate shall give in writing two months notice of intention to submit the dissertation.

The dissertation shall present an account of the candidate's own research. In special cases work done conjointly with other persons may be accepted, provided the Committee is satisfied about the extent of the candidate's part in the joint research.

Three copies of the dissertation shall be presented in a form which complies with the requirements of the University for the preparation and submission of higher degree theses.

It shall be understood that the University retains the three copies of the dissertation submitted for examination and is free to allow the dissertation to be consulted or borrowed. Subject to the provisions of the Copyright Act, 1968, the University may issue the dissertation in whole or in part, in photostat or microfilm or other copying medium.

Academic Rules

Assessment Policy

To pass a course in the coursework component candidates must obtain:

1. 50% or more of the total marks available in the course and

2. a minimum of 40% in the final examination in the course

Assessment for Dissertation

1. There shall be not fewer than two examiners of the dissertation, appointed by the Committee.

2. At the conclusion of the examination each examiner shall submit to the Committee a concise report on the merits of the dissertation and shall recommend to the Committee that:

(a) the dissertation merits the award of the degree; or

(b) the dissertation merits the award of the degree subject to minor corrections as listed being made to the satisfaction of the Director of Atax; or

(c) the dissertation requires further work on matters detailed in the examiner's report. Should performance in this further work be to the satisfaction of the Committee, the dissertation would merit the award of the degree; or

(d) the dissertation does not merit the award of the degree in its present form and further work as described in the examiner's report is required. The revised dissertation should be subject to re-examination; or

(e) the dissertation does not merit the award of the degree and does not demonstrate that resubmission would be likely to achieve that merit.

3. If the performance at the further examination recommended under 2(c) above is not to the satisfaction of the Committee, the Committee may permit the candidate to re-present the same dissertation and submit to a further oral, practical or written examination within a period specified by it but not exceeding eighteen months.

4. The Committee shall, after consideration of the examiners' reports and the reports of any oral or written or practical examination, recommend whether or not the candidate may be awarded the degree. If it is decided that the candidate be not awarded the degree the Committee shall determine whether or not the candidate may resubmit the dissertation after a further period of study and/or research.

Exemption Policy

Admission with Advanced Standing: Students accepted for enrolment into the Master of Taxation by Research may apply for advanced standing by applying to the Atax Student Services Office. The policy and Advanced Standing/Exemption application is located on the Atax website at **www.atax.unsw.edu.au/study/pgradexemptions** - click on the relevant program to locate the appropriate policy statement and application form.

Articulation of studies from the Master of Taxation (Research) to the PhD program

After successfully completing the coursework component, candidates with an overall average of 70% or more in the Dissertation Proposal may apply for admission into the PhD program in taxation.

Program Rules and Information – Coursework Programs

9250 Master of Taxation

MTax

Typical Duration
1 year full-time

Minimum UOC for Award
48 units of credit

Typical UOC per Session
24 units of credit

Program Description

The principal objective of the Master of Taxation degree is to develop an advanced taxation knowledge base and advanced professional skills in taxation. The Master of Taxation can be studied over one full-time year with four courses per semester or two part-time years with two courses per semester.

The Master of Taxation program comprises eight courses, including one compulsory course. The remaining seven courses may be chosen from the prescribed list of elective courses. Assessment in at least four courses (designated ATAX04##) includes a research paper entailing sustained application of analytical skills and is assessed at not less than 40% of the marks in each course (weights vary according to particular course, but this is a standard). Assessment in Masters by coursework generally emphasises analysis and sustained writing in current problem areas and constructive contributions to the professional debate on key problems. This requires students to engage in sustained application of analytical skills and writing in their primary areas of advanced work and encourages them to add to the body of knowledge and critical understanding in such areas.

Admission Requirements

Direct entry to the Master of Taxation is normally open to graduates in taxation, law or commerce of equivalent standing and content to corresponding UNSW qualifications. Candidates should be able to demonstrate an average mark of Credit (65%) or better, in their prior taxation, law or commerce degrees.

Candidates for the Master of Taxation with Commerce or Law qualifications which are not at the required level, standard or content, shall complete such postgraduate qualifying courses as the Board of Studies in Taxation determines. The program code for the Postgraduate Qualifying program is 6894. This requirement is designed to deal particularly with Commerce graduates who have not completed basic commercial law and company law and Law graduates without basic accounting and economics as part of their undergraduate study. The Board of Studies in Taxation shall determine whether candidates with lower level academic qualifications and/or professional experience in taxation may be admitted directly or with such prerequisites as the Board determines.

All candidates for the Master of Taxation shall have completed a university level program in the basic elements of Australian income taxation or demonstrate equivalent academic and/or practical experience.

Exemptions or credit may be granted for up to 12 units of credit (two courses). Refer to 'Exemption Policy' below.

Specialist Professional Accreditation

The Master of Taxation has been approved by CPA Australia for specialist taxation accreditation.

Students who are members of CPA Australia, The Institute of Chartered Accountants in Australia (ICAA), and qualified lawyers may have both Award and Non-Award study with Atax recognised towards their Continuing Professional Development (CPD), Continuing Professional Education (CPE) and Continuing Legal Education (CLE) membership requirements respectively.

Program Objectives and Learning Outcomes

Please contact Atax, Faculty of Law for information regarding Program Objectives and Learning Outcomes.

Program Structure

Complete the following compulsory course:

ATAX0401	Tax Policy	(6 UOC)

Select seven elective courses:

ATAX0400	Research Methods in Taxation	(6 UOC)
ATAX0403	Taxation of Corporations	(6 UOC)
ATAX0404	Asia Pacific Tax Regimes	(6 UOC)
ATAX0405	Taxation of Trusts	(6 UOC)
ATAX0406	Tax Administration Process	(6 UOC)
ATAX0407	Taxation of Corporate Finance	(6 UOC)
ATAX0408	International Tax: Anti-Avoidance	(6 UOC)
ATAX0410	Taxation of Superannuation	(6 UOC)
ATAX0411	Taxation of Capital Gains	(6 UOC)
ATAX0414	Selected Problems in Stamp Duty	(6 UOC)
ATAX0415	Taxation of Industry and Technology	(6 UOC)
ATAX0416	Current Research Problems in Taxation	(6 UOC)
ATAX0417	International Financial Centres	(6 UOC)
ATAX0418	Consolidations and Group Structures	(6 UOC)
ATAX0420	Principles of Australian International Tax	(6 UOC)
ATAX0421	Taxation of Structured Finance	(6 UOC)
ATAX0422	GST: Design and Structure	(6 UOC)
ATAX0423	Principles of GST Law	(6 UOC)
ATAX0424	GST: Complex Issues and Planning	(6 UOC)
ATAX0425	Taxation of Employee Remuneration	(6 UOC)
ATAX0426	Taxation and Investment Regulation in China	(6 UOC)
ATAX0427	Tax Strategies in Financial Planning	(6 UOC)
ATAX0428	Foundations in International Taxation	(6 UOC)
ATAX0429	International Tax Research	(6 UOC)
ATAX0434	Specific Tax Jurisdiction: Europe	(6 UOC)
ATAX0435	Specific Tax Jurisdictions: North America	(6 UOC)
ATAX0436	Specific Tax Jurisdictions: Asia	(6 UOC)
ATAX0437	Double Tax Agreements	(6 UOC)
ATAX0438	Tax Risk Management	(6 UOC)
ATAX0455	Taxation of Property Transactions	(6 UOC)

Academic Rules

Assessment Policy

To pass a course candidates for the Master of Taxation must obtain:

1. 50% or more of the total marks available in the course and

2. a minimum of 40% in the final examination in the course

Exemption Policy

Admission with Advanced Standing: Students accepted for enrolment into the Master of Taxation , may apply for advanced standing by applying to the Atax Student Services Office. The policy is located on the Atax website at **www.atax.unsw.edu.au/study/pgradexemptions.htm** - click on the relevant program to locate the appropriate policy statement.

9255 Master of International Taxation

MIntTax

Typical Duration
1 year full-time

Minimum UOC for Award
48 units of credit

Typical UOC per Session
24 units of credit

Program Description

The principal objective of the Master of International Taxation degree is to develop a basic and advanced international taxation knowledge base and advanced professional skills in the practical application of international tax knowledge. The Master of International Taxation can be studied over one full-time year with four courses per semester or two part-time years with two courses per semester.

The Master of International Taxation program comprises eight courses, a minimum of five of these courses must be taken from the international stream of courses. One of these courses, Tax Policy, is a compulsory course that can be studied in either Session 1 or Session 2. Assessment in at least four courses (designated ATAX04##) includes a research paper entailing sustained application of analytical skills and is assessed at not less than 40% of the marks in each course (weights vary according to particular course, but this is a standard). Assessment in Masters by coursework generally emphasises analysis and sustained writing in current problem areas, addressing topics that reflect the professional interests of students, which allows students to make constructive contributions to the professional debate on key problems. This requires students to engage in sustained application of analytical skills and writing in their primary areas of advanced work and encourages them to add to the body of knowledge and critical understanding in such areas.

Admission Requirements

Direct entry to the Master of International Taxation is normally open to graduates in taxation, law or commerce of equivalent standing and content to corresponding UNSW qualifications. Candidates should be able to demonstrate an average mark of Credit (65%) or better, in their prior taxation, law or commerce degrees.

Candidates for the Master of International Taxation with Commerce or Law qualifications which are not at the required level, standard or content, shall complete such postgraduate qualifying courses as the Board of Studies in Taxation determines. The program code for the Postgraduate Qualifying program is 6894. This requirement is designed to deal particularly with Commerce graduates who have not completed basic commercial law and company law, and Law graduates without basic accounting and economics as part of their undergraduate training. The Board of Studies in Taxation shall determine whether candidates with lower level academic qualifications and/or professional experience in taxation may be admitted directly or with such prerequisites as the Board determines.

All candidates for the Master of International Taxation shall have completed a university level program in the basic elements of Australian income taxation or demonstrate equivalent academic and/or practical experience.

Exemptions or credit may be granted for up to 12 units of credit (two courses). Refer to 'Exemption Policy' below.

Continuing Professional Development

Students who are members of CPA Australia, The Institute of Chartered Accountants in Australia (ICAA), and qualified lawyers may have both Award and Non-Award study with Atax recognised towards their Continuing Professional Development (CPD), Continuing Professional Education (CPE) and Continuing Legal Education (CLE) membership requirements respectively.

Program Objectives and Learning Outcomes

The main objectives of the Master of International Taxation are:

- To provide study programs that meet the developmental requirements of international tax professionals in the private and government sectors in Australia and throughout the Asia Pacific region;
- To provide a SE Asia and Pacific Rim focus to the study of international taxation regimes and policies;
- To provide depth of study and research opportunities in international and comparative taxation.

Program Structure

Students must choose eight courses from the following lists.

Select a minimum of five courses from the International stream below.

Complete the following compulsory **International stream** course:

ATAX0401	Tax Policy	(6 UOC)

Select a minimum of four courses from the remaining **International stream** courses below:

ATAX0404	Asia Pacific Tax Regimes	(6 UOC)
ATAX0408	International Tax: Anti-Avoidance	(6 UOC)
ATAX0417	International Financial Centres	(6 UOC)
ATAX0420	Principles of Australian International Tax	(6 UOC)
ATAX0422	GST: Design and Structure	(6 UOC)
ATAX0426	Taxation and Investment Regulation in China	(6 UOC)

ATAX0428	Foundations in International Taxation	(6 UOC)
ATAX0434	Specific Tax Jurisdictions: Europe	(6 UOC)
ATAX0435	Specific Tax Jurisdictions: North America	(6 UOC)
ATAX0436	Specific Tax Jurisdictions: Asia	(6 UOC)
ATAX0437	Double Tax Agreements	(6 UOC)
ATAX0429	International Tax Research	(6 UOC)

Select a maximum of three courses from the General stream below.

ATAX0400	Research Methods in Taxation	(6 UOC)
ATAX0403	Taxation of Corporations	(6 UOC)
ATAX0405	Taxation of Trusts	(6 UOC)
ATAX0406	Tax Administration Process	(6 UOC)
ATAX0407	Taxation of Corporate Finance	(6 UOC)
ATAX0410	Taxation of Superannuation	(6 UOC)
ATAX0411	Taxation of Capital Gains	(6 UOC)
ATAX0414	Selected Problems in Stamp Duty	(6 UOC)
ATAX0415	Taxation of Industry and Technology	(6 UOC)
ATAX0416	Current Research Problems in Taxation	(6 UOC)
ATAX0418	Consolidations and Group Structures	(6 UOC)
ATAX0421	Taxation of Structured Finance	(6 UOC)
ATAX0423	Principles of GST Law	(6 UOC)
ATAX0424	GST: Complex Issues and Planning	(6 UOC)
ATAX0425	Taxation of Employee Remuneration	(6 UOC)
ATAX0427	Tax Strategies in Financial Planning	(6 UOC)
ATAX0438	Tax Risk Management	(6 UOC)
ATAX0455	Taxation of Property Transactions	(6 UOC)

Academic Rules

Assessment Policy

To pass a course candidates for the Master of International Taxation must obtain:

50% or more of the total marks available in the course and

a minimum of 40% in the final examination in the course

Exemption Policy

Admission with Advanced Standing: Students accepted for enrolment into the Master of International Taxation, may apply for advanced standing by applying to the Atax Student Services Office. The policy and Advanced Standing/Exemption application is located on the Atax website at **www.atax.unsw.edu.au/study/pgradexemptions** - click on the relevant program to locate the appropriate policy statement and application form.

9260 Master of Applied Taxation

MAppTax

Typical Duration
1 year full-time

Minimum UOC for Award
48 units of credit

Typical UOC per Session
24 units of credit

Program Description

The principal objective of the Master of Applied Taxation is to provide a taxation study program that meets the developmental requirements of chartered accountants in private and government sectors in Australia and throughout the Asia-Pacific region. The program also aims to provide study and research opportunities in respect of taxation and business.

The elective component of the Master of Applied Taxation can be studied on a full-time basis with four courses in one semester or on a part-time basis with two courses per semester. The program consists of four compulsory courses studied in the Graduate Diploma CA program and four electives from the prescribed list. Assessment of the elective courses involves the submission of a research paper and an examination.

Admission Requirements

Direct entry to the Master of Applied Taxation is normally open to graduates in taxation, law or commerce of equivalent standing and content to corresponding UNSW qualifications. Candidates should be able to demonstrate an average mark of Credit (65%) or better, in their prior taxation, law or commerce degrees.

Candidate must also have completed the four compulsory courses of Graduate Diploma CA from the ICAA CA program. In addition, the level of achievement acquired in the Graduate Diploma CA and any other postgraduate courses, and relevant experiences are taken into account.

In certain cases candidates for the Master of Applied Taxation may be regarded as lacking Commerce or Law qualifications which are at the required level, standard or content. In such cases, Atax may require candidates to complete postgraduate qualifying courses. The program code for the Postgraduate Qualifying program is 6894. The requirement of a qualifying program may be imposed even in cases where the candidate holds the Graduate Diploma CA.

Program Objectives and Learning Outcomes

Please contact Atax, Faculty of Law for information regarding Program Objectives and Learning Outcomes.

Program Structure

The Master of Applied Taxation consists of:

Four compulsory courses (courses from ICAA program):

ICAA Mod 2	Financial Reporting and Assurance
ICAA Mod 3	Taxation and Financial Reporting
ICAA Mod 4	Strategic Business Management
ICAA Mod 5	Final Integrative

Four elective courses:

ATAX0401	Tax Policy	(6 UOC)
ATAX0403	Taxation of Corporations	(6 UOC)
ATAX0404	Asia Pacific Tax Regimes	(6 UOC)
ATAX0405	Taxation of Trusts	(6 UOC)
ATAX0406	Tax Administration Process	(6 UOC)
ATAX0407	Taxation of Corporate Finance	(6 UOC)
ATAX0408	International Tax: Anti-Avoidance	(6 UOC)
ATAX0410	Taxation of Superannuation	(6 UOC)
ATAX0411	Taxation of Capital Gains	(6 UOC)
ATAX0414	Selected Problems in Stamp Duty	(6 UOC)
ATAX0415	Taxation of Industry and Technology	(6 UOC)
ATAX0417	International Financial Centres	(6 UOC)
ATAX0418	Consolidations and Group Structures	(6 UOC)
ATAX0420	Principles of Australian International Tax	(6 UOC)
ATAX0421	Taxation of Structured Finance	(6 UOC)
ATAX0422	GST: Design and Structure	(6 UOC)
ATAX0423	Principles of GST Law	(6 UOC)
ATAX0424	GST: Complex Issues and Planning	(6 UOC)
ATAX0425	Taxation of Employee Remuneration	(6 UOC)
ATAX0426	Taxation and Investment Regulation in China	(6 UOC)
ATAX0427	Tax Strategies in Financial Planning	(6 UOC)
ATAX0428	Foundations in International Taxation	(6 UOC)
ATAX0434	Specific Tax Jurisdictions: Europe	(6 UOC)
ATAX0435	Specific Tax Jurisdictions: North America	(6 UOC)
ATAX0436	Specific Tax Jurisdictions: Asia	(6 UOC)
ATAX0437	Double Tax Agreements	(6 UOC)
ATAX0438	Tax Risk Management	(6 UOC)
ATAX0455	Taxation of Property Transactions	(6 UOC)

Academic Rules

Assessment Policy

Assessment of compulsory courses (Graduate Diploma CA program) - this assessment is governed by the requirements of the Institute of Chartered Accountants.

To pass the elective (Atax) courses, candidates for the Master of Applied Taxation must obtain:

1. 50% or more of the total marks available in the course and,

2. a minimum of 40% in the final examination in the course

To graduate with the Master of Applied Taxation, a candidate must satisfy the requirements for the award of the degree of Graduate Diploma CA and complete the four elective (Atax) courses.

Exemption Policy

No advanced standing for Atax courses is available in the Master of Applied Taxation program. Four Atax courses and the Graduate Diploma CA must be completed for the award of the degree.

Transfer from the Master of Applied Taxation to the Master of Taxation or Master of International Taxation

1. Students who have commenced but not completed the Master of Applied Taxation and wish to convert to the Master of Taxation or Master of International Taxation are required to:

(a) complete the balance of the eight courses (less those for which Advanced Standing has already been granted), to fulfill the requirements of the Master of Taxation or Master of International Taxation. This must

include a minimum of four courses within the ATAX04## series. These courses must include ATAX0401 Tax Policy.

(b) For students transferring to the Master of International Taxation only: complete a minimum of five courses from the International stream

2. A student wishing to apply to transfer from the Master of Applied Taxation to the Master of Taxation or Master of International Taxation must submit a written application to Atax. This should be done by the start of the semester in which they would like the transfer to be effective. A 'Transfer' form must be used (available via the Atax website at **www.atax.unsw.edu.au/students/forms**

3. Students who have completed and been awarded the Master of Applied Taxation must apply for admission to the Master of Taxation or Master of International Taxation program and will be eligible for exemption for up to two courses, each worth six units of credit. Students must not select courses for the Master of Taxation or Master of International Taxation that have already been completed and credited to the Master of Applied Taxation. Information and application forms for admission to the Master of Taxation and Master of International Taxation are available at **www.atax.unsw.edu.au**

5540 Graduate Diploma in Advanced Taxation

GradDipAdvTax

Typical Duration
1 year full-time

Minimum UOC for Award
36 units of credit

Typical UOC per Session
24 units of credit

Program Description

The Graduate Diploma in Advanced Taxation, while broadly similar in its objectives and course content to the Masters programs, is less onerous in its entry requirements and does not require sustained writing in some courses for completion. It concentrates on advanced specialist professional training in taxation. The Graduate Diploma in Advanced Taxation is based on six courses and can be studied over one full-time year with three courses per semester or 1.5 part-time years with two courses per semester.

While the Graduate Diploma in Advanced Taxation offers many of the same courses as those in the Masters programs, it does not involve the requirement, (part of the Master of Taxation and Master of International regulations), that assessment in at least four of those courses is based on a project entailing sustained application of analytical skills. Taking this and the lesser number of courses into account, the Graduate Diploma in Advanced Taxation has a different emphasis and involves somewhere in excess of half the work-load of the Master of Taxation.

Courses for the Graduate Diploma in Advanced Taxation, though similar in content to Masters courses, are separately designated ATAX03** and are assessed in a different way. Typically, Masters courses require a substantial written paper involving sustained analysis and an examination, while Graduate Diploma in Advanced Taxation courses involve two written assignments and an examination.

Admission Requirements

Direct entry to the Graduate Diploma in Advanced Taxation is normally open to graduates in taxation, law, business, economics or commerce of equivalent standing and content to corresponding UNSW qualifications.

Candidates for the Graduate Diploma in Advanced Taxation with Commerce, Business, Economics or Law qualifications which are not at the required level, standard or content, shall complete postgraduate qualifying courses as the Board of Studies in Taxation determines. The program code for the Postgraduate Qualifying program is 6894. The Board of Studies in Taxation shall determine whether candidates with lower level academic qualifications and/or professional experience in taxation may be admitted directly or with such prerequisites as the Board determines.

Formal entry requirements to the Graduate Diploma in Advanced Taxation are similar to those of the Master of Taxation, though not at the same standard. All candidates for the Graduate Diploma in Advanced Taxation must have completed a university level program in the basic elements of income taxation or equivalent.

Specialist Professional Accreditation

The Graduate Diploma in Advanced Taxation have been approved by CPA Australia for specialist taxation accreditation.

Students who are members of CPA Australia, The Institute of Chartered Accountants in Australia (ICAA), and qualified lawyers may have both Award and Non-Award study with Atax recognised towards their Continuing Professional Development (CPD), Continuing Professional Education (CPE) and Continuing Legal Education (CLE) membership requirements respectively.

Program Objectives and Learning Outcomes

Please contact Atax, Faculty of Law for information regarding Program Objectives and Learning Outcomes.

Program Structure

The Graduate Diploma in Advanced Taxation consists of 6 elective courses from the ATAX03** range of courses.

Selection of Courses

Complete six of the following elective courses:

ATAX0301	Tax Policy (restricted entry only)	(6 UOC)
ATAX0303	Taxation of Corporations	(6 UOC)
ATAX0304	Asia Pacific Tax Regimes	(6 UOC)
ATAX0305	Taxation of Trusts	(6 UOC)
ATAX0306	Tax Administration Process	(6 UOC)
ATAX0307	Taxation of Corporate Finance	(6 UOC)
ATAX0308	International Tax: Anti-Avoidance	(6 UOC)
ATAX0310	Taxation of Superannuation	(6 UOC)
ATAX0311	Taxation of Capital Gains	(6 UOC)
ATAX0314	Selected Problems in Stamp Duty	(6 UOC)
ATAX0315	Taxation of Industry and Technology	(6 UOC)
ATAX0317	International Financial Centres	(6 UOC)
ATAX0318	Consolidations and Group Structures	(6 UOC)
ATAX0320	Principles of Australian International Tax	(6 UOC)
ATAX0321	Taxation of Structured Finance	(6 UOC)
ATAX0322	GST: Design and Structure	(6 UOC)
ATAX0323	Principles of GST Law	(6 UOC)
ATAX0324	GST: Complex Issues and Planning	(6 UOC)
ATAX0325	Taxation of Employee Remuneration	(6 UOC)
ATAX0326	Taxation and Investment Regulation in China	(6 UOC)
ATAX0327	Tax Strategies in Financial Planning	(6 UOC)
ATAX0328	Foundations in International Taxation	(6 UOC)
ATAX0334	Specific Tax Jurisdictions: Europe	(6 UOC)
ATAX0335	Specific Tax Jurisdictions: North America	(6 UOC)
ATAX0336	Specific Tax Jurisdictions: Asia	(6 UOC)
ATAX0337	Double Tax Agreements	(6 UOC)
ATAX0338	Tax Risk Management	(6 UOC)
ATAX0355	Taxation of Property Transactions	(6 UOC)

Academic Rules

Assessment Policy

In order to pass a course, candidates for the Graduate Diploma in Advanced Taxation must obtain:

1. 50% or more of the total marks available in the course and,

2. a minimum of 40% in the final examination in the course.

Exemption Policy

Admission with Advanced Standing: Students accepted for enrolment into the Graduate Diploma in Advanced Taxation, may apply for advanced standing by applying to the Atax Student Services Office. The policy is located on the Atax website at **www.atax.unsw.edu.au/study/pgradexemptions.htm -** click on the relevant program to locate the appropriate policy statement.

Articulation of studies from the Graduate Diploma in Advanced Taxation to the Master of Taxation or the Master of International Taxation

1. Students who have commenced but not completed the Graduate Diploma in Advanced Taxation and wish to articulate to the Master of Taxation or Master of International Taxation, are required to:

(a) complete a minimum of two courses in Graduate Diploma in Advanced Taxation mode;

(b) have achieved an acceptable academic standard as determined by the Board of Studies; this will normally be a mark of at least 65% (Credit) on average in the courses completed but this may vary to suit individual circumstances.

(c) complete the balance of eight courses (less those for which Advanced Standing has already been granted), including a minimum of four courses within the ATAX04** series of courses, which must include ATAX0401 Tax Policy if it has not already been completed in ATAX0301 Tax Policy.

(d) For students articulating to the Master of International Taxation only: complete a minimum of five courses from the International stream

Students must not select courses for the Master of Taxation or Master of International Taxation that they have already completed as Graduate Diploma in Advanced Taxation courses or as courses in another Atax program.

2. A student wishing to apply to articulate from the Graduate Diploma in Advanced Taxation to the Master of Taxation or Master of International Taxation must submit a written application to Atax by the start of the semester in which they would like the transfer to be effective. An 'Articulation of Studies in Atax Program' form must be used (available via the Atax website at **www.atax.unsw.edu.au/students/forms/Articulation_of_Studies.pdf**)

3. Students who have completed and been awarded the Graduate Diploma in Advanced Taxation must apply for admission to the Master of Taxation or Master of International Taxation and will be eligible for exemption for up to two courses, each worth six units of credit. Students must not select courses for the Master of Taxation or Master of International Taxation that have already been completed and credited to the Graduate Diploma in Advanced Taxation. Information and application forms for admission to the Master of Taxation and Master of International Taxation are available at **www.atax.unsw.edu.au**

5541 Graduate Diploma in Taxation Studies

GradDipTaxStud

Typical Duration
1.5 years full-time

Minimum UOC for Award
60 units of credit

Typical UOC per Session
24 units of credit

Program Description

The Graduate Diploma in Taxation Studies offers students courses similar to those in the Bachelor of Taxation. It is designed to cover only core aspects of taxation, accounting, economics and law. The Graduate Diploma in Taxation Studies consists of ten courses studied over 2.5 part-time years or 1.5 full-time years.

Courses are similar in content to courses offered for the Bachelor of Taxation. They are separately designated so that, in appropriate cases, the content and method of assessment in courses may be varied by the Board of Studies in Taxation.

In no case shall a student gain a Graduate Diploma in Taxation Studies by completing fewer than eight courses. Where the student is granted three or more credits for courses completed for other degrees, the student shall be required to choose additional courses towards credit for the degree, as approved by the Board of Studies in Taxation, from a list of Bachelor of Taxation and Graduate Diploma in Advanced Taxation courses.

Admission Requirements

Entry to the Graduate Diploma in Taxation Studies is open to students holding an Australian Bachelors degree, or overseas equivalent, in any discipline. Students with degrees in commerce or law are likely to find the Master of Taxation, Master of International Taxation or the Graduate Diploma in Advanced Taxation more appropriate programs of study. Entry to the program is competitive, based purely on merit.

Program Objectives and Learning Outcomes

The Graduate Diploma in Taxation Studies has two objectives:

1. To prepare graduates from disciplines other than tax, law or commerce for work in the taxation industry by giving them core training in taxation and basic component disciplines. It is not designed to gain professional accounting admission.

2. To prepare students for admission to the Master of Taxation (if they attain suitable grades) or the Graduate Diploma in Advanced Taxation.

Program Structure

The Graduate Diploma in Taxation Studies consists of 10 compulsory courses:

ATAX0100	Principles of Australian Taxation Law	(6 UOC)
ATAX0103	Microeconomics and the Australian Tax System	(6 UOC)
ATAX0104	Framework of Commercial Law	(6 UOC)
ATAX0105	Accounting 1	(6 UOC)
ATAX0106	Tax Administration	(6 UOC)
ATAX0108	Principles of Capital Gains Taxation	(6 UOC)
ATAX0113	Taxation of Companies, Trusts and Partnerships	(6 UOC)
ATAX0116	Critical Perspectives and Ethics	(6 UOC)
ATAX0117	Tax Accounting Systems	(6 UOC)
ATAX0123	Principles of GST Law	(6 UOC)

Please note that, where courses are run in tandem with the Bachelor of Taxation (ATAX00**), the prerequisites and corequisites applying to parallel Bachelor of Taxation courses do not apply to the Graduate Diploma in Taxation Studies courses.

Academic Rules

Assessment Policy

In order to pass a course, candidates for the Graduate Diploma in Taxation Studies must obtain:

1. 50% or more of the total marks available in the course and,

2. a minimum of 40% in the final examination in the course.

Exemption Policy

Admission with Advanced Standing: Students accepted for enrolment into the Graduate Diploma in Taxation Studies, may apply for advanced standing by writing to the Atax Student Services Office. The policy is located on the Atax website at **www.atax.unsw.edu.au/study/pgradexemptions.htm** - click on the relevant program to locate the appropriate policy statement.

Non-Award (Single Course), Cross-Institutional and Cross-Group (Faculty) Enrolments

Introduction and Overview

Non-Award enrolments are enrolments in courses or a sequence of courses, which do not lead to nor (usually) 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.

There are several categories of Non-Award enrolment:

1. Voluntary course enrolment – where the student is taking the course either out of interest or to develop professional competence in an area of specialisation.

2. Cross-Institutional enrolment – where the student enrols in a UNSW course for credit towards an award at another tertiary institution, at which the student is concurrently enrolled.

3. Cross-Group enrolment – where a student from another Group (Faculty) of UNSW applies to study an Atax course. Written confirmation is required from the other Group to the effect that the course will be credited towards the award.

4. Where an Atax student wishes to enrol in a course at another institution for credit towards their UNSW award, any such courses 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. Students would 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. Notify Atax of acceptance by the host institution

5. Forward a certified copy of the official result (mark and grade) from the course studied at the host institution to Atax once the course assessment has been finalised.

Cross-Group Enrolment Procedures

Students intending to:

- add/vary Atax courses to/in a program of study from another Group or school within UNSW *or*
- add/vary courses from another Group or school within UNSW, to an Atax program;

are strongly advised to contact the Atax Student Services Office so transition arrangements can be effected smoothly. You must ascertain the availability of particular courses and the semesters in which they will be offered. You should arrange for your program authority to provide written approval that the Cross-Group course will be credited to your award program. Also arrangements for delivery/collection of Study Materials and associated support need to be communicated.

Students based in the Law School in UNSW are regarded as falling within these arrangements.

Faculty of Medicine

A Message from the Dean

It is my pleasure to welcome you to the Faculty of Medicine at the University of New South Wales.

I would like to focus on who we are and what we stand for. An underlying principle at UNSW, and especially in the Faculty of Medicine, is the link between teaching and research. Our staff tell us that they want to work with us because they have the opportunity to pursue their research and to teach. In addition, many of our staff are doctors and other healthcare professionals who make major contributions to the delivery of clinical care, particularly in the public hospital system. As well as our full-time salaried staff, more than a thousand doctors attached to hospitals and working in the communities have unpaid conjoint appointments with us and make enormous contributions to teaching and research.

UNSW Medicine has a strong presence at the Kensington campus. In addition, staff and students are based in teaching hospitals in Sydney, Wollongong and regional and rural areas, especially Albury/Wodonga, Wagga Wagga, Coffs Harbour and Port Macquarie.

The Undergraduate Program in Medicine is a central focus. We also have undergraduate programs in Health and Exercise Science, and in Medical Science. There is a diverse array of postgraduate coursework programs such as the Masters in Public Health. Postgraduate research focuses on research Masters, PhD and MD programs in all of the clinical, basic science and social science disciplines.

Our students are another rich resource in the Faculty. There is a broad mix of students from many backgrounds and metropolitan, rural and international students are all represented in large numbers. Our teaching and learning methods encourage a student-centred approach and acknowledgement that our staff and our students are our two richest resources.

We remain committed to a learning environment where research and teaching are closely intertwined and where we have close relationships with the healthcare system.

Once again, welcome to the Faculty of Medicine. I hope that you will find the information that you need by browsing through these pages. Should you wish to ask a more specific question, do not hesitate to come into the Faculty Office or call on 9385-8765.

Professor Richard Henry
Acting Dean

Contents

Faculty Information and Assistance

Who Can Help? 197
Faculty of Medicine Website 197
Course Descriptions 197
The Faculty 197
Goals of the Faculty 197
Schools of the Faculty 197
Clinical Schools 197
Faculty Units, Centres and Affiliated Institutes 198
Admission into Faculty of Medicine
Admission to Coursework Programs 199
Admission to Research Programs – Doctor of Philosophy, Masters 200
Admission to Research Programs – Doctor of Medicine, Masters of Surgery 200
Postgraduate Enrolment Procedures 200
Advice to Students on Computing Requirements and Email Policy 200
Criminal Record Checks 200
Working with Children 200
Students with Blood-borne Viruses and Immunisation for Students 200

Summary of Programs

Postgraduate Programs 200
Postgraduate Research Programs 201

Program Rules and Information

Doctor of Medicine (MD) 201
Doctor of Philosophy (PhD) 203
Master of Science by Research (MSc) 204
Master of Medicine (MMed) 206
Master of Surgery (MS) 207

School of Public Health and Community Medicine

2960 Master of Health Administration (by Research) 208
8900 Master of Health Administration (by Coursework) 209
8941 Master of Health Services Management (Kensington campus) 210
7360 Graduate Certificate in Health Services Management 211
2885 Master of Health Professions Education (by Research) 211
9050 Master of Clinical Education (by Distance Education) 212
5501 Graduate Diploma in Clinical Education (by Distance Education) 213
7376 Graduate Certificate in Clinical Education (by Distance Education) 213
2845 Master of Public Health (by Research) 214
9045 Master of Public Health (by Coursework) 215
5507 Graduate Diploma in Public Health 216
7368 Graduate Certificate in Public Health 217

School of Women's and Children's Health

5500 Graduate Diploma in Paediatrics 217
9065 Master of Reproductive Medicine 217
5508 Graduate Diploma in Reproductive Medicine 218
7379 Graduate Certificate in Reproductive Medicine 218

School of Medical Sciences

9055 Master of Sports Medicine 218
5503 Graduate Diploma in Sports Medicine 219
7376 Graduate Certificate in Sports Medicine 219
8049 Master of Science in Biopharmaceuticals 219
9060 Master of Medical Science in Drug Development (by Distance Education) 219
5504 Graduate Diploma in Drug Development (by Distance Education) 220
7370 Graduate Certificate in Drug Development (by Distance Education) 221

Faculty Information and Assistance

Who Can Help?

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:

Postgraduate

Ms Petrina Choong
Postgraduate Student Programs
Office of the Dean
Faculty of Medicine
Tel: (02) 9385 2457
Fax: (02) 9385 1874
Email: postgrad@med.unsw.edu.au

General Enquiries

Office of Dean
Faculty of Medicine
Tel: (02) 9385 8765
Fax: (02) 9385 1874
Email: info@notes.med.unsw.edu.au

Faculty of Medicine Website

The Faculty of Medicine website can be found at: **www.med.unsw.edu.au**

The Faculty of Medicine website provides information about programs, courses, research interests, news and current events. The website also contains links to all the schools, units, centres and the affiliated research institutes of the Faculty, as well as staff, student and alumni information resources.

Course Descriptions

Course descriptions offered in 2006 can be found in alphabetical order by the course code at the back of this Handbook. A full list of courses offered by the University can be found in the Online Handbook at: **www.handbook.unsw.edu.au**

The Faculty

The Faculty of Medicine was established when the NSW Government accepted a proposal of the Murray Committee of Inquiry into the future of Australian universities and announced in December 1957, that a second medical school in 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-ear 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, some of which perform administrative tasks, while many assist in maintaining a constant review of the curriculum and the objectives of medical education.

Goals of the Faculty

The primary mission of the Faculty is the pursuit of excellence in medical and biomedical education within a scholarly environment of research and discovery.

Schools of the Faculty

School of Public Health and Community Medicine

This dynamic and multidisciplinary school covers all aspects of public health and health systems. It contains research groups focusing on primary care and community medicine, aged and extended care, international health, clinical governance, health informatics, indigenous health, multicultural health, training and education of health professionals, equity, health promotion and physical fitness, HIV/AIDS and drugs and alcohol, and ethics, among others. The School staff have both Australian and international interests and draw on both qualitative and quantitative approaches. Research and teaching draw strongly on one another. Partnerships with other groups are actively promoted. Further details are available at **http://sphcm.med.unsw.edu.au**

School of Medical Sciences

The School of Medical Sciences brings together the research and teaching resources of the Departments of Anatomy, Pathology and Physiology & Pharmacology. The School has an outstanding reputation for academic excellence and provides a highly productive academic environment in which to work. Links with other institutes ensure the School's position at the forefront of international and national research efforts. The School enjoys a reputation as one of Australia's leading medical and research facilities.

School of Women's and Children's Health

The School of Women's and Children's Health includes the disciplines of obstetrics and gynaecology and paediatrics. It is located on a number of campuses, namely Sydney Children's Hospital and The Royal Hospital for Women, which are adjacent to the campus of The University of New South Wales, and at St George and Liverpool Hospitals. The School has links with other teaching hospitals of the University as well as with community centres in Sydney and rural centres in New South Wales, which enable it to draw on the expertise of clinicians and community health workers for its teaching and research programs

School of Psychiatry

The School is located at the main Kensington campus (Department of Human Behaviour); the University's teaching hospitals at Prince of Wales, St Vincent's, St George and Liverpool; associated teaching hospitals at Bankstown, Campbelltown and Sutherland; hospitals associated through the School of Rural Health; and the Corrections Health Service. The School has a long-standing tradition of productive and internationally highly respected research achievements. Senior academic staff in the School have interests in anxiety and mood disorders, neuropsychiatry, psychogeriatrics, child and adolescent psychiatry, psychopharmacology, schizophrenia, liaison psychiatry, post-natal disorders, community psychiatry, genetics, brain imaging, forensic psychiatry, refugee mental health, psycho-immunology, social psychiatry, epidemiology, and psychiatry in primary practice. Further details are available at **http://psych.med.unsw.edu.au/**

Clinical Schools

St George Clinical School

The St George Hospital Clinical School is on the St George Hospital campus and has been affiliated with the University of New South Wales since 1964. 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 a major research enterprise.

St Vincent's Clinical School

St Vincent's Clinical School is part of the St Vincent's Hospital Campus, a principal campus of the Sisters of Charity Health Care Service. Specialty services at the Hospital include cardiac transplantation, bone marrow transplantation, a comprehensive HIV/AIDS service, a cancer service which provides an integrated approach to the management of malignancy, and a palliative care service in the Sacred Heart Hospice. Extensive primary and secondary care is also provided to meet the needs of the local community and these include medical, surgical, geriatric and drug and alcohol services. Sophisticated diagnostic departments, which include all branches of pathology, radiology and nuclear medicine, support the clinicians of the Hospital. Research is undertaken in a variety of organisations within the Hospital, including the professorial departments, the Centre for Immunology, the Department of Clinical Pharmacology and the Anxiety Disorders Unit. St Vincent's Hospital is affiliated with the Garvan Institute of Medical Research, the Victor Chang Cardiac Research Institute and the National Centre for HIV Epidemiology and Clinical Research. Further information is available on the website **http://stvcs.med.unsw.edu.au/**

The South Western Sydney Clinical School

The South Western Sydney Clinical School was established in 1990. The School has access to hospital and community health centres serving approximately 800,000 people living in the south-west of Sydney – Sydney's fastest growing area of population. The School is centred at Liverpool Hospital (600 beds), a principal tertiary referral hospital for the South Western Sydney Area Health Service (SWSAHS). Bankstown-Lidcombe Hospital (400 beds) is the other principal referral hospital in SWSAHS. The Clinical School has a presence in the fields of medicine, surgery, obstetrics and gynaecology, pathology, microbiology, anaesthetics, intensive care, adolescent health, mental health, population health, community medicine, health promotion, general practice, rehabilitation, aged care, drug and alcohol services, epidemiology and nursing research.

Prince of Wales Clinical School

Prince of Wales Clinical School is located at the Prince of Wales Hospital, adjacent to the University of New South Wales, and provides a unique clinical and scientific environment. The Prince of Wales Hospital currently covers 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. Research strengths include brain sciences, cancer, diabetes and stem cells.

UNSW Rural Clinical School

The School of Rural Health was the first rura-based clinical school in Australia, established by UNSW in 1999 under a funding agreement with the Commonwealth Government through the Department of Health and Ageing. This agreement stipulated that 25% of all undergraduate medical students (HECS/Commonwealth supported students) are required to spend half their clinical training in a rural or regional centre.

It has two divisions – Greater Murray and Mid North Coast. The School is centred in Wagga Wagga with other campuses in Albury/Wodonga, Griffith, Coffs Harbour, Kempsey and Port Macquarie. The School aims to provide a community and regional hospital-based learning environment, offering diversified educational experience in rural health and medical practice. The School operates within the syllabus of the Faculty and provides a supportive medical academic environment which will enable its students to follow any career they may eventually select.

Faculty Units, Centres and Affiliated Institutes

The Bioanalytical Mass Spectrometry Facility

The Bioanalytical Mass Spectrometry Facility (BMSF) is a UNSW beach-head facility providing research support to investigators on this campus and affiliated teaching hospitals. The BMSF is a major facility for molecular characterisation for the faculties of Medicine, Science and Engineering at UNSW. The facility is equipped to world class standards enabling all types of mass spectrometry to help answer questions posed by researchers and clinicians to otherwise intractable problems. The BMSF has recently been evaluated as an Australian Major Research Facility following a recent survey commissioned by the Commonwealth Department of Industry, Science and Resources (now DEST). The BMSF also acts as a node of the Australian Proteome Analysis Facility under a Major National Research Facility Grant. The BMSF is both a research and research-support facility engaged in several areas of study. There are three main overlapping areas of research: large molecule analysis including proteomics, small molecule biomarker research including the monitoring of damage, repair and the cellular changes associated with ageing and inflammatory disease, and development of instrumentation and technology for mass spectrometry. The facility offers an analytical service and delivers courses on mass spectrometry and allied topics. More information on the BMSF can be obtained at **www.bmsf.unsw.edu.au**

Centre for Health Informatics

The Centre for Health Informatics (CHI) conducts research and development in 4 broad areas:

- Evidence-based Decision Support examines methods and technologies for providing clinicians with up-to-date information online.
- Clinical Communications seeks to understand how information is disseminated, and how communication, and communication pathways, may be improved.
- The Evaluation team offers evaluation services for information and communication technology projects in health, assessing the effectiveness of new information and communication technologies in improving health outcomes and delivery.
- Home Telecare uses information, communications, measurement and monitoring technologies to evaluate health status and deliver health care services to patients at home to improve clinical outcomes and allow the elderly and the chronically ill to stay at home longer.

Postgraduate courses in Health Informatics are offered within the Masters degrees in the School of Public Health & Community Medicine. The courses are designed to provide graduates with a theoretical and practical understanding of the role of information and communication technologies in health care to develop the skills needed for the successful integration of such technologies into the health system. Further information can be obtained at: **www.chi.unsw.edu.au**

Centre for Clinical Governance Research in Health

Since 1991, the Centre for Clinical Governance Research in Health has undertaken research and evaluation projects on health sector issues. Its core interest is to investigate issues of policy, governance and leadership in the health sector. The Centre is involved in conducting original research into clinical governance issues, providing a scholarly capability by which to evaluate health sector policies, programs and projects, and contributing to undergraduate medical, postgraduate health services management, and public health and doctoral education. Further information is available at **www.med.unsw.edu.au/clingov**

Centre for Vascular Research (CVR)

The Centre for Vascular Research is a multidisciplinary organisation focused on the causation and treatment of occlusive vascular disease and other pathologies with vascular components. This includes projects on angiogenesis in tumour growth and inflammation. The Centre has laboratories in the John Curtin School of Medical Research at the ANU and the Department of Biochemistry and Molecular Biology, Monash University in addition to UNSW on campus and at Prince of Wales Hospital and St George Clinical Schools. Details of the Centre, structure, group leaders, research directions and opportunities for postgraduate and undergraduate students are available at **www.cvr.net.au**

Children's Cancer Institute Australia for Medical Research

Children's Cancer Institute Australia for Medical Research is an independent institute affiliated with the Faculty of Medicine, University of New South Wales. The Institute was established in 1976 and occupies a five-storey complex at the southern end of the Sydney Children's Hospital as well as a number of labs and offices in a nearby building. Staff work in close collaboration with members of the Centre for Children's Cancer and Blood Disorders in the Hospital. With staff numbers exceeding 120, including Honours and postgraduate scholars of the University, the Institute undertakes laboratory research on malignant disease in children. Research work is organised into seven programs: experimental therapeutics, molecular diagnostics, molecular carcinogenesis, leukaemia biology, stem cell biology, iron metabolism and chelation and the Australian Cancer Research Foundation Drug Discovery Program. The Institute is the only independent medical research institute in the country focusing solely on research into the nature, origin, cause and treatment of childhood cancers (particularly leukaemia and neuroblastoma).

Garvan Institute of Medical Research

The Garvan Institute of Medical Research has a staff of 280 including 45 PhD and MD scholars. The Institute is structured into six major research programs – arthritis and asthma, bone and mineral, cancer, neurobiology, metabolism and diabetes, and pituitary disorders – which are funded through program and project grants 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. Further information is available at **www.garvan.org.au**

National Centre in HIV Epidemiology and Clinical Research

The National Centre in HIV Epidemiology and Clinical Research (NCHECR) is recognised worldwide as a leader in HIV/AIDS research. The NCHECR undertakes research into HIV/AIDS that focuses on epidemiology, clinical research and clinical trials, in collaboration with other research centres, government departments, the pharmaceutical industry, community groups, health clinics and general practitioners. The priorities of the NCHECR include surveillance and monitoring of HIV infection and AIDS, epidemiological studies of transmission and disease progression, identification of social and behavioural factors affecting HIV disease and

the establishment of Australia as a primary site for clinical trials of HIV therapy. As an extension of its role in HIV/AIDS, the Centre also carries out epidemiological and clinical research into other blood borne viruses, particularly Hepatitis C and sexually transmitted infections. Another significant area is the NCHECR's contribution to international clinical research and provision of research expertise and training to countries of the Asia-Pacific region. Recently the Centre has increased its role in the development and testing of novel vaccines for HIV. More information can be obtained from the Centre's website **www.med.unsw.edu.au/nchecr**

National Perinatal Statistics Unit

The National Perinatal Statistics Unit (NPSU) is a collaborating unit of the Australian Institute of Health and Welfare based at the University of NSW. The NPSU is located on the Randwick Hospital Campus within the School of Women's and Children's Health. The NPSU maintains national perinatal and reproductive health data collections based upon data supplied by the states and territories. An assisted conception data collection is also held based upon data supplied by IVF and GIFT Units from Australia and New Zealand. The NPSU in collaboration with states and territories and various professional, government, non-government and consumer groups are involved in the continuing development of national reproductive and perinatal health data systems. The NPSU's objectives are to monitor and interpret national reproductive and perinatal health data and to conduct teaching and research in perinatal and reproductive health.

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 Public Health & Community Medicine and Psychology in the University, with centres in other States and Territories, and through international collaboration. Further information is available at **http://ndarc.med.unsw.edu.au**

Prince of Wales Medical Research Institute

The Prince of Wales Medical Research Institute is an independent institute affiliated with the University. Since its opening in 1993, it has grown to become one of the largest aggregates of research nationally on the functions and disorders of the brain and nervous system. It has a staff of more than 100, including nine at professor or associate professor level, and attracts more than $4M p.a. in peer-reviewed funding. In 2003 it established the Mayne Clinical Research Imaging Centre based on a 3.0T MRI System. Major lines of research include human sensation and motor cortex function; balance and movement; autonomic nervous system; nervous system morphology (brain "atlases"); Alzheimer's, Parkinson's and other neurodegenerative diseases; macular degeneration and blindness; clinical neurophysiology; nerve and spinal cord injury; child injury; chronic pain; and role of steroids in maintaining or altering functions of the nervous system. For further information visit our website at **www.powmri.edu.au**

The Simpson Centre for Health Services Research

The Simpson Centre is a NSW Government funded research centre with a strong history of applied research and health service innovation. The genesis of the Simpson Centre was in response to increasing pressure for practical solutions to improve acute services. This has now expanded to include research across traditional boundaries linking acute medical and community based health care delivery. The principal objectives of the Simpson Centre are: to innovate and evaluate research and develop health service systems; disseminate research results and facilitate implementation of validated service innovation. This approach also incorporates examination of cultural and psychosocial factors influencing service delivery and utilisation.

Skin and Cancer Foundation Australia

The Skin and Cancer Foundation was established in 1978 and is affiliated with St Vincent's Hospital. The Foundation has five 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 also has a Westmead branch, which provides sunscreen testing and irritancy testing for new products as well as being the main centre for dermatological surgery. Both community education and dermatological research are pursued at both centres.

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 NSW 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 and allied health to rural students;
- supporting rural students in Medicine;
- encouraging and supporting students who are interested in pursuing a career in rural health;
- promoting rural health through various avenues, e.g. the media and lobbying to the government; scholarships, cadetships, bursaries;
- promoting rural health as a viable alternative to urban based medical practice;
- providing a forum for communication between metropolitan and rural health professionals, e.g. workshops;
- overseeing rural curriculum development.

For more information please visit the Rural Health Unit website **http://rural.med.unsw.edu.au**

Indigenous Health Unit

The Indigenous Health Unit works in close collaboration with the Rural Health Unit to:

- promote Medicine to school-age and mature Indigenous students;
- administer the Indigenous Entry Into Medicine scheme, including the Pre-Medicine program, a preparation to the medical course;
- select students;
- support students throughout their course;
- develop appropriate curricula (in consultation with Indigenous communities);
- develop partnerships with Indigenous communities;
- coordinate teaching in Indigenous Health to all students within Medicine;
- conduct research into Indigenous Health and assist in building the capacity of others to undertake such research.

Admission into the Faculty of Medicine

Admission to Coursework Programs – Masters, Graduate Diploma, Graduate Certificate

(a) For Masters by coursework and Graduate Diplomas requiring a medical degree (MMed, MSpMed, MPM, Graduate Diplomas in Sports Medicine, Geriatric Medicine, Paediatrics), a candidate for the degree shall have been awarded a Bachelor of Medicine and Bachelor of Surgery from the University of New South Wales or a qualification considered equivalent from another university or tertiary institution at a level acceptable to the Higher Degree Committee of the Faculty of Medicine AND shall have had at least one year's full-time experience in the practice of medicine. Additional prerequisites may be specified by the program authority.

(b) For other Masters by coursework and Graduate Diploma programs, a candidate for the degree shall have been awarded an appropriate degree of Bachelor of four full-time years duration (or the part-time equivalent) from the University of New South Wales or a qualification considered equivalent from another university or tertiary institution at a level

acceptable to the Higher Degree Committee of the Faculty of Medicine OR shall have been awarded an appropriate degree of Bachelor of three full-time years' duration (or the part-time equivalent) and have had at least three years' relevant experience. Additional prerequisites may be specified by the program authority.

(c) For Graduate Certificates requiring a medical degree (Sports Medicine and Geriatric Medicine), a candidate for the degree shall have been awarded a Bachelor of Medicine and Bachelor of Surgery from the University of New South Wales or a qualification considered equivalent from another university or tertiary institution at a level acceptable to the Higher Degree Committee of the Faculty of Medicine. Additional prerequisites may be specified by the program authority.

(d) For other Graduate Certificate programs, a candidate for the degree shall have been awarded an appropriate degree of Bachelor of three full-time years' duration (or the part-time equivalent) from the University of New South Wales or a qualification considered equivalent from another university or tertiary institution at a level acceptable to the Higher Degree Committee of the Faculty of Medicine. Additional prerequisites may be specified by the program authority.

Admission to Research Programs – Doctor of Philosophy, Masters

For detailed information about individual programs, please refer to the relevant entry under 'Program Rules and Information'. Eligibility for admission to postgraduate research programs is determined by the Higher Degree Committee of the Faculty of Medicine.

(a) Candidates with an Honours degree (at least Class 2 Division 1) in a relevant discipline, or with an MB BS from an Australian or New Zealand university, are in general considered eligible for admission to a PhD program.

(b) Candidates with Honours below Class 2 Division 1, or who have not been awarded an Honours degree, need to demonstrate appropriate research experience and are in general considered eligible for admission to a PhD program if able to provide evidence of first authorship on at least one refereed paper in a journal of sufficient standing. The eligibility of all such candidates is determined on a case-by-case basis.

(c) Candidates with an MB BS or other medical degree from another country need to demonstrate outstanding academic performance, relevant experience or other qualifications to enrol in a PhD, but are in general considered to be eligible to enrol in a Masters by research.

(d) Candidates with a Bachelor degree (not an Honours degree) and experience in a research laboratory, but no first author publications in refereed journals of sufficient standing, are in the first instance considered to be eligible to enrol in a qualifying program, subject to availability of a place. Those applying for a PhD will usually be advised to enrol for an MSc, with later upgrade to a PhD if appropriate.

Admission to Research Programs – Doctor of Medicine, Master of Surgery

For detailed information about individual programs, please refer to the relevant entry under 'Program Rules and Information'.

Postgraduate Enrolment Procedures

All students enrolling or re-enrolling in postgraduate programs should contact their School Office for information on enrolment. School offices will provide detailed information on enrolment procedures and fees, enrolment in miscellaneous courses, locations and hours of cashiers and late enrolment details. Students interested in undertaking a postgraduate program should consult the appropriate Head of School or the Postgraduate Administrative Officer, Office of the Dean.

Advice to Students on Computing Requirements and Email Policy

For details on computer recommendations and specifications see the *IT Requirements for UNSW Students* policy at: **www.its.unsw.edu.au/policies/policies_home.html**

The Faculty of Medicine provides support for computers owned by UNSW that are being used by graduate students. To access support, graduate students must obtain approval from their supervisor and then call the IT Service Desk on (02) 9385 1333.

All official email from the Faculty of Medicine will be sent to students' UNSW email accounts. It is expected at all UNSW students will either routinely check their UNSW email account or have their UNSW email account forwarded to another email address. Information about managing your UNSW email account can be obtained from **www.disconnect.unsw.edu.au**

Criminal Record Checks

The NSW Department of Health has a policy that all students 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. The check is conducted by the NSW Police Service and is coordinated by the Department of Health and the University. Further details are available on the Faculty's website at **www.med.unsw.edu.au**

Students who fail to satisfy the requirements of this check at any point during their enrolment in postgraduate programs accessing NSW Health facilities will be excluded from the program. Depending upon the circumstances at the time, students may be eligible to transfer to another program at the University.

Working with Children

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

Any student who is a 'prohibited person' at any point during their enrolment in a postgraduate program will be excluded from the program. Depending upon the circumstances at the time, students may be eligible to transfer to another program at the University.

Students with Blood-borne Viruses and Immunisation for Students

In order to be enrolled in a UNSW Faculty of Medicine postgraduate program, students must agree to comply with the Faculty's Immunisation and Blood-borne Viruses Policy, which aims to minimise the risk of students contracting or spreading an infectious disease or blood-borne virus, such as HIV, and Hepatitis B or C. Students who undertake or could reasonably be expected to undertake exposure-prone procedures have a professional responsibility to take appropriate steps to know their infective status in relation to blood-borne viruses. A student who is aware he or she has a blood-borne virus infection must not undertake exposure-prone procedures.

Any infective student who knowingly undertakes an exposure-prone procedure or any student who in any other way endangers the health of patients will be reported to the Medical Board's Impaired Practitioner Program. This may result in registration being withdrawn, which will result in expulsion from the postgraduate program. Such a student would also be subject to the University's Student Misconduct procedures and may further be liable to criminal prosecution if a blood-borne virus is knowingly transmitted.

The Immunisation and Blood-borne Viruses policy of the Faculty of Medicine can be found on the website at **www.med.unsw.edu.au**. Students could be required to sign a statement indicating that they have read and agree to comply with this policy at the time of enrolment.

Summary of Programs

Postgraduate Programs

The Faculty of Medicine offers the following postgraduate programs:

Doctorates

Doctor of Medicine (MD)
Doctor of Philosophy (PhD)

Masters

Master of Clinical Education (MClinEd)
Master of Medical Science in Drug Development (MMedSc)
Master of Health Administration (MHA)
Master of Health Services Management (MHSM)
Master of Health Professions Education (MHPEd)
Master of Medicine (MMed)
Master of Medicine in Geriatrics (MMed)
Master of Public Health (MPH)
Master of Reproductive Medicine (MRMed)
Master of Science (MSc)
Master of Sports Medicine (MSpMed)
Master of Surgery (MS)

Graduate Diplomas

Graduate Diploma in Clinical Education (GradDipClinEd)
Graduate Diploma in Drug Development (GradDipDD)
Graduate Diploma in Geriatric Medicine (GradDip)
Graduate Diploma in Paediatrics (DipPaed)
Graduate Diploma in Public Health (GradDipPH)
Graduate Diploma in Reproductive Medicine (GradDip)
Graduate Diploma in Sports Medicine (GradDipSpMed)

Graduate Certificates

Graduate Certificate in Clinical Education (GradCert)
Graduate Certificate in Drug Development (GradCertDD)
Graduate Certificate in Geriatric Medicine (GradCert)
Graduate Certificate in Health Services Management (GradCertHSM)
Graduate Certificate in Public Health (GradCertPH)
Graduate Certificate in Reproductive Medicine (GradCert)
Graduate Certificate in Sports Medicine (GradCertSpMed)
Graduate Certificate in University Learning and Teaching (GradCert)

Postgraduate Research Programs

Doctor of Medicine (MD)
Doctor of Philosophy (PhD)
Master of Science (MSc)
Master of Medicine (MMed)
Master of Surgery (MS)

Full details of the conditions of the award of research degrees are shown later in this Faculty section under 'Program Rules and Information'.

Other research degrees may be offered by schools of the Faculty, please refer to the relevant school section.

Doctor of Medicine MD

This degree is a research program requiring a candidate to make an original and meritorious contribution to some branch of medicine. The program may be completed by:

- thesis with supervision, or
- published work.

Doctor of Philosophy PhD

This is a degree requiring an original and significant contribution to knowledge in an approved area.

Master of Science MSc

This is the main Masters level research program for postgraduate students in the Faculty of Medicine. Candidates must demonstrate ability to undertake research by the submission of a thesis embodying the results of an original investigation.

Master of Medicine MMed

This is a Masters level research program for postgraduate medical students in the Faculty of Medicine. Candidates must demonstrate ability to undertake research by the submission of a thesis embodying the results of an original investigation. The program may be undertaken either with or without supervision.

Master of Surgery MS

This is a Masters level research program for postgraduate medical students in the Faculty of Medicine. The degree of Master of Surgery may be awarded to a candidate who has made an original contribution to knowledge in some field related to surgery.

Program Rules and Information

Doctor of Medicine

MD

The degree of Doctor of Medicine (MD) is offered in the Faculty of Medicine in the following programs:

0420 Anatomy
0430 Community Medicine
0350 Medicine (POW Clinical School)
0352 Medicine (St George Clinical School)
0353 Medicine (St Vincent's Clinical School)
0351 Medicine (SWS Clinical School)
0380 Obstetrics and Gynaecology
0410 Paediatrics
0360 Pathology
0370 Physiology and Pharmacology
0390 Psychiatry
0375 Rural Health
0400 Surgery (POW Clinical School)
0402 Surgery (St George Clinical School)
0403 Surgery (St Vincent's Clinical School)
0401 Surgery (SWS Clinical School)

Typical Duration
3 years

Minimum UOC for Award
144 units of credit

Typical UOC per Session
24 units of credit

Program Description

The Doctor of Medicine (MD) program is recognition of successful research experience.

Program Objectives and Learning Outcomes

This degree requires an original and significant contribution to knowledge in an approved area and requires the preparation of a thesis or published work.

Program Structure

A candidate shall be required to undertake an original investigation on a topic approved by the Committee and may also be required to undergo such examination and perform such other work as may be prescribed by the Committee. The work shall be carried out under the direction of a supervisor appointed by the Committee from the academic staff of the University.

Location of Research

The approved applicant may undertake their enrolment with a part-time or full-time load at the University, at one of its teaching hospitals or a research facility with which the University is associated; the Committee may permit a candidate to spend a period in the field, within another institution or elsewhere away from the University if it is satisfied that this is necessary to the research program and provided that the work can be supervised in a manner satisfactory to the Committee.

If the candidate's research work is based externally, there must be a minimum acceptable level of supervision that will be determined by the Committee.

Enrolment Requirement

A student is only permitted to submit only after 144 units of credits (UOC) have been undertaken. A full-time load during one Session is worth 24 UOC and a part-time load is worth 12 UOC.

In the case of a candidate who has been awarded the degrees of Bachelor of Medicine and Bachelor of Surgery with Honours or who has had previous research experience, the Committee may approve remission of up to two sessions for a full-time candidate and four sessions for a part-time or external candidate.

Candidates should not exceed the upper enrolment-limit of 192UOC. Financial penalties may occur as a result.

Academic Rules

If the Committee is not satisfied with the qualifications submitted by an applicant, the Committee may recommend enrolment into an alternative program so that the candidate may be allowed to demonstrate the qualities required for progression to the MD by thesis.

If progression to the MD by thesis is approved, the candidate shall not submit a thesis for the degree until such period of time has elapsed as per approval of the Committee.

Conditions for the Award of the Degree Doctor of Medicine (MD) *by published work**

1. The degree of Doctor of Medicine by published work may be awarded by the Council on the recommendation of the Higher Degree Committee of the Faculty of Medicine (hereinafter referred to as the Committee) to a candidate who has made an original and meritorious contribution to some branch of medicine.

Qualification

2. A candidate for the degree shall:

(1) hold the degrees of Bachelor of Medicine and Bachelor of Surgery from the University of New South Wales of at least five years standing; *or*

(2) hold the degrees of Bachelor of Medicine and Bachelor of Surgery or a qualification considered equivalent from a university other than the University of New South Wales with at least five years' standing and have

been associated with the University of New South Wales or one of its teaching hospitals for a period of at least four years.

Enrolment and Progression

3. A candidate for the degree on the basis of published work shall lodge with the Registrar an application together with:

(1) four copies (if possible) of the published work;

(2) any additional work, published or unpublished, that a candidate may wish to submit in support of the application;

(3) a declaration indicating those sections of the work, if any, that have been submitted previously for a university degree or other similar award.

4. Every candidate in submitting published work and such unpublished work as is deemed appropriate shall submit a short discourse describing the research activities embodied in the submission and the ways in which the work relates to a central theme or themes. The discourse shall make clear the extent of the originality of the work and the candidate's part in any collaborative effort including hypothesis generation, design and execution of experiments, supervision of others doing experiments, analysis of results, and contribution to meetings of the research team.

Examination

5. There shall normally be three examiners of the work, appointed by the Committee, at least two of whom shall be external to the University.

6. Before the work referred to in 3. (1), (2) above is submitted to the examiners the head of the appropriate school** shall certify that it is prima facie worthy of examination.

7. At the conclusion of the examination each examiner shall submit a concise report to the Committee on the merits of the published work and a recommendation as to whether the degree should be awarded. The examiners may require the candidate to answer orally or in writing any questions concerning the work.

Fees

8. A candidate shall be required to pay such fees as may be determined from time to time by the Council.

** In these rules, the term 'published work' shall mean printed as a book or in a periodical or as a pamphlet readily available to the public. The purpose of requiring publication is to ensure that the work submitted has been available for criticism. The examiners may disregard any of the work submitted if, in their opinion, it has not been available for criticism.*

Conditions for the Award of the Degree Doctor of Medicine (MD) *by thesis*

1. The degree of Doctor of Medicine by thesis may be awarded by the Council on the recommendation of the Higher Degree Committee of the Faculty of Medicine (hereinafter referred to as the Committee) to a candidate who has made an original and meritorious contribution to some branch of medicine.

Qualifications

2. (1) A candidate for the degree shall:

(a) hold the degrees of Bachelor of Medicine and Bachelor of Surgery from the University of New South Wales at a level acceptable to the Committee; *or*

(b) hold the degrees of Bachelor of Medicine and Bachelor of Surgery or a qualification considered equivalent from a university other than the University of New South Wales at a level acceptable to the Committee; *or*

(c) in exceptional cases, submit such evidence of academic and professional attainments in support of the candidature as may be approved by the Committee.

(2) If the Committee is not satisfied with the qualifications submitted by an applicant the Committee may require the applicant to undergo such examination or carry out such work as the Committee may prescribe, before permitting enrolment.

(3) A candidate enrolled under 2. (1)(a) or (b) above shall not submit a thesis for the degree until the lapse of five years from the date of the award of the degrees mentioned therein.

(4) A candidate enrolled under 2. (1)(c) above shall not submit a thesis for the degree until such period of time has elapsed since enrolment as the Committee shall decide at the time of approving enrolment.

Enrolment and Progression

3. (1) An application to enrol as a candidate for the degree by thesis shall be made on the prescribed form which shall be lodged with the Registrar at least one calendar month before the commencement of the session in which enrolment is to begin.

(2) In every case, before permitting a candidate to enrol, the Committee shall be satisfied that initial agreement has been reached between the school** and the applicant on the topic area, supervision arrangements, provision of adequate facilities and any coursework to be prescribed and that these are in accordance with the provisions of the guidelines for promoting postgraduate study within the University.

(3) An approved applicant shall be enrolled in one of the following categories:

(a) full-time candidature: a candidate who is fully engaged in advanced study and research at the University, at one of its teaching hospitals or a research facility with which the University is associated; the Committee may permit a candidate to spend a period in the field, within another institution or elsewhere away from the University if it is satisfied that this is necessary to the research program and provided that the work can be supervised in a manner satisfactory to the Committee.

(b) part-time candidature: a candidate whose occupation leaves the candidate substantially free to pursue a program of advanced study and research at a campus or research facility of the University.

(c) external candidature: a candidate who is engaged in advanced study and research away from the University, and under such supervision, as determined by the Committee.

(4) A candidate shall be required to undertake an original investigation on a topic approved by the Committee. The candidate may also be required to undergo such examination and perform such other work as may be prescribed by the Committee.

(5) The work shall be carried out under the direction of a supervisor appointed by the Committee from the academic staff of the University.

(6) The progress of a candidate shall be considered by the Committee following a report from the School in accordance with the procedures established within the School and previously noted by the Committee.

(i) The research proposal will be reviewed as soon as feasible after enrolment. For a full-time student, this will normally be during the first year of study, or immediately following a period of prescribed coursework. The review will focus on the viability of the research proposal.

(ii) Progress will then be reviewed within twelve months of the first review. As a result of either review, the Committee may cancel enrolment or take such other action as it considers appropriate. Thereafter, the progress of the candidate will be reviewed annually.

(7) No candidate shall be awarded the degree until the lapse of six academic sessions in the case of a full-time candidate or eight academic sessions in the case of a part-time or external candidate from the date of enrolment. In the case of a candidate who has been awarded the degrees of Bachelor of Medicine and Bachelor of Surgery with Honours or who has had previous research experience, the Committee may approve remission of up to two sessions for a full-time candidate and four sessions for a part-time or external candidate.

(8) A full-time candidate for the degree shall present for examination not later than ten academic sessions from the date of enrolment. A part-time or external candidate shall present for examination not later than twelve academic sessions from the date of enrolment. In special cases an extension of these times may be granted by the Committee.

Thesis

4. (1) A candidate shall submit a thesis embodying the results of the investigation.

(2) A candidate shall give in writing to the Registrar two months notice of intention to submit the thesis.

(3) The thesis shall comply with the following requirements.

(a) it must be an original and meritorious contribution to knowledge of the subject;

(b) it must be written in English and reach a satisfactory standard of expression and presentation;

(c) it must consist of the candidate's own account of the research; in special cases work done conjointly with other persons may be accepted provided the Committee is satisfied about the extent of the candidate's part in the joint research.

(4) A candidate may not submit as the main content of the thesis any work or material which has previously been submitted for a university degree or other similar award but may submit any work otherwise previously published, whether or not it is related to the thesis.

(5) The thesis shall contain a certificate signed by the candidate indicating specifically the extent to which the work embodied in the thesis is directly attributable to the candidate's own research and the extent to which the thesis has benefited from collaboration with persons other than the supervisor.

(6) Four copies of the thesis shall be presented in a form which complies with the requirements of the University for the preparation and submission of higher degree theses.

(7)) It shall be understood that the University retains the four copies of the thesis submitted for examination and is free to allow the thesis to be consulted or borrowed. Subject to the provisions of the Copyright Act, 1968, the University may issue the thesis, in whole or in part, in photostat or microfilm or other copying medium.

Examination

5. (1) There shall be not fewer than three examiners of the thesis, appointed by the Committee, at least two of whom shall be external to the University.

(2) At the conclusion of the examination each examiner shall submit to the Committee a concise report on the thesis and shall recommend to the Committee that;

(a) the candidate be awarded the degree without further examination; *or*

(b) the candidate be awarded the degree without further examination subject to minor corrections as listed being made to the satisfaction of the Head of School; *or*

(c) the candidate be awarded the degree subject to a further examination on questions posed in the report, performance in this further examination being to the satisfaction of the Committee; *or*

(d) the candidate be not awarded the degree but be permitted to resubmit the thesis in a revised form after a further period of study and/or research; *or*

(e) the candidate be not awarded the degree and be not permitted to resubmit the thesis.

(3) if the performance at the further examination recommended under (2)(c) above is not to the satisfaction of the Committee it may permit the candidate to submit the thesis for further examination as determined by the Committee within a period specified by it but not exceeding eighteen months.

(4) The Committee shall, after consideration of the examiners' reports and the results of any further examination, recommend whether or not the candidate may be awarded the degree.

Fees

6. A candidate shall pay such fees as may be determined from time to time by the Council.

***'School' is used here and elsewhere in these conditions to mean any teaching unit authorised to enrol research students and includes a department where that department is not within a school, or schools or departments where the research is being undertaken in more than one school or department; a centre given approval by the Academic Board to enrol students; and an interdisciplinary unit within a faculty and under the control of the Dean of the Faculty. Enrolment is permitted in more than one such teaching unit.*

Doctor of Philosophy

PhD

The degree of Doctor of Philosophy (PhD) is offered in the Faculty of Medicine in the following programs:

1750	Anatomy
1770	Medicine (Prince Henry/POW)
1772	Medicine (St George Clinical School)
1773	Medicine (St Vincent's Clinical School)
1771	Medicine (SWS Clinical School)
1820	Obstetrics and Gynecology
1780	Pathology
1830	Pediatrics
1790	Physiology and Pharmacology
1800	Psychiatry
1835	Public Health & Community Medicine
1795	Rural Health
1810	Surgery (POW Clinical School)
1812	Surgery (St George Clinical School)
1813	Surgery (St Vincent's Clinical School)
1811	Surgery (SWS Clinical School)

Typical Duration
3 years

Minimum UOC for Award
144 units of credit

Typical UOC per Session
24 units of credit

Program Description

The Doctor of Philosophy (PhD) program is recognition of successful research experience. This degree requires an original and significant contribution to knowledge in an approved area. The degree requires a minimum of 3 years full-time study and preparation of a thesis.

Program Objectives and Learning Outcomes

The degree of Doctor of Philosophy may be awarded by the Council on the recommendation of the Research Committee of the appropriate faculty or board (hereinafter referred to as the Committee) to a candidate who has made an original and significant contribution to knowledge.

The length of a doctoral thesis normally should not exceed 100,000 words of text and should be submitted for examination within 3 years of full-time study.

Program Structure

Location

The candidate may undertake the research as an internal student i.e. at a campus, teaching hospital, or other research facility with which the University is associated, or as an external student not in attendance at the University except for periods as may be prescribed by the Committee.

The approved applicant may undertake their enrolment with a part-time or full-time load at the University, at one of its teaching hospitals or a research facility with which the University is associated; the Committee may permit a candidate to spend a period in the field, within another institution or elsewhere away from the University if it is satisfied that this is necessary to the research program and provided that the work can be supervised in a manner satisfactory to the Committee.

If the candidate's research work is based externally, there must be a minimum acceptable level of supervision that will be determined by the Committee. Normally an external candidate within another organisation or institution will have a co-supervisor at that institution.

Candidature

A candidate shall be required to undertake an original investigation on a topic approved by the Committee and may also be required to undergo such examination and perform such other work as may be prescribed by the Committee. The work shall be carried out under the direction of a supervisor appointed by the Committee from the academic staff of the University.

A candidate shall be enrolled for a minimum of 144 units of credit (UOC) and up to a maximum of 192 UOC. A full-time load during one session is worth 24 UOC and a part-time load is worth 12 UOC.

Academic Rules

Conditions for the Award of the Degree Doctor of Philosophy (PhD)

1. The degree of Doctor of Philosophy may be awarded by the Council on the recommendation of the Higher Degree Committee of the appropriate faculty or board (hereinafter referred to as the Committee) to a candidate who has made an original and significant contribution to knowledge.

Qualifications

2. (1) A candidate for the degree shall have been awarded an appropriate degree of Bachelor with Honours from the University of New South Wales or a qualification considered equivalent from another university or tertiary institution at a level acceptable to the Committee.

(2) In exceptional cases an applicant who submits evidence of such other academic and professional qualifications as may be approved by the Committee may be permitted to enrol for the degree.

(3) If the Committee is not satisfied with the qualifications submitted by an applicant the Committee may require the applicant to undergo such assessment or carry out such work as the Committee may prescribe, before permitting enrolment as a candidate for the degree.

Enrolment

3. (1) An application to enrol as a candidate for the degree shall be lodged with the Registrar at least one month prior to the date at which enrolment is to begin.

(2) In every case before making the offer of a place the Committee shall be satisfied that initial agreement has been reached between the *School and the applicant on the topic area, supervision arrangements, provision of adequate facilities and any coursework to be prescribed and that these are in accordance with the provisions of the guidelines for promoting postgraduate study within the University.

(3) The candidate shall be enrolled either as a full-time or a part-time student.

(4) A full-time candidate will present the thesis for examination no earlier than three years and no later than five years from the date of enrolment and a part-time candidate will present the thesis for examination no earlier than four years and no later than six years from the date of enrolment, except with the approval of the Committee.

(5) The candidate may undertake the research as an internal student i.e. at a campus, teaching hospital, or other research facility with which the University is associated, or as an external student not in attendance at the University except for periods as may be prescribed by the Committee.

(6) An internal candidate will normally carry out the research on a campus or at a teaching or research facility of the University except that the Committee may permit a candidate to spend a period in the field, within another institution or elsewhere away from the University provided that the work can be supervised in a manner satisfactory to the Committee. In such instances the Committee shall be satisfied that the location and period of time away from the University are necessary to the research program.

(7) The research shall be supervised by a supervisor and where possible a co-supervisor who are members of the academic staff of the School or under other appropriate supervision arrangements approved by the Committee. Normally an external candidate within another organisation or institution will have a co-supervisor at that institution.

Progression

4. The progress of the candidate shall be considered by the Committee following report from the School in accordance with the procedures established within the School and previously noted by the Committee.

(i) The research proposal will be reviewed as soon as feasible after enrolment. For a full-time student this will normally be during the first year of study, or immediately following a period of prescribed coursework. This review will focus on the viability of the research proposal.

(ii) Progress in the course will be reviewed within twelve months of the first review. As a result of either review the Committee may cancel enrolment or take such other action as it considers appropriate. Thereafter, the progress of the candidate will be reviewed annually.

Thesis

5. (1) On completing the program of study a candidate shall submit a thesis embodying the results of the investigation.

(2) The candidate shall give in writing to the Registrar two months notice of intention to submit the thesis.

(3) The thesis shall comply with the following requirements:

(a) it must be an original and significant contribution to knowledge of the subject;

(b) the greater proportion of the work described must have been completed subsequent to enrolment for the degree;

(c) it must be written in English except that a candidate in the Faculty of Arts and Social Sciences may be required by the Committee to write a thesis in an appropriate foreign language;

(d) it must reach a satisfactory standard of expression and presentation;

(e) it must consist of an account of the candidate's own research but in special cases work done conjointly with other persons may be accepted provided the Committee is satisfied about the extent of the candidate's part in the joint research.

(4) The candidate may not submit as the main content of the thesis any work or material which has previously been submitted for a university degree or other similar award, but may submit any work previously published whether or not such work is related to the thesis.

(5) Four copies of the thesis shall be presented in a form which complies with the requirements of the University for the preparation and submission of theses for higher degrees.

(6) It shall be understood that the University retains the four copies of the thesis submitted for examination and is free to allow the thesis to be consulted or borrowed. Subject to the provisions of the Copyright Act, 1968, the University may issue the thesis in whole or in part, in photostat or microfilm or other copying medium.

Examination

6. (1) There shall be not fewer than three examiners of the thesis, appointed by the Committee, at least two of whom shall be external to the University.

(2) At the conclusion of the examination each examiner shall submit to the Committee a concise report on the thesis and shall recommend to the Committee that one of the following:

(a) The thesis merits the award of the degree.

(b) The thesis merits the award of the degree subject to minor corrections as listed being made to the satisfaction of the head of school.

(c) The thesis requires further work on matters detailed in my report. Should performance in this further work be to the satisfaction of the higher degree Committee, the thesis would merit the award of the degree.

(d) The thesis does not merit the award of the degree in its present form and further work as described in my report is required. The revised thesis should be subject to re-examination.

(e) The thesis does not merit the award of the degree and does not demonstrate that resubmission would be likely to achieve that merit.

(3) If the performance in the further work recommended under (2)(c) above is not to the satisfaction of the Committee, the Committee may permit the candidate to submit the thesis for re-examination as determined by the Committee within a period determined by it but not exceeding eighteen months.

(4) After consideration of the examiners' reports and the results of any further examination of the thesis, the Committee may require the candidate to submit to written or oral examination before recommending whether or not the candidate be awarded the degree. If it is decided that the candidate be not awarded the degree, the Committee shall determine whether or not the candidate be permitted to resubmit the thesis after a further period of study and/or research.

Fees

7. A candidate shall pay such fees as may be determined from time to time by the Council.

**'School' is used here and elsewhere in these conditions to mean any teaching unit authorised to enrol research students and includes a department where that department is not within a school, a centre given approval by the Academic Board to enrol students, and an interdisciplinary unit within a faculty and under the control of the Dean of the Faculty. Enrolment is permitted in more than one such teaching unit.*

Qualification Requirements for Application

1. Candidates with an Honours degree (at least Class 2 Division 1) in a relevant discipline, or with an MBBS from an Australian or New Zealand university, are in general considered eligible for admission to a PhD program, or

2. Candidates with Honours below Class 2 Division 1, or who have not been awarded an Honours degree, need to demonstrate appropriate research experience and are in general considered eligible for admission to a PhD program if able to provide evidence of first authorship on at least one refereed paper in a journal of sufficient standing. However, first authorship on a publication is not an absolute prerequisite and the eligibility of all such candidates is determined on a case-by-case basis, or

3. Candidates with an MBBS or other medical degree from another country are in the first instance considered to be eligible to enrol for a research Masters program, with later upgrade to a PhD if appropriate. Direct enrolment for a PhD may be approved on the basis of strong support from the proposed supervisor and the relevant Head of School, or

4. Candidates with a Bachelor's degree (not an Honours degree) and relevant experience, but no first author publications in refereed journals of sufficient standing, may be eligible to enrol in a research Masters program on the basis of support from the proposed supervisor and the relevant Head of School, with later upgrade to a PhD if appropriate. Uncommonly, direct enrolment for a PhD may be approved on the basis of strong support from the proposed supervisor and the relevant Head of School.

Master of Science by Research

MSc

The degree of Master of Science by Research (MSc) is offered in the Faculty of Medicine in the following programs:

2800	Anatomy
2810	Community Medicine

2820	Medicine (POW Clinical School)
2822	Medicine (St George Clinical School)
2823	Medicine (St Vincent's Clinical School)
2821	Medicine (SWS Clinical School)
2830	Obstetrics and Gynaecology
2805	Paediatrics
2840	Pathology
2850	Physiology and Pharmacology
2880	Psychiatry
2835	Rural Health
2875	Surgery (POW Clinical School)
2877	Surgery (St George Clinical School)
2878	Surgery (St Vincent's Clinical School)
2876	Surgery (SWS Clinical School)

Typical Duration
2 years

Minimum UOC for Award
96 units of credit

Typical UOC per Session
24 units of credit

Program Description

This is the main Masters level research program for postgraduate students in the Faculty of Medicine. Candidates must demonstrate ability to undertake research by the submission of a thesis embodying the results of an original investigation. The program may be undertaken either with or without supervision.

Program Objectives and Learning Outcomes

The degree of Master of Science by research may be awarded by the Council on the recommendation of the Higher Degree Committee of the appropriate faculty (hereinafter referred to as the Committee) to a candidate who has demonstrated ability to undertake research by the submission of a thesis embodying the results of an original investigation.

Program Structure

Candidature

A candidate shall be enrolled for a minimum of 96 units of credit (UOC) and up to a maximum of 144 UOC. A full-time load during one session is worth 24 UOC and a part-time load is worth 12 UOC.

Academic Rules

Progression

After commencement, the candidate will be reviewed by the School.

1. For a full-time student, the review will conducted six months after commencement. The review will focus on the viability of the research proposal.

2. Progress will then be reviewed within twelve months of the first review. If a candidate's progress during either review is found to be dissatisfactory, the Committee may cancel enrolment or take such other action as it considers appropriate.

Thereafter, the progress of the candidate will be reviewed annually.

Conditions for the Award of the Degree Master of Science (MSc)

1. The degree of Master of Science by research may be awarded by the Council on the recommendation of the Higher Degree Committee of the appropriate faculty (hereinafter referred to as the Committee) to a candidate who has demonstrated ability to undertake research by the submission of a thesis embodying the results of an original investigation.

Qualifications

2. (1) A candidate for the degree shall have been awarded an appropriate degree of Bachelor from the University of New South Wales or a qualification considered equivalent from another university or tertiary institution at a level acceptable to the Committee.

(2) An applicant who submits evidence of such other academic or professional attainments as may be approved by the Committee may be permitted to enrol for the degree.

(3) When the Committee is not satisfied with the qualifications submitted by an applicant the Committee may require the applicant, before being permitted to enrol, to undergo such examination or carry out such work as the Committee may prescribe.

Enrolment and Progression

3. (1) An application to enrol as a candidate for the degree shall be made on the prescribed form which shall be lodged with the Registrar at least one calendar month before the commencement of the session in which enrolment is to begin.

(2) In every case, before permitting a candidate to enrol, the Head of the School* in which the candidate intents to enrol shall be satisfied that adequate supervision and facilities are available.

(3) An approved candidate shall be enrolled in one of the following categories:

(a) full-time attendance at the University;

(b) part-time attendance at the University;

(c) external not in regular attendance at the University and using research facilities external to the University.

(4) A candidate shall be required to undertake an original investigation on an approved topic. The candidate may also be required to undergo such examination and perform such other work as may be prescribed by the Committee.

(5) The work shall be carried out under the direction of a supervisor appointed from the full-time members of the University staff.

(6) The progress of a candidate shall be reviewed annually by the Committee following a report by the candidate, the supervisor and the Head of the School in which the candidate is enrolled and as a result of such review the Committee may cancel enrolment or take such other action as it considers appropriate.

(7) No candidate shall be granted the degree until the lapse of three academic sessions in the case of a full-time candidate or four academic sessions in the case of a part-time or external candidate from the date of enrolment. In the case of a candidate who has been awarded the degree of Bachelor with Honours or who has had previous research experience the Committee may approve remission of up to one session for a full-time candidate and two sessions for a part-time or external candidate

(8) A full-time candidate for the degree shall present for examination not later than six academic sessions from the date of enrolment. A part-time or external candidate for the degree shall present for examination not later than ten academic sessions from the date of enrolment. In special cases an extension of these times may be granted by the Committee.

Thesis

4. (1) On completing the program of study a candidate shall submit a thesis embodying the results of the original investigation.

(2) The candidate shall give in writing two months notice of intention to submit the thesis.

(3) The thesis shall present an account of the candidate's own research. In special cases work done conjointly with other persons may be accepted, provided the Committee is satisfied about the extent of the candidate's part in the joint research.

(4) The candidate may also submit any work previously published whether or not such work is related to the thesis.

(5) Three copies of the thesis shall be presented in a form which complies with the requirements of the University for the preparation and submission of higher degree theses.

(6) It shall be understood that the University retains the three copies of the thesis submitted for examination and is free to allow the thesis to be consulted or borrowed. Subject to the provisions of the Copyright Act, 1968, the University may issue the thesis in whole or in part, in photostat or microfilm or other copying medium.

Examination

5. (1) There shall be not fewer than two examiners of the thesis, appointed by the Committee, at least one of whom shall be external to the University unless the Committee is satisfied that this is not practicable.

(2) At the conclusion of the examination each examiner shall submit to the Committee a concise report on the merits of the thesis and shall recommend to the Committee that:

(a) the candidate be awarded the degree without further examination; *or*

(b) the candidate be awarded the degree without further examination subject to minor corrections as listed being made to the satisfaction of the Head of the School*; *or*

(c) the candidate be awarded the degree subject to a further examination on questions posed in the report, performance in this further examination being to the satisfaction of the Committee; *or*

(d) the candidate be not awarded the degree but be permitted to resubmit the thesis in a revised form after a further period of study and/or research; *or*

(e) the candidate be not awarded the degree and be not permitted to resubmit the thesis.

(3) If the performance at the further examination recommended under (2)(c) above is not to the satisfaction of the Committee, the Committee may permit the candidate to represent the same thesis and submit to a further oral, practical or written examination within a period specified by it but not exceeding eighteen months.

(4) The Committee shall, after consideration of the examiners' reports and the reports of any oral or written or practical examination, recommend whether or not the candidate may be awarded the degree. If it is decided that the candidate be not awarded the degree the Committee shall determine whether or not the candidate may resubmit the thesis after a further period of study and/or research.

Fees

6. A candidate shall pay such fees as may be determined from time to time by the Council.

** 'School' is used here and elsewhere in these conditions to mean any teaching unit authorised to enrol research students and includes a department where that department is not within a school, or schools or departments where the research is being undertaken in more than one school or department; a centre given approval by the Academic Board to enrol students; and an interdisciplinary unit within a faculty and under the control of the Dean of the Faculty. Enrolment is permitted in more than one such teaching unit.*

Master of Medicine

MMed

The degree of Master of Medicine is offered in the Faculty of Medicine in the following program:

2515 Medicine

Typical Duration
2 years

Minimum UOC for Award
96 units of credit

Typical UOC per Session
24 units of credit

Program Description

This is a Masters level research program for postgraduate medical students in the Faculty of Medicine. Candidates must demonstrate ability to undertake research by the submission of a thesis embodying the results of an original investigation. Candidates must have at least three years experience of in the practice of medicine and be currently so engaged.

Program Objectives and Learning Outcomes

The degree of Master of Medicine by research may be awarded by the Council on the recommendation of the Higher Degree Committee of the Faculty of Medicine (hereinafter referred to as the Committee) to a candidate who has demonstrated ability to undertake research by the submission of a thesis embodying the results of an original investigation.

Program Structure

Candidature

A candidate shall be enrolled for a minimum of 96 units of credit (UOC) and up to a maximum of 144 UOC. A full-time load during one Session is worth 24 UOC and a part-time load is worth 12 UOC.

Academic Rules

Conditions for the Award of the Degree Master of Medicine (MMed) by Research *with supervision*

1. The degree of Master of Medicine by research may be awarded by the Council on the recommendation of the Higher Degree Committee of the Faculty of Medicine (hereinafter referred to as the Committee) to a candidate who has demonstrated ability to undertake research by the submission of a thesis embodying the results of an original investigation.

Qualifications

2. (1) A candidate for the degree shall have been awarded Bachelor of Medicine and Bachelor of Surgery from the University of New South Wales or a qualification considered equivalent from another university or tertiary institution at a level acceptable to the Higher Degree Committee of the Faculty of Medicine. It must be noted that the Master of Medicine is intended for postgraduates who have medical degrees registrable in Australia and who are able to secure an appropriate appointment, salaried or otherwise, in a teaching hospital recognised by the University of New South Wales.

(2) If the Committee is not satisfied with the qualifications submitted by an applicant the Committee may require the applicant, before being permitted to enrol, to undergo such examination or carry out such work as the Committee may prescribe.

Enrolment and Progression

3. (1) An application to enrol as a candidate for the degree shall be made on the prescribed form which shall be lodged with the Registrar at least one calendar month before the commencement of the session in which enrolment is to begin.

(2) In every case, before permitting a candidate to enrol, the Head of School shall be satisfied that adequate supervision and facilities are available.

(3) An approved candidate shall be enrolled in one of the following categories:

(a) full-time attendance at the University;

(b) part-time attendance at the University;

(c) external not in regular attendance at the University and using research facilities external to the University

(4) A candidate shall be required to undertake an original investigation on an approved topic. The candidate may also be required to undergo such examination and perform such other work as may be prescribed by the Committee.

(5) The work shall be carried out under the direction of a supervisor appointed from the full-time members of the University staff.

(6) The progress of a candidate shall be reviewed annually by the Committee following a report by the candidate, the supervisor and the Head of School or his/her delegate and as a result of such review the Committee may cancel enrolment or take such other action as it considers appropriate.

(7) No candidate shall be granted the degree until the lapse of three academic sessions in the case of a full-time candidate or four academic sessions in the case of a part-time or external candidate from the date of enrolment. In the case of a candidate who has been awarded the degree of Bachelor with Honours or who has had previous research experience the Committee may approve remission of up to one session for a full-time candidate and two sessions for a part-time or external candidate.

(8) A full-time candidate for the degree shall present for examination not later than six academic sessions from the date of enrolment. A part-time or external candidate for the degree shall present for examination not later than ten academic sessions from the date of enrolment. In special cases, an extension of these times may be granted by the Committee.

Thesis

4. (1) On completing the program of study a candidate shall submit a thesis embodying the results of the original investigation.

(2) The candidate shall give, in writing, two months notice of intention to submit the thesis.

(3) The thesis shall present an account of the candidate's own research. In special cases work done conjointly with other persons may be accepted, provided the Committee is satisfied about the extent of the candidate's part in the joint research.

(4) The candidate may also submit any work previously published whether or not such work is related to the thesis.

(5) Three copies of the thesis shall be presented in a form which complies with the requirements of the University for the preparation and submission of higher degree theses.

(6) It shall be understood that the University retains the three copies of the thesis submitted for examination and is free to allow the thesis to be consulted or borrowed. Subject to the provisions of the Copyright Act, 1968, the University may issue the thesis in whole or in part, in photostat or microfilm or other copying medium.

Examination

5. (1) There shall be not fewer than two examiners of the thesis, appointed by the Committee, at least one of whom shall be external to the University unless the Committee is satisfied that this is not practicable.

(2) At the conclusion of the examination each examiner shall submit to the Committee a concise report on the merits of the thesis and shall recommend to the Committee that:

(a) the candidate be awarded the degree without further examination; *or*

(b) the candidate be awarded the degree without further examination subject to minor corrections as listed being made to the satisfaction of the Head of the School; *or*

(c) the candidate be awarded the degree subject to a further examination on questions posed in the report, performance in this further examination being to the satisfaction of the Committee; *or*

(d) the candidate be not awarded the degree but be permitted to resubmit the thesis in a revised form after a further period of study and/or research; *or*

(e) the candidate be not awarded the degree and be not permitted to resubmit the thesis.

(3) If the performance at the further examination recommended under (2)(c) above is not to the satisfaction of the Committee, the Committee may permit the candidate to re-present the same thesis and submit to a further oral, practical or written examination within a period specified by it but not exceeding eighteen months.

(4) The Committee shall, after consideration of the examiners' reports and the reports of any oral or written or practical examination, recommend whether or not the candidate may be awarded the degree. If it is decided that the candidate be not awarded the degree the Committee shall determine whether or not the candidate may resubmit the thesis after a further period of study and/or research.

Fees

6. A candidate shall pay such fees as may be determined from time to time by the Council.

Master of Surgery

MS

The degree of Master of Surgery is offered in the Faculty of Medicine in the following programs:

2860 Surgery (Prince Henry/POW)
2861 Surgery (SWS Clinical School)
2862 Surgery (St George Clinical School)
2863 Surgery (St Vincent's Clinical School)

Typical Duration
2 years

Minimum UOC for Award
96 units of credit

Typical UOC per Session
24 units of credit

Program Description

The Master of Surgery (MS) program requires an original contribution to knowledge in some field related to surgery.

Program Objectives and Learning Outcomes

Generally, candidates must have at least three years experience of surgical training and there should be a lapse of five years before the thesis is submitted from the date of the award of the undergraduate medical degree.

Program Structure

Candidature

A candidate shall be enrolled for a minimum of 96 units of credit (UOC) and up to a maximum of 144 UOC. A full-time load during one Session is worth 24 UOC and a part-time load is worth 12 UOC.

Academic Rules

Conditions for the Award of the Degree Master of Surgery (MS)

1. The degree of Master of Surgery by research may be awarded by the Council on the recommendation of the Higher Degree Committee of the Faculty of Medicine (hereinafter referred to as the Committee) to a candidate who has made an original contribution to knowledge in some field related to surgery.

Qualifications

2. (1) A candidate for the degree shall have been awarded the degrees of Bachelor of Medicine and Bachelor of Surgery from the University of New South Wales or a qualification considered equivalent from another university or tertiary institution at a level acceptable to the Committee. It must be noted that the Master of Surgery is intended for postgraduates who have medical degrees registrable in Australia and who are able to secure an appropriate appointment, salaried or otherwise, in a teaching hospital recognised by the University of New South Wales.

(2) In exceptional cases an applicant who submits evidence of such other academic and professional qualifications as may be approved by the Committee may be permitted to enrol for the degree.

(3) If the Committee is not satisfied with the qualifications submitted by an applicant the Committee may require the applicant to undergo such assessment or carry out such work as the Committee may prescribe, before permitting enrolment.

Enrolment

3. (1) An application to enrol as a candidate for the degree shall be made on the prescribed form which shall be lodged with the Registrar at least one calendar month before the commencement of the session in which enrolment is to begin.

(2) In every case before making the offer of a place the Committee shall be satisfied that initial agreement has been reached between the School and the applicant on the topic area, supervision arrangements, provision of adequate facilities and any coursework to be prescribed and that these are in accordance with the provisions of the guidelines for promoting postgraduate study within the University.

(3) An approved candidate shall be enrolled in one of the following categories:

(a) full-time candidature: a candidate who is fully engaged in advanced study and research at the University or at one of its teaching hospitals;

(b) part-time candidate: a candidate whose occupation leaves the candidate substantially free to pursue a program of advanced study and research at the University or at one of its teaching hospitals;

(c) external candidature: a candidate who is engaged in advanced study and research away from the University or one of its teaching hospitals.

(4) A candidate shall be required to undertake an original investigation on an approved topic. The candidate may also be required to undergo such assessment and perform such other work as may be prescribed by the Committee.

(5) The research shall be supervised by a supervisor or supervisors who are members of the academic staff of the School or under other appropriate supervision arrangements approved by the Committee. Normally an external candidate within another organisation or institution will have a co-supervisor at that institution.

(6) No candidate shall be awarded the degree until the lapse of four academic sessions from the date of enrolment in the case of a full-time candidate or six academic sessions in the case of a part-time or external candidate. In the case of a candidate who has had previous research experience the Committee may approve remission of up to two sessions for a full-time candidate and three sessions for a part-time or external candidate.

(7) A full-time candidate for the degree shall present for examination not later than eight academic sessions from the date of enrolment. A part-time or external candidate for the degree shall present for examination not later than ten academic sessions from the date of enrolment. In special cases an extension of these times may be granted by the Committee.

Progression

4. The progress of the candidate shall be considered by the Committee following report from the School in accordance with the procedures established within the School and previously noted by the Committee.

(i) The research proposal will be reviewed as soon as feasible after enrolment. For a full-time student this will normally be during the first year of study, or immediately following a period of prescribed coursework. This review will focus on the viability of the research proposal.

(ii) Progress in the course will be reviewed within twelve months of the first review. As a result of either review the Committee may cancel enrolment or take such other action as it considers appropriate. Thereafter, the progress of the candidate will be reviewed annually.

Thesis

5. (1) On completing the program of study a candidate shall submit a thesis embodying the results of the investigation.

(2) The candidate shall give in writing to the Registrar two months notice of intention to submit the thesis.

(3) The thesis shall present an account of the candidate's own research. In special cases work done conjointly with other persons may be accepted, provided the Committee is satisfied about the extent of the candidate's part in the joint research.

(4) The candidate may also submit any work previously published whether or not such work is related to the thesis.

(5) Four copies of the thesis shall be presented in a form which complies with the requirements of the University for the preparation and submission of theses for higher degrees.

(6) It shall be understood that the University retains the four copies of the thesis submitted for examination and is free to allow the thesis to be consulted or borrowed. Subject to the provisions of the Copyright Act, 1968, the University may issue the thesis in whole or in part, in photostat or microfilm or other copying medium.

Examination

6. (1) There shall be not fewer than three examiners of the thesis, appointed by the Committee, at least two of whom shall be external to the University.

(2) At the conclusion of the examination each examiner shall submit to the Committee a concise report on the thesis and shall recommend to the Committee that:

(a) The thesis merits the award of the degree.

(b) The thesis merits the award of the degree subject to minor corrections as listed being made to the satisfaction of the Head of School.

(c) The thesis requires further work on matters detailed in the report. Should performance in this further work be to the satisfaction of the Higher Degree Committee, the thesis would merit the award of the degree.

(d) The thesis does not merit the award of the degree in its present form and further work as described in the examiner's report is required. The revised thesis should be subject to reexamination.

(e) The thesis does not merit the award of the degree and does not demonstrate that resubmission would be likely to achieve that merit.

(3) If the performance at the further examination recommended under (2)(c) above is not to the satisfaction of the Committee, the Committee may permit the candidate to represent the same thesis and submit to further examination as determined by the Committee within a period specified by it but not exceeding eighteen months.

(4) The Committee shall, after consideration of the examiners' reports and the results of any further examination, recommend whether or not the candidate may be awarded the degree. If it is decided that the candidate be not awarded the degree the Committee shall determine whether or not the candidate may resubmit the thesis after a further period of study and/or research.

Fees

7. A candidate shall pay such fees as may be determined from time to time by the Council.

School of Public Health and Community Medicine

The School offers programs of study leading to the award of the following degrees:

2960 Master of Health Administration by Research
8900 Master of Health Administration by Coursework

8941 Master of Health Services Management
7360 Graduate Certificate in Health Services Management

2885 Master of Health Professions Education by Research

1835 PhD in Public Health and Community Medicine

9050 Master of Clinical Education by Distance Education
5501 Graduate Diploma in Clinical Education by Distance Education
7376 Graduate Certificate in Clinical Education by Distance Education

7375 Graduate Certificate in University Learning and Teaching *(UNSW staff only)*

2845 Master of Public Health by Research

9045 Master of Public Health by Coursework
5507 Graduate Diploma in Public Health
7368 Graduate Certificate in Public Health

Our programs undergo continuous quality improvement. Please check the School's website ***(http://sphcm.med.unsw.edu.au)*** *for current information.*

2960 Master of Health Administration (by Research)

MHA

Typical Duration
2 years

Minimum UOC for Award
96 units of credit

Typical UOC per Session
24 units of credit

Program Description

Facilities are available in the School for students to undertake research studies leading to the degree of Master of Health Administration, as either full-time internal students, part-time internal students, or part-time students external to the University. It is designed primarily as training in advanced work. Candidates must demonstrate ability to undertake research by the submission of a thesis embodying the results of an original investigation or design. Candidates are required to have a suitable first degree and are normally expected to have a minimum of three years' experience in their proposed field of study within the health or hospital services.

Program Objectives and Learning Outcomes

The Master of Health Administration (MHA) is designed primarily as training in advanced work. Candidates must demonstrate ability to undertake research by the submission of a thesis embodying the results of an original investigation or design. Candidates must have at least three years experience in health services.

Program Structure

The degree of Master of Health Administration by research may be awarded by the Council on the recommendation of the Higher Degree Committee of the Faculty of Medicine (hereinafter referred to as the Committee) to a candidate who has demonstrated ability to undertake research by the submission of a thesis embodying the results of an original investigation or design.

Academic Rules

Enrolment Requirements

A student is only permitted to submit only after 144 units of credits (UOC) have been undertaken. A full-time load during one Session is worth 24 UOC and a part-time load is worth 12 UOC.

In the case of a candidate who has been awarded the degrees of Bachelor of Medicine and Bachelor of Surgery with Honours or who has had previous research experience, the Committee may approve remission of up to two sessions for a full-time candidate and four sessions for a part-time or external candidate.

Candidates should not exceed the upper enrolment-limit of 192 UOC. Financial penalties may occur as a result.

Conditions for the Award of the Degree Master of Health Administration (MHA) *by Research*

1. The degree of Master of Health Administration by research may be awarded by the Council on the recommendation of the Higher Degree Committee of the Faculty of Medicine (hereinafter referred to as the Committee) to a candidate who has demonstrated ability to undertake research by the submission of a thesis embodying the results of an original investigation or design.

Qualifications

2. (1) A candidate for the degree shall:

(a) have been awarded an appropriate degree of Bachelor of four full-time years duration (or the part-time equivalent) from the University of New South Wales or a qualification considered equivalent from another university or tertiary institution at a level acceptable to the Committee; *or*

(b)(i) have been awarded an appropriate degree of Bachelor of three full-time years duration (or the part-time equivalent) from the University of New South Wales or qualification considered equivalent from another university or tertiary institution at a level acceptable to the Committee, *and*

(ii) have had at least three years experience in the health services of a kind acceptable to the Committee.

(2) In exceptional cases an applicant who submits evidence of such other academic and professional qualifications as may be approved by the Committee may be permitted to enrol for the degree.

(3) When the Committee is not satisfied with the qualifications submitted by an applicant the Committee may require the applicant, before being permitted to enrol, to undergo such examination or carry out such work as the Committee may prescribe.

Enrolment and Progression

3. (1) An application to enrol as a candidate for the degree shall be made on the prescribed form which shall be lodged with the Registrar at least one calendar month before the commencement of the session in which enrolment is to begin.

(2) In every case, before permitting a candidate to enrol, the Head of the School of Public Health and Community Medicine (hereinafter referred to as the Head of the School) shall be satisfied that adequate supervision and facilities are available.

(3) An approved candidate shall be enrolled in one of the following categories:

(a) full-time attendance at the University;

(b) part-time attendance at the University;

(c) external – not in regular attendance at the University and using research facilities external to the University.

(4) A candidate shall be required to undertake an original investigation or design on an approved topic. The candidate may also be required to undergo such examination and perform such other work as may be prescribed by the Committee.

(5) The work shall be carried out under the direction of a supervisor appointed from the full-time members of the University staff.

(6) The progress of a candidate shall be reviewed annually by the Committee following a report by the candidate, the supervisor and the Head of the School and as a result of such review the Committee may cancel enrolment or take such other action as it considers appropriate.

(7) No candidate shall be granted the degree until the lapse of three academic sessions in the case of a full-time candidate or four academic sessions in the case of a part-time or external candidate from the date of enrolment. In the case of a candidate who has been awarded the degree of Bachelor with Honours or who has had previous research experience the Committee may approve remission of up to one session for a full-time candidate and two sessions for a part-time or external candidate.

(8) A full-time candidate for the degree shall present for examination not later than six academic sessions from the date of enrolment. A part-time or external candidate for the degree shall present for examination not later than ten academic sessions from the date of enrolment. In special cases an extension of these times may be granted by the Committee.

Thesis

4. (1) On completing the program of study a candidate shall submit a thesis embodying the results of the original investigation or design.

(2) The candidate shall give in writing two months notice of intention to submit the thesis.

(3) The thesis shall present an account of the candidate's own research. In special cases work done conjointly with other persons may be accepted, provided the Committee is satisfied about the extent of the candidate's part in the joint research.

(4) The candidate may also submit any work previously published whether or not such work is related to the thesis.

(5) Three copies of the thesis shall be presented in a form which complies with the requirements of the University for the preparation and submission of higher degree theses.

(6) It shall be understood that the University retains the three copies of the thesis submitted for examination and is free to allow the thesis to be consulted or borrowed. Subject to the provisions of the Copyright Act, 1968, the University may issue the thesis in whole or in part, in photostat or microfilm or other copying medium.

Examination

5. (1) There shall be not fewer than two examiners of the thesis, appointed by the Committee, at least one of whom shall be external to the University unless the Committee is satisfied that this is not practicable.

(2) At the conclusion of the examination each examiner shall submit to the Committee a concise report on the merits of the thesis and shall recommend to the Committee that:

(a) the candidate be awarded the degree without further examination; *or*

(b) the candidate be awarded the degree without further examination subject to minor corrections as listed being made to the satisfaction of the Head of the School; *or*

(c) the candidate be awarded the degree subject to a further examination on questions posed in the report, performance in this further examination being to the satisfaction of the Committee; *or*

(d) the candidate be not awarded the degree but be permitted to resubmit the thesis in a revised form after a further period of study and/or research; *or*

(e) the candidate be not awarded the degree and be not permitted to resubmit the thesis.

(3) If the performance at the further examination recommended under (2)(c) above is not to the satisfaction of the Committee, the Committee may permit the candidate to represent the same thesis and submit to a further oral, practical or written examination within a period specified by it but not exceeding eighteen months.

(4) The Committee shall, after consideration of the examiners' reports and the reports of any oral or written or practical examination, recommend whether or not the candidate may be awarded the degree. If it is decided that the candidate be not awarded the degree the Committee shall determine whether or not the candidate may resubmit the thesis after a further period of study and/or research.

Fees

6. A candidate shall pay such fees as may be determined from time to time by the Council.

8900 Master of Health Administration (by Coursework)

MHA

Typical Duration
1 year

Minimum UOC for Award
48 units of credit

Typical UOC per Session
24 units of credit

Program Description

This degree is awarded on the successful completion of the program outlined below. The program may be taken on a full-time or part-time basis, internal basis or external basis (including compulsory residential schools) or on a distributed basis (mixture of full-time, part-time and external).

Applicants are required to have completed a minimum three-year degree and to have a minimum of three years postgraduate experience preferably in a health-related field.

Program Objectives and Learning Outcomes

The program has been designed to provide students with the essential knowledge required for senior managerial and planning work in the health services. The objectives of the program are to develop graduates who are: competent general and financial managers, competent planners, knowledgeable about public health (the health status of the Australian and other communities) and the structure, organisation and financing of health care systems, knowledgeable about society, law and ethics, and competent in quantitative skills.

Program Structure

The program is divided into two components, for a total of 48 units of credit. These components are:

Core Courses (36 units of credit)

This compulsory component comprises the six core courses of 6 units of credit each. Students must successfully complete the following six courses as a requirement for graduation.

PHCM9041	Health Care Systems	(6 UOC)
PHCM9071	Health Care Financial Management 1	(6 UOC)
PHCM9351	Health Economics	(6 UOC)
PHCM9421	Public Health, Statistics and Epidemiology	(6 UOC)
PHCM9701	Managing Human Resources in Health	(6 UOC)
PHCM9711	Management of Organisations	(6 UOC)

PLUS 12 units of credit of **electives** offered by the School.

PHCM9010	Community Development	(4 UOC)
PHCM9012	Health Promotion	(4 UOC)

PHCM9081	Health Care Financial Management 2	(4 UOC)
PHCM9101	Independent Study (2 UOC)	(2 UOC)
PHCM9102	Independent Study (4 UOC)	(4 UOC)
PHCM9103	Independent Study (6 UOC)	(6 UOC)
PHCM9104	Independent Study (8 UOC)	(8 UOC)
PHCM9108	Program Evaluation and Planned Change	(4 UOC)
PHCM9111	Quality and Clinical Practice Improvement	(4 UOC)
PHCM9120	Qualitative Research Methods	(4 UOC)
PHCM9121	Measurement of Quality of Life and Patient Satisfaction	(4 UOC)
PHCM9122	Primary Health Care: Policies, Programs & Perspectives	(4 UOC)
PHCM9125	Designing Short Courses and Workshops	(4 UOC)
PHCM9133	Learning, Teaching and Assessment	(4 UOC)
PHCM9136	Culture, Health and Illness	(4UOC)
PHCM9140	Project Design and Monitoring in International Health	(4 UOC)
PHCM9361	Physical Planning and Design	(4 UOC)
PHCM9381	Policy Studies	(4 UOC)
PHCM9391	Health Services Strategic Management and Planning	(4 UOC)
PHCM9431	Interpersonal Communications in Organisations	(4 UOC)
PHCM9501	Computing Techniques for Health Services Management	(4 UOC)
PHCM9604	Alcohol and Other Drug Issues	(4 UOC)
PHCM9605	Health in Developing Countries	(4 UOC)
PHCM9608	Rural Health Studies 1	(4 UOC)
PHCM9610	Food & Nutrition Policy Studies	(4 UOC)
PHCM9611	Health of the Elderly	(4 UOC)
PHCM9612	Environmental Health	(4 UOC)
PHCM9614	Researching Marginalised Groups	(4 UOC)
PHCM9615	Delivery of Primary Health Services in the Community	(4 UOC)
PHCM9621	HIV/AIDS: Australian and International Responses	(4 UOC)
PHCM9626	Inequalities and Health	(4 UOC)
PHCM9630	Indigenous Health in Australia	(4 UOC)
PHCM9633	International Tobacco Control	(4 UOC)
PHCM9661	Current Issues in Health	(4 UOC)
PHCM9741	Management of Change	(4 UOC)
PHCM9748	Clinical Governance	(6 UOC)
PHCM9761	Public Mental Health in Australia	(4 UOC)
PHCM9781	Evidence-Based Clinical Management	(4 UOC)
PHCM9901	Health Systems Simulation	(6 UOC)
PHCM9911	Health Informatics Principles	(6 UOC)
PHCM9922	Decision Support Systems	(4 UOC)

*Please check the School's website (**http://sphcm.med.unsw.edu.au**) for current information*

Articulation

The program articulates with the Graduate Certificate in Health Services Management 7360. Credit for courses completed in the GradCert may be transferred to the Master's program, in accordance with the UNSW policy on credit transfer.

Academic Rules

Please refer to the Program Structure above and contact the School of Public Health & Community Medicine for further information.

8941 Master of Health Services Management

MHSM

Typical Duration
1 year

Minimum UOC for Award
48 units of credit

Typical UOC per Session
24 units of credit

Program Description

The degree is awarded on the successful completion of the program outlined below. The program may be taken full-time or part-time on an internal basis.

The normal time for completion of the full-time program is two academic sessions. The maximum time for completion of the program is eight academic sessions. The normal time for completion of the program for part-time internal and external students is four academic sessions (two calendar years).

Students must complete 9 courses, or the equivalent, to a total of 48 units of credit.

Program Objectives and Learning Outcomes

The program is designed to provide students from countries with developing economies and health systems with the knowledge and skills to be competent health service planners, policy makers and managers. For students from developed health systems involved in international health, this program will enable them to focus and develop relevant planning and management knowledge from within a development framework.

Program Structure

Program 8941, plan PHCMKS8941 – Kensington campus

The program is divided into two components, for a total of 48 units of credit. These components are:

Core Courses (36 units of credit):

This compulsory component comprises six core courses of 6 units of credit each:

PHCM9015	Health Services Development and Implementation	(6 UOC)
PHCM9422	Population Health, Epidemiology and Statistics	(6 UOC)
PHCM9441	Healthcare Economics and Financial Management	(6 UOC)
PHCM9442	Health Resources Planning and Development	(6 UOC)
PHCM9471	Comparative Health Care Systems	(6 UOC)
PHCM9711	Management of Organisations	(6 UOC)

PLUS 12 units of credit of electives offered by the School.

In selecting elective courses students can choose from a wide range of courses relating to their expected field of work, a particular focus or discipline and/or relevant to their own interests and needs.

Program 8941, plan PHCMHS8941 – Hong Kong

This program is available in Hong Kong in distance learning mode on a part-time basis over 2 years. Entry requirements, learning objectives, assessment and fees for the Hong Kong program are the same as the Kensington MHSM. However, case studies and examples used in course materials are relevant to Asian health systems. Compulsory residential workshops are conducted in Hong Kong in February and July. The MHSM is a quotable degree under the Hong Kong Hospital Authority.

The MHSM and GradCertHSM programs are registered in Hong Kong and the Medical Council of Hong Kong recognises the UNSW MHSM degree.

Students studying in Hong Kong enrol in part-time distant learning mode. Students attend a one-week residential school each session after which they work through the distance learning material the University provides.

Enquiries should be directed to the Hong Kong Program Director Dr Mary-Louise McLaws, tel: +61(2) 9385 2586, email: m.mclaws@unsw.edu.au or Australian Education Council Ltd, email: info@aecl.com.hk

Articulation

The program articulates with the Graduate Certificate in Health Services Management 7360. Credit for courses completed in the GradCert may be transferred to the Master's program, in accordance with the UNSW policy on credit transfer.

Additional Course Requirement for International Students

International students from non-English speaking countries enrolled in the full time program in Sydney (Kensington campus) are required to take the following additional core course in their first session. This course is available for all students to assist to gain maximum benefit from their study and contributes 4 units of credit towards the total of 48 units of credit for the program.

PHCM9100	Academic Skills	(4 UOC)

Academic Rules

Please refer to the Program Structure above and contact the School of Public Health & Community Medicine for further information.

7360 Graduate Certificate in Health Services Management

GradCertHSM

Typical Duration
0.4 years

Minimum UOC for Award
24 units of credit

Typical UOC per Session
24 units of credit

Program Description

The Graduate Certificate provides recognition to students who are limited to study for one session or one year only. It will be awarded to a candidate who has satisfactorily completed the program of study outlined below. The GradCert articulates with the Master of Health Administration, Master of Health Services Management or Master of Public Health programs.

Credit for courses completed in the GradCert may be transferred to the Masterâ's programs, in accordance with the UNSW policy on credit transfer, provided students demonstrate adequate academic performance (minimum Credit average).

Program Objectives and Learning Outcomes

This program is designed to provide training for senior managerial and planning professionals in health services.

Program Structure

The Graduate Certificate program may be taken on a full-time or part-time basis, internal or external basis (including compulsory residential schools).

Candidates are required to successfully complete a total of 24 units of credit from the courses offered by the School of Public Health & Community Medicine. The Graduate Certificate program may be tailored to suit individual interests. Further information on groupings of courses is available from the School.

Plans (Areas of Specialisation)

The following specialisations (plans) are now also available in the Graduate Certificate in Health Services Management:

7360 Graduate Certificate in HSM in Hospital Epidemiology - Kensington Campus
7360 Graduate Certificate in HSM in Hospital Epidemiology - Hong Kong

7360 Graduate Certificate in HSM in Hospital Epidemiology - Kensington Campus

Staff responsible for infection control are required to have an understanding of statistics, epidemiology and research methods to assist them in their efforts to survey, prevent and contain the transmission of hospital-acquired infections. This Graduate Certificate will introduce students to those statistical and epidemiological skills required to interpret or perform surveillance and outbreak investigation. Students will understand how to evaluate prevention strategies and to critically appraise medical and nursing literature.

Students are required to complete a total of 24 units of credit comprising the following 4 courses:

PHCM9011	Statistics & Epidemiology	(6 UOC)
PHCM9411	Hospital Epidemiology	(6 UOC)
PHCM9731	SARS and Crisis Outbreak Management	(6 UOC)
PHCM9732	Clinical Practice in Infection Control	(6 UOC)

7360 Graduate Certificate in HSM in Hospital Epidemiology - Hong Kong

This program is available in Hong Kong in distance learning mode over 12 months. Case studies and examples used in course materials have been written to make them relevant to Asian health systems. Entry requirements, learning objectives, assessment and fees for the Hong Kong program are the same as the Kensington GradCert.

The MHSM and GradCert programs are registered in Hong Kong and the Medical Council of Hong Kong recognises the UNSW MHSM degree.

Students studying in Hong Kong enrol in part-time distant learning mode. Students attend a one-week residential school each session after which they work through the distance learning material the University provides.

Enquiries should be directed to the Hong Kong Program Director Dr Mary-Louise McLaws, tel: (+61 2) 9385 2591, email: m.mclaws@unsw.edu.au or Australian Education Council Ltd, email: info@aecl.com.hk

Academic Rules

Please refer to the Program Structure above and contact the School Office for further information.

Admission Requirements

Candidates will have:

- a Bachelor degree in an appropriate discipline from a recognised tertiary institution, *and*
- a minimum of three years' experience in health services.

In exceptional cases an applicant who submits evidence of such other academic and professional qualifications may be admitted. No credits, exemptions or advanced standing are granted for the Graduate Certificate.

2885 Master of Health Professions Education (by Research)

MHPEd

Typical Duration
2 years

Minimum UOC for Award
96 units of credit

Typical UOC per Session
24 units of credit

Program Description

This program is designed for teachers and/or educational administrators in the health professions who wish to develop their research skills by undertaking studies leading to the award of the degree of Master of Health Professions Education, either as full-time or part-time internal students or as students external to the University. The latter are required to spend a minimum of 14 weeks in the School during the program.

Program Objectives and Learning Outcomes

An original investigation under the direction of a supervisor for a minimum period of three academic sessions in the case of a full-time candidate, or a minimum of four academic sessions in the case of a part-time or external candidate, is required.

The candidate is required to submit a thesis embodying the results of this original investigation.

Program Structure

The candidate may undertake the research as an internal student i.e. at a campus, teaching hospital, or other research facility with which the University is associated, or as an external student not in attendance at the University except for periods as may be prescribed by the Committee.

The approved applicant may undertake their enrolment with a part-time or full-time load at the University, at one of its teaching hospitals or a research facility with which the University is associated; the Committee may permit a candidate to spend a period in the field, within another institution or elsewhere away from the University if it is satisfied that this is necessary to the research program and provided that the work can be supervised in a manner satisfactory to the Committee.

If the candidate's research work is based externally, there must be a minimum acceptable level of supervision that will be determined by the Committee. Normally an external candidate within another organisation or institution will have a co-supervisor at that institution.

Academic Rules

Candidature

A candidate shall be required to undertake an original investigation on a topic approved by the Committee and may also be required to undergo such examination and perform such other work as may be prescribed by the Committee. The work shall be carried out under the direction of a supervisor appointed by the Committee from the academic staff of the University.

A candidate shall be enrolled for a minimum of 96 units of credit (UOC) and up to a maximum of 144UOC. A full-time load during one session is worth 24UOC and a part-time load is worth 12UOC.

Conditions for the Award of the Degree Master of Health Professions Education (MHPEd) *by Research*

1. The degree of Master of Health Professions Education by research may be awarded by the Council on the recommendation of the Higher Degree Committee of the Faculty of Medicine (hereinafter referred to as the Committee) to a candidate who has demonstrated ability to undertake research by the submission of a thesis embodying the results of an original investigation.

Qualifications

2. (1) A candidate for the degree shall:

(a) have been awarded an appropriate degree of Bachelor of four full-time years duration (or the part-time equivalent) from the University of New South Wales or a qualification considered equivalent from another university or tertiary institution at a level acceptable to the Committee, and

(b) have had the equivalent of at least two years full-time teaching and/or administrative experience of a kind acceptable to the Committee.

(2) In exceptional cases an applicant who submits evidence of such other academic and professional qualifications as may be approved by the Committee may be permitted to enrol for the degree.

(3) If the Committee is not satisfied with the qualifications submitted by an applicant the Committee may require the applicant to undergo such assessment or carry out such work as the Committee may prescribe, before permitting enrolment.

Enrolment

3. (1) An application to enrol as a candidate for the degree shall be made on the prescribed form which shall be lodged with the Registrar at least one calendar month before the commencement of the session in which enrolment is to begin.

(2) In every case before making the offer of a place the Committee shall be satisfied that initial agreement has been reached between the School of Medical Education and the applicant on the topic area, supervision arrangements, provision of adequate facilities and any coursework to be prescribed and that these are in accordance with the provisions of the guidelines for promoting postgraduate study within the University.

(3) The candidate shall be enrolled as either a full-time or part-time student.

(4) A candidate shall be required to undertake an original investigation on an approved topic. The candidate may also be required to undergo such assessment and perform such other work as may be prescribed by the Committee.

(5) The candidate may undertake the research as an internal student i.e. at a campus, teaching hospital, or other research facility with which the University is associated, or as an external student not in attendance at the University except for periods as may be prescribed by the Committee.

(6) An internal candidate will normally carry out the research on a campus or at a teaching or research facility of the University. The Committee may permit a candidate to spend a period in the field, within another institution or elsewhere away from the University provided that the work can be supervised in a manner satisfactory to the Committee. In such instances the Committee shall be satisfied that the location and period of time away from the University are necessary to the research program.

(7) The research shall be supervised by a supervisor or supervisors who are members of the academic staff of the School or under other appropriate supervision arrangements approved by the Committee. Normally an external candidate within another organisation or institution will have a co-supervisor at that institution.

(8) No candidate shall be awarded the degree until the lapse of three academic sessions from the date of enrolment in the case of a full-time candidate or four academic sessions in the case of a part-time or external candidate. In the case of a candidate who has been awarded the degree of Bachelor with Honours or who has had previous research experience the Committee may approve remission of up to one session for a full-time candidate and two sessions for a part-time or external candidate.

(9) A full-time candidate for the degree shall present for examination not later than six academic sessions from the date of enrolment. A part-time or external candidate for the degree shall present for examination not later than eight academic sessions from the date of enrolment. In special cases an extension of these times may be granted by the Committee.

Progression

4. The progress of the candidate shall be considered by the Committee following report from the School in accordance with the procedures established within the School and previously noted by the Committee.

(i) The research proposal will be reviewed as soon as feasible after enrolment. For a full-time student this will normally be during the first year of study, or immediately following a period of prescribed coursework. This review will focus on the viability of the research proposal.

(ii) Progress in the course will be reviewed within twelve months of the first review. As a result of either review the Committee may cancel enrolment or take such other action as it considers appropriate. Thereafter, the progress of the candidate will be reviewed annually.

Thesis

5. (1) On completing the program of study a candidate shall submit a thesis embodying the results of the investigation.

(2) The candidate shall give in writing to the Registrar two months notice of intention to submit the thesis.

(3) The thesis shall present an account of the candidate's own research. In special cases work done conjointly with other persons may be accepted, provided the Committee is satisfied about the extent of the candidate's part in the joint research.

(4) The candidate may also submit any work previously published whether or not such work is related to the thesis.

(5) Three copies of the thesis shall be presented in a form which complies with the requirements of the University for the preparation and submission of theses for higher degrees.

(6) It shall be understood that the University retains the three copies of the thesis submitted for examination and is free to allow the thesis to be consulted or borrowed. Subject to the provisions of the Copyright Act, 1968, the University may issue the thesis in whole or in part, in photostat or microfilm or other copying medium.

Examination

6. (1) There shall be not fewer than two examiners of the thesis, appointed by the Committee, at least one of whom shall be external to the University unless the Committee is satisfied that this is not practicable.

(2) At the conclusion of the examination each examiner shall submit to the Committee a concise report on the thesis and shall recommend to the Committee that:

(a) The thesis merits the award of the degree.

(b) The thesis merits the award of the degree subject to minor corrections as listed being made to the satisfaction of the Head of School.

(c) The thesis requires further work on matters detailed in the report. Should performance in this further work be to the satisfaction of the Higher Degree Committee, the thesis would merit the award of the degree.

(d) The thesis does not merit the award of the degree in its present form and further work as described in the examiner's report is required. The revised thesis should be subject to reexamination.

(e) The thesis does not merit the award of the degree and does not demonstrate that resubmission would be likely to achieve that merit.

(3) If the performance at the further examination recommended under (2)(c) above is not to the satisfaction of the Committee, the Committee may permit the candidate to represent the same thesis and submit to further examination as determined by the Committee within a period specified by it but not exceeding eighteen months.

(4) The Committee shall, after consideration of the examiners' reports and the results of any further examination, recommend whether or not the candidate may be awarded the degree. If it is decided that the candidate be not awarded the degree the Committee shall determine whether or not the candidate may resubmit the thesis after a further period of study and/or research.

Fees

7. A candidate shall pay such fees as may be determined from time to time by the Council.

9050 Master of Clinical Education (by Distance Education)

MClinEd

Typical Duration
1.5 years

Minimum UOC for Award
72 units of credit

Typical UOC per Session
24 units of credit

Program Description

The degree of Master of Clinical Education will be awarded after satisfactory completion of a program of advanced study of 48 units of credit and submission of a satisfactory major project based on at least one session of applied development or research in clinical education.

This is an external program which includes a small number of intensive workshops.

Program Objectives and Learning Outcomes

The program aims to provide a multidisciplinary program of study of clinical education for practicing clinicians with teaching responsibilities. The program requires clinical educators to study the knowledge, reasoning, practical activities and skills within the environment of the ward and other clinical settings, to observe and document clinical teaching and learning, and to undertake action research in its improvement.

The program also aims to foster a rational and rigorous approach to understanding clinical reasoning and decision making, and to ensure its effective learning. Three levels of attainment are proposed to accommodate the differing needs among clinical teachers.

Program Structure

Courses offered within the program are:

PHCM9101	Independent Study (2 UOC)	(2 UOC)
PHCM9102	Independent Study (4 UOC)	(4 UOC)
PHCM9103	Independent Study (6 UOC)	(6 UOC)
PHCM9104	Independent Study (8 UOC)	(8 UOC)
PHCM9125*	Designing Short Courses and Workshops*	(4 UOC)
PHCM9302	Learning in Small Groups	(4 UOC)
PHCM9304	Learning Clinical Reasoning	(6 UOC)
PHCM9306	Clinical Supervision	(4 UOC)
PHCM9307	Exploring and Managing Ethical and Moral Dilemmas	(4 UOC)
PHCM9308	Learning Clinical Decision Making	(4 UOC)
PHCM9309	Assessment of Clinical Performance	(4 UOC)
PHCM9312	Research Into Clinical Education	(6 UOC)
PHCM9315	Clinical Teaching	(6 UOC)
PHCM9316	Learning Consulting Skills	(6 UOC)
PHCM9360	Major Project (Clinical Education)	(12 UOC)

**PHCM9125 is available only as an intensive workshop*

Academic Rules

Please refer to the Program Structure above and contact the School of Public Health & Community Medicine for further information.

5501 Graduate Diploma in Clinical Education (by Distance Education)

GradDipClinEd

Typical Duration
0.8 years

Minimum UOC for Award
40 units of credit

Typical UOC per Session
24 units of credit

Program Description

The Graduate Diploma in Clinical Education will be awarded after satisfactory completion of advanced study of 40 units of credit together with 100 hours of clinical teaching practice.

This is an external program which includes a small number of intensive workshops.

Program Objectives and Learning Outcomes

The program is a multidisciplinary study of clinical education for practicing clinicians with teaching responsibilities. Clinical educators study the knowledge, reasoning, practical activities and skills within the environment of the ward and other clinical settings. They are required to observe and document clinical teaching and learning, and undertake action research with the aim of improving the clinical teaching and learning in these settings.

The program also aims to foster a rational and rigorous approach to understanding clinical reasoning and decision making.

Program Structure

The Diploma program has the same course options as the Master of Clinical Education program. Candidates may choose their own combination of courses amounting to 40 units of credit and are not required to submit a major project.

PHCM9101	Independent Study (2 UOC)	(2 UOC)
PHCM9102	Independent Study (4 UOC)	(4 UOC)
PHCM9103	Independent Study (6 UOC)	(6 UOC)
PHCM9104	Independent Study (8 UOC)	(8 UOC)
PHCM9125*	Designing Short Courses and Workshops*	(4 UOC)
PHCM9302	Learning in Small Groups	(4 UOC)
PHCM9304	Learning Clinical Reasoning	(6 UOC)
PHCM9306	Clinical Supervision	(4 UOC)
PHCM9307	Exploring and Managing Ethical and Moral Dilemmas	(4 UOC)
PHCM9308	Learning Clinical Decision Making	(4 UOC)
PHCM9309	Assessment of Clinical Performance	(4 UOC)
PHCM9312	Research Into Clinical Education	(6 UOC)
PHCM9315	Clinical Teaching	(6 UOC)
PHCM9316	Learning Consulting Skills	(6 UOC)

**PHCM9125 is available only as an intensive workshop*

Academic Rules

Please refer to the Program Structure above and contact the School Office for further information.

7376 Graduate Certificate in Clinical Education (by Distance Education)

GradCert

Typical Duration
0.4 years

Minimum UOC for Award
20 units of credit

Typical UOC per Session
24 units of credit

Program Description

The Graduate Certificate in Clinical Education will be awarded after satisfactory completion of advanced study of 20 units of credit.

This is an external program which includes a small number of intensive workshops.

Program Objectives and Learning Outcomes

The program is a multidisciplinary study of clinical education for practicing clinicians with teaching responsibilities. Clinical educators study the knowledge, reasoning, practical activities and skills within the environment of the ward and other clinical settings and also observe and document clinical teaching and learning.

This Graduate Certificate program is suitable for those clinical teachers who wish to upgrade their educational skills and obtain recognition for their Faculty and professional development, but who do not wish to engage in a full masters program.

Program Structure

A total of 20 units of credit (UOC) is required, consisting of 16 UOC of core courses and a 4 UOC elective.

Core Courses

PHCM9302	Learning in Small Groups	(4 UOC)
PHCM9315	Clinical Teaching	(6 UOC)
PHCM9316	Learning Consulting Skills	(6 UOC)

Elective Courses

Choose one elective from:

PHCM9125*	Designing Short Courses and Workshops*	(4 UOC)
PHCM9304	Learning Clinical Reasoning	(6 UOC)
PHCM9306	Clinical Supervision	(4 UOC)
PHCM9307	Exploring and Managing Ethical and Moral Dilemmas	(4 UOC)
PHCM9308	Learning Clinical Decision Making	(4 UOC)
PHCM9309	Assessment of Clinical Performance	(4 UOC)
PHCM9312	Research Into Clinical Education	(6 UOC)

**PHCM9125 is available only as an intensive workshop*

Academic Rules

Please refer to the Program Structure above and contact the School Office for further information.

2845 Master of Public Health (by Research)

MPH

Typical Duration
2 years

Minimum UOC for Award
96 units of credit

Typical UOC per Session
24 units of credit

Program Description

The Master of Public Health (MPH) is designed primarily as training in advanced work. Candidates must demonstrate ability to undertake research by the submission of a thesis embodying the results of an original investigation or design. Candidates must have at least three years experience of in health services.

Students applying for admission to the MPH by research are required to have a suitable first degree and are normally expected to have considerable experience in their proposed field of study within the health or hospital services. The program can be undertaken full-time or part-time; through internal or external mode.

Program Objectives and Learning Outcomes

The degree of Master of Public Health by Research may be awarded by the Council on the recommendation of the Higher Degree Committee of the appropriate faculty (hereinafter referred to as the Committee) to a candidate who has demonstrated ability to undertake research by the submission of a thesis embodying the results of an original investigation or design.

Program Structure

A candidate shall be enrolled for a minimum of 96 units of credit (UOC) and up to a maximum of 144 UOC. A full-time load during one Session is worth 24 UOC and a part-time load is worth 12 UOC.

Academic Rules

Conditions for the Award of the Degree Master of Public Health (MPH) *by Research*

1. The degree of Master of Public Health by Research may be awarded by the Council on the recommendation of the Higher Degree Committee of the appropriate faculty (hereinafter referred to as the Committee) to a candidate who has demonstrated ability to undertake research by the submission of a thesis embodying the results of an original investigation or design.

Qualifications

2. (1) A candidate for the degree shall:

(a) have been awarded an appropriate degree of Bachelor of four full-time years duration (or the part-time equivalent) from the University of New South Wales or a qualification considered equivalent from another university or tertiary institution at a level acceptable to the Committee, *or*

(b)(i) have been awarded an appropriate degree of Bachelor of three full-time years duration (or the part-time equivalent) from the University of New South Wales or qualifications considered equivalent from another university or tertiary institution at a level acceptable to the Committee *and*

(ii) have had the equivalent of at least three years experience in the health services of a kind acceptable to the Committee

(2) In exceptional cases an applicant who submits evidence of such other academic and professional qualifications as may be approved by the Committee may be permitted to enrol for the degree.

(3) If the Committee is not satisfied with the qualifications submitted by an applicant the Committee may require the applicant to undergo such examination or carry out such work as the Committee may prescribe, before permitting enrolment.

Enrolment

3. (1) An application to enrol as a candidate for the degree shall be made on the prescribed form which shall be lodged with the Registrar at least one calendar month before the commencement of the session in which enrolment is to begin.

(2) In every case before making the offer of a place the Committee shall be satisfied that initial agreement has been reached between the School of Public Health and Community Medicine and the applicant on the topic area, supervision arrangements, provision of adequate facilities and any coursework to be prescribed and that these are in accordance with the provisions of the guidelines for promoting postgraduate study within the University.

(3) The candidate shall be enrolled as either a full-time or part-time student.

(4) A candidate shall be required to undertake an original investigation or design on an approved topic. The candidate may also be required to undergo such examination and perform such other work as may be prescribed by the Committee.

(5) The candidate may undertake the research as an internal student i.e. at a campus, teaching hospital, or other research facility with which the University is associated, or as an external student not in attendance at the University except for periods as may be prescribed by the Committee.

(6) An internal candidate will normally carry out the research on a campus or at a teaching or research facility of the University. The Committee may permit a candidate to spend a period in the field, within another institution or elsewhere away from the University provided that the work can be supervised in a manner satisfactory to the Committee. In such instances the Committee shall be satisfied that the location and period of time away from the University are necessary to the research program.

(7) The research shall be supervised by a supervisor or supervisors who are members of the academic staff of the School or under other appropriate supervision arrangements approved by the Committee. Normally an external candidate within another organisation or institution will have a co-supervisor at that institution.

(8) No candidate shall be awarded the degree until the lapse of three academic sessions from the date of enrolment in the case of a full-time candidate or four academic sessions in the case of a part-time or external candidate. In the case of a candidate who has been awarded the degree of Bachelor with Honours or who has had previous research experience the Committees may approve remission of up to one session for a full-time candidate and two sessions for a part-time or external candidate.

(9) A full-time candidate for the degree shall present for examination not later than six academic sessions from the date of enrolment. A part-time or external candidate for the degree shall present for examination not later than ten academic sessions from the date of enrolment. In special cases, an extension of these times may be granted by the Committee.

Progression

4. The progress of the candidate shall be considered by the Committee following report from the School in accordance with the procedures established within the School and previously noted by the Committee.

(i) The research proposal will be reviewed as soon as feasible after enrolment. For a full-time student this will normally be during the first year of study, or immediately following a period of prescribed coursework. This review will focus on the viability of the research proposal.

(ii) Progress in the course will be reviewed within twelve months of the first review. As a result of either review the Committee may cancel enrolment or take such other action as it considers appropriate. Thereafter, the progress of the candidate will be reviewed annually.

Thesis

5. (1) On completing the program of study a candidate shall submit a thesis embodying the results of the investigation or design.

(2) The candidate shall give in writing to the Registrar two months notice of intention to submit the thesis.

(3) The thesis shall present an account of the candidate's own research. In special cases work done conjointly with other persons may be accepted, provided the Committee is satisfied about the extent of the candidate's part in the joint research.

(4) The candidate may also submit any work previously published whether or not such work is related to the thesis.

(5) Three copies of the thesis shall be presented in a form which complies with the requirements of the University for the preparation and submission of theses for higher degrees.

(6) It shall be understood that the University retains the three copies of the thesis submitted for examination and is free to allow the thesis to be consulted or borrowed. Subject to the provisions of the Copyright Act,

1968, the University may issue the thesis in whole or in part, in photostat or microfilm or other copying medium.

Examination

6. (1) There shall be not fewer than two examiners of the thesis, appointed by the Committee, at least one of whom shall be external to the University unless the Committee is satisfied that this is not practicable.

(2) At the conclusion of the examination each examiner shall submit to the Committee a concise report on the merits of the thesis and shall recommend to the Committee that:

(a) The thesis merits the award of the degree.

(b) The thesis merits the award of the degree subject to minor corrections as listed being made to the satisfaction of the Head of School.

(c) The thesis requires further work on matters detailed in the report. Should performance in this further work be to the satisfaction of the Higher Degree Committee, the thesis would merit the award of the degree.

(d) The thesis does not merit the award of the degree in its present form and further work as described in the examiner's report is required. The revised thesis should be subject to reexamination.

(e) The thesis does not merit the award of the degree and does not demonstrate that resubmission would be likely to achieve that merit.

(3) If the performance at the further examination recommended under (2)(c) above is not to the satisfaction of the Committee, the Committee may permit the candidate to represent the same thesis and submit to further examination as determined by the Committee within a period specified by it but not exceeding eighteen months.

(4) The Committee shall, after consideration of the examiners' reports and the results of any further examination, recommend whether or not the candidate may be awarded the degree. If it is decided that the candidate be not awarded the degree the Committee shall determine whether or not the candidate may resubmit the thesis after a further period of study and/or research.

Fees

7. A candidate shall pay such fees as may be determined from time to time by the Council

9045 Master of Public Health (by Coursework)

MPH

Typical Duration
1 year

Minimum UOC for Award
48 units of credit

Typical UOC per Session
24 units of credit

Program Description

The Master of Public Health (MPH) is widely recognised as essential for a career in population health, including health promotion, primary health care, policy formulation, research, and management of health programs. Many of our graduates occupy key positions in health services and universities in the Western Pacific and Asian regions.

Program Objectives and Learning Outcomes

The Master of Public Health program provides preparation for education, research and service in all aspects of public health. The program includes study in epidemiology, quantitative and qualitative research methods, health services management, health promotion, development and education in health, as well as a systematic review of topical public health issues. It is designed to address the continuing education needs of specialists in public health as well as providing a general orientation to public health issues and methods for the health professions.

Program Structure

The MPH program is offered in full-time, part-time and external modes. For most external courses, students must attend compulsory residential school workshops at the Kensington campus twice a year, once before each semester of study. The program comprises the following components, for a total of 48 units of credit:

1. Core courses 24 units of credit

2. Elective courses 16 units of credit

3. Project (PHCM9147) or Electives 8 units of credit

The program articulates with the Graduate Diploma in Public Health (GradDipPH 5507), the Graduate Certificate in Public Health (GradCertPH 7368) and the Graduate Certificate in Health Services Management. Credit for courses completed as part of the GradDipPH, the GradCertPH and GradCertHSM may be transferred to the Master's program.

Core Courses

PHCM9012	Health Promotion	(4 UOC)
PHCM9131	Research Skills for Public Health	(4 UOC)
PHCM9499	Epidemiology for Public Health	(4 UOC)
PHCM9503	Statistics for Public Health	(4 UOC)
PHCM9516	Introduction to Public Health	(4 UOC)
PHCM9751	Management for Public Health	(4 UOC)

Additional Course Requirement for International Students:

International students from non-English speaking countries enrolled in the full time program in Sydney (Kensington campus) are required to take the following additional core course in their first session. This course is available for all students to assist to gain maximum benefit from their study and contributes 4 units of credit towards the total of 48 units of credit for the program.

PHCM9100	Academic Skills	(4 UOC)

Electives

A large variety of electives are offered, enabling students to focus on areas of interest and professional relevance. In addition, students may enrol in electives which are offered by other schools and academic units within the University of New South Wales, as well as courses offered in the Department of Public Health and Community Medicine at the University of Sydney. Students may elect to undertake independent studies across selected areas of concentration, to learn about a particular area or course matter of special interest which is not offered in the formal program (PHCM9101/2/3/4).

The following electives are offered in 2006

PHCM9010	Community Development	(4 UOC)
PHCM9015	Health Services Development and Implementation	(6 UOC)
PHCM9041	Health Care Systems	(6 UOC)
PHCM9071	Health Care Financial Management 1	(6 UOC)
PHCM9081	Health Care Financial Management 2	(4 UOC)
PHCM9101	Independent Study (2 UOC)	(2 UOC)
PHCM9102	Independent Study (4 UOC)	(4 UOC)
PHCM9103	Independent Study (6 UOC)	(6 UOC)
PHCM9104	Independent Study (8 UOC)	(8 UOC)
PHCM9108	Program Evaluation and Planned Change	(4 UOC)
PHCM9111	Quality and Clinical Practice Improvement	(4 UOC)
PHCM9120	Qualitative Research Methods	(4 UOC)
PHCM9121	Measurement of Quality of Life and Patient Satisfaction	(4 UOC)
PHCM9122	Primary Health Care: Policies, Programs & Perspectives	(4 UOC)
PHCM9125	Designing Short Courses and Workshops	(4 UOC)
PHCM9133	Learning, Teaching and Assessment	(4 UOC)
PHCM9136	Culture, Health and Illness	(4UOC)
PHCM9140	Project Design and Monitoring in International Health	(4 UOC)
PHCM9331	Ethics & Law: Public Health & Administration	(4 UOC)
PHCM9351	Health Economics	(6 UOC)
PHCM9431	Interpersonal Communications in Organisations	(4 UOC)
PHCM9441	Healthcare Economics and Financial Management	(6 UOC)
PHCM9442	Health Resources Planning and Development	(6 UOC)
PHCM9471	Comparative Health Care Systems	(6 UOC)
PHCM9501	Computing Techniques for Health Services Management	(4 UOC)
PHCM9517	Advanced Biostatistics and statistical computing	(4 UOC)
PHCM9518	Case Studies in Epidemiology	(4 UOC)
PHCM9604	Alcohol and Other Drug Issues	(4 UOC)
PHCM9605	Health in Developing Countries	(4 UOC)
PHCM9608	Rural Health Studies 1	(4 UOC)
PHCM9610	Food & Nutrition Policy Studies	(4 UOC)
PHCM9611	Health of the Elderly	(4 UOC)
PHCM9612	Environmental Health	(4 UOC)
PHCM9614	Researching Marginalised Groups	(4 UOC)
PHCM9615	Delivery of Primary Health Services in the Community	(4 UOC)
PHCM9621	HIV/AIDS: Australian and International Responses	(4 UOC)
PHCM9626	Inequalities and Health	(4 UOC)

PHCM9630	Indigenous Health in Australia	(4 UOC)
PHCM9633	International Tobacco Control	(4 UOC)
PHCM9661	Current Issues in Health	(4 UOC)
PHCM9701	Managing Human Resources in Health	(6 UOC)
PHCM9711	Management of Organisations	(6 UOC)
PHCM9741	Management of Change	(4 UOC)
PHCM9748	Clinical Governance	(6 UOC)
PHCM9761	Public Mental Health in Australia	(4 UOC)
PHCM9901	Health Systems Simulation	(6 UOC)
PHCM9911	Health Informatics Principles	(6 UOC)
PHCM9922	Decision Support Systems	(4 UOC)

Many electives are also available in Distance Education mode.

*Please check the School's website (**http://sphcm.med.unsw.edu.au**) for current information*

Project

The project comprises an in-depth study of a contemporary public health issue. Students are expected to demonstrate their ability to apply knowledge and skills gained in the program. The project may be in the form of a small-scale research study, a case study, a program evaluation or a report on a field placement. It is normally undertaken after completion of all core and elective courses. Provisional topics for the project will be determined in consultation with an academic adviser from the School early in the program and refined in PHM9131 Research Skills in Public Health.

PHCM9147 Major Project (8 UOC) (8 UOC)

Plans (Areas of Specialisation)

The following specialisations (plans) are now available in the Master of Public Health. These allow students to focus their studies on areas where the School has considerable expertise, and incorporate field studies and project work:

Health Promotion – plan **PHCMJS9045**
Education - plan **PHCMES9045**
International Health and Development - plan **PHCMIS9045**
Primary Health Care - plan **PHCMPS9045**

Health Promotion - Plan PHCMJS9045

The MPH in Health Promotion is designed for students who wish to specialise in health promotion. This specialisation is reflected in their testamur. Students must complete 48 units of credit as follows:

A. MPH core courses (24 units of credit)

B. Two courses (8 units of credit) from:

PHCM9010	Community Development	(4 UOC)
PHCM9108	Program Evaluation	(4 UOC)
PHCM9120	Qualitative Research Methods	(4 UOC)
PHCM9381	Policy Studies	(4 UOC)

C. 8 units of credit including a project in a health promotion-related topic:

PHCM9147	Major Project	(8 UOC)

or

one 4 unit of credit elective and

PHCM9531	Field Placement	(4 UOC)

D. 8 units of credit of electives

Education - Plan PHCMES9045

The MPH in Education introduces health and related professionals to essential skills and knowledge in adult education, relevant to public health. Students must complete 48 units of credit as follows:

A. MPH core courses (24 units of credit)

B. The following two courses (8 units of credit)

PHCM9133	Learning, Teaching & Assessment	(4 UOC)
PHCM9302	Learning in Small Groups	(4 UOC)

C. One of the following (4 units of credit)

PHCM9125	Design Short Courses & Workshops	(4 UOC)
PHCM9306	Clinical Supervision	(4 UOC)
PHCM9307	Exploring Ethical Dilemmas	(4 UOC)
PHCM9309	Assessing Clinical Performance	(4 UOC)

D. Elective (4 units of credit)

E. A project in an education-related topic:

PHCM9147 Major Project (8 UOC)

International Health and Development- Plan PHCMIS9045

The MPH in International Health Development provides students from developing countries with skills and knowledge to address key health issues in their home countries, as well as enabling local students to contribute effectively to international health development. Students must complete 48 units of credit as follows:

A. MPH core courses (24 units of credit)

B. The following two courses (8 units of credit)

PHCM9122	Primary Health Care 1	(4 UOC)
PHCM9605	Health in Developing Countries	(4 UOC)

C. 8 units of credit of electives

D. A project in an international health-related topic:

PHCM9147 Major Project (8 UOC)

Primary Health Care - Plan PHCMPS9045

The MPH in Primary Health Care is designed for students who wish to specialise in primary health care. Students must complete 48 units of credit as follows:

A. MPH core courses (24 units of credit)

B. Three courses (12 units of credit) from:

PHCM9010	Community Development	(4 UOC)
PHCM9108	Program Evaluation	(4 UOC)
PHCM9122	Primary Health Care 1	(4 UOC)
PHCM9608	Rural Health Studies 1	(4 UOC)
PHCM9615	Delivery of Health Services	(4 UOC)

C. 8 units of credit including a project in a primary health care-related topic:

PHCM9147	Major Project	(8 UOC)

or

one 4 unit of credit elective and

PHCM9531	Field Placement	(4 UOC)

D. Elective (4 units of credit)

Academic Rules

Please refer to the Program Structure above and contact the School of Public Health and Community Medicine for further information.

Admission Requirements

Applicants are required to have completed a Bachelor degree in a health-related discipline and to have at least three years' experience in a health or health-related field.

5507 Graduate Diploma in Public Health

GradDipPH

Typical Duration
0.8 years

Minimum UOC for Award
36 units of credit

Typical UOC per Session
24 units of credit

Program Description

A Public Health degree is widely recognised as essential for a career in population health, including health promotion, primary health care, policy formulation, research, and management of health programs.

The Master of Public Health articulates with the Graduate Diploma in Public Health (GradDip) and the Graduate Certificate in Public Health (GradCert).

Program Objectives and Learning Outcomes

The Public Health programs provide preparation for education, research and service in all aspects of public health. The program includes study in epidemiology, quantitative and qualitative research methods, health services management, health promotion, development and education in health, as well as a systematic review of topical public health issues. It is designed to address the continuing education needs of specialists in public health as well as providing a general orientation to public health issues and methods for the health professions.

Program Structure

The Graduate Diploma in Public Health is offered in full-time, part-time and external modes. For most courses, external students must attend compulsory residential school workshops at the Kensington campus twice a year, once before each semester of study.

The program is offered as a 36 unit of credit (UOC) program comprising nine courses from the Masters program, including 6 core courses and 12 UOC of electives.

Core Courses

PHCM9012	Health Promotion	(4 UOC)
PHCM9131	Research Skills	(4 UOC)
PHCM9499	Epidemiology for Public Health	(4 UOC)
PHCM9503	Statistics for Public Health	(4 UOC)
PHCM9516	Introduction to Public Health	(4 UOC)
PHCM9751	Management for Pub Health	(4 UOC)

PLUS Electives (12 units of credit) from the elective offerings for the Master of Public Health program (9045).

Academic Rules

Please refer to the Program Structure above and contact the School Office for further information.

7368 Graduate Certificate in Public Health

GradCertPH

Typical Duration
0.5 years

Minimum UOC for Award
24 units of credit

Typical UOC per Session
24 units of credit

Program Description

The Graduate Certificate in Public Health provides preparation for education, research, and service in aspects of public health.

Program Objectives and Learning Outcomes

The Graduate Certificate in Public Health provides recognition to students who are limited to one semester of study

Program Structure

The Graduate Certificate in Public Health comprises the following courses:

PHCM9516	Introduction to Public Health	(4 UOC)

PLUS Electives (20 units of credit) from the elective offerings for the Master of Public Health program (9045).

Student can also choose to enrol in the Plan (Specialisation):

Academic Rules

Please refer to the Program Structure above and view the school website for further information.

School of Women's and Children's Health

The School offers programs of study leading to the award of the following degrees:

Graduate Diploma in Paediatrics
Master of Reproductive Medicine
Graduate Diploma in Reproductive Medicine
Graduate Certificate in Reproductive Medicine

5500 Graduate Diploma in Paediatrics

DipPaed

Typical Duration
0.5 years

Minimum UOC for Award
24 units of credit

Typical UOC per Session
24 units of credit

Program Description

The program is taken over one year on a part-time basis. It is an externally run program conducted at the Sydney Children's Hospital, Randwick. Candidates attend a program of lectures and grand rounds (approximately four and one-half hours per week). This degree is likely to appeal to doctors interested in a career in general practice or who are in the early stages of training for a specialty career in paediatrics.

The Graduate Diploma is awarded after satisfying the examiners in written and clinical examinations at the end of the program.

It must be noted that the Graduate Diploma of Paediatrics is intended for postgraduates who have medical degrees registrable in Australia and who are able to secure a paediatric appointment, salaried or otherwise, in a teaching hospital recognised by the University of New South Wales. The School of Women's and Children's Health takes no responsibility for making such arrangements.

Program Structure

PAED9111	General Paediatrics and Child Health 1	(6 UOC)
PAED9112	General Paediatrics and Child Health 2	(6 UOC)
PAED9116	Clinical and Technical Skills 1	(3 UOC)
PAED9117	Clinical and Technical Skills 2	(3 UOC)
PAED9118	Clinical Experience 1	(3 UOC)
PAED9119	Clinical Experience 2	(3 UOC)

Students should note that if they have to repeat the year due to failure in one or more course, they must re-enrol in and satisfactorily complete all courses in order to qualify for the Graduate Diploma.

Academic Rules

Please refer to the information above and contact the School Office for further information.

9065 Master of Reproductive Medicine

MRMed

Typical Duration
1 year

Minimum UOC for Award
48 units of credit

Typical UOC per Session
24 units of credit

Program Description

Reproductive medicine is an expanding field. It is at the forefront of emerging medico-scientific technology offering hope to many needy couples, and career opportunities to those with demonstrable skills and knowledge. Increasing numbers of medical practitioners are developing special interests in this area – particularly GPs, family planning practitioners and specialist gynaecologists working in menopause and infertility. In addition there are similar specialisations emerging in nursing and counselling, and amongst biological scientists. This program offers an entirely web-based alternative where practitioners are able to integrate their study program into their daily professional life without the costly disruption a face-to-face coursework entails.

Program Objectives and Learning Outcomes

The program will provide a more detailed knowledge of reproductive medicine and a qualification that will clearly demonstrate their expertise.

Program Structure

The MRMed is designed to be completed part-time over two (2) years. However, a significant degree of flexibility is allowed in completing the program to suit the student and his/her time commitments. Basic Reproductive Physiology must be completed before undertaking the clinical courses (SWCH9003/4/5). Students may then select any combination of electives to make a total of 48 UoC for the program. Students may undertake up to 12 UoC in courses from outside the School, with approval from the Program Coordinator. Assessment is all done on-line with electronically-marked MCQs, on-line discussion sessions and scheduled assignments. For each course students should allow 12 hours per week over the 14 week semester for reading, research, on-line chatroom, assessments and assignments.

Core course

SWCH9001	Basic Reproductive Physiology	(6 UOC)

Elective courses

SWCH9002	Contraception	(6 UOC)
SWCH9003	Clinical Reproductive Endocrinology*	(6 UOC)
SWCH9004	Clinical Reproductive Medicine 1	(6 UOC)
SWCH9005	Clinical Reproductive Medicine 2*	(6 UOC)
SWCH9006	Laboratory Aspects of ART*	(6 UOC)
SWCH9007	Menopause	(6 UOC)
SWCH9008	Psychosocial Issues in Reproductive Health*	(6 UOC)

SWCH9009	Ethics & Law in RM*	(6 UOC)
SWCH9010	Management for RM*	(6 UOC)
PHCM9499	Epidemiology	(4 UOC)
PHCM9503	Statistics	(4 UOC)

**Course not available in 2006.*

Academic Rules

Please refer to the information above and contact the School Office for further information.

5508 Graduate Diploma in Reproductive Medicine

GradDip

Typical Duration
0.8 years

Minimum UOC for Award
36 units of credit

Typical UOC per Session
24 units of credit

Program Structure

The Graduate Diploma in Reproductive Medicine will be awarded after the satisfactory completion of 36 UOC. Students must complete SWCH9001 Basic Reproductive Physiology and 30 UOC from the following list of electives. Students may take up to 12 UOC in courses from outside the School, with approval from the Program Coordinator.

Core Course

SWCH9001	Basic Reproductive Physiology	(6UOC)

Elective courses

SWCH9002	Contraception	(6 UOC)
SWCH9003	Clinical Reproductive Endocrinology*	(6 UOC)
SWCH9004	Clinical Reproductive Medicine 1	(6 UOC)
SWCH9005	Clinical Reproductive Medicine 2*	(6 UOC)
SWCH9006	Laboratory Aspects of ART*	(6 UOC)
SWCH9007	Menopause	(6 UOC)
SWCH9008	Psychosocial Issues in Reproductive Health*	(6 UOC)
SWCH9009	Ethics & Law in RM*	(6 UOC)
SWCH9010	Management for RM*	(6 UOC)
PHCM9499	Epidemiology	(4 UOC)
PHCM9503	Statistics	(4 UOC)

**Course not available in 2006.*

Academic Rules

Please refer to the information above and contact the School Office for further information.

7379 Graduate Certificate in Reproductive Medicine

GradCert

Typical Duration
0.5 years

Minimum UOC for Award
24 units of credit

Typical UOC per Session
24 units of credit

Program Structure

The Graduate Certificate in Reproductive Medicine will be awarded after the satisfactory completion of 24 UOC. Students must complete SWCH9001 Basic Reproductive Physiology and 18 UOC from the following list of electives. Students may take up to 12 UOC in courses from outside the School, with approval from the Program Co-ordinator

Core Course

SWCH9001	Basic Reproductive Physiology	(6UOC)

Elective courses

SWCH9002	Contraception	(6 UOC)
SWCH9003	Clinical Reproductive Endocrinology*	(6 UOC)
SWCH9004	Clinical Reproductive Medicine 1	(6 UOC)
SWCH9005	Clinical Reproductive Medicine 2*	(6 UOC)
SWCH9006	Laboratory Aspects of ART*	(6 UOC)
SWCH9007	Menopause	(6 UOC)
SWCH9008	Psychosocial Issues in Reproductive Health*	(6 UOC)
SWCH9009	Ethics & Law in RM*	(6 UOC)
SWCH9010	Management for RM*	(6 UOC)
PHCM9499	Epidemiology	(4 UOC)
PHCM9503	Statistics	(4 UOC

**Course not available in 2006.*

Articulation

The program articulates with the Graduate Diploma in Reproductive Medicine 5508 and the Graduate Certificate in Reproductive Medicine 7379. Credit for courses completed as part of the GradDip and the GradCert may be transferred to the Master's program, in accordance with the UNSW policy on credit transfer.

Please note:

Students require internet access (preferably with broadband cable / high speed ADSL connection).

Academic Rules

Please refer to the information above and contact the School Office for further information.

School of Medical Sciences

The School offers programs of study leading to the award of the following degrees:

9055	Master of Sports Medicine
5503	Graduate Diploma in Sports Medicine
7378	Graduate Certificate in Sports Medicine
8049	Master of Science in Biopharmaceuticals (in conjunction with the School of Biotechnology) by Coursework or by Distance Education
9060	Master of Medical Science in Drug Development by Distance Education
5504	Graduate Diploma in Drug Development by Distance Education
7370	Graduate Certificate in Drug Development by Distance Education

9055 Master of Sports Medicine

MSpMed

Typical Duration
3 years

Minimum UOC for Award
72 units of credit

Program Description

The program aims to equip medical practitioners with a rigorous understanding of the theory and practice of sports medicine to meet the needs of people engaged in individual or team-related sporting activities through primary, secondary or tertiary prevention of disease processes.

The degree of Master of Sports Medicine will be awarded after the satisfactory completion of 72 units of credit and a final clinical examination. The 72 UOC consist of 54 UOC from coursework; 12 UOC from the completion of a compulsory research project and 6 UOC from attendance at two four-day practicum courses. For overseas students special arrangements can be made for the practicum component. The Sports Medicine programs are taught through the UNSW Sports Medicine Unit in distance education mode only. Apart from the practicum, there is no on-campus component. Subjects can be taken in any order although the course authority recommends a certain sequence.

Program Structure

Core Courses:

PHPH5401	Sports Injuries 1	(6 UOC)
PHPH5411	Sports Injuries 2	(6 UOC)
PHPH5421	Sports Injuries 3	(6 UOC)
PHPH5440	Clinical Skills Training 1	(3 UOC)
PHPH5450	Clinical Skills Training 2	(3 UOC)
PHPH5453	Major Project and Report	(12 UOC)
PHPH5571	Research Methods	(6 UOC)

Students must select a further 30 UOC from the following electives:

PHPH5420	Sports Psychology	(3 UOC)
PHPH5431	Medical Applications of Exercise 1	(6 UOC)
PHPH5441	Medical Applications of Exercise 2	(6 UOC)
PHPH5451	Sports Science	(6 UOC)
PHPH5470	Sports Nutrition	(3 UOC)
PHPH5510	Sports Pharmacology	(3 UOC)
PHPH5530	Clinical Biomechanics	(3 UOC)
PHPH5591	Paediatric Sports Medicine	(6 UOC)
PHPH5611	Applied Sports Medicine	(6 UOC)
PHPH5621	Military Sports Medicine 1	(6 UOC)
PHPH5631	Military Sports Medicine 2	(6 UOC)

The program articulates with the Graduate Diploma in Sports Medicine 5503 and the Graduate Certificate in Sports Medicine 7378. Candidates initially enrol in the GradCert or GradDip. To progress to the MSpMed candidates must achieve at least a Credit average after 24 units of credit in the GradDip. Credit for courses completed as part of the GradDip and the GradCert may be transferred to the Master's program, in accordance with the UNSW policy on credit transfer.

Academic Rules

Please refer to the Program Structure above and contact the Department of Sports Medicine for further information.

5503 Graduate Diploma in Sports Medicine

GradDipSpMed

Typical Duration
1.5 years

Minimum UOC for Award
36 units of credit

Program Description

The Graduate Diploma in Sports Medicine will be awarded after the satisfactory completion of 36 units of credit and a final clinical examination. Students must complete 24 UOC in core courses, and 12 UOC of electives offered by the Sports Medicine Unit.

Program Structure

Courses

PHPH5401	Sports Injuries 1	(6 UOC)
PHPH5411	Sports Injuries 2	(6 UOC)
PHPH5421	Sports Injuries 3	(6 UOC)
PHPH5440	Clinical Skills Training 1	(3 UOC)
PHPH5450	Clinical Skills Training 2	(3 UOC)

Students must select a further 12 UOC from the following electives:

PHPH5420	Sports Psychology	(3 UOC)
PHPH5431	Medical Applications of Exercise 1	(6 UOC)
PHPH5441	Medical Applications of Exercise 2	(6 UOC)
PHPH5451	Sports Science	(6 UOC)
PHPH5470	Sports Nutrition	(3 UOC)
PHPH5510	Sports Pharmacology	(3 UOC)
PHPH5530	Clinical Biomechanics	(3 UOC)
PHPH5591	Paediatric Sports Medicine	(6 UOC)
PHPH5611	Applied Sports Medicine	(6 UOC)
PHPH5621	Military Sports Medicine 1	(6 UOC)
PHPH5631	Military Sports Medicine 2	(6 UOC)

Academic Rules

Please refer to the Program Structure above and contact the Department of Sports Medicine for further information.

7378 Graduate Certificate in Sports Medicine

GradCertSpMed

Typical Duration
1 year

Minimum UOC for Award
24 units of credit

Program Description

The Graduate Certificate in Sports Medicine will be awarded after the satisfactory completion of 24 units of credit. There are no compulsory courses in the program; students can select from any of the following courses which are offered in the Sports Medicine program.

Program Structure

Courses

PHPH5401	Sports Injuries 1	(6 UOC)
PHPH5411	Sports Injuries 2	(6 UOC)
PHPH5420	Sports Psychology	(3 UOC)
PHPH5421	Sports Injuries 3	(6 UOC)
PHPH5431	Medical Applications of Exercise 1	(6 UOC)
PHPH5441	Medical Applications of Exercise 2	(6 UOC)
PHPH5451	Sports Science	(6 UOC)
PHPH5470	Sports Nutrition	(3 UOC)
PHPH5510	Sports Pharmacology	(3 UOC)
PHPH5530	Clinical Biomechanics	(3 UOC)
PHPH5591	Paediatric Sports Medicine	(6 UOC)
PHPH5611	Applied Sports Medicine	(6 UOC)
PHPH5621	Military Sports Medicine 1	(6 UOC)
PHPH5631	Military Sports Medicine 2	(6 UOC)

GradCert students who intend to continue in the GradDip or Masters program are advised to include PHPH5401 Sports Injuries I, PHPH5411 Sports Injuries 2 and PHPH5421 Sports Injuries 3 to avoid having to undertake extra units of credit.

Academic Rules

Please refer to the Program Structure above and contact the Department of Sports Medicine for further information.

8049 Master of Science in Biopharmaceuticals (by Coursework)

MSc

This is an interdisciplinary program designed for graduates with backgrounds in either pharmacology or biotechnology who wish to obtain advanced training in both areas in order to gain expertise necessary for the development and use of the new generation of biopharmaceuticals which have been developed by, or result from, the application of molecular biology and recent developments in genomics and proteomics. It is open to graduates with a four year degree in a related discipline or who have, in the opinion of the Higher Degree Committee, acquired equivalent qualifications or experience. Prior study of biochemistry is required for the program.

For full details of this program, please refer to the Faculty of Science section of this Handbook.

9060 Master of Medical Science in Drug Development (by Distance Education)

MMedSc

Typical Duration
3 years

Minimum UOC for Award
72 units of credit

Program Description

The Master of Medical Science in Drug Development will be awarded to students who successfully complete the coursework identified below. The program consists of six core and six elective courses, delivered mainly by distance learning with some on-campus workshops. It takes a minimum of 3 years (six sessions) to complete. The elective courses shall be selected from those that are available in the particular session, provided prerequisite and timetabling constraints are met. The program is designed for persons wishing to pursue careers that relate to the development and safe use of medicines. Career opportunities exist in the pharmaceutical manufacturing industry, government and in research institutions such as universities. Health care professionals interested in developing new medicines and improving the use of existing medicines will find the course of value. The extensive range of electives enables the candidate to specialist in particular areas such as the discovery of new medicines, regulatory affairs, clinical trials, market development, medical department administration, preclinical studies, etc.

Program Objectives and Learning Outcomes

The discovery, development and marketing of medicines has become a highly organised interdisciplinary team activity. Members of such

teams need to be literate in all aspects of drug development ranging from procedures for identifying lead compounds through to the full development of the product including preclinical studies, clinical trials and the legal, regulatory and ethical issues relevant to marketing and on-going vigilance of the medicine. The aim of this course is to enable people working in the field of developing and using pharmaceutical substances to obtain such expertise by providing core and elective materials in a distance-learning format. Since interchange of ideas is an essential part of any educational activity, the course will include interactive assignments with specific tutors and group discussions where students come together for tutorials, workshops and practice sessions, and generally to interchange ideas.

The educational principle governing the program's teaching approach is to streamline the provision of information and to concentrate on application. Thus, students are issued with a manual for each course. The manual contains, typically, about 200-250 pages of lecture notes plus 200-250 pages of attachments from the literature (relevant chapters from textbooks, published papers, etc., Australian and overseas government regulatory and policy documents, etc.).

Program Structure

Below is a list of core and elective courses for the Master of Medical Science in Drug Development. Generally students must take all core courses and sufficient electives to give a total of 72 units of credit. The program proceeds in three stages, which correspond to Years 1 to 3 for students proceeding in the minimum time. In special cases, students may replace core courses with electives.

Year 1

Session One

PHPH9100	Discovery and Pre-clinical Development of New Medicines	(6 UOC)
PHPH9101	Principles of Drug Action	(6 UOC)

Session Two

PHPH9104	Law, Ethics and the Regulation of Medicines	(6 UOC)
PHPH9120	Clinical Development of Medicines	(6 UOC)

Year 2

Session One

PHPH9102	Pharmaceutical Development of New Medicines	(6 UOC)
PHPH9121	Postmarketing Development of Medicines	(6 UOC)

Session Two

Electives (2 x 6 units of credit)

Year 3

Session One

Electives (2 x 6 units of credit)

Session Two

Electives (2 x 6 units of credit)

Electives

Electives are chosen from the following:

BIOT7070	Recombinant Protein Expression Systems	(6 UOC)
BIOT7080	Biopharmaceutical Production Process	(6 UOC)
BIOT7160	Genomics and Proteomics	(6 UOC)
BIOT7170	Therapeutic Modalities of Biopharmaceuticals	(6 UOC)
PHPH9107	Therapeutics and the Molecular Basis of Disease 1	(6 UOC)
PHPH9108	Therapeutic Basis of Drug Use and Development 1	(6 UOC)
PHPH9109	Therapeutic Basis of Drug Use and Development 2	(6 UOC)
PHPH9111	Advanced Pharmaceutical Development of Medicines	(6 UOC)
PHPH9112	Advanced Pharmacokinetics	(6 UOC)
PHPH9113	Advanced Regulatory Affairs	(6 UOC)
PHPH9114	Pharmacoeconomics	(6 UOC)
PHPH9116	Advanced Clinical Trials Management	(6 UOC)
PHPH9118	Therapeutics and the Molecular Basis of Disease 2	(6 UOC)
PHPH9119	Providing Independent Drug Information for General Practice	(6 UOC)

Academic Rules

Please refer to the Program Structure above and contact the School Office for further information.

5504 Graduate Diploma in Drug Development (by Distance Education)

GradDipDD

Typical Duration
2 years

Minimum UOC for Award
48 units of credit

Program Description

The Graduate Diploma in Drug Development is a part-time distance learning program that takes a minimum of two years to complete. The program is designed for persons wishing to pursue careers that relate to the development and safe use of medicines. Career opportunities exist in the pharmaceutical manufacturing industry, government and in research institutions such as universities.

Health care professionals interested in developing new medicines and improving the use of existing medicines will find the program of value. The extensive range of electives enables the candidate to specialise in particular areas such as the discovery of new medicines; regulatory affairs; clinical trials; market development; medical department administration; preclinical studies, etc.

The educational principle governing the program's teaching approach is to streamline the provision of information and to concentrate on application. Thus, students are issued with a manual for each course. The manual contains, typically, about 200-300 pages of lecture notes plus 200-250 pages of attachments from the literature (relevant chapters from textbooks, published papers, Australian and overseas government regulatory and policy documents, etc.).

To fulfil the program requirements, students must satisfactorily complete all of the core courses as well as electives totaling 12 units of credit.

Program Structure

Year 1

Session One

PHPH9100	Discovery and Pre-clinical Development of New Medicines	(6 UOC)
PHPH9101	Principles of Drug Action	(6 UOC)

Session Two

PHPH9104	Law, Ethics and the Regulation of Medicines	(6 UOC)
PHPH9120	Clinical Development of Medicines	(6 UOC)

Year 2

Session One

PHPH9102	Pharmaceutical Development of New Medicines	(6 UOC)
PHPH9121	Postmarketing Development of Medicines	(6 UOC)

Session Two

Elective courses (2 x 6 units of credit) chosen from:

PHPH9107	Therapeutics and the Molecular Basis of Disease 1	(6 UOC)
PHPH9108	Therapeutic Basis of Drug Use and Development 1	(6 UOC)
PHPH9109	Therapeutic Basis of Drug Use and Development 2	(6 UOC)
PHPH9111	Advanced Pharmaceutical Development of Medicines	(6 UOC)
PHPH9112	Advanced Pharmacokinetics	(6 UOC)
PHPH9113	Advanced Regulatory Affairs	(6 UOC)
PHPH9114	Pharmacoeconomics	(6 UOC)
PHPH9116	Advanced Clinical Trials Management	(6 UOC)
PHPH9118	Therapeutics and the Molecular Basis of Disease 2	(6 UOC)
PHPH9119	Providing Independent Drug Information for General Practice	(6 UOC)

Academic Rules

Please refer to the Program Structure above and contact the School Office for further information.

7370 Graduate Certificate in Drug Development (by Distance Education)

GradCertDD

Typical Duration
1 year

Minimum UOC for Award
24 units of credit

Program Description

The Graduate Certificate in Drug Development will be awarded to students who successfully complete the following course work. This program has similar format and objectives to the Graduate Diploma but is designed for those people who wish to obtain a limited competency in the areas described. The program is offered as a part time distance learning program and will take a minimum of one year to complete.

The educational principle governing the program's teaching approach is to streamline the provision of information and to concentrate on application. Thus, students are issued with a manual for each course. The manual contains, typically, about 200-300 pages of lecture notes plus 200-250 pages of attachments from the literature (relevant chapters from textbooks, published papers, Australian and overseas government regulatory and policy documents, etc.).

Program Structure

Year 1

Session One

PHPH9100	Discovery and Pre-clinical Development of New Medicines	(6 UOC)
PHPH9101	Principles of Drug Action	(6 UOC)

Session Two

PHPH9104	Law, Ethics and the Regulation of Medicines	(6 UOC)
PHPH9120	Clinical Development of Medicines	(6 UOC)

Academic Rules

Please refer to the Program Structure above and contact the School Office for further information.

Faculty of Science

A Message from the Dean

We live in amazing times. Science and technology have extended the reach of our senses way beyond the edge of the map of human experience. We can now hear a single electron change orbit inside an atom. We can see into the outer reaches of the universe; feel movements deep inside the Earth's crust; reach back far into the ancient past and eavesdrop on events inside a living cell. And we can meet and interact with other people in virtual communities that exist in virtual worlds.

When you study science with us at UNSW, you will be at the leading edge of this exciting revolution. You will learn how to learn, how to follow your curiosity about the world and the way it ticks, and you will acquire a tool-kit of knowledge and skills to equip you to step out into what we hope will be a lifetime of satisfying work.

This section of the Handbook covers the courses and programs available for study in science and provides an outline of the rules and regulations. Staff in the schools of the Faculty and the Science Student Centre are available to help you with administrative matters, course selection and career directions, and with any difficulties you may encounter in your studies.

We encourage you to explore the full diversity of opportunities on offer, to specialise on the one hand and yet gain an appreciation of scholarship in other areas. It is important that you learn to think creatively and critically, and to work with others in order to resolve complex problems.

We wish you every success at UNSW. We hope that the time that you spend with us, as valued members of our community, will be happy, stimulating and productive and that in future years you will look back on "the UNSW experience" as one which set you on the path to fulfilling your career and lifestyle aspirations.

We believe that tomorrow's leaders will be drawn more and more from the ranks of science. We invite you to join us and let us help to make sense of this amazing world and prepare you to play your important part in a future that promises to be more amazing still.

Professor Michael Archer
Dean
Faculty of Science

Contents

Faculty Information and Assistance

Who Can Help? 223
The Faculty of Science Website 223
Admission Requirements 223
Computing Information 223
Course Descriptions 224
Enrolment Procedures 224

Summary of Programs

Program Rules and Information – Research Degrees

Doctor of Philosophy (PhD) 224
Master of Engineering (ME) and Master of Science (MSc) 225

Program Rules and Information – Coursework Degrees

Conditions for the Award of the Degree Master of Science and Technology (MScTech) 227
Conditions for the Award of the Graduate Diploma (GradDip) 227
Conditions for the Award of the Graduate Diploma by Research (GradDip) 228
Conditions for the Award of the Graduate Certificate (GradCert) 228

Department of Aviation

8738 Master of Science and Technology in Aviation 228
5678 Graduate Diploma in Aviation Management 229
7448 Graduate Certificate in Aviation Management 229

School of Biological, Earth and Environmental Sciences

Conservation Biology

8745 Master of Conservation Biology 229

Groundwater Studies

8702 Master of Science and Technology in Groundwater Studies 230

Spatial Information

8714 Master of Science and Technology in Spatial Information Systems 230
5693 Graduate Diploma in Spatial Information* 230
7714 Graduate Certificate in Spatial Information* 230

** Subject to final Council approval*

Biological Science

5350 Graduate Diploma in Biological Science (Research) 231

School of Biotechnology and Biomolecular Sciences

Biotechnology

8048 Master of Science in Biotechnology 231
5015 Graduate Diploma in Biotechnology 232

Biopharmaceuticals

8049 Master of Science in Biopharmaceuticals 232

Biochemistry

5345 Graduate Diploma in Biochemistry (Research) 233

Microbiology and Immunology

5355 Graduate Diploma in Microbiology and Immunology (Research) 233

School of Chemistry

Chemical Analysis and Laboratory Management

8708 Master of Science and Technology in Chemical Analysis and Laboratory Management 234
5648 Graduate Diploma in Chemical Analysis and Laboratory Management 234
7428 Graduate Certificate in Chemical Analysis and Laboratory Management 234

Chemistry

5647 Graduate Diploma in Chemistry (Research) 235

School of Materials Science and Engineering

8715 Master of Science and Technology in Engineering Materials 235

School of Mathematics

Physical Oceanography

5528 Graduate Diploma in Physical Oceanography (Research) 235

Computation

8705 Master of Science and Technology in Computation 236

5645 Graduate Diploma in Computation 236

Statistics

8750 Master of Statistics 237

5659 Graduate Diploma in Statistics 237

Mathematics

8718 Master of Science and Technology in Mathematics 237

School of Optometry and Vision Science

8760 Master of Optometry 238

5665 Graduate Diploma in Optometry 239

7435 Graduate Certificate in Optometry 239

5523 Graduate Diploma in Optometry (Research) 239

School of Physics

Optoelectronics and Photonics

8722 Master of Science and Technology in Optoelectronics and Photonics 240

5662 Graduate Diploma in Optoelectronics and Photonics 240

7432 Graduate Certificate in Optoelectronics and Photonics 240

Physics

5533 Graduate Diploma in Physics (Research) 240

5663 Graduate Diploma in Physics Research Techniques (Research) 241

School of Psychology

5330 Graduate Diploma in Psychology (Research) 241

8256 Master of Psychology (Clinical) 241

8257 Master of Psychology (Forensic) 242

8258 Master of Psychology (Organisational) 243

1404 Combined Doctor of Philosophy/Master of Psychology (Clinical) 243

1405 Combined Doctor of Philosophy/Master of Psychology (Forensic) 245

1406 Combined Doctor of Philosophy/Master of Psychology (Organisational) 246

School of Safety Science

Environmental Science

8735 Master of Science and Technology in Environmental Science 246

5675 Graduate Diploma in Environmental Science 247

7445 Graduate Certificate in Environmental Science 247

Industrial Safety

8727 Master of Science and Technology in Industrial Safety 248

Risk Management

8728 Master of Science and Technology in Risk Management 248

5668 Graduate Diploma in Risk Management 249

7438 Graduate Certificate in Risk Management 249

Ergonomics

8729 Master of Science and Technology in Ergonomics 249

5669 Graduate Diploma in Ergonomics 250

7439 Graduate Certificate in Ergonomics 250

Safety Science

8671 Master of Safety Science 250

5672 Graduate Diploma in Safety Science 252

7442 Graduate Certificate in Safety Science 252

Occupational Health and Safety

8733 Master of Science and Technology in Occupational Health and Safety 252

Occupational Medicine

8734 Master of Science and Technology in Occupational Medicine 253

5674 Graduate Diploma in Occupational Medicine 253

Faculty Information and Assistance

Coursework and research postgraduate programs in this part of the Handbook are divided into sections and are identified by school. All programs are offered within the Faculty of Science. These programs incorporate the Schools of Biological, Earth and Environmental Sciences; Biotechnology and Biomolecular Sciences; Chemistry; Materials Science and Engineering; Mathematics; Optometry and Vision Science; Physics; Psychology; Safety Science; and the Department of Aviation.

Who Can Help?

This section of the Handbook is designed as a detailed source of information in all matters related to the Faculty of Science.

For information and advice about course content and requirements, please refer to the Course Descriptions section of this Handbook or contact the appropriate schools/teaching units. The web addresses and contact details of the various schools appear under their listing.

For other general enquiries contact the Science Student Centre, Rm128, Robert Webster Bldg: 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 Fridays. This may vary during non-teaching periods.

The Faculty of Science Website

Please refer to the Faculty website for further information: **www.science.unsw.edu.au**

Admission Requirements

Graduates are advised to consult the Program Authority or Head of School or Department before making formal application for registration in any programs offered by the above schools.

For admission to all Masters degree programs (except Master of Statistics), candidates must have completed one of the following:

1. An approved degree of Bachelor with Honours.

2. An approved three-year program leading to the award of the degree of Bachelor plus an approved qualifying program. Suitable professional and/or research experience may be accepted in lieu of the qualifying program.

3. An approved four-year program leading to the award of the degree of Bachelor.

For admission to Graduate Diploma and Graduate Certificate programs, candidates must have completed one of the following:

1. An approved degree of Bachelor.

2. Academic and professional attainments as approved by the Postgraduate Coursework Committee of the Faculty.

The conditions governing these higher degrees are set out later in this Handbook.

In many cases, there are articulated programs whereby a student who performs satisfactorily in a Graduate Certificate or Graduate Diploma may be permitted to upgrade to a MScTech or Masters program in the same discipline. For further details students should consult their Director of Graduate Studies or Postgraduate Studies Coordinator.

Computing Information

Within the Faculty of Science, each of the schools manages or has access to undergraduate computing laboratories equipped with a combination of X-terminals, PCs and Macintoshes. These are connected through the campus-wide network and provide 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 is 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.

Course Descriptions

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

Enrolment Procedures

Students are advised to consult with the program authority or relevant school for enrolment information and procedures. Entrance for students for whom English is their second language will be dependent upon achieving an adequate standard of written and spoken English.

The academic year for UNSW consists of two sessions, commencing in late February/early March and mid-July, respectively. It is preferred that new students arrive 2–3 weeks prior to the beginning of the session, so that they can undertake orientation prior to the commencement of formal teaching.

Summary of Programs

Graduate Certificates are offered in Aviation Management, Chemical Analysis and Laboratory Management, Environmental Science, Ergonomics, Food Science and Technology, Optometry, Photonics and Optoelectronics, Risk Management, Safety Science and Spatial Information.

Graduate Diplomas are offered in Aviation Management, Biochemistry, Biological Science, Biotechnology, Chemical Analysis and Laboratory Management, Computation, Environmental Science, Ergonomics, Fire and Explosion Safety Management, Food Technology, Microbiology and Immunology, Occupational Medicine, Optometry, Photonics and Optoelectronics, Physics Research Techniques, Psychology, Remote Sensing, Risk Management, Safety Science, Spatial Information and Statistics.

Graduate Diplomas by Research are offered in Physical Oceanography, Physics, Chemistry, Optometry, Biochemistry, Biological Science, Microbiology and Psychology.

Master of Science and Technology is offered in Aviation, Chemical Analysis and Laboratory Management, Computation, Engineering Materials, Environmental Science, Ergonomics, Fire and Explosion Safety Management, Groundwater Studies, Industrial Safety, Mathematics, Occupational Health and Safety, Occupational Medicine, Optometry, Optoelectronics and Photonics, Spatial Information and Risk Management.

Master of Science by coursework is offered in Biopharmaceuticals and Biotechnology.

Other Postgraduate Programs: The degrees Master of Optometry, Master of Safety Science, Master of Psychology (Clinical, Forensic and Organisational), Master of Statistics and Master of Conservation Biology are also offered.

Graduates are advised to consult the Head of School or Department before making formal application for registration in any of the above programs.

Postrgraduate Research Programs: Programs leading to degrees of Master by Research and PhD are available in all schools in the Faculty of Science. For details of entry requirements, available research areas and supervision arrangements, interested students should contact the relevant school directly. A combined PhD/Masters by coursework program is offered in Psychology (1404 Clinical; 1405 Forensic; 1406 Organisational).

More information and academic rules for programs currently offered within Science follow.

Program Rules and Information – Research Degrees

Doctor of Philosophy

PhD

The degree of Doctor of Philosophy is offered in the Faculty of Science in the following programs:

1000	Applied Geology
1900	Aviation
1410	Biochemistry and Molecular Genetics
1435	Biological Science
1036	Biotechnology
1870	Chemistry
1080	Geography
1045	Materials Science and Engineering
1880	Mathematics
1440	Microbiology and Immunology
1860	Optometry
1890	Physics
1400	Psychology
1665	Safety Science

Typical Duration
4 years

Minimum UOC for Award
144 units of credit

Typical UOC per Session
24 units of credit

Program Description

The Doctor of Philosophy (PhD) degree is offered in all faculties of the University of New South Wales and encourages initiative and originality in research.

As a general guide, the UNSW entry requirements for the degree of Doctor of Philosophy are as follows:

- A candidate for the degree shall have been awarded an appropriate degree of Bachelor with Honours from the University of New South Wales or a qualification considered equivalent from another university or tertiary institution at a level acceptable to the Research Committee of the appropriate Faculty.
- Candidates may be admitted to the PhD program after one year's full-time enrolment in a Masters by Research program, with the approval of the Faculty Postgraduate Affairs Committee.
- In exceptional cases an applicant who submits evidence of such other academic and professional qualifications as may be approved by the Committee may be permitted to enrol for the degree.

Program Objectives and Learning Outcomes

Students will make a significant contribution to knowledge in their field and will be competent to carry out research in their chosen area.

Program Structure

This program involves a minimum of three years full-time study. Students undertake supervised research leading to the production of the thesis.

The length of a doctoral thesis normally should not exceed 100,000 words of text and should be submitted for examination within 4 years of full-time study.

In some faculties advanced coursework is also prescribed.

Academic Rules

1. The degree of Doctor of Philosophy may be awarded by the Council on the recommendation of the Higher Degree Committee of the appropriate faculty or board (hereinafter referred to as the Committee) to a candidate who has made an original and significant contribution to knowledge.

Qualifications

2. (1) A candidate for the degree shall have been awarded an appropriate degree of Bachelor with Honours from the University of New South Wales or a qualification considered equivalent from another university or tertiary institution at a level acceptable to the Committee.

(2) In exceptional cases an applicant who submits evidence of such other academic and professional qualifications as may be approved by the Committee may be permitted to enrol for the degree.

(3) If the Committee is not satisfied with the qualifications submitted by an applicant the Committee may require the applicant to undergo such assessment or carry out such work as the Committee may prescribe, before permitting enrolment as a candidate for the degree.

Enrolment

3. (1) An application to enrol as a candidate for the degree shall be lodged with the Registrar at least one month prior to the date at which enrolment is to begin.

(2) In every case before making the offer of a place the Committee shall be satisfied that initial agreement has been reached between the School* and the applicant on the topic area, supervision arrangements, provision of adequate facilities and any coursework to be prescribed and that these are in accordance with the provisions of the guidelines for promoting postgraduate study within the University.

(3) The candidate shall be enrolled either as a full-time or a part-time student.

(4) A full-time candidate will present the thesis for examination no earlier than three years and no later than five years from the date of enrolment and a part-time candidate will present the thesis for examination no earlier than four years and no later than six years from the date of enrolment, except with the approval of the Committee.

(5) The candidate may undertake the research as an internal student i.e. at a campus, teaching hospital, or other research facility with which the University is associated, or as an external student not in attendance at the University except for periods as may be prescribed by the Committee.

(6) An internal candidate will normally carry out the research on a campus or at a teaching or research facility of the University except that the Committee may permit a candidate to spend a period in the field, within another institution or elsewhere away from the University provided that the work can be supervised in a manner satisfactory to the Committee. In such instances the Committee shall be satisfied that the location and period of time away from the University are necessary to the research program.

(7) The research shall be supervised by a supervisor and where possible a co-supervisor who are members of the academic staff of the School or under other appropriate supervision arrangements approved by the Committee. Normally an external candidate within another organisation or institution will have a co-supervisor at that institution.

Progression

4. The progress of the candidate shall be considered by the Committee following report from the School in accordance with the procedures established within the School and previously noted by the Committee.

(i) The research proposal will be reviewed as soon as feasible after enrolment. For a full-time student this will normally be during the first year of study, or immediately following a period of prescribed coursework. This review will focus on the viability of the research proposal.

(ii) Progress in the course will be reviewed within twelve months of the first review. As a result of either review the Committee may cancel enrolment or take such other action as it considers appropriate. Thereafter, the progress of the candidate will be reviewed annually.

Thesis

5. (1) On completing the program of study a candidate shall submit a thesis embodying the results of the investigation.

(2) The candidate shall give in writing to the Registrar two months notice of intention to submit the thesis.

(3) The thesis shall comply with the following requirements:

(a) it must be an original and significant contribution to knowledge of the subject;

(b) the greater proportion of the work described must have been completed subsequent to enrolment for the degree;

(c) it must be written in English except that a candidate in the Faculty of Arts and Social Sciences may be required by the Committee to write a thesis in an appropriate foreign language;

(d) it must reach a satisfactory standard of expression and presentation;

(e) it must consist of an account of the candidate's own research but in special cases work done conjointly with other persons may be accepted provided the Committee is satisfied about the extent of the candidate's part in the joint research.

(4) The candidate may not submit as the main content of the thesis any work or material which has previously been submitted for a university degree or other similar award, but may submit any work previously published whether or not such work is related to the thesis.

(5) Four copies of the thesis shall be presented in a form which complies with the requirements of the University for the preparation and submission of theses for higher degrees.

(6) It shall be understood that the University retains the four copies of the thesis submitted for examination and is free to allow the thesis to be consulted or borrowed. Subject to the provisions of the Copyright Act, 1968, the University may issue the thesis in whole or in part, in photostat or microfilm or other copying medium.

Examination

6. (1) There shall be not fewer than three examiners of the thesis, appointed by the Committee, at least two of whom shall be external to the University.

(2) At the conclusion of the examination each examiner shall submit to the Committee a concise report on the thesis and shall recommend to the Committee that one of the following:

(a) The thesis merits the award of the degree.

(b) The thesis merits the award of the degree subject to minor corrections as listed being made to the satisfaction of the head of school.

(c) The thesis requires further work on matters detailed in my report. Should performance in this further work be to the satisfaction of the higher degree Committee, the thesis would merit the award of the degree.

(d) The thesis does not merit the award of the degree in its present form and further work as described in my report is required. The revised thesis should be subject to re-examination.

(e) The thesis does not merit the award of the degree and does not demonstrate that resubmission would be likely to achieve that merit.

(3) If the performance in the further work recommended under (2)(c) above is not to the satisfaction of the Committee, the Committee may permit the candidate to submit the thesis for re-examination as determined by the Committee within a period determined by it but not exceeding eighteen months.

(4) After consideration of the examiners' reports and the results of any further examination of the thesis, the Committee may require the candidate to submit to written or oral examination before recommending whether or not the candidate be awarded the degree. If it is decided that the candidate be not awarded the degree, the Committee shall determine whether or not the candidate be permitted to resubmit the thesis after a further period of study and/or research.

Fees

7. A candidate shall pay such fees as may be determined from time to time by the Council.

**'School' is used here and elsewhere in these conditions to mean any teaching unit authorised to enrol research students and includes a department where that department is not within a school, a centre given approval by the Academic Board to enrol students, and an interdisciplinary unit within a faculty and under the control of the Dean of the Faculty. Enrolment is permitted in more than one such teaching unit.*

Further Information

If you are considering applying for a PhD at UNSW you will need to make contact with the relevant school or faculty. This is necessary in order to establish that your research interests and those of the school and faculty are aligned, and that there is a suitable supervisor for your particular area of research.

Prospective students are strongly advised to make contact with potential supervisors before applying for research study at the University.

Please refer to the UNSW website for further information on how to apply, scholarships, English language requirements, thesis preparation and other research related matters: **www.unsw.edu.au/futurestudents/research**

Master of Engineering (by Research)

ME

The degree of Master of Engineering by Research is offered in the Faculty of Science in the following programs:

2175 Materials Science and Engineering
2695 Safety Science

Master of Science (by Research)

MSc

The degree of Master of Science by Research is offered in the Faculty of Science in the following programs:

2000 Applied Geology
2905 Aviation*
2460 Biochemistry & Molecular Genetics
2485 Biological Science
2036 Biotechnology
2910 Chemistry
2040 Geography

2055	Materials Science and Engineering
2920	Mathematics
2490	Microbiology and Immunology
2900	Optometry
2930	Physics
2450	Psychology
2775	Safety Science

Typical Duration
2 years

Minimum UOC for Award
96 units of credit

Typical UOC per Session
24 units of credit

Academic Rules - Master of Engineering (ME) and Master of Science (MSc)

1. The degree of Master of Engineering or Master of Science by research may be awarded by the Council on recommendation of the Higher Degree Committee of the appropriate faculty (hereinafter referred to as the Committee) to a candidate who has demonstrated ability to undertake research by the submission of the thesis embodying the results of an original investigation.

Qualifications

2. (1) A candidate for the degree shall have been awarded an appropriate degree of Bachelor from the University of New South Wales or a qualification considered equivalent from another university or tertiary institution at a level acceptable to the Committee.

(2) An applicant who submits evidence of such other academic or professional attainment as may be approved by the Committee may be permitted to enrol for the degree.

(3) When the Committee is not satisfied with the qualifications submitted by an applicant the Committee may require the applicant, before being permitted to enrol, to undergo such examination or carry out such work the Committee may prescribe.

Enrolment and Progression

3. (1) An application to enrol as a candidate for the degree shall be made on the prescribed form which shall be lodged with the Registrar at least one calendar month before the commencement of the session in which enrolment is to begin.

(2) In every case, before permitting a candidate to enrol, the head of the school* in which the candidate intends to enrol shall be satisfied that adequate supervision and facilities are available.

(3) An approved candidate shall be enrolled in one of the following categories:

(a) full-time attendance at the University;

(b) part-time attendance at the University;

(c) external – not in regular attendance at the University and using research facilities external to the University.

(4) A candidate shall be required to undertake an original investigation on an approved topic. The candidate may also be required to undergo such examination and perform such other work as may be prescribed by the Committee.

(5) The work shall be carried out under the direction of a supervisor appointed from the full-time members of the University staff.

(6) The progress of a candidate shall be reviewed annually by the Committee following a report by the candidate, the supervisor and the head of the school* in which the candidate is enrolled and as a result of such review the Committee may cancel enrolment or take such other action as it considers appropriate.

(7) No candidate shall be granted the degree until the lapse of three academic sessions in the case of a full-time candidate or four academic sessions in the case of a part-time or external candidate from the date of enrolment. In the case of a candidate who has been awarded the degree of Bachelor with Honours or who had previous research experience the Committee may approve remission of up to one session for a full-time candidate and two sessions for a part-time or external candidate.

(8) A full-time candidate for the degree shall present for examination not later than six academic sessions from the date of enrolment. A part-time or external candidate for the degree shall present, for examination not later than ten academic sessions from the date of enrolment. In special cases an extension of these times may be granted by the Committee.

Thesis

4. (1) On completing the program of study a candidate shall submit a thesis embodying the results of the original investigation.

(2) The candidate shall give in writing two months notice of intention to submit the thesis.

(3) The thesis shall present an account of the candidate's own research. In special cases work done conjointly with other persons may be accepted, provided the Committee is satisfied about the extent of the candidate's part in the joint research.

(4) The candidate may also submit any work previously published whether or not such work is related to the thesis.

(5) Three copies of the thesis shall be presented in a form which complies with the requirements of the University for the preparation and submission of higher degree theses.

(6) It shall be understood that the University retains the three copies of the thesis submitted for examination and is free to allow the thesis to be consulted or borrowed. Subject to the provisions of the Copyright Act, 1968, the University may issue the thesis in whole or in part, in photostat or microfilm or other copying medium.

Examination

5. (1) There shall be not fewer than two examiners of the thesis, appointed by the Committee, at least one of whom shall be external to the University unless the Committee is satisfied that this is not practicable.

(2) At the conclusion of the examination each examiner shall submit to the Committee a concise report on the merits of the thesis and shall recommend to the Committee that:

(a) the candidate be awarded the degree without further examination; *or*

(b) the candidate be awarded the degree without further examination subject to minor corrections as listed being made to the satisfaction of the head of the school; *or*

(c) the candidate be awarded the degree subject to further examination on questions posed in the report, performance in this further examination being to the satisfaction of the Committee; *or*

(d) the candidate be not awarded the degree but be permitted to resubmit the thesis in a revised form after a further period of study and/or research; *or*

(e) the candidate be not awarded the degree and be not permitted to resubmit the thesis.

(3) If the performance at the further examination recommended under (2)(c) above is not to the satisfaction of the Committee, the Committee may permit the candidate to re-present the same thesis and submit to a further oral, practical or written examination within a period specified by it but not exceeding eighteen months.

(4) The Committee shall, after consideration of the examiners' reports and the reports of any oral or written or practical examination, recommend whether or not the candidate may be awarded the degree. If it is decided that the candidate be not awarded the degree the Committee shall determine whether or not the candidate may resubmit the thesis after a further period of study and/or research.

Fees

6. A candidate shall pay such fees as may be determined from time to time by the Council.

**'School' is used here and elsewhere in these conditions to mean any teaching unit authorised to enrol research students and includes a department where that department is not within a school, a centre given approval by the Academic Board to enrol students, and an interdisciplinary unit within a faculty and under the control of the Dean of the Faculty. Enrolment is permitted in more than one such teaching unit.*

Academic Rules - Master of Engineering (ME) and Master of Science (MSc) *without supervision*

1. The degree of Master of Engineering or Master of Science without supervision may be awarded by the Council on the recommendation of the Higher Degree Committee of the appropriate faculty (hereinafter referred to as the Committee) to a candidate who has demonstrated ability to undertake research by the submission of a thesis embodying the results of an original investigation.

Qualification

2. A candidate for the degree shall have been awarded an appropriate degree of Bachelor of the University of New South Wales with at least three years relevant standing in the case of Honours graduates and four years

relevant standing in the case of Pass graduates, and at a level acceptable to the Committee.

Enrolment and Progression

3. An application to enrol as candidate for the degree without supervision shall be made in the prescribed form which shall be lodged with the Registrar not less than six months before the intended date of submission of the thesis. A graduate who intends to apply in this way should, in his or her own interest, seek at an early stage the advice of the appropriate head of school (or department) with regard to the adequacy of the subject matter and its presentation for the degree. A synopsis of the work should be available.

Thesis

4. (1) A candidate shall submit a thesis embodying the results of the investigation.

(2) The candidate shall give in writing to the Registrar two months notice of intention to submit the thesis.

(3) The thesis shall present an account of the candidate's own research. In special cases work done conjointly with other persons may be accepted, provided the Committee is satisfied about the extent of the candidate's part in the joint research.

(4) The candidate may also submit any work previously published whether or not related to the thesis.

(5) Three copies of the thesis shall be presented in a form which complies with the requirements of the University for the preparation and submission of theses for higher degrees.

(6) It shall be understood that the University retains the three copies of the thesis submitted for examination and is free to allow the thesis to be consulted or borrowed. Subject to the provisions of the Copyright Act, 1968, the University may issue the thesis in whole or in part, in photostat or microfilm or other copying medium.

Examination

5. (1) There shall be not fewer than two examiners of the thesis, appointed by the Committee, at least one of whom shall be external to the University unless the Committee is satisfied that this is not practicable.

(2) Before the thesis is submitted to the examiners, the head of the school in which the candidate is enrolled shall certify that it is prima facie worthy of examination.

(3) At the conclusion of the examination each examiner shall submit to the Committee that:

(a) the candidate be awarded the degree without further examination; *or*

(b) the candidate be awarded the degree without further examination subject to minor corrections as listed being made to the satisfaction of the head of the school (or department); *or*

(c) the candidate be awarded the degree subject to a further examination on questions posed in the report, performance in this further examination being to the satisfaction of the Committee; *or*

(d) the candidate be not awarded the degree but be permitted to resubmit the thesis in a revised form after a further period of study and/or research; *or*

(e) the candidate be not awarded the degree and be not permitted to resubmit the thesis.

(4) If the performance at the further examination recommended under (3)(c) above is not to the satisfaction of the Committee, the Committee may permit the candidate to re-present the same thesis and submit to further examination as determined by the Committee within a period specified by it, but not exceeding eighteen months.

(5) The Committee shall, after consideration of the examiners' reports and the results of any further examination, recommend whether or not the candidate may be awarded the degree. If it is decided that the candidate be not awarded the degree the Committee shall determine whether or not the candidate may resubmit the thesis after a further period of study and/or research.

Fees

6. A candidate shall pay such fees as may be determined from time to time by the Council.

Program Rules and Information – Coursework Degrees

Following the academic rules for

Master of Science and Technology (MScTech)
Graduate Diploma by Research (GradDip)
Graduate Diploma (GradDip)
Graduate Certificate (GradCert)

detailed information about coursework programs offered within the Faculty of Science can be found under the appropriate school section.

Conditions for the Award of the Degree Master of Science and Technology (MScTech)

1. The degree of Master of Science and Technology by formal coursework may be awarded by the Council to a candidate who has satisfactorily complete a program of advanced study.

Qualifications

2. (1) A candidate for the degree shall:

(a) have been awarded an appropriate degree of Bachelor of four full-time years duration (or the part-time equivalent) from the University of New South Wales or a qualification considered equivalent from another university or tertiary institution at a level acceptable to the Postgraduate Coursework Education Committee of the Faculty (hereinafter referred to as the Committee), *or*

(b)(i) have been awarded an appropriate degree of Bachelor of three full-time years duration (or the part-time equivalent) from the University of New South Wales or a qualification considered equivalent from another university or tertiary institution at a level acceptable to the Committee and

(ii) have undertaken appropriate postgraduate studies of a full-time year's duration (or the part-time equivalent) at the University of New South Wales or studies considered equivalent from another university or tertiary institution at a level acceptable to the Committee.

(2) An applicant who submits evidence of such other academic or professional attainments as may be approved by the Committee may be permitted to enrol for the degree.

(3) If the Committee is not satisfied with the qualifications submitted by an applicant the Committee may require the applicant to undergo such assessment or carry out such work as the Committee may prescribe, before permitting enrolment.

Enrolment and Progression

3. (1) An application to enrol as a candidate for the degree shall be made on the prescribed form which shall be lodged with the Registrar at least two calendar months before the commencement of the session in which enrolment is to begin.

(2) A candidate for the degree shall be required to undertake such formal courses including the submission of a report on a project, and pass such assessment as prescribed. The project shall be under the supervision of an academic staff member and shall be assessed by two examiners (for a major project).

(3) The progress of a candidate shall be reviewed at least once a year by the Committee and as a result of its review the Committee may cancel enrolment or take such other action as it considers appropriate.

(4) No candidate shall be awarded the degree until the lapse of two academic sessions from the date of enrolment in the case of a full-time candidate and four sessions in the case of a part-time candidate. The maximum period of candidature shall be four academic sessions from the date of enrolment for a full-time candidate, eight sessions for a part-time candidate, and ten sessions for an external candidate. In special cases an extension of these times may be granted by the Committee.

Fees

4. A candidate shall pay such fees as may be determined from time to time by the Council.

Conditions for the Award of the Graduate Diploma by Research

1. A Graduate Diploma by Research may be awarded by the Council to a candidate who has satisfactorily completed an approved program of study that includes the submission of a research report embodying the results of an original investigation and the completion of coursework.

Qualifications

2. (1) A candidate for the diploma shall have been awarded an appropriate degree of Bachelor from the University of New South Wales or a qualification considered equivalent from another university or tertiary institution at a level acceptable to the Postgraduate Coursework Education Committee of the appropriate faculty (hereinafter referred to as the Committee).

(2) An applicant who submits evidence of such other academic or professional attainments as may be approved by the Committee may be permitted to enrol for the diploma.

(3) If the Committee is not satisfied with the qualifications submitted by an applicant the Committee may require the applicant to undergo such assessment or carry out such work as the Committee may prescribe, before permitting enrolment.

Enrolment and Progression

3. (1) An application to enrol as a candidate for the graduate award shall be made on the prescribed form which shall be lodged with the Registrar at least two calendar months before the commencement of the session in which enrolment is to begin.

(2) In every case before making the offer of a place the Committee shall be satisfied that initial agreement has been reached between the School and the applicant on the topic area, supervision arrangements, provision of adequate facilities and any coursework to be prescribed and that these are in accordance with the provisions of the guidelines for promoting postgraduate study within the University.

(3) The normal duration of the program is two academic sessions from the date of enrolment in the case of a full-time candidate or four sessions in the case of a part-time candidate. In special circumstances a variation of these times may be approved by the head of school.

(4) The progress of a candidate shall be reviewed by the end of two sessions by the Committee and as a result of its review the Committee may cancel enrolment or take such other action as it considers appropriate.

(5) The candidate may undertake the research as an internal student, i.e. at a campus, teaching hospital, or other research facility with which the University is associated, or as an external student not in attendance at the University except for periods as may be prescribed by the Committee.

(6) An internal candidate will normally carry out the research on a campus or at a teaching or research facility of the University except that the Committee may permit a candidate to spend a period in the field, within another institution or elsewhere away from the University provided that the work can be supervised in a manner satisfactory to the Committee. In such circumstances the Committee shall be satisfied that the location and period of time away from the University are necessary to the research program.

(7) The research shall be supervised by a supervisor or supervisors who are members of the academic staff of the School or under other appropriate supervision arrangements approved by the Committee. Normally an external candidate within another organisation or institution will have a co-supervisor at that institution.

Research Report

4. (1) On completing the program of study a candidate shall submit to the School a research report embodying the results of the original investigation.

(2) The research report shall present an account of the candidate's own research. In special cases, work done conjointly with other persons may be accepted, provided the Committee is satisfied as to the candidate's contribution to the joint research.

Coursework

5. The School shall specify, at the time of the candidate's acceptance into the program, any courses to be undertaken and the level of achievement required in each of the courses.

Fees

6. A candidate shall pay such fees as may be determined from time to time by the Council.

Conditions for the Award of the Graduate Diploma (GradDip)

1. A Graduate Diploma may be awarded by the Council to a candidate who has satisfactorily completed a program of advanced study.

Qualifications

2. (1) A candidate for the diploma shall have been awarded an appropriate degree of Bachelor from the University of New South Wales or a qualification considered equivalent from another university or tertiary institution at a level acceptable to the Postgraduate Coursework Education Committee of the appropriate faculty (hereinafter referred to as the Committee).

(2) An applicant who submits evidence of such other academic or professional attainments as may be approved by the Committee may be permitted to enrol for the diploma.

(3) If the Committee is not satisfied with the qualifications submitted by an applicant the Committee may require the applicant to undergo such assessment or carry out such work as the Committee may prescribe, before permitting enrolment.

Enrolment and Progression

3. (1) An application to enrol as a candidate for the diploma shall be made on the prescribed form which shall be lodged with the Registrar at least two calendar months before the commencement of the session in which enrolment is to begin.

(2) A candidate for the diploma shall be required to undertake such formal courses and pass such assessment as prescribed.

(3) The progress of a candidate shall be reviewed at least once annually by the Committee and as a result of its review the Committee may cancel enrolment or take such other action as it considers appropriate.

(4) No candidate shall be awarded the diploma until the lapse of two academic sessions from the date of enrolment in the case of a full-time candidate or four sessions in the case of a part-time candidate. The maximum period of candidature shall be four academic sessions from the date of enrolment for a full-time candidate and six sessions for a part-time candidate. In special cases, an extension of these times may be granted by the Committee.

Fees

4. A candidate shall pay such fees as may be determined from time to time by the Council.

Conditions for the Award of the Graduate Certificate (GradCert)

1. A Graduate Certificate may be awarded by the Council to a candidate who has satisfactorily completed an approved program of study.

Qualifications

2. (1) A candidate for the Graduate Certificate shall have been awarded an appropriate degree of Bachelor from the University of New South Wales or a qualification considered equivalent from another university or tertiary institution at a level acceptable to the Postgraduate Coursework Education Committee of the Faculty (hereinafter referred to as the Committee).

(2) An applicant who submits evidence of such other academic and professional qualifications as may be approved by the Committee may be permitted to enrol for the Graduate Certificate.

(3) If the Committee is not satisfied with the qualifications submitted by an applicant the Committee may require the applicant to undergo such assessment or carry out such work as the Committee may prescribe, before permitting enrolment.

Enrolment and Progression

3. (1) An application to enrol as a candidate for the Graduate Certificate shall be made on the prescribed form which shall be lodged with the Registrar by the advertised closing date, which shall be set at least two calendar months before the commencement of the session in which enrolment is to begin.

(2) A candidate for the certificate shall be required to undertake courses and pass any assessment prescribed.

(3) The progress of a candidate shall be reviewed by the end of two sessions by the Committee and as a result of its review the Committee may cancel enrolment or take such other action as it considers appropriate.

(4) The normal duration of the course is one academic session from the date of enrolment in the case of a full-time student or two sessions in the case of a part-time. For an open learning or external candidate the normal duration is two sessions from the date of enrolment. In special cases, a variation of these times may be approved by the head of school.

Fees

4. Candidates shall pay such fees as may be determined from time to time by Council.

Department of Aviation

Head of Department: Professor J Middleton
Postgraduate Coursework Coordinator: Mr R Robertson
Website: www.aviation.unsw.edu.au

8738 Master of Science and Technology in Aviation

MScTech

Typical Duration
1 year

Minimum UOC for Award
48 units of credit

Typical UOC per Session
24 units of credit

Program Description

The Master of Science and Technology in Aviation is a program designed for students who have a degree or equivalent qualification from a recognised university and relevant industry experience. Students are required to gain a total of 48 units of credit from the courses within the MScTech in Aviation program in order to complete the Masters degree. At least 6 courses (36 units of credit) must be AVIA5000 courses and a research project is compulsory. The MScTech in Aviation is offered through distance education and designed with industry input for professionals and managers working in aviation related environments.

Program Structure

Compulsory Course

AVIA5020	Aviation Research Project	(6 UOC)

Available Courses

AVIA5001	Law and Regulation in Aviation	(6 UOC)
AVIA5003	Aviation and Security	(6 UOC)
AVIA5004	Aviation Safety and Accident Prevention	(6 UOC)
AVIA5005	Airline Operational Management	(6 UOC)
AVIA5006	Airport Planning	(6 UOC)
AVIA5007	Airport Management	(6 UOC)
AVIA5008	Air Traffic Management	(6 UOC)
AVIA5009	Airline Corporate Management	(6 UOC)
AVIA5018	Aviation Human Factors	(6 UOC)
AVIA5019	Management of Aviation Technical Operations and Maintenance	(6 UOC)
AVIA5022	Aircraft Accident Investigation Techniques	(6 UOC)
AVIA5024	Flight Deck Operations for Advanced Transport-Aircraft	(6 UOC)
AVIA5311	Inflight Services Management	(3 UOC)
AVIA5312	Airline Incident Investigation	(3 UOC)
AVIA5313	Aviation Ground Safety Investigation	(3 UOC)
AVIA5314	Aviation System Safety	(3 UOC)

Academic Rules

For academic rules relating to this program, please refer to the **Conditions for the Award of the Degree Master of Science and Technology** under 'Program Rules and Information – Coursework Degrees' in this Handbook.

5678 Graduate Diploma in Aviation Management

GradDip

Typical Duration
1 year

Minimum UOC for Award
36 units of credit

Typical UOC per Session
18 units of credit

Program Description

The Graduate Diploma in Aviation Management is designed for students who have an approved diploma from a recognised tertiary institution as well as two years of relevant professional experience. Six courses will be completed to a total of 36 units of credit. A credit average must be achieved to continue on to the Masters level. The Graduate Diploma is offered through distance education and designed with industry input for professionals and managers working in aviation-related environments. The program can be part-time or full-time and can be completed over 2 to 6 sessions. The program is further described on the School website at **www.aviation.unsw.edu.au**

Program Structure

Available courses are listed for the Master of Science and Technology in Aviation (program 8738).

Academic Rules

For academic rules relating to this program, please refer to the **Conditions for the Award of the Graduate Diploma** under 'Program Rules and Information – Coursework Degrees' in this Handbook.

7448 Graduate Certificate in Aviation Management

GradCert

Typical Duration
0.4 years

Minimum UOC for Award
18 units of credit

Typical UOC per Session
18 units of credit

Program Description

The Graduate Certificate in Aviation Management is designed for students who do not have tertiary qualifications but do have at least four years of relevant professional experience or two years experience and two years of advanced training (e.g. holder of an ATPL). Three courses will be completed to a total of 18 units of credit. A credit average must be achieved to continue on to the Graduate Diploma level. The Graduate Certificate is offered through distance education and designed with industry input for professionals and managers working in aviation related environments. The program can be part-time or full-time and can be completed over 2 to 3 sessions. The program is further described on the School website at **www.aviation.unsw.edu.au**

Program Structure

Available courses are listed for the Master of Science and Technology in Aviation (program 8738).

Academic Rules

For academic rules relating to this program, please refer to the **Conditions for the Award of the Graduate Certificate** under 'Program Rules and Information – Coursework Degrees' in this Handbook.

School of Biological, Earth and Environmental Sciences

Head of School: Associate Professor P Adam
Website: www.bees.unsw.edu.au
School Office: (02) 9385 2067

8745 Master of Conservation Biology

MConBio

Typical Duration
1 year

Minimum UOC for Award
48 units of credit

Typical UOC per Session
24 units of credit

Program Description

The program is aimed at international and Australian students interested in the field of conservation biology. The Master of Conservation Biology is a joint program between UNSW and Victoria University (Wellington, NZ). Students spend six months at each University.

Program Structure

At UNSW, students undertake three compulsory courses (24 units of credit). These can be taken in any order, full-time or part-time, internally or by distance. Much of the material is available online. In the other half of the program, at Victoria University, students take an equivalent number of units.

BIOS9211	World Conservation Biology	(6 UOC)
BIOS9221	Australasian Mammals & Conservation	(6 UOC)
BIOS9231	Conservation Project	(12 UOC)

Academic Rules

1. The degree of Master of Conservation Biology by formal coursework may be awarded by the Council to a candidate who has satisfactorily completed a program of advanced study.

Qualifications:

2 (1) A candidate for the degree shall:

(a) have been awarded an appropriate degree of Bachelor of four full-time years duration (or the part-time equivalent) from the University of

New South Wales or a qualification considered equivalent from another university or tertiary institution at a level acceptable to the Postgraduate Coursework Education Committee of the Faculty (hereinafter referred to as the Committee), or

(b)(i) have been awarded an appropriate degree of Bachelor of three full-time years duration (or the part-time equivalent) from the University of New South Wales or a qualification considered equivalent from another university or tertiary institution at a level acceptable to the Committee and (ii) have undertaken appropriate postgraduate studies of a full-time year's duration (or the part-time equivalent) at the University of New South Wales or studies considered equivalent from another university or tertiary institution at a level acceptable to the Committee.

(2) An applicant who submits evidence of such other academic or professional attainments as may be approved by the Committee may be permitted to enrol for the degree.

(3) If the Committee is not satisfied with the qualifications submitted by an applicant the Committee may require the applicant to undergo such assessment or carry out such work as the Committee may prescribe, before permitting enrolment.

Enrolment and Progression:

3. (1) An application to enrol as a candidate for the degree shall be made on the prescribed form which shall be lodged with the Registrar at least two calendar months before the commencement of the session in which enrolment is to begin.

(2) A candidate for the degree shall be required to undertake such formal courses including the submission of a report on a project, and pass such assessment as prescribed. The project shall be under the supervision of an academic staff member and shall be assessed by two examiners (for a major project).

(3) The progress of a candidate shall be reviewed at least once a year by the Committee and as a result of its review the Committee may cancel enrolment or take such other action as it considers appropriate.

(4) No candidate shall be awarded the degree until the lapse of two academic sessions from the date of enrolment in the case of a full-time candidate and four sessions in the case of a part-time candidate. The maximum period of candidature shall be four academic sessions from the date of enrolment for a full-time candidate, eight sessions for a part-time candidate, and ten sessions for an external candidate. In special cases an extension of these times may be granted by the Committee.

8702 Master of Science and Technology in Groundwater Studies

MScTech

Typical Duration
1 year

Minimum UOC for Award
48 units of credit

Typical UOC per Session
24 units of credit

Program Description

The Master of Science and Technology Program in Groundwater Studies is designed to give advanced training in this developing specialisation within the geological profession. The program is structured specifically for candidates from industry to take on a part-time basis.

Program Structure

This program is coordinated through the UNSW Groundwater Centre. Candidates are required to complete 48 units of credit, made up of core and elective courses, and may include a project. The degree may be taken internally on a full-time (normally 2 sessions) or a part-time (normally 4 sessions) basis.

Core courses

CVEN7807	Groundwater Hydrology	(3 UOC)
CVEN7808	Investigation of Groundwater Resources	(3 UOC)
CVEN7809	Geophysical Techniques in Groundwater and Geotechnical Studies	(3 UOC)
CVEN7823	Applied Groundwater Modelling	(3 UOC)
CVEN7830	Physical Aspects of Contaminated Groundwater	(3 UOC)
GEOL9053	Hydrogeochemistry	(3 UOC)
GEOL9054	Analysis and Interpretation of Hydrogeochemical Data	(3 UOC)
GEOL9055	Hydrogeochemical Modelling	(3 UOC)
GEOL9111	Groundwater Environments	(3 UOC)
GEOL9112	Investigation and Management of Salinity	(3 UOC)
GEOL9252	Groundwater Quality and Protection	(3 UOC)

Project

GEOL9124	Groundwater Project	(12 UOC)

Elective courses

CVEN7800	Urban Hydrology and Stormwater	(3 UOC)
CVEN7805	Coastal Zone Management	(3 UOC)
CVEN7806	Catchment and Water Quality Management	(3 UOC)
CVEN7810	Electrical Methods in Groundwater Investigation	(3 UOC)
CVEN7819	Hydrological Processes	(3 UOC)
CVEN7824	Risk Analysis in Water Engineering	(3 UOC)
CVEN7825	Aquatic Chemistry for Engineering	(3 UOC)

Academic Rules

For academic rules relating to this program, please refer to the **Conditions for the Award of the Degree: Master of Science and Technology (MScTech)** under 'Program Rules and Information – Coursework Degrees' in this Handbook.

8714 Master of Science and Technology in Spatial Information

MScTech

Typical Duration
1 year

Minimum UOC for Award
48 units of credit

Typical UOC per Session
24 units of credit

5693 Graduate Diploma in Spatial Information*

GradDip

**This program is currently under review and subject to final Council approval*.

Typical Duration
1 year

Minimum UOC for Award
36 units of credit

Typical UOC per Session
24 units of credit

7714 Graduate Certificate in Spatial Information*

GradCert

**Subject to final Council approval*

Typical Duration
0.5 year

Minimum UOC for Award
24 units of credit

Typical UOC per Session
24 units of credit

Program Description

Entry requirements

Masters: Four-year degree from an approved university in environmental, surveying, computer science or related fields, or qualifications deemed appropriate by the Faculty Coursework Committee.

Graduate Diploma and Graduate Certificate: Three year degree from an approved university or qualifications deemed appropriate by the Faculty Coursework Committee.

Articulation, Course Credit and Advanced Standing

A candidate enrolled in the Graduate Certificate in Spatial Information who has not taken out their award and whose entry to the Graduate Diploma or Masters program has been approved, may carry completed units of credit from the Graduate Certificate program into the Graduate Diploma or Masters Program.

A candidate enrolled in the Graduate Diploma in Spatial Information who has not taken out their award and whose entry to the Masters program has been approved, may carry completed units of credit from the Graduate Diploma program into the Masters Program.

Advanced standing and course credit for completed degrees is as per the university rules.

Program Structure

For the Graduate Diploma, candidates are required to complete a program totalling 36 UOC comprised of 4 compulsory courses (24 UOC) and 12 UOC in electives. For the Graduate Certificate, candidates are required to complete a program totalling 24 UOC comprised of 4 compulsory courses. The Diploma will normally comprise one year of full-time study or two years of part-time study. The Certificate will normally comprise one session of full time study or one year of part time study. Courses may be delivered in normal semester mode or as winter or summer session short courses. Elective courses other than those listed below may be taken with the approval of the Program Authority. The 12 UOC project courses are normally only available to students enrolled in the MScTech SI program.

Compulsory Courses: 24 UOC

GMAT9600	Principles of Remote Sensing	(6 UOC)
GEOS9021	Image Analysis in Remote Sensing	(6 UOC)
GEOS9016	Principles of Geographic Information Systems	(6 UOC)
GMAT9205	Fundamentals of Geopositioning	(6 UOC)

Elective Courses: 24 UOC (MScTech), 12 UOC (Grad Dip)

GEOH/ GEOS9019	Special Topic in Geography	(6 UOC)
or		
GMAT9107	Special Topic in Surveying and Spatial Information Systems	(6 UOC)
or		
GEOS9013	Directed Problems in Remote Sensing	(6 UOC)
GEOS9012	Remote sensing applications	(6 UOC)
GEOS 9017	Advanced Geographic Information Systems	(6 UOC)
GEOS0360	Hyperspectral Remote Sensing	(6 UOC)
GEOS0310	Image Processing in Geophysics	(6 UOC)
GMAT9212	Introduction to GPS Surveying	(6 UOC)
GMAT9606	Microwave Remote Sensing	(6 UOC)
GEOH9018	Transportation Applications of Geographical Information Systems	(6 UOC)
GMAT/ GEOS9023	Innovations in Spatial Information 1	(3 UOC)
GMAT/ GEOS9024	Innovations in Spatial Information 2	(3 UOC)

MScTech SI only:

GEOH/ GEOS9530	Project in Geography	(12 UOC)
or		
GEOL0114	Project in Geology	(12 UOC)

Academic Rules

For academic rules relating to these programs, please refer to 'Program Rules and Information – Coursework Degrees' in this Handbook.

5350 Graduate Diploma in Biological Science (Research)

GradDip

Typical Duration
1 year

Minimum UOC for Award
48 units of credit

Typical UOC per Session
24 units of credit

Program Description

The program is designed to meet the needs and objectives of individual students building on their particular competence and experience. It includes a formal coursework component and a research project which is carried out under the supervision of a member of the academic staff. Students receive advanced formal training to provide them with research and presentation skills relevant to their research project.

The School has a wide range of interests, and training and research are offered in both plant and animal sciences. Areas of biology in which facilities and appropriate supervision are available include: ecology, taxonomy, environmental physiology, marine and fisheries biology, genetics and evolution, mycology, ultrastructure, comparative physiology, mammalian studies.

Program Objectives and Learning Outcomes

This program provides specialised research training in particular disciplinary fields. It can be used as a higher degree qualifying program (for students who do not meet criteria for direct entry to MSc/PhD programs), to upgrade existing qualifications or to develop expertise in a new disciplinary area to that of the first degree. In this format, the course is a terminating one culminating in the award of the Diploma.

The program consists primarily of a research project, with literature review and report, carried out under the supervision of a member of academic staff. There is frequently a component of course work tailored to provide background information relevant to the research project. Applicants should contact the School, before applying for admission, in order to identify a research field and a potential supervisor. For further information on the research interests within the School, please refer to the School website: **www.bees.unsw.edu.au/staff/research.html**

Entrance Requirements: Bachelors degree, usually BSc. Where the first language is not English, evidence of a satisfactory standard of written and spoken English is required.

Program Structure

Please contact the School of BEES.

Academic Rules

For academic rules relating to this program, please refer to the **Conditions for the Award of the Graduate Diploma by Research** under 'Program Rules and Information – Coursework Degrees' in this Handbook.

School of Biotechnology and Biomolecular Sciences

Head of School: Professor Pauline Doran
Website: www.babs.unsw.edu.au

8048 Master of Science in Biotechnology

MSc

Typical Duration
1 year

Minimum UOC for Award
48 units of credit

Typical UOC per Session
24 units of credit

Program Description

This Master of Science program includes advanced treatments of all areas of biotechnology. It is open to graduates with a four-year degree in biotechnology, biochemistry, microbiology or a related discipline, or who have, in the opinion of the Faculty Postgraduate Coursework Committee, acquired equivalent qualifications or experience.

The program teaches the scientific bases underscoring the development of recombinant biopharmaceuticals, combined with aspects of clinical trials, regulatory considerations, patent issues and licensing. The program content is incorporated in courses (modules) that can be delivered either in distance or on-campus mode, and comprises written text containing program materials, demonstrations and self-testing exercises. For distance students, one day of face-to-face teaching is provided per course. In addition, distance education students may complete the program in two years part-time.

The program consists of lectures, tutorials, practical sessions, case history studies and a supervised project.

The minimum period of registration before the award of the degree is two sessions for full-time students and four sessions for part-time students.

Program Structure

BIOT7070	Recombinant Protein Expression Systems	(6 UOC)
BIOT7071	Biochemical Engineering	(6 UOC)
BIOT7081	Environmental Biotechnology	(6 UOC)

BIOT7072	Eukaryotic Cell Physiol. & Stem Cell Biol.	(6 UOC)
BIOT7160	Genomics and Proteomics	(6 UOC)
BIOT7180	Biotechnology Research Project 1	(6 UOC)
BIOT7190	Biotechnology Research Project 2	(6 UOC)

Plus one of the following courses:

BIOT7080	Biopharmaceutical Production Process	(6 UOC)
BIOT7170	Therapeutic Modalities of Biopharmaceuticals	(6 UOC)
BINF9010	Bioinformatics Methods & Applications	(6 UOC)

Note: Students may be able to replace one of the above courses (6 units of credit) with a course of equivalent value from another department or school.

Elective Components

Elective courses may be selected from those offered by the School of Biotechnology and Biomolecular Sciences, or from those offered by other schools in the University subject to approval.

Each individual program would comprise:

1. A major strand of related material comprising approximately 75% of the total program, including a project comprising not more than 25% of the program.

2. A minor strand of broader based material comprising up to 25% of the total program.

3. At least 60% of the non-project component must be taken in the School of Biotechnology and Biomolecular Sciences unless otherwise approved by the Head of School. The remainder, subject to approval and availability, may be undertaken elsewhere in the University.

Academic Rules

Conditions for the Award of the Degree: Master of Science by Coursework (MSc) – Biotechnology/Biopharmaceuticals

1. The degree of Master of Science by formal coursework may be awarded by the Council to a candidate who has satisfactorily completed a program of advanced study.

Qualifications

2. (1) A candidate of the degree shall have been awarded an appropriate degree of Bachelor of four full-time years duration (or the part-time equivalent) from the University of New South Wales or a qualification considered equivalent from another university or tertiary institution at a level acceptable to the Research Committee of the Faculty of Science (hereinafter referred to as the Committee), *or*

(2) An applicant who submits evidence of such other academic or professional attainments as may be approved by the Committee may be permitted to enrol for the degree.

(3) If the Committee is not satisfied with the qualifications submitted by an applicant the Committee may require the applicant to undergo such assessment or carry out such work as the Committee may prescribe, before permitting enrolment.

Enrolment and Progression

3. (1) An application to enrol as a candidate for the degree shall be made on the prescribed form which shall be lodged with the Registrar at least two calendar months before the commencement of the session in which enrolment is to begin.

(2) A candidate for the degree shall be required to undertake such formal courses and pass such assessment as prescribed.

(3) The progress of a candidate shall be reviewed at least once annually by the Committee and as a result of its review the Committee may cancel enrolment or take such other action as it considers appropriate.

(4) No candidate shall be awarded the degree until the lapse of two academic sessions from the date of enrolment in the case of a full-time candidate or four sessions in the case of a part-time candidate. The maximum period of a candidate shall be four academic sessions from the date of enrolment for a full-time candidate and six sessions for a part-time candidate. In special cases an extension of this time may be granted by the Committee.

Fees

4. A candidate shall pay such fees as may be determined from time to time by the Council.

5015 Graduate Diploma in Biotechnology

GradDip

Typical Duration
1 year

Minimum UOC for Award
36 units of credit

Typical UOC per Session
18 units of credit

Program Description

The Graduate Diploma in Biotechnology program includes advanced treatments of all areas of biotechnology. It is open to graduates with a three-year degree in biotechnology or related discipline, or who have, in the opinion of the Faculty Postgraduate Committee, acquired qualification or experience.

The program consists of lectures, tutorials, practical sessions, case history studies and a supervised project.

The minimum period of registration before the award of the degree is two sessions for full-time students and four sessions for part-time students. Full time students must enrol in 18 units of credit per session.

Program Structure

A total of 36 Units of credit

BIOT7070	Recombinant Protein Expression Systems	(6 UOC)
BIOT7160	Genomics and Proteomics	(6 UOC)
BIOT7180	Biotechnology Research Project 1	(6 UOC)
BIOT7190	Biotechnology Research Project 2	(6 UOC)

Plus one of the following courses:

BIOT7081	Environmental Biotechnology	(6 UOC)
BIOT7072	Eukaryotic Cell Physiol. & Stem Cell Biol.	(6 UOC)

Plus one of the following courses:

BIOT7071	Biochemical Engineering	(6 UOC)
BIOT7080	Biopharmaceutical Production Process	(6 UOC)
BIOT7170	Therapeutic Modalities of Biopharmaceuticals	(6 UOC)
BINF9010	Bioinformatics Methods & Applications	(6 UOC)

Note: Students may replace one of the elective courses (6 UOC) with a course of equivalent value from another department or school with permission from the convenor and the Head of School of Biotechnology and Biomolecular Sciences.

Academic Rules

For academic rules relating to this program, please refer to the **Conditions for the Award of the Graduate Diploma (GradDip)** under 'Program Rules and Information – Coursework Degrees' in this Handbook.

8049 Master of Science in Biopharmaceuticals

MSc

Typical Duration
1 year

Minimum UOC for Award
48 units of credit

Typical UOC per Session
24 units of credit

Program Description

This is an interdisciplinary program designed for graduates with backgrounds in either pharmacology or biotechnology who wish to obtain advanced training in both areas in order to gain expertise necessary for the development and use of the new generation of biopharmaceuticals which have been developed by, or result from, the application of molecular biology and recent developments in genomics and proteomics.

It is open to graduates with a four year degree in a related discipline or who have, in the opinion of the Faculty Postgraduate Coursework Committee, acquired equivalent qualifications or experience. **Prior study of biochemistry is required for the program**.

The program teaches the scientific bases underscoring the development of recombinant biopharmaceuticals, combined with aspects of clinical trials, regulatory considerations, patent issues and licensing. The program content is incorporated in courses that can be delivered either in distance or on campus mode. The courses are comprised of written text containing program materials, demonstrations and self-testing exercises. For distance students, one day of face-to-face teaching is provided per course. In addition, there is access to the course coordinators by phone, email and teleconferencing facilities and tutorials for on campus students.

Program Structure

The Master of Science in Biopharmaceuticals program calls for the completion of eight courses that is equivalent to 48 units of credit. The program is run in two twenty-week sessions and can be completed in one

year full-time. Part-time students can enrol in two courses per session, allowing the program to be completed in two years part-time.

Master of Science in Biopharmaceuticals (On Campus)

BIOT7070	Recombinant Protein Expression Systems	(6 UOC)
BIOT7080	Biopharmaceutical Production Process	(6 UOC)
BIOT7160	Genomics and Proteomics	(6 UOC)
BIOT7170	Therapeutic Modalities of Biopharmaceuticals	(6 UOC)
BIOT7180	Biotechnology Research Project 1	(6 UOC)
BIOT7190	Biotechnology Research Project 2	(6 UOC)
PHPH9100	Discovery and Pre-clinical Development of New Medicines	(6 UOC)
PHPH9101	Principles of Drug Action	(6 UOC)

Master of Science in Biopharmaceuticals (Distance)*

BIOT7070	Recombinant Protein Expression Systems	(6 UOC)
BIOT7080	Biopharmaceutical Production Process	(6 UOC)
BIOT7120	Commercial Considerations for Biopharmaceuticals	(6 UOC)
BIOT7160	Genomics and Proteomics	(6 UOC)
BIOT7170	Therapeutic Modalities of Biopharmaceuticals	(6 UOC)
PHPH9100	Discovery and Pre-clinical Development of New Medicines	(6 UOC)
PHPH9101	Principles of Drug Action	(6 UOC)
PHPH9120	Clinical Development of Medicines	(6 UOC)

***Note:** Distance education mode is designed for students residing in Australia only.*

Academic Rules

Conditions for the Award of the Degree: Master of Science by Coursework (MSc) – Biotechnology/Biopharmaceuticals

1. The degree of Master of Science by formal coursework may be awarded by the Council to a candidate who has satisfactorily completed a program of advanced study.

Qualifications

2. (1) A candidate of the degree shall have been awarded an appropriate degree of Bachelor of four full-time years duration (or the part-time equivalent) from the University of New South Wales or a qualification considered equivalent from another university or tertiary institution at a level acceptable to the Research Committee of the Faculty of Science (hereinafter referred to as the Committee), *or*

(2) An applicant who submits evidence of such other academic or professional attainments as may be approved by the Committee may be permitted to enrol for the degree.

(3) If the Committee is not satisfied with the qualifications submitted by an applicant the Committee may require the applicant to undergo such assessment or carry out such work as the Committee may prescribe, before permitting enrolment.

Enrolment and Progression

3. (1) An application to enrol as a candidate for the degree shall be made on the prescribed form which shall be lodged with the Registrar at least two calendar months before the commencement of the session in which enrolment is to begin.

(2) A candidate for the degree shall be required to undertake such formal courses and pass such assessment as prescribed.

(3) The progress of a candidate shall be reviewed at least once annually by the Committee and as a result of its review the Committee may cancel enrolment or take such other action as it considers appropriate.

(4) No candidate shall be awarded the degree until the lapse of two academic sessions from the date of enrolment in the case of a full-time candidate or four sessions in the case of a part-time candidate. The maximum period of a candidate shall be four academic sessions from the date of enrolment for a full-time candidate and six sessions for a part-time candidate. In special cases an extension of this time may be granted by the Committee.

Fees

4. A candidate shall pay such fees as may be determined from time to time by the Council.

5345 Graduate Diploma in Biochemistry & Molecular Genetics (Research)

GradDip

Typical Duration
1 year

Minimum UOC for Award
48 units of credit

Typical UOC per Session
24 units of credit

Program Description

The program is tailored according to the background and requirements of the individual student. In most cases it would include advanced formal undergraduate training, including lectures in general and medical biochemistry, training in the use of modern biochemical techniques, e.g. scintillation counting, gas liquid chromatography (GLC), high performance liquid chromatography (HPLC), molecular biology, spectrophotometry, nuclear magnetic resonance (NMR) spectroscopy, and animal and plant cell culture. The student would also carry out a research project (or projects) in the laboratory of an academic member of staff and write a report on the project.

The School of Biotechnology and Biomolecular Sciences has a wide range of interests and can offer research projects in most areas of biochemistry. Specialised areas of research are molecular biology, marine biochemistry, parasite biochemistry and plant biochemistry.

Program Structure

Please contact the School of Biotechnology and Biomolecular Sciences for information.

Academic Rules

For academic rules relating to this program, please refer to the **Conditions for the Award of the Graduate Diploma by Research** under 'Program Rules and Information – Coursework Degrees' in this Handbook.

5355 Graduate Diploma in Microbiology and Immunology (Research)

GradDip

Typical Duration
1 year

Minimum UOC for Award
48 units of credit

Typical UOC per Session
24 units of credit

Program Description

The structure of the program would be decided after discussions with students, taking into account their particular background, interest and career goals. Usually students would attend two of the advanced third year courses in either microbial genetics, microbial physiology, environmental microbiology, immunology, medical bacteriology or virology. The rest of the year would be spent carrying out a research project supervised by a member of academic staff.

The School of Biotechnology and Biomolecular Sciences has a number of research teams working on a range of well-funded projects in microbiology, molecular biology and immunology. The diverse research interests of the School can be grouped into the areas of Helicobacter pylori and gastroduodenal disease, immunology of allergic responses, environmental microbiology and remediation, microbiology of extremophiles, water-borne viral pathogens, probiotics, molecular microbiology and genomics, bacterial communication systems, marine microbiology and biotechnology.

Program Structure

Please contact the School of Biotechnology and Biomolecular Sciences for information.

Academic Rules

For academic rules relating to this program, please refer to the **Conditions for the Award of the Graduate Diploma by Research** under 'Program Rules and Information – Coursework Degrees' in this Handbook.

School of Chemistry

Head of School: Professor R Lamb
Director of Graduate Studies: Professor DB Hibbert (contactable via Chemistry Student Office)

For further details contact: Chemistry Student Office, email chemistry@unsw.edu.au
Website: www.chem.unsw.edu.au/

8708 Master of Science and Technology in Chemical Analysis & Laboratory Management

MScTech

Typical Duration
1 year

Minimum UOC for Award
48 units of credit

Typical UOC per Session
24 units of credit

Program Description

This program offers training in advanced chemical analysis techniques and associated management issues. It allows students to select from a series of courses covering all aspects of modern chemical analysis, safety and occupational health issues, and people management. This program is particularly suited to new graduates or laboratory chemists and managers who wish to upgrade their qualification in and knowledge of chemical analysis and related topics.

The MScTech program will normally be completed within one year on a full-time basis, or over two years part-time.

Program Structure

Candidates are required to complete a total of 48 UOC selected from the available offerings with at least 6 UOC being selected from the management courses and at least 6 units of credit from the analysis courses:

Analysis Courses

CHEM7112	Analysis of Biological and Organic Materials	(6 UOC)
CHEM7113	Elemental Analysis	(6 UOC)
CHEM7114	Chromatography	(6 UOC)
CHEM7115	Treatment of Analytical Data	(6 UOC)
CHEM7116	Chromatography/Mass Spectrometry	(6 UOC)
CHEM7117	Molecular Analysis	(6 UOC)
CHEM7118	Surface Analysis of Materials	(6 UOC)

Management Courses

CHEM7111	Quality Assurance and Laboratory Practice	(6 UOC)
IROB5700	Management Work and Organisation	(6 UOC)
IROB5946	Managing Occupational Health and Safety	(6 UOC)
SESC9810	Toxicology	(3 UOC)
SESC9820	Chemical Safety and Toxicology	(3 UOC)
SESC9850	Management of Dangerous Materials	(3 UOC)

Academic Rules

For academic rules relating to this program, please refer to the **Conditions for the Award of the Degree Master of Science and Technology** under 'Program Rules and Information – Coursework Degrees' in this Handbook.

Further Information and Requirements

Admission Requirements

A four year BSc degree with a major in Chemistry or equivalent qualification or a three year BSc degree with at least one year of relevant experience in a laboratory-based career or a three year BSc degree and completion of the units of credit required by the Graduate Diploma in Chemical Analysis and Laboratory Management with at least a credit (65%) average mark and no failures.

Students who have completed and been awarded the Graduate Diploma in Chemical Analysis and Laboratory Management (with a credit average and no failures) and who wish to return to complete the MScTech will normally be granted 30 UOC advanced standing in the MScTech program. Students applying to return after completing and being awarded the Graduate Certificate can apply for advanced standing of up to 12 UOC in the MScTech.

5648 Graduate Diploma in Chemical Analysis & Laboratory Management

GradDip

Typical Duration
1 year

Minimum UOC for Award
36 units of credit

Typical UOC per Session
18 units of credit

Program Description

This program offers training in advanced chemical analysis techniques and associated management issues. It allows students to select from a series of modules covering all aspects of modern chemical analysis, safety and occupational health issues, and people management. The program will normally be completed within one year on a full-time basis, or over two years part-time. It is particularly suited to new graduates or laboratory chemists and managers who wish to upgrade their qualifications in and knowledge of chemical analysis and related topics. This is the second stage in a fully articulated program of Graduate Certificate, Graduate Diploma and Master of Science and Technology in Chemical Analysis and Laboratory Management.

Program Structure

Candidates are required to complete a total of 36 units of credit selected from the following offerings with at least 6 units of credit being selected from the analysis courses and at least 6 units of credit from the management courses:

Analysis Courses

CHEM7112	Analysis of Biological and Organic Materials	(6 UOC)
CHEM7113	Elemental Analysis	(6 UOC)
CHEM7114	Chromatography	(6 UOC)
CHEM7115	Treatment of Analytical Data	(6 UOC)
CHEM7116	Chromatography/Mass Spectrometry	(6 UOC)
CHEM7117	Molecular Analysis	(6 UOC)
CHEM7118	Surface Analysis of Materials	(6 UOC)

Management Courses

CHEM7111	Quality Assurance and Laboratory Practice	(6 UOC)
IROB5700	Management Work and Organisation	(6 UOC)
IROB5946	Managing Occupational Health and Safety	(6 UOC)
SESC9020	Occupational Health and Safety Law 1	(3 UOC)
SESC9810	Toxicology	(3 UOC)
SESC9820	Chemical Safety and Toxicology	(3 UOC)
SESC9850	Management of Dangerous Materials	(3 UOC)

Academic Rules

For academic rules relating to this program, please refer to the **Conditions for the Award of the Graduate Diploma** under 'Program Rules and Information – Coursework Degrees' in this Handbook.

Admission Requirements

Students must have completed a BSc degree with a major in Chemistry or equivalent qualification.

7428 Graduate Certificate in Chemical Analysis and Laboratory Management

GradCert

Typical Duration
0.4 years

Minimum UOC for Award
18 units of credit

Typical UOC per Session
18 units of credit

Program Description

The GradCert program will normally be completed within one year on a part-time basis. This is the first stage in a fully articulated program of Graduate Certificate, Graduate Diploma and Master of Science and Technology in Chemical Analysis and Laboratory Management.

Program Structure

Candidates are required to complete a total of 18 UOC selected from the following offerings with at least 6 UOC being selected from the analysis courses and at least 6 UOC from the management courses:

Analysis Courses

CHEM7112	Analysis of Biological and Organic Materials	(6 UOC)
CHEM7113	Elemental Analysis	(6 UOC)
CHEM7114	Chromatography	(6 UOC)

CHEM7115	Treatment of Analytical Data	(6 UOC)
CHEM7116	Chromatography/Mass Spectrometry	(6 UOC)
CHEM7117	Molecular Analysis	(6 UOC)
CHEM7118	Surface Analysis of Materials	(6 UOC)

Management Courses

CHEM7111	Quality Assurance and Laboratory Practice	(6 UOC)
IROB5700	Management Work and Organisation	(6 UOC)
IROB5946	Managing Occupational Health and Safety	(6 UOC)
SESC9020	Occupational Health and Safety Law 1	(3 UOC)
SESC9810	Toxicology	(3 UOC)
SESC9820	Chemical Safety and Toxicology	(3 UOC)
SESC9850	Management of Dangerous Materials	(3 UOC)

Academic Rules

For academic rules relating to this program, please refer to the **Conditions for the Award of the Graduate Certificate** under 'Program Rules and Information – Coursework Degrees' in this Handbook.

Admission Requirements

BSc degree with a major in Chemistry or equivalent qualification.

5647 Graduate Diploma in Chemistry (Research)

GradDip(Research)

Typical Duration
1 year

Minimum UOC for Award
48 units of credit

Typical UOC per Session
24 units of credit

Program Description

The Graduate Diploma in Chemistry (Research) offers an advanced training program for graduates who wish to update their knowledge of Chemistry and/or satisfy requirements for admission to a research degree in Chemistry. The GradDip(Research) program will normally be completed in one year on a full-time basis, or two year part- time.

Entry Qualifications

A three- or four-year BSc degree with a major in Chemistry or equivalent qualification. Students qualified to enrol in the Honours program would be expected to enrol in that program rather than enrol in this Graduate Diploma program.

Program Structure

Program Requirements

Candidates are required to complete 48 UOC, consisting of research project work totalling 24 UOC (two projects, each 12 UOC, or one project compromising 24 UOC) and postgraduate level courses totalling 24 UOC. These courses must include CHEM7119 (Research Skills) and a further 18 UOC of which 12 must come from Chemistry courses that are listed above under program 7428, the Graduate Certificate in Chemical Analysis and Laboratory Management. Students wishing to proceed to a higher degree should consult with their potential supervisor on their choice of courses.

Academic Rules

For academic rules relating to this program, please refer to the **Conditions for the Award of the Graduate Diploma by Research** under 'Program Rules and Information – Coursework Degrees' in this Handbook.

School of Materials Science and Engineering

Head of School: Professor O Ostrovski
Postgraduate Coordinator: Professor CC Sorrell
Website: www.materials.unsw.edu.au

8715 Master of Science and Technology in Engineering Materials

MScTech

Typical Duration
1 year

Minimum UOC for Award
48 units of credit

Typical UOC per Session
24 units of credit

Program Description

The MScTech program in Engineering Materials provides a comprehensive yet flexible study of the full range of materials, including ceramics, composites, metals, and polymers. It is designed for graduates wishing to acquire expertise in the design, selection, use, and performance of modern materials. The program is designed for several types of postgraduate students:

- Graduates with Science, Engineering, Technology, or related backgrounds who seek to broaden their ranges of expertise
- Graduates with Materials Science or Materials Engineering backgrounds who seek to extend specific aspects of their expertise
- Graduates with Materials Science or Materials Engineering backgrounds who seek to update their expertise.

The program consists of one year of full-time study (two sessions) or two years of part-time study (four sessions). This comprises 36 units of credit of formal coursework plus 12 units of credit of experimental and/or design project work (MATS6695 Materials Project). Initial enrolment in Session 1 is preferred, although entrance in Session 2 is permitted. All formal coursework is taught during work hours, although the project work may be undertaken with considerable flexibility in terms of time and location. Enrolment in formal coursework offered by Schools other than the School of Materials Science and Engineering is permitted, subject to the approval of the Head of School.

Program Structure

Course Selection

MATS6605	Professional Communication and Presentation (6 UOC: 3 UOC per session over 2 sessions)	
MATS6615	Materials Design	(6 UOC)
MATS6625	Materials Processing	(6 UOC)
MATS6635	Materials Properties & Behaviour	(6 UOC)
MATS6645	Materials Characterisation	(6 UOC)
MATS6655	Advanced Materials Characterisation	(6 UOC)
MATS6665	Materials Applications & Performance	(6 UOC)
MATS6675	Materials Modelling	(6 UOC)
MATS6685	Management	(6 UOC)
MATS6695	Materials Project (12 UOC: 6 UOC per session over 2 sessions)	

Students must enrol in:

MATS6605	Professional Communication and Presentation (6 UOC: 3 UOC per session over 2 sessions)	
MATS6695	Materials Project (12 UOC: 6 UOC per session over 2 sessions)	

plus a balance of 30 units of credit of formal coursework, consisting of five of the above remaining eight courses (and selected offerings from the School of Materials Science and Engineering and/or other schools if desired).

Academic Rules

For academic rules relating to this program, please refer to the **Conditions for the Award of the Degree Master of Science and Technology** under 'Program Rules and Information – Coursework Degrees' in this Handbook.

School of Mathematics

Head of School: Professor M G Cowling
Director of Graduate Studies: Associate Professor J Du
Website: www.maths.unsw.edu.au

5528 Graduate Diploma in Physical Oceanography (Research)

GradDip

Typical Duration
1 year

Minimum UOC for Award
48 units of credit

Typical UOC per Session
24 units of credit

Program Description

The Graduate Diploma in Physical Oceanography develops skills in planning and execution of oceanographic experiments, the applications and limitations of oceanographic equipment and of commonly used data analysis techniques. Marine Science is a rapidly developing field and people with the kind of training provided by this diploma are in high demand.

Program Objectives and Learning Outcomes

The program also provides excellent training for further research degrees in oceanography.

Program Structure

The program requires 48 units of credit (UOC) for completion and consists of a major project (OCEA5115) worth 50% of the total credit load, and courses as described below. Each candidate's program of study must be approved by the Head of School.

Compulsory Courses

OCEA5115	Experimental Project in Physical Oceanography	(24 UOC)
OCEA5125	Geophysical Fluid Dynamics	(6 UOC)
OCEA5145	Applied Data Analysis	(6 UOC)

Elective Courses

CVEN7802	Coastal Dynamics	(3 UOC)
CVEN7803	Coastal and Beach Processes	(3 UOC)
CVEN7813	Estuarine Processes	(3 UOC)
CVEN7819	Hydrological Processes	(3 UOC)
GEOS9012	Remote Sensing Applications	(6 UOC)
GEOS9021	Image Analysis in Remote Sensing	(6 UOC)
GMAT9606	Microwave Remote Sensing	(6 UOC)
MATH5285	Ocean Modelling	(6 UOC)
OCEA5155	Theoretical Project in Physical Oceanography	(12 UOC)

Note: Not all courses are necessarily offered every year.

Other appropriate courses within Mathematics, Physics or Engineering may be taken with permission of the Head of School.

Further information can be obtained from the School of Mathematics.

Academic Rules

For academic rules relating to this program, please refer to the **Conditions for the Award of the Graduate Diploma by Research** under 'Program Rules and Information – Coursework Degrees' in this Handbook.

8705 Master of Science and Technology in Computation

MScTech

Typical Duration
1 year

Minimum UOC for Award
48 units of credit

Typical UOC per Session
24 units of credit

Program Description

The MScTech degree program in Computation will provide thorough training in modern computational techniques in the areas of computational fluid mechanics and environmental modelling through course work and a focused project in your major field. Admission to the program requires the equivalent of a four-year degree in Science, Engineering or other mathematically-based discipline at a satisfactory level. Candidates must have adequate higher-level language (preferably Fortran) programming skills. The program can be completed in one year of full-time study or two years of part-time study.

Students are required to complete a small research project, worth 12 units of credit, two compulsory courses and four elective courses, chosen from the list below. A total of 48 units of credit are required for the completion of the degree. All the courses below are worth 6 units of credit each. With the approval of the Head of School, a student may take graduate level courses, up to 12 units of credit, which are not on the list below. The project will be supervised by academic members of the Faculty of Science or academic members of the Faculty of Engineering. The student's proposed program requires the approval of the Head of School.

Program Structure

Compulsory Courses

MATH5305	Finite Difference Methods for PDE	(6 UOC)
MATH5315	High Performance Numerical Computing	(6 UOC)

Elective Courses

MATH5115	Finite Element Methods	(6 UOC)
MATH5245	Computational Fluid Dynamics	(6 UOC)
MATH5275	Applied Data Analysis	(6 UOC)
MATH5285	Ocean Modelling	(6 UOC)
MATH5295	Atmospheric Modelling	(6 UOC)
MATH5325	Computational Mesh Generation and Data Visualization	(6 UOC)
MECH9620	Computational Fluid Dynamics	(6 UOC)
MECH9730	Two Phase Flow and Heat Transfer	(6 UOC)

Note: Not all courses are necessarily offered every year.

Academic Rules

For academic rules relating to this program, please refer to the **Conditions for the Award of the Degree Master of Science and Technology** under 'Program Rules and Information – Coursework Degrees' in this Handbook.

5645 Graduate Diploma in Computation

GradDip

Typical Duration
1 year

Minimum UOC for Award
36 units of credit

Typical UOC per Session
18 units of credit

Program Description

The Graduate Diploma will provide thorough training in modern computational techniques in the areas of computational fluid mechanics and environmental modelling.

A student may upgrade to the MScTech program in Computation, following the Faculty articulation rules.

Program Structure

Students are required to complete two compulsory courses and four elective courses, chosen from the list below, to give a total of 36 units of credit. All the courses below are worth 6 units of credit each. With the approval of the Director of Graduate Studies, a student may take graduate level courses, up to 12 units of credit, which are not on the list below. The student's proposed program requires the approval of the Director of Graduate Studies.

Core Courses

MATH5305	Finite Difference Methods for PDE	(6 UOC)
MATH5315	High Performance Numerical Computing	(6 UOC)

Elective Courses

MATH5115	Finite Element Methods	(6 UOC)
MATH5245	Computational Fluid Dynamics	(6 UOC)
MATH5275	Applied Data Analysis	(6 UOC)
MATH5285	Ocean Modelling	(6 UOC)
MATH5295	Atmospheric Modelling	(6 UOC)
MATH5325	Computational Mesh Generation and Data Visualization	(6 UOC)
MECH9620	Computational Fluid Dynamics	(6 UOC)
MECH9730	Two Phase Flow and Heat Transfer	(6 UOC)

Note: Not all courses are necessarily offered every year.

Academic Rules

For academic rules relating to this program, please refer to the **Conditions for the Award of the Graduate Diploma (GradDip)** under 'Program Rules and Information – Coursework Degrees' in this Handbook.

Admission Requirements

Admission to the Graduate Diploma program requires the student to have at least a Pass degree in Science, Engineering or other mathematically based discipline. The program can be completed in one year of full-time study, or over two years for part-time students.

8750 Master of Statistics

MStats

Typical Duration
1.5 years

Minimum UOC for Award
72 units of credit

Typical UOC per Session
24 units of credit

Program Description

The Master of Statistics Program covers a wide range of statistical theory and practice and provides advanced training for practising statisticians. The program may be completed in three sessions of full-time or three years of part-time study, and it is available to graduates with a Pass degree in statistics or an Honours degree in a related field (commonly mathematics) with supporting studies in statistics. Honours graduates in statistics may be exempted from up to 30 units of credit.

Program Structure

The academic requirement for the degree is 72 units of credit. Unless otherwise noted, all courses listed below are 6 units of credit each, while courses offered by other schools may vary in value. A project, worth 12 units of credit, is a compulsory component of the program.

Each candidate's program of study must be approved by the Head of the School.

Compulsory Courses (offered every year)

MATH5835	Stochastic Processes	(6 UOC)
MATH5905	Statistical Inference	(6 UOC)
MATH5925	Project	(12 UOC)
MATH5935	Statistical Consultancy	(6 UOC)

Elective Courses

MATH5806	Applied Regression Analysis	(6 UOC)
MATH5815	Experimental Design	(6 UOC)
MATH5816	Continuous Time Financial Modelling	(6 UOC)
MATH5826	Statistical Methods in Epidemiology	(6 UOC)
MATH5836	Data Mining and its Business Applications	(6 UOC)
MATH5845	Time Series	(6 UOC)
MATH5855	Multivariate Analysis 1	(6 UOC)
MATH5865	Multivariate Analysis 2	(6 UOC)
MATH5875	Sample Survey Design	(6 UOC)
MATH5885	Longitudinal Data Analysis	(6 UOC)
MATH5895	Nonparametric Statistics	(6 UOC)
MATH5915	Medical Statistics	(6 UOC)
MATH5945	Categorical Data Analysis	(6 UOC)
MATH5955	Statistical Quality Control	(6 UOC)
MATH5965	Discrete Time Financial Modelling	(6 UOC)
MATH5995	Special Topics in Financial Mathematics	(6 UOC)

Up to 24 units of credit may be taken in graduate courses offered by other departments or schools within the University, subject to the approval of the Head of School.

Note: MATH5816 has the prerequisite MATH5965.

Academic Rules

Conditions for the Award of the Degree: Master of Statistics (MStats)

1. The degree of Master of Statistics by formal coursework may be awarded by the Council to a candidate who has satisfactorily completed a program of advanced study.

Qualifications

2. (1) A candidate for the degree shall have been awarded a degree of Bachelor with major studies in statistics from the University of New South Wales or a qualification considered equivalent from another university or tertiary institution at a level acceptable to the Postgraduate Coursework Education Committee of the Faculty of Science (hereinafter referred to as the Committee).

(2) In exceptional cases, an applicant who submits evidence of such other academic and professional qualifications as may be approved by the Committee may be permitted to enrol for the degree.

(3) If the Committee is not satisfied with qualifications submitted by an applicant the Committee may require the applicant to undergo such assessment or carry out such work as the Committee may prescribe, before permitting enrolment.

Enrolment and Progression

3. (1) An application to enrol as a candidate for the degree shall be made on the prescribed form which shall be lodged with the Registrar at least two calendar months before the commencement of the session in which enrolment is to begin.

(2) A candidate for the degree shall be required to undertake such formal courses and pass such assessment as prescribed.

(3) The progress of a candidate shall be reviewed at least once annually by the Committee and as a result of its review the Committee may cancel enrolment or take such other action as it considers appropriate.

(4) No candidate shall be awarded the degree until the lapse of three academic sessions from the date of enrolment in the case of a full-time candidate or six sessions in the case of a part-time candidate. In the case of a candidate who has been awarded a degree of Bachelor with Honours in Statistics the Committee may approve remissions of up to one session for a full-time candidate and two sessions for a part-time candidate. The maximum period of candidature shall be four academic sessions from the date of enrolment for a full-time candidate and eight sessions for a part-time candidate. In special cases, an extension of these times may be granted by the Committee.

Fees

4. A candidate shall pay such fees as may be determined from time to time by the Council.

5659 Graduate Diploma in Statistics

GradDip

Typical Duration
1 year

Minimum UOC for Award
48 units of credit

Typical UOC per Session
24 units of credit

Program Description

This Graduate Diploma is intended for Statistics graduates wishing to further develop their knowledge and skills in statistical science. In particular, it provides an opportunity for advanced training in topics relevant to Medical Statistics and Financial Mathematics.

Program Structure

The program may be taken over one year full-time or on a part-time basis. The total number of units of credit is 48, six for each course.

The program consists of eight courses from the MStats program (excluding MATH5925 and MATH5935). At most two courses may be selected from those offered by other departments or schools within the University.

Academic Rules

For academic rules relating to this program, please refer to the **Conditions for the Award of the Graduate Diploma** under 'Program Rules and Information – Coursework Degrees' in this Handbook.

Admission Requirements

Basic entry qualifications for this program are a degree in Statistics or Econometrics or a degree in Commerce with a major in Business Statistics or an approved equivalent.

8718 Master of Science and Technology in Mathematics

MScTech

Typical Duration
1 year

Minimum UOC for Award
48 units of credit

Typical UOC per Session
24 units of credit

Program Description

The Master of Science and Technology in Mathematics degree program is intended for suitably qualified graduates in applied mathematics, pure mathematics or statistics, but others may be admitted after completing a qualifying program. The program may be completed in one year of

full-time or two years of part-time study. The program may be taken as a preliminary step towards enrolment in the PhD program in mathematics. It also provides advanced training for persons specialising in the teaching of mathematics in tertiary institutions. In addition an appropriate program may provide training for those employed or seeking employment in the area of industrial mathematics.

Program Structure

The program consists of seven approved lecture courses, each worth six units of credit, and a compulsory project also worth six units of credit. The total number of units of credit required for the program is 48 units of credit. With the approval of the Head of the School of Mathematics a student may substitute for one or more of the lecture courses a reading course supervised by a member of staff. Again with this approval a student may substitute for at most three of the graduate courses offered in a relevant discipline outside the School of Mathematics. The project consists of either a critical review of the literature in a specific field of mathematics, or a short research project supervised by a staff member. Students are also required to participate in relevant departmental seminars. There are no compulsory courses and students may choose from a wide variety of courses within the School of Mathematics or elsewhere within the university. The courses to be offered in any particular year will be described on the School's website, **www.maths.unsw.edu.au**. Each candidate's proposed program of study requires the approval of the Head of the School of Mathematics.

Academic Rules

For academic rules relating to this program, please refer to the **Conditions for the Award of the Degree Master of Science and Technology** under 'Program Rules and Information – Coursework Degrees' in this Handbook.

School of Optometry and Vision Science

Head of School: Associate Professor S Dain
Postgraduate Studies Coordinator: Dr C Suttle
Website: www.optom.unsw.edu.au

The postgraduate programs in Optometry and Vision Science provide advanced training in clinical and theoretical aspects of optometry and vision science, with opportunities for specialisation in fields such as contact lenses, occupational optometry and behavioural optometry.

Please note that all courses offered will only be conducted if there is sufficient demand. For information about courses offered in the current session, please refer to the School website **www.optom.unsw.edu.au**

8760 Master of Optometry

MOptom

Typical Duration
1 year

Minimum UOC for Award
48 units of credit

Typical UOC per Session
24 units of credit

Program Description

The Master of Optometry program consists of a selection of courses from the electives listed below. Up to 15 units of credit may be taken elsewhere in the University subject to the approval of the Head of School. Each course comprises 3, 6 or 12 units of credit, which count towards the total of 48 units of credit required for this degree. A number of the courses have prerequisites, corequisites or exclusions, as indicated in the course descriptions. The program may be completed in one year of full-time study or in two or more years of part-time study. The program provides advanced training in clinical and theoretical aspects of optometry, with opportunities for specialisation in fields such as contact lenses, occupational optometry, and behavioural optometry.

All courses offered will only be conducted if there is sufficient demand. For information about courses offered in the current session, please refer to the School website **www.optom.unsw.edu.au**

Program Objectives and Learning Outcomes

The Master of Optometry is intended as a suite of courses that allow optometrists to increase and update their understanding of a range of issues related to Optometry and Vision Science. It is anticipated that knowledge and understanding gained during the MOptom will be useful for optometrists in clinical practice. The program aims to stimulate participants' interest in current optometry and vision science issues, such that optometrists graduating from this program will continue in the long term to update and question their understanding of relevant issues and topics. Further, the MOptom program aims to generate and stimulate critical thinking ability, providing graduates with the tools needed to evaluate critically and the confidence to question the basis of new products and techniques introduced to clinical optometry, and optometric findings discussed in the literature.

Program Structure

Courses

OPTM7103	Behavioural Optometry 1	(6 UOC)
OPTM7104	Advanced Contact Lens Studies 1	(6 UOC)
OPTM7106	Occupational Optometry 1	(6 UOC)
OPTM7108	Small Research Project	(6 UOC)
OPTM7110	Public Health Optometry	(6 UOC)
OPTM7111	Pathophysiology of Ocular Disease 1	(3 UOC)
OPTM7112	Pathophysiology of Ocular Disease 2	(3 UOC)
OPTM7113	Human Visual Development	(6 UOC)
OPTM7114	Rehabilitation of the Partially Sighted	(6 UOC)
OPTM7115	Visual Neuroscience	(6 UOC)
OPTM7203	Behavioural Optometry 2	(6 UOC)
OPTM7204	Advanced Contact Lens Studies 2	(6 UOC)
OPTM7206	Occupational Optometry 2	(6 UOC)
OPTM7211	Pathophysiology of Ocular Disease 3	(3 UOC)
OPTM7212	Pathophysiology of Ocular Disease 4	(3 UOC)
OPTM7301	Advanced Clinical Optometry	(12 UOC)
OPTM7307	Clinical Imaging	(6 UOC)
OPTM7308	Research Project	(12 UOC)
OPTM7309	Ocular Therapy	(12 UOC)

Academic Rules

Conditions for the Award of the Degree: Master of Optometry (MOptom)

1. The degree of Master of Optometry by formal coursework may be awarded by the Council to a candidate who has satisfactorily completed a program of advanced study.

Qualifications

2. (1) A candidate for the degree shall have been awarded an appropriate degree of Bachelor of four full-time year's duration (or the part-time equivalent) from The University of New South Wales or a qualification considered equivalent from another university or tertiary institution at a level acceptable to the Postgraduate Coursework Education Committee of the Faculty of Science (hereinafter referred to as the Committee).

(2) In exceptional cases, an applicant who submits evidence of such other academic and professional qualifications as may be approved by the Committee may be permitted to enrol for the degree.

(3) If the Committee is not satisfied with the qualifications submitted by an applicant the Committee may require the applicant to undertake such assessment or carry out such work as the Committee may prescribe, before permitting enrolment.

Enrolment and Progression

3. (1) An application to enrol as a candidate for the degree shall be made on the prescribed form which shall be lodged with the Registrar two calendar months before the commencement of the session in which enrolment is to begin.

(2) A candidate for the degree shall be required to undertake such formal courses and pass such assessment as prescribed.

(3) The progress of a candidate shall be reviewed at least once annually by the Committee and as a result of its review the Committee may cancel enrolment or take such other action as it considers appropriate.

(4) No candidate shall be awarded the degree until the lapse of two academic sessions from the date of enrolment in the case of a full-time candidate or four sessions in the case of a part-time candidate. The maximum period of a candidature shall be four academic sessions in the case of a full-time candidate and eight sessions for a part-time candidate. In special cases an extension of this time may be granted by the Committee.

Fees

4. A candidate shall pay such fees as may be determined from time to time by the Council.

5665 Graduate Diploma in Optometry

GradDip

Typical Duration
1 year

Minimum UOC for Award
36 units of credit

Typical UOC per Session
18 units of credit

Program Description

The Graduate Diploma in Optometry program consists of a selection of courses from the electives listed for the MOptom. Up to 12 units of credit may be taken from elsewhere in the University, subject to the approval of the Head of School. Courses comprise 3, 6 or 12 units of credit, which count towards the total of 36 units of credit required for this graduate award. A number of the courses have prerequisites, corequisites or exclusions, as indicated in the course descriptions. The program may be completed in one year of full-time study, or in two or more years of part-time study. The program provides advanced training in clinical and theoretical aspects of optometry, with opportunities for specialisation in fields such as contact lenses, occupational optometry and behavioural optometry.

On successful completion of the GradDip, the student may decide to continue with postgraduate study at the MOptom level. The student may choose not to accept the GradDip award and instead use all 36 units of credit towards an MOptom degree. Alternatively, if the GradDip is awarded, 30 units of credit may be used in this way. Thus the postgraduate student may progress towards a higher degree at a level of their choice. This system is intended to make postgraduate study accessible to optometrists with time constraints.

All courses offered will only be conducted if there is sufficient demand. For information about courses offered in the current session, please refer to the School website **www.optom.unsw.edu.au**

Program Objectives and Learning Outcomes

Objectives of the Graduate Diploma program are as those for the MOptom program. This program is on a smaller scale than the MOptom, and offers an opportunity to increase and update understanding of a smaller range of topics, within a shorter period. In addition, the Graduate Diploma provides a stepping-stone toward the MOptom, for optometrists with an undergraduate degree in Optometry of less than four years' duration.

Program Structure

Available courses are as listed for the Master of Optometry (8760).

Academic Rules

For academic rules relating to this program, please refer to the **Conditions for the Award of the Graduate Diploma** under 'Program Rules and Information – Coursework Degrees' in this Handbook.

7435 Graduate Certificate in Optometry

GradCert

Typical Duration
0.4 years

Minimum UOC for Award
18 units of credit

Typical UOC per Session
18 units of credit

Program Description

The Graduate Certificate in Optometry program consists of a selection of courses from the electives listed for the MOptom. Up to 6 units of credit may be taken from elsewhere in the University, subject to the approval of the Head of School. Courses comprise 3, 6 or 12 units of credit, which count towards the total of 18 units of credit required for this graduate award. A number of the courses have prerequisites, corequisites or exclusions, as indicated in the course descriptions. The program may be completed in one session of full-time study, or in two or more sessions of part-time study. The program provides advanced training in clinical and theoretical aspects of optometry, with opportunities for specialisation in fields such as contact lenses, occupational optometry and behavioural optometry.

On successful completion of the GradCert, the student may decide to continue with postgraduate study at a higher level. Some or all of the units of credit achieved in the GradCert program may be counted towards a GradDip or MOptom degree. The student may use all 18 units of credit in this way if the GradCert is not awarded, or 12 units of credit if the degree is awarded. The introduction of the GradCert and GradDip programs in optometry is intended to allow the postgraduate student to take progressive steps towards a higher degree at a level of their choice and to appeal to practising optometrists with time constraints.

All courses offered will only be conducted if there is sufficient demand. For information about courses offered in the current session, please refer to the School website **www.optom.unsw.edu.au**

Program Objectives and Learning Outcomes

Objectives of the Graduate Certificate program are as those for the MOptom program. As for the Graduate Diploma, this program is on a smaller scale than the MOptom, and offers an opportunity to increase and update understanding of a smaller range of topics, within a shorter period. In addition, the Graduate Certificate provides a stepping-stone toward the Graduate Diploma and the MOptom, for optometrists with an undergraduate degree in Optometry of less than four years' duration.

Program Structure

Available courses are as listed for the Master of Optometry (8760).

Academic Rules

For academic rules relating to this program, please refer to the **Conditions for the Award of the Graduate Certificate** under 'Program Rules and Information – Coursework Degrees' in this Handbook.

5523 Graduate Diploma in Optometry (Research)

GradDip(Research)

Typical Duration
1 year

Minimum UOC for Award
48 units of credit

Typical UOC per Session
24 units of credit

Program Description

The Graduate Diploma by Research in Optometry offers graduates, with at least a three-year Optometry degree, training and experience in scientific research and specialised training in aspects of Optometry. The program comprises 48 units of credit, 24 of which are to be gained by completion of a research project (OPTM7116 and OPTM7117), and 24 by coursework. It is expected that the Diploma will allow entry to a higher research degree program for those students without an Honours degree. Candidates anticipating progression to a higher research degree should consult with their supervisor to ensure an appropriate choice of courses for their chosen field of study. The range of courses available is identical to those offered in the MOptom program. The program may be completed on a full-time (two sessions duration) or part-time (four sessions duration) basis. Candidates must be based on campus.

Program Objectives and Learning Outcomes

The Graduate Diploma by Research in Optometry was introduced to offer optometrists who have not taken an Honours year an opportunity to gain experience of research in optometry and vision science, at the same time as increasing understanding of a range of issues in these areas. The program aims to update and increase knowledge in these areas, and to generate critical thinking ability, and to provide skills in scientific research. It is anticipated that graduates from this program will progress to a higher research degree.

Program Structure

Available courses are as listed for the MOptom except OPTM7108 and OPTM7308.

Academic Rules

For academic rules relating to this program, please refer to the **Conditions for the Award of the Graduate Diploma by Research** under 'Program Rules and Information – Coursework Degrees' in this Handbook.

School of Physics

Head of School: Professor W Couch
Postgraduate Director: Professor M Gal
Website: www.phys.unsw.edu.au

8722 Master of Science and Technology in Optoelectronics and Photonics

MScTech

Typical Duration
1 year

Minimum UOC for Award
48 units of credit

Typical UOC per Session
24 units of credit

Program Description

This MScTech by coursework degree program aims to provide a broad, advanced and interdisciplinary education in the field of photonics and optoelectronics. The program may be completed in two sessions of full-time study or longer as a part-time student. Most of the courses in the program may also be completed by distance education. The laboratory-based courses are only available at the UNSW campus. Students who are unable to attend the laboratory classes will only be able to complete the Graduate Diploma. Course requirements include a total of 48 UOC from a combination of core (36 UOC) and elective (12 UOC) courses.

Program Structure

36 units of credit from the following core courses:

PHYS9310	Physics of Solid State Devices	(6 UOC)
ELEC9350	Optical Fibres	(6 UOC)
PHYS9761	Optoelectronics Laboratory I	(6 UOC)
PHYS9762	Optoelectronics Laboratory 2	(6 UOC)
PHYS9710	Lasers and Applications	(6 UOC)
ELEC9355	Optical Communications Systems	(6 UOC)

12 units of credit from the following electives:

ELEC9502	VLSI Technology	(6 UOC)
PHYS9060	Advanced Optics	(6 UOC)
ELEC9505	Microsystems Technology: Design and Microfabrication	(6 UOC)

Academic Rules

For academic rules relating to this program, please refer to the **Conditions for the Award of the Degree Master of Science and Technology** under 'Program Rules and Information – Coursework Degrees' in this Handbook.

5662 Graduate Diploma in Optoelectronics and Photonics

GradDip

Typical Duration
0.8 years

Minimum UOC for Award
36 units of credit

Typical UOC per Session
18 units of credit

Program Description

This Graduate Diploma provides students with the opportunity to study the basic sciences and technologies that underlie the field of optoelectronics. The names 'optoelectronics' and 'photonics' typically cover areas such as optical communications and various applications of lasers and optics in modern industrial and medical settings. This program offers theoretical and practical training in the areas that form the foundation of these strongly growing and fast changing technologies.

This program may be completed in two sessions full-time, or longer as a part-time student. It may also be completed by distance education. The laboratory-based courses are only available at the UNSW campus.

Program Structure

Program requirements include a total of 36 units of credit from a combination of core (24 units of credit) and elective (12 units of credit) courses.

Core Courses (24UOC)

ELEC9350	Optical Fibres	(6 UOC)
ELEC9355	Optical Communications Systems	(6 UOC)
PHYS9310	Physics of Solid State Devices	(6 UOC)
PHYS9710	Lasers and Applications	(6 UOC)

Elective Courses (12UOC)

ELEC9502	VLSI Technology	(6 UOC)
ELEC9505	Microsystems Technology: Design and Microfabrication	(6 UOC)
PHYS9060	Advanced Optics	(6 UOC)
PHYS9761	Optoelectronics Laboratory I	(6 UOC)
PHYS9762	Optoelectronics Laboratory 2	(6 UOC)

Academic Rules

For academic rules relating to this program, please refer to the **Conditions for the Award of the Graduate Diploma** under 'Program Rules and Information – Coursework Degrees' in this Handbook.

Admission Requirements

Entry requirements are a BSc degree with a major in Physics or equivalent qualifications. Advanced standing or substitution of up to 12 units of credit may be granted where prior knowledge can be demonstrated on consultation with the program authority.

7432 Graduate Certificate in Optoelectronics and Photonics

GradCert

Typical Duration
0.4 years

Minimum UOC for Award
18 units of credit

Typical UOC per Session
18 units of credit

Program Description

This Graduate Certificate program provides students with the opportunity to study the fundamentals of photonics and optoelectronics. The names 'optoelectronics' and 'photonics' typically cover areas such as optical communications and various applications of lasers and optics. This program offers theoretical and practical training in some of the disciplines that underlie these strongly growing and fast changing technologies.

The program may be completed in one session full-time or longer as a part-time student. The program may also be completed by distance education. The laboratory-based courses are only available at the UNSW campus.

Program Structure

Course requirements include a total of 18 units of credit (UOC) from a combination of core courses (12 UOC) and one elective (6 UOC).

12 UOC from the following core courses:

PHYS9710	Lasers and Applications	(6 UOC)
PHYS9720	Optoelectronics	(6 UOC)

6 UOC from the following elective courses:

PHYS9060	Advanced Optics	(6 UOC)
PHYS9310	Physics of Solid State Devices	(6 UOC)
PHYS9761	Optoelectronics Laboratory I	(6 UOC)
PHYS9762	Optoelectronics Laboratory 2	(6 UOC)

Academic Rules

For academic rules relating to this program, please refer to the **Conditions for the Award of the Graduate Certificate** under 'Program Rules and Information – Coursework Degrees' in this Handbook.

Admission Requirements

BSc degree with a major in Physics or equivalent qualifications. Advanced standing or substitution of up to 6 units of credit may be granted where prior knowledge can be demonstrated on consultation with the program authority.

5533 Graduate Diploma in Physics (Research)

GradDip

Typical Duration
1 year

Minimum UOC for Award
48 units of credit

Typical UOC per Session
24 units of credit

Program Description

The GradDip by Research in Physics will be offered with program work and research project requirements similar to Physics Level IV, with substitutions if required to be approved by the School Postgraduate Coordinator. The program involves two sessions full-time study or four sessions part-time study comprising a total of 24 units of credit, plus a single research project over the period of study or two different research projects, one in each half of the period of study (total 24 units of credit). All students normally take programs in quantum mechanics, statistical mechanics, electromagnetism and solid state physics. Other lecture programs and the research projects are offered in general areas of Physics including Astrophysics, Biophysics, Condensed Matter Physics and Theoretical Physics.

More details may be found on the School website at **www.phys.unsw.edu.au**

Program Objectives and Learning Outcomes

The Graduate Diploma in Physics offers an advanced training program for graduates from overseas universities who wish to obtain specialised training in Physics. The program is also available to graduates from Australian universities who have not done an Honours program and who wish to pursue postgraduate study in Physics. Students qualified to enrol in the Honours program would be expected to do so rather than to enrol in this GradDip program. For suitably qualified students the expectation is that the program would allow entrance to a higher degree research program provided suitable supervision and facilities were available.

Program Structure

Please contact the School of Physics for information.

Academic Rules

For academic rules relating to this program, please refer to the **Conditions for the Award of the Graduate Diploma by Research** under 'Program Rules and Information – Coursework Degrees' in this Handbook.

5663 Graduate Diploma in Physics Research Techniques (Research)

GradDip

Typical Duration
1 year

Minimum UOC for Award
48 units of credit

Typical UOC per Session
24 units of credit

Program Description

The Graduate Diploma in Physics Research Techniques offers an advanced training program for graduates who wish to update their knowledge of physics and/or satisfy requirements for admission to a research degree in physics. The program involves two sessions full-time study or four sessions part-time study and consists of courses at Level III/IV totalling 30 units of credit and a research project (18 units of credit). The choice of courses is very flexible. Most courses selected should be from the School of Physics but courses from other schools may be included. Students wishing to proceed to a research degree should consult with their potential supervisor on their choice of courses.

Details of physics courses available may be found on the School website at **www.phys.unsw.edu.au**

Program Structure

Please contact the School of Physics for information.

Academic Rules

For academic rules relating to this program, please refer to the **Conditions for the Award of the Graduate Diploma by Research** under 'Program Rules and Information – Coursework Degrees' in this Handbook.

School of Psychology

Head of School: Prof P Lovibond
Website: www.psy.unsw.edu.au

5330 Graduate Diploma in Psychology (Research)

GradDip

Typical Duration
1 year

Minimum UOC for Award
48 units of credit

Typical UOC per Session
24 units of credit

Program Description

The Graduate Diploma is designed as a one year full-time period of study and research in Psychology. It is intended primarily as an advanced training program for graduates from overseas universities who wish to obtain specialised training in Psychology. The expectation is that for suitably qualified students, the program would allow entrance to a higher degree program (MSc or PhD) provided suitable supervision and facilities were available. The program is also available to students who have completed an Honours first degree at an Australian university in an area other than Psychology and who wish to pursue graduate research (MSc or PhD) study in Psychology which links to their first degree e.g. a student may have completed an Honours degree in Zoology and wishes to undertake graduate research in animal behaviour.

The Graduate Diploma does not satisfy the requirements for an accredited Fourth Year as defined by the Australian Psychological Society and Government Registration Board. To meet these requirements, students who have completed a Pass Science degree in Psychology from another Australian university would need to apply for admission to the Fourth Year Honours program in Psychology. Students who are admitted to and complete this one-year full-time program are awarded a Bachelor of Science Honours degree.

Program Objectives and Learning Outcomes

The Graduate Diploma program is adapted to suit the needs and objectives of each student, taking into account the areas of psychology in which they have already demonstrated competence. It comprises formal teaching in an approved set of courses drawn from the following areas: research methods and statistics, perception, learning, cognitive psychology, psycholinguistics, social psychology, clinical psychology, developmental psychology, personality, physiological psychology, abnormal psychology, and applied psychology. Both lectures and practical work will be given.

Students normally also carry out a research project under the supervision of a member of the academic staff of the School. Active research programs exist in most areas including abnormal and clinical psychology, behavioural neuroscience, cognitive science, cognition and perception, data analysis and psychometrics, industrial and organisational, psychometrics, and social, personality and developmental psychology. Particular attention is paid to the interrelationship between scientific theory and the practical application of psychological knowledge.

Program Structure

Please contact the School of Psychology for information.

Academic Rules

For academic rules relating to this program, please refer to the **Conditions for the Award of the Graduate Diploma by Research** under 'Program Rules and Information – Coursework Degrees' in this Handbook.

8256 Master of Psychology (Clinical)

MPsychol(Clin)

Typical Duration
2 years

Minimum UOC for Award
96 units of credit

Typical UOC per Session
24 units of credit

Program Description

The program consists of three components, all of which are compulsory:

1. coursework (weekly lectures and seminars with associated written forms of assessment);

2. professional practice (completion of a minimum of 1,000 hours of supervised clinical practice within the School Clinic and in field clinical settings, weekly Clinical meetings and Skills Training Workshops);

3. a research thesis.

The three components total 96 units of credit (48 in each stage).

Program Objectives and Learning Outcomes

This program provides graduate training for psychologists who intend to work as clinicians in hospitals, community health and other settings where they might be engaged in health promotion and the diagnosis, assessment and treatment of people with a range of psychological problems or disabilities. It is accredited as fifth and sixth years of study leading to full membership of the Australian Psychological Society and to its College of Clinical Psychologists, and registration as a psychologist in New South Wales.

Program Structure

Stage 1

PSYC7000	Research and Evaluation Methods	(6 UOC)
PSYC7001	Psychological Assessment 1	(6 UOC)
PSYC7204	Child Clinical Psychology	(6 UOC)
PSYC7210	Human Neuropsychology	(6 UOC)
PSYC7212	Experimental Clinical Psychology 1	(6 UOC)
PSYC7221	Experimental Clinical Psychology 2	(6 UOC)
PSYC7223	Professional and Ethical Practice (Clinical) 1	(6 UOC)
PSYC7224	Professional and Ethical Practice (Clinical) 2	(6 UOC)

Stage 2

PSYC7220	Psychology of Health and Illness	(6 UOC)
PSYC7222	Experimental Clinical Psychology 3	(6 UOC)
PSYC7225	Professional and Ethical Practice (Clinical) 3	(6 UOC)
PSYC7226	Professional and Ethical Practice (Clinical) 4	(6 UOC)
PSYC7227	Research Thesis (Clinical) 1	(12 UOC)
PSYC7228	Research Thesis (Clinical) 2	(12 UOC)

PSYC7227 and PSYC7228 together contribute 25 per cent to the overall grading for the degree.

Academic Rules

Conditions for the Award of the Degree Master of Psychology (Clinical) (MPsychol(Clin)), Master of Psychology (Forensic) (MPsychol(For)) and Master of Psychology (Organisational) (MPsychol(Org))

1. The degree of Master of Psychology (Clinical), Master of Psychology (Forensic) or Master of Psychology (Organisational) by formal coursework and thesis may be awarded by the Council to a candidate who has satisfactorily completed a program of advanced study. The degree shall be awarded at the Pass level or with the grade of Honours Class 1 or with the grade of Honours Class 2 (two divisions).

Qualifications

2. (1) A candidate for the degree shall have been awarded an appropriate degree of Bachelor with Honours in Psychology from the University of New South Wales or a qualification considered equivalent from another university or tertiary institution, at a level acceptable to the Higher Degree Committee of the Faculty of Science (hereinafter referred to as the Committee).

(2) In exceptional cases, an applicant who submits evidence of such other academic and professional qualifications as may be approved by the Committee may be permitted to enrol for the degree.

(3) If the Committee is not satisfied with the qualifications submitted by an applicant the Committee may require the applicant to undergo such assessment or carry out such work as the Committee may prescribe, before permitting enrolment.

Enrolment and Progression

3. (1) An application to enrol as a candidate for the degree shall be made on the prescribed form which shall be lodged with the Registrar at least four calendar months before the commencement of the session in which enrolment is to begin.

(2) A candidate for the degree shall be required to undertake such formal courses and pass such assessment as prescribed.

(3) The progress of a candidate shall be reviewed at least once annually by the Committee and as a result of its review the Committee may cancel enrolment or take such other action as it considers appropriate.

(4) No candidate shall be awarded the degree until the lapse of four academic sessions from the date of enrolment in the case of a full-time candidate or six sessions in the case of a part-time candidate. The maximum period of candidature shall be six academic sessions from the date of enrolment for a full-time candidate and ten sessions for a part-time candidate. In special cases a variation of these times may be granted by the Committee.

Fees

4. A candidate shall pay such fees as may be determined from time to time by the Council.

Admission Requirements

The normal entrance requirement is completion of an Honours Class 1 or Class 2 degree in Psychology from the University of New South Wales or a qualification considered equivalent.

Selection is based on academic qualifications for the program. As the number of places is limited, entry into the program is competitive. Referees reports will be sought for applicants who are short listed and an interview may be required.

Applicants who do not satisfy these entrance requirements may in exceptional circumstances be admitted, depending upon their knowledge, experience, occupation and the nature of their undergraduate training. Students applying under these provisions will usually be required to complete a qualifying program before they are admitted.

Further Information

Duration: It should be noted that the program extends over two calendar years (rather than four academic sessions with vacation breaks).

The minimum period of registration before the award of the degree is four sessions for full-time students and six sessions for part-time students. Students with advanced standing may have the minimum period reduced by up to one half of the program i.e. a reduction of one session if a student has completed a PhD in an approved area of Psychology and one session if a student has completed part of the coursework program.

Part-time students: Part-time students normally are expected to take half the full-time program in any one session.

8257 Master of Psychology (Forensic)

MPsychol(For)

Typical Duration
2 years

Minimum UOC for Award
96 units of credit

Typical UOC per Session
24 units of credit

Program Description

The program consists of three components, all of which are compulsory:

1. coursework (weekly lectures and seminars with associated written forms of assessment);

2. professional practice (completion of a minimum of 1000 hours of supervised practice in forensic settings, weekly Forensic Psychology meetings, and Skills Training Workshops);

3. a research thesis.

The three components total 96 units of credit (48 in each stage).

Program Objectives and Learning Outcomes

This program provides graduate training for psychologists who intend to pursue employment within a setting associated with the legal system - police, courts, prisons, probation and parole, guardianship, child protection, statutory review tribunals (e.g. mental health), worker compensation, licensing of special programs and community services, public policy and legislative review. Graduates will be trained in the assessment of people with a range of psychological disorders, disabilities and/or special needs, be equipped with advanced interviewing and counselling skills for dealing with such clients, and familiar with statutory and common law provisions and procedures and government policies and programs relevant to different forensic settings. It is accredited as fifth and sixth years of study leading to full membership of the Australian

Psychological Society and to its College of Forensic Psychologists, and registration as a psychologist in New South Wales.

Program Structure

Stage 1

LAWS9800	Law for Psychologists 1	(6 UOC)
PSYC7000	Research and Evaluation Methods	(6 UOC)
PSYC7001	Psychological Assessment 1	(6 UOC)
PSYC7400	Interventions in Forensic Psychology 1	(6 UOC)
PSYC7401	Interventions in Forensic Psychology 2	(6 UOC)
PSYC7402	Applications of Forensic Psychology	(6 UOC)
PSYC7409	Professional and Ethical Practice (Forensic) 1	(6 UOC)
PSYC7410	Professional and Ethical Practice (Forensic) 2	(6 UOC)

Stage 2

LAWS9810	Law for Psychologists 2	(6 UOC)
PSYC7403	Experimental Psychology and Law	(6 UOC)
PSYC7411	Professional and Ethical Practice (Forensic) 3	(6 UOC)
PSYC7412	Professional and Ethical Practice (Forensic) 4	(6 UOC)
PSYC7413	Research Thesis (Forensic) 1	(12 UOC)
PSYC7414	Research Thesis (Forensic) 2	(12 UOC)

Note that PSYC7413 and PSYC7414 together contribute 25 per cent to the overall grading for the degree.

Academic Rules

For academic rules relating to this program, please refer to the 'Conditions for the Award of the Degree: Master of Psychology' under Academic Rules in the program entry for 8256 Master of Psychology (Clinical).

Admission Requirements

The normal entrance requirement is completion of an Honours Class 1 or Class 2 degree in Psychology from the University of New South Wales or a qualification considered equivalent.

Selection is based on academic qualifications for the program. As the number of places is limited, entry into the program is competitive. Referees reports will be sought for applicants who are shortlisted and an interview may be required.

Applicants who do not satisfy these entrance requirements may in exceptional circumstances be admitted, depending upon their knowledge, experience, occupation and the nature of their undergraduate training. Students applying under these provisions will usually be required to complete a qualifying program before they are admitted.

Further Information

Duration: The minimum period of registration before the award of the degree is four sessions for full-time students and six sessions for part-time students. Students with advanced standing may have the minimum period reduced by up to one half of the program, i.e. a reduction of one session if a student has completed a PhD in an approved area of Psychology and one session if a student has completed part of the coursework program.

Part-time students: Part-time students normally are expected to take half the full-time program in any one session.

8258 Master of Psychology (Organisational)

MPsychol(Org)

Typical Duration
2 years

Minimum UOC for Award
96 units of credit

Typical UOC per Session
24 units of credit

Program Description

This program consists of three components, all of which are compulsory:

1. coursework (weekly lectures and seminars with associated written forms of assessment)

2. professional practice (completion of a minimum of 1,000 hours of supervised organisational practice in organisational field settings, weekly Organisational meetings and Career Development Workshops)

3. a research thesis.

The three components total 96 units of credit (48 in each stage).

Program Objectives and Learning Outcomes

This program provides graduate training for psychologists who intend to work in industry, commerce, consulting practice, service organisations, trade unions, or the public service. The program focuses on the theories, practice, and research in industrial and organisational psychology and in human factors. It is accredited as fifth and sixth years of study leading to full membership of the Australian Psychological Society and to its College of Organisational Psychologists, and registration as a psychologist in New South Wales.

Program Structure

Stage 1

PSYC7000	Research and Evaluation Methods	(6 UOC)
PSYC7001	Psychological Assessment 1	(6 UOC)
PSYC7100	Psychology of Organisations 1	(6 UOC)
PSYC7101	Psychology of Organisations 2	(6 UOC)
PSYC7102	Learning, Training and Development	(6 UOC)
PSYC7115	Career Choice and Development	(6 UOC)
PSYC7122	Professional and Ethical Practice (Organisational) 1	(6 UOC)
PSYC7123	Professional and Ethical Practice (Organisational) 2	(6 UOC)

Stage 2

PSYC7002	Psychological Assessment 2	(6 UOC)
PSYC7117	Advanced Topics in Organisational Psychology	(6 UOC)
PSYC7124	Professional and Ethical Practice (Organisational) 3	(6 UOC)
PSYC7125	Professional and Ethical Practice (Organisational) 4	(6 UOC)
PSYC7126	Research Thesis (Organisational) 1	(12 UOC)
PSYC7127	Research Thesis (Organisational) 2	(12 UOC)

Note that PSYC7126 and PSYC7127 together contribute 25 per cent to the overall grading for the degree.

Academic Rules

For academic rules relating to this program, please refer to the 'Conditions for the Award of the Degree: Master of Psychology' under Academic Rules in the program entry for 8256 Master of Psychology (Clinical).

Admission Requirements

The normal entrance requirement for this program is completion of an Honours Class 1 or Class 2 degree in Psychology from the University of New South Wales or a qualification considered equivalent.

Selection is based on academic qualifications for the program. As the number of places is limited, entry into the program is competitive. Referees reports will be sought for applicants who are shortlisted and an interview may be required.

Applicants who do not satisfy these entrance requirements may in exceptional circumstances be admitted, depending upon their knowledge, experience, occupation and the nature of their undergraduate training. Students applying under these provisions will usually be required to complete a qualifying program before they are admitted.

Further Information

Duration: The minimum period of registration before the award of the degree is four sessions for full-time students and six sessions for part time students. Students with advanced standing may have the minimum period reduced by up to one half of the program i.e. a reduction of one session if a student has completed a PhD in an approved area of Psychology and one session if a student has completed part of the coursework program.

Part-time students: Part-time students normally are expected to take half the full-time program in any one session.

1404 Combined Doctor of Philosophy/Master of Psychology (Clinical)

PhD MPsychol(Clin)

Typical Duration
4 years

Minimum UOC for Award
144 units of credit (PhD component only)

Typical UOC per Session
24 units of credit

Program Description

The combined Doctor of Philosophy/Master of Psychology (Clinical) degree program has an emphasis on research training in clinical fields. The combined degree program requires a minimum of four full-time years to complete, and offers advanced training in research skills that are particularly relevant to clinical areas. It is accredited as fifth and sixth years of study leading to full membership of the Australian Psychological Society and to its College of Clinical Psychologists, and registration as a psychologist in NSW.

Program Objectives and Learning Outcomes

The Doctor of Philosophy (PhD) degree encourages initiative and originality in research. Students will make a significant contribution to knowledge in their field and will be competent to carry out research in their chosen area.

Program Structure

The combined program consists of two components which are compulsory:

(1) a research project (PhD), and

(2) a coursework component (MPsychol(Clin)).

The research project should be original, and lead to a significant contribution to our knowledge of the nature of psychological processes, particularly in the field of clinical psychology. The program structure requires students to work on their research project during the entire candidature until submission, and the same research-related requirements as for the regular PhD degree (program code 1400) will apply for the first two years of this program. University regulations and guidelines for good practice in postgraduate research supervision will apply to this program.

Students will concurrently undertake a compulsory coursework component, which is set out below. There are twelve courses and students will normally complete these by taking three courses in each of the four years. In the first year only one course may be taken in Session 1. The coursework program focuses on training in the diagnosis, assessment and treatment of people with a range of psychological problems or disabilities, and the training stems from a strong theoretical and empirical background in experimental clinical psychology.

PSYC7000	Research and Evaluation Methods	(6 UOC)
PSYC7001	Psychological Assessment 1	(6 UOC)
PSYC7204	Child Clinical Psychology	(6 UOC)
PSYC7210	Human Neuropsychology	(6 UOC)
PSYC7212	Experimental Clinical Psychology 1	(6 UOC)
PSYC7220	Psychology of Health and Illness	(6 UOC)
PSYC7221	Experimental Clinical Psychology 2	(6 UOC)
PSYC7222	Experimental Clinical Psychology 3	(6 UOC)
PSYC7223	Professional and Ethical Practice (Clinical) 1	(6 UOC)
PSYC7224	Professional and Ethical Practice (Clinical) 2	(6 UOC)
PSYC7225	Professional and Ethical Practice (Clinical) 3	(6 UOC)
PSYC7226	Professional and Ethical Practice (Clinical) 4	(6 UOC)

Academic Rules

Conditions for the Award of the Degree Doctor of Philosophy Master of Psychology (Clinical) (PhD MPsychol(Clin)), Doctor of Philosophy Master of Psychology (Forensic) (PhD MPsychol(For)) and Doctor of Philosophy Master of Psychology (Organisational) (PhD MPsychol(Org))

1. The combined degrees of Doctor of Philosophy/Master of Psychology (Clinical), Doctor of Philosophy/Master of Psychology (Forensic) and Doctor of Philosophy/Master of Psychology (Organisational) by thesis and formal coursework may be awarded by the Council on the recommendation of the Research Committee of the Faculty of Science (hereinafter referred to as the Committee) to a candidate who has made an original and significant contribution to knowledge, and who has satisfactorily completed a program of advanced study.

Qualifications

2. (1) A candidate for the combined degrees shall have been awarded an appropriate degree of Bachelor with Honours Class 1 in Psychology from the University of New South Wales or a qualification considered equivalent from another university or tertiary institution at a level acceptable to the Committee.

(2) In exceptional cases an applicant who submits evidence of such other academic and professional qualifications as may be approved by the Committee may be permitted to enrol for the combined degrees.

(3) If the Committee is not satisfied with the qualifications submitted by an applicant the Committee may require the applicant to undergo such assessment or carry out such work as the Committee may prescribe, before permitting enrolment as a candidate for the combined degrees.

Enrolment

3. (1) An application to enrol as a candidate for the combined degrees shall be made on the prescribed form which shall be lodged with the Registrar at least one month before the commencement of session in which enrolment is to begin.

(2) In every case before making the offer of a place the Committee shall be satisfied that initial agreement has been reached between the School and the applicant on the PhD topic area, supervision arrangements, provision of adequate facilities and coursework and that these are in accordance with the provisions of the guidelines for promoting postgraduate study within the University.

(3) The candidate shall be enrolled as a full-time student only.

(4) The candidate will present the PhD thesis for examination no earlier than three years and no later than five years from the date of enrolment, except with the approval of the Committee.

(5) A candidate for the award of the degree of Doctor of Philosophy as part of a combined program shall not be eligible to be awarded that degree until they have completed the additional requirements applicable to the other degree in such combined program.

(6) The candidate shall undertake the PhD research only as an internal student i.e. at a campus, teaching hospital, or other research facility with which the University is associated.

(7) The candidate will normally carry out the PhD research on a campus or at a teaching or research facility of the University except that the Committee may permit a candidate to spend a period in the field, within another institution or elsewhere away from the University provided that the work can be supervised in a manner satisfactory to the Committee. In such instances the Committee shall be satisfied that the location and period of time away from the University are necessary to the research program.

(8) The PhD research shall be supervised by a supervisor and where possible a co-supervisor who are members of the academic staff of the School or under other appropriate supervision arrangements approved by the Committee.

(9) A candidate for the combined degrees shall be required to undertake such formal courses and pass such assessment as prescribed. The order in which the formal courses are taken must be approved by the School of Psychology.

Progression

4. The progress of the candidate shall be considered by the Committee following report from the School in accordance with the procedures established within the School and previously noted by the Committee.

(i) The research proposal will be reviewed as soon as feasible after enrolment. This will be during the first year of study. This review will focus on the viability of the research proposal.

(ii) Progress in the combined program will be reviewed within twelve months of the first review. As a result of either review the Committee may cancel enrolment or take such other action as it considers appropriate. Thereafter, the progress of the candidate will be reviewed annually.

PhD Thesis

5. (1) On completing the program of study a candidate shall submit a thesis embodying the results of the investigation.

(2) The candidate shall give in writing to the Registrar two months notice of intention to submit the thesis.

(3) The thesis shall comply with the following requirements:

(a) it must be an original and significant contribution to knowledge of the subject;

(b) the greater proportion of the work described must have been completed subsequent to enrolment for the degree;

(c) it must be written in English;

(d) it must reach a satisfactory standard of expression and presentation;

(e) it must consist of an account of the candidate's own research but in special cases work done conjointly with other persons may be accepted provided the Committee is satisfied about the extent of the candidate's part in the joint research.

(4) The candidate may not submit as the main content of the thesis any work or material which has previously been submitted for a university degree or other similar award but may submit any work previously published whether or not such work is related to the thesis.

(5) Four copies of the thesis shall be presented in a form which complies with the requirements of the University for the preparation and submission of theses for higher degrees.

(6) It shall be understood that the University retains the four copies of the thesis submitted for examination and is free to allow the thesis to be consulted or borrowed. Subject to the provisions of the Copyright Act, 1968, the University may issue the thesis in whole or in part, in photostat or microfilm or other copying medium.

PhD Examination

6. (1) There shall be not fewer than three examiners of the thesis, appointed by the Committee, at least two of whom shall be external to the University.

(2) At the conclusion of the examination each examiner shall submit to the Committee a concise report on the thesis and shall recommend to the Committee that one of the following:

(a) The thesis merits the award of the degree.

(b) The thesis merits the award of the degree course to minor corrections as listed being made to the satisfaction of the head of school.

(c) The thesis requires further work on matters detailed in the examiner's report. Should performance in this further work be to the satisfaction of the Committee, the thesis would merit the award of the degree.

(d) The thesis does not merit the award of the degree in its present form and further work as described in the examiner's report is required. The revised thesis should be course to re-examination.

(e) The thesis does not merit the award of the degree and does not demonstrate that resubmission would be likely to achieve that merit.

(3) If the performance in the further work recommended under (2)(c) above is not to the satisfaction of the Committee, the Committee may permit the candidate to submit the thesis for re-examination as determined by the Committee within a period determined by it but not exceeding eighteen months.

(4) After consideration of the examiners' reports and the results of any further examination of the thesis, the Committee may require the candidate to submit to written or oral examination before recommending whether or not the candidate be awarded the degree. If it is decided that the candidate be not awarded the degree, the Committee shall determine whether or not the candidate be permitted to resubmit the thesis after a further period of study and/or research.

Fees

7. A candidate shall pay such fees as may be determined from time to time by the Council.

Admission

The normal entrance requirements are (1) completion of an Honours Class 1 degree in Psychology from UNSW or a qualification deemed equivalent, and (2) the availability of adequate supervision and research infrastructure. As the number of places is limited, entry into the combined program is competitive. Referees reports will be sought for applicants who are short-listed and an interview may be required. Students may apply for advanced standing, credit transfer or exemption of coursework components. The minimum period of registration before the award of the degrees is eight sessions.

Further Information

If you are considering applying for a PhD at UNSW you will need to make contact with the relevant school or faculty. This is necessary in order to establish that your research interests and those of the school and faculty are aligned, and that there is a suitable supervisor for your particular area of research.

Prospective students are strongly advised to make contact with potential supervisors before applying for research study at the University.

Please refer to the Faculty website for contact details of schools and departments.

Please refer to the UNSW website for further information on how to apply, scholarships, English language requirements, thesis preparation and other research related matters: **www.unsw.edu.au/futurestudents/research**

1405 Combined Doctor of Philosophy/Master of Psychology (Forensic)

PhD MPsychol(For)

Typical Duration
4 years

Minimum UOC for Award
144 units of credit (PhD component only)

Typical UOC per Session
24 units of credit

Program Description

The combined Doctor of Philosophy/Master of Psychology (Forensic) degree program has an emphasis on research training in forensic fields. The combined degree program requires a minimum of four full-time years to complete, and offers advanced training in research skills that are particularly relevant to forensic areas. It is accredited as fifth and sixth years of study leading to full membership of the Australian Psychological Society and to its College of Forensic Psychologists, and registration as a psychologist in NSW.

Program Objectives and Learning Outcomes

The Doctor of Philosophy (PhD) degree encourages initiative and originality in research. Students will make a significant contribution to knowledge in their field and will be competent to carry out research in their chosen area.

Program Structure

The combined program consists of two components which are compulsory: (1) a research project (PhD), and (2) a coursework component (MPsychol(For)). The research project should be original, and lead to a significant contribution to our knowledge of the nature of psychological processes, particularly in the field of forensic psychology. The program structure requires students to work on their research project during the entire candidature until submission, and the same research-related requirements as for the regular PhD degree (Program code 1400) will apply for the first two years of this program. University regulations and guidelines for good practice in postgraduate research supervision will apply to this program.

Students will concurrently undertake a compulsory coursework component, which is set out below. There are twelve courses and students will normally complete these by taking three courses in each of the four years. In the first year only one course may be taken in Session 1. The coursework program focuses on training in the assessment of people with a range of psychological disorders, disabilities and/or special needs, advanced interviewing and counselling skills for dealing with such clients, familiarity with statutory and common law provisions and procedures and government policies and programs relevant to different forensic settings.

LAWS9800	Law for Psychologists 1	(6 UOC)
LAWS9810	Law for Psychologists 2	(6 UOC)
PSYC7000	Research and Evaluation Methods	(6 UOC)
PSYC7001	Psychological Assessment 1	(6 UOC)
PSYC7400	Interventions in Forensic Psychology 1	(6 UOC)
PSYC7401	Interventions in Forensic Psychology 2	(6 UOC)
PSYC7402	Applications of Forensic Psychology	(6 UOC)
PSYC7403	Experimental Psychology and Law	(6 UOC)
PSYC7409	Professional and Ethical Practice (Forensic) 1	(6 UOC)
PSYC7410	Professional and Ethical Practice (Forensic) 2	(6 UOC)
PSYC7411	Professional and Ethical Practice (Forensic) 3	(6 UOC)
PSYC7412	Professional and Ethical Practice (Forensic) 4	(6 UOC)

Academic Rules

For academic rules relating to this program, please refer to 'Conditions for the Award of the Degree: Doctor of Philosophy Master of Psychology' under Academic Rules in the program entry for 1404 Combined Doctor of Philosophy/Master of Psychology (Clinical).

Admission

The normal entrance requirements are (1) completion of an Honours Class 1 degree in Psychology from UNSW or a qualification deemed equivalent, and (2) the availability of adequate supervision and research infrastructure. As the number of places is limited, entry into the combined program is competitive. Referees reports will be sought for applicants who are short-listed and an interview may be required. Students may apply for advanced standing, credit transfer or exemption of coursework components. The minimum period of registration before the award of the degrees is eight sessions.

Further Information

If you are considering applying for a PhD at UNSW you will need to make contact with the relevant school or faculty. This is necessary in order to establish that your research interests and those of the school

and faculty are aligned, and that there is a suitable supervisor for your particular area of research.

Prospective students are strongly advised to make contact with potential supervisors before applying for research study at the University.

Please refer to the Faculty website for contact details of schools and departments.

Please refer to the UNSW website for further information on how to apply, scholarships, English language requirements, thesis preparation and other research related matters: **www.unsw.edu.au/futurestudents/research**

1406 Combined Doctor of Philosophy/Master of Psychology (Organisational)

PhD MPsychol(Org)

Typical Duration
4 years

Minimum UOC for Award
144 units of credit (PhD component only)

Typical UOC per Session
24 units of credit

Program Description

The combined Doctor of Philosophy/Master of Psychology (Organisational) degree program has an emphasis on research training in organisational fields. The combined degree program requires a minimum of four full-time years to complete, and offers advanced training in research skills that are particularly relevant to organisational areas. It is accredited as fifth and sixth years of study leading to full membership of the Australian Psychological Society and to its College of Organisational Psychologists, and registration as a psychologist in NSW.

Program Objectives and Learning Outcomes

The Doctor of Philosophy (PhD) degree encourages initiative and originality in research. Students will make a significant contribution to knowledge in their field and will be competent to carry out research in their chosen area.

Program Structure

The combined program consists of two components which are compulsory: (1) a research project (PhD), and (2) a coursework component (MPsychol(Org)). The research project should be original, and lead to a significant contribution to our knowledge of the nature of psychological processes, particularly in the field of organisational psychology. The program structure requires students to work on their research project during the entire candidature until submission, and the same research-related requirements as for the regular PhD degree (Program code 1400) will apply for the first two years of this program. University regulations and guidelines for good practice in postgraduate research supervision will apply to this program.

Students will concurrently undertake a compulsory coursework component, which is set out below. There are twelve courses and students will normally complete these by taking three courses in each of the four years. In the first year only one course may be taken in Session 1. The coursework program focuses on theories, practice and research in industrial and organisational psychology and in human factors.

PSYC7000	Research and Evaluation Methods	(6 UOC)
PSYC7001	Psychological Assessment 1	(6 UOC)
PSYC7002	Psychological Assessment 2	(6 UOC)
PSYC7100	Psychology of Organisations 1	(6 UOC)
PSYC7101	Psychology of Organisations 2	(6 UOC)
PSYC7102	Learning , Training and Development	(6 UOC)
PSYC7115	Career Choice and Development	(6 UOC)
PSYC7117	Advanced Topics in Organisational Psychology	(6 UOC)
PSYC7122	Professional and Ethical Practice (Organisational) 1	(6 UOC)
PSYC7123	Professional and Ethical Practice (Organisational) 2	(6 UOC)
PSYC7124	Professional and Ethical Practice (Organisational) 3	(6 UOC)
PSYC7125	Professional and Ethical Practice (Organisational) 4	(6 UOC)

Academic Rules

For academic rules relating to this program, please refer to 'Conditions for the Award of the Degree: Doctor of Philosophy Master of Psychology' under Academic Rules in the program entry for 1404 Combined Doctor of Philosophy/Master of Psychology (Clinical).

Admission

The normal entrance requirements are (1) completion of an Honours Class 1 degree in Psychology from UNSW or a qualification deemed equivalent, and (2) the availability of adequate supervision and research infrastructure. As the number of places is limited, entry into the combined program is competitive. Referees reports will be sought for applicants who are short-listed and an interview may be required. Students may apply for advanced standing, credit transfer or exemption of coursework components. The minimum period of registration before the award of the degrees is eight sessions.

Further Information

If you are considering applying for a PhD at UNSW you will need to make contact with the relevant school or faculty. This is necessary in order to establish that your research interests and those of the school and faculty are aligned, and that there is a suitable supervisor for your particular area of research.

Prospective students are strongly advised to make contact with potential supervisors before applying for research study at the University.

Please refer to the relevant faculty homepage for contact details of schools and departments.

Please refer to the UNSW website for further information on how to apply, scholarships, English language requirements, thesis preparation and other research related matters: **www.unsw.edu.au/futurestudents/research**

School of Safety Science

Head of School: Prof J Cross
Postgraduate Studies Coordinator: A/Prof C Winder
Website: www.safesci.unsw.edu.au

8735 Master of Science and Technology in Environmental Science

MScTech

Typical Duration
1 year

Minimum UOC for Award
48 units of credit

Typical UOC per Session
24 units of credit

Program Description

The MScTech in Environmental Science program is a specialist graduate program of one year full-time (or equivalent part-time) study chosen from faculty-wide environmental courses. Specialisation is achieved by undertaking study in one or two environmental streams of the program, although some flexibility in courses may be permitted at the discretion of the program authority.

The program is designed to study the nature of environmental problems and the methodology of their evaluation and management. Emphasis is placed on the development of relevant skills in environmental analysis and planning. The program is primarily intended for students with a background in science or engineering, however, students with other degrees who have undertaken undergraduate level environmental courses and/or have professional experience in an environmental area may apply for entry.

Program Structure

Program requirements

Candidates are required to complete a program of study totalling 48 units of credit where 6 units of credit are a core course and the remaining 42 units of credit may optionally include a project of 6 or 12 units of credit. Where students select the option of a 12 units of credit project they must also complete SESC9900 Project Methods unless they can demonstrate prior knowledge.

Compulsory Course:

SESC9751	Introduction to Environmental Science	(6 UOC)

Elective Streams:

Science of the Environment

BIOS9001	Fundamental Knowledge in Environmental Management: Ecology	(6 UOC)
BIOS9002	Management of Biodiversity	(3 UOC)
GEOL9053	Hydrogeochemistry	(3 UOC)
GEOL9055	Hydrogeochemical Modelling	(3 UOC)
GEOL9111	Groundwater Environments	(3 UOC)
MSCI5004	Oceanographic Processes	(6 UOC)

Pollution Issues

CHEM7300	Fundamental Knowledge in Environmental Management - Physical Science	(6 UOC)
CVEN9872	Solid Waste Management	(6 UOC)
CVEN9881	Hazardous Waste Management	(6 UOC)
CVEN9895	Fundamental Knowledge in Environmental Management: Engineering	(6 UOC)
GEOL9112	Investigation and Management of Salinity	(3 UOC)
GEOL9252	Groundwater Quality and Protection	(3 UOC)
GEOS4721	Soil Degradation & Conservation	(6 UOC)
MATS5394	Pollution Control in Materials Processing	(3 UOC)
SESC9581	Industrial Pollution Control	(6 UOC)

Environmental Planning and Management

CVEN9888	Environmental Management	(6 UOC)
GEOH9011	Environmental Impact Assessment	(6 UOC)
SESC9091	Safety, Health and Environmental Practice	(6 UOC)
SESC9211	Risk Management	(6 UOC)
SESC9741	Environmental Management Systems	(6 UOC)
SESC9761	Environmental Auditing	(6 UOC)

Human Health

GEOH9015	Population Health and Environment	(6 UOC)
MATH5826	Statistical Methods in Epidemiology	(6 UOC)
SESC9130	Noise Management	(3 UOC)
SESC9140	Radiation Protection	(3 UOC)
SESC9510	Occupational Hygiene Hazards	(3 UOC)
SESC9550	Occupational Hygiene Controls	(3 UOC)
SESC9721	Environment and Medicine	(6 UOC)
or		
PHCM9612	Environmental Health	(4 UOC)
SESC9810	Toxicology	(3 UOC)
SESC9820	Chemical Safety and Toxicology	(3 UOC)
SESC9850	Management of Dangerous Materials	(3 UOC)

Remote Sensing and GIS

GEOS9012	Remote Sensing Applications	(6 UOC)
GEOS9016	Principles of Geographic Information Systems and Science	(6 UOC)
GEOS9021	Image Analysis in Remote Sensing	(6 UOC)

Environmental Assessment and Modelling

GEOH9011	Environmental Impact Assessment	(6 UOC)
GEOL9055	Hydrogeochemical Modelling	(3 UOC)
GEOL9252	Groundwater Quality and Protection	(3 UOC)
GEOS9016	Principles of Geographic Information Systems and Science	(6 UOC)
GEOS9017	Advanced Geographic Information Systems and Science	(6 UOC)
SESC9261	Introduction to Environmental Risk Assessment	(6 UOC)
SESC9761	Environmental Auditing	(6 UOC)

Oceanography and Meteorology

MATH5245	Computational Fluid Dynamics	(6 UOC)
MATH5255	Hydrodynamic Stability	(6 UOC)
MATH5285	Ocean Modelling	(6 UOC)
MATH5295	Atmospheric Modelling	(6 UOC)
MSCI6300	Coastal Environmental Assessment	(6 UOC)
OCEA5125	Geophysical Fluid Dynamics	(6 UOC)
OCEA5145	Applied Data Analysis	(6 UOC)
OCEA5155	Theoretical Project in Physical Oceanography	(12 UOC)

Analytical Methods and Data Processing

CHEM7111	Quality Assurance and Laboratory Practice	(6 UOC)
CHEM7112	Analysis of Biological and Organic Materials	(6 UOC)
CHEM7113	Elemental Analysis	(6 UOC)
CHEM7115	Treatment of Analytical Data	(6 UOC)
CHEM7116	Chromatography/Mass Spectrometry	(6 UOC)
CHEM7117	Molecular Analysis	(6 UOC)
CHEM7118	Surface Analysis of Materials	(6 UOC)
GEOL9054	Analysis and Interpretation of Hydrogeochemical Data	(3 UOC)
MATH5275	Applied Data Analysis	(6 UOC)
SESC9871	Environmental and Toxicological Laboratory Science	(6 UOC)

Project

Students may undertake a project on a topic relevant to the program, of 6 or 12 units of credit. Students may enrol in SESC9906 or SESC9912 or may enrol directly into the appropriate project courses offered by any school of the Faculty of Science.

Academic Rules

For academic rules relating to this program, please refer to the **Conditions for the Award of the Degree Master of Science and Technology** under 'Program Rules and Information – Coursework Degrees' in this Handbook.

5675 Graduate Diploma in Environmental Science

GradDip

Typical Duration
1 year

Minimum UOC for Award
36 units of credit

Typical UOC per Session
18 units of credit

Program Description

The Graduate Diploma in Environmental Science program is a specialist graduate program of one year full time (or equivalent) study chosen from faculty-wide environmental courses. Specialisation is achieved by undertaking study in one or two environmental streams of the program, although some flexibility in courses may be permitted at the discretion of the program authority.

Program Structure

Candidates are required to complete a program of study totalling 36 units of credit: 6 units of credit are the core course and the remaining 30 units of credit include courses from the Master of Science and Technology in Environmental Science elective streams.

Compulsory Course

SESC9751	Introduction to Environmental Science	(6 UOC)

Elective Courses

Up to 30 units of credit of electives from specialist streams of courses offered in program 8735 MScTech in Environmental Science.

Academic Rules

For academic rules relating to this program, please refer to the **Conditions for the Award of the Graduate Diploma** under 'Program Rules and Information – Coursework Degrees' in this Handbook.

7445 Graduate Certificate in Environmental Science

GradCert

Typical Duration
0.4 years

Minimum UOC for Award
18 units of credit

Typical UOC per Session
18 units of credit

Program Description

The Environmental Science Programs are designed to study the nature of environmental problems and the methodology of their evaluation and management. Emphasis is placed on the development of relevant skills in environmental analysis modelling and planning. The programs are primarily intended for students with a background in science or engineering; however, students with other degrees who have undertaken undergraduate level environmental courses and/or have professional experience in an environmental area may apply for entry.

The Graduate Certificate in Environmental Science is a specialist graduate program of half year full-time (or equivalent) study chosen from Faculty-wide environmental courses. Specialisation is achieved by undertaking study in one environmental stream of the program, although some flexibility in courses may be permitted at the discretion of the program authority.

Program Structure

Candidates are required to complete a program of study totalling 18 UOC where 6 UOC are a core course and the remaining 12 UOC include courses from the Master of Science and Technology Environmental Science elective streams.

Compulsory Course

SESC9751	Introduction to Environmental Science	(6 UOC)

Elective Courses

Students are required to select up to 12 UOC of electives from specialist streams of courses offered in program 8735 MScTech in Environmental Science.

Academic Rules

For academic rules relating to this program, please refer to the **Conditions for the Award of the Graduate Certificate** under 'Program Rules and Information – Coursework Degrees' in this Handbook.

8727 Master of Science and Technology in Industrial Safety

MScTech

Typical Duration
1 year

Minimum UOC for Award
48 units of credit

Typical UOC per Session
24 units of credit

Program Description

This program is designed as a specialist program that builds on a previous four-year Bachelor degree in engineering or a related discipline. It is suitable for people who manage safety as part of their line management role and wish to extend their learning in their base discipline in addition to gaining a grounding in safety. It is also suitable for people looking for a specialist program building on a first degree in safety. In addition to the core there is a wide choice of elective courses to suit students from widely varying backgrounds. No fundamental knowledge courses are required for this program as the specialist area chosen must be based on the discipline of the student's first degree. The program requires 48 units of credit and is normally completed in one year of full-time (or equivalent part-time) study, and is available in on-campus or off-campus learning mode.

Program Structure

Core courses - 12 UOC

SESC9010	Research Methods	(3 UOC)
SESC9201	Safety Risk Management	(6 UOC)
SESC9300	Effective Behaviour in Organisations	(3 UOC)

Exemption but not necessarily Advanced Standing may be awarded to students who can establish that they have equivalent knowledge in these courses. Where necessary, other approved postgraduate courses may be substituted.

Project courses - 15 UOC

SESC9900	Project Methods	(3 UOC)
SESC9912	Project	(12 UOC)

Elective courses - 21 UOC

Elective courses may be taken from any areas in Science and Technology within the Faculty of Science or Engineering, subject to the agreement of the head of relevant school and the Head of the School of Safety Science. This enables students to extend their specialist knowledge in their own discipline, to undertake additional general management courses or to focus on courses relating to safety science.

Academic Rules

For academic rules relating to this program, please refer to the **Conditions for the Award of the Degree Master of Science and Technology** under 'Program Rules and Information – Coursework Degrees' in this Handbook.

8728 Master of Science and Technology in Risk Management

MScTech

Typical Duration
1.5 years

Minimum UOC for Award
72 units of credit

Typical UOC per Session
24 units of credit

Program Description

The Master of Science and Technology in Risk Management is a program in integrated risk management which provides a general introduction to risk management principles as they are applied across all disciplines, then allows students to specialise in one or more risk areas. Courses for the program are offered by the faculties of Science, Engineering and Commerce. Students may select either a financial or a technical focus.

Program Structure

The program requires 72 units of credit and is normally completed in one and a half years of full-time (or equivalent part-time) study. Students may receive advanced standing in the fundamental knowledge courses on the basis of prior studies providing they can demonstrate the prerequisite knowledge for the core courses. Advanced standing is not given for core courses.

Fundamental Knowledge Courses - 18 UOC

Internal:

ECON5103	Business Economics	(6 UOC)
FINS5511	Corporate Finance	(6 UOC)

External equivalents:

ECON5109	Business Economics	(6 UOC)
FINS5560	Fundamentals of Corporate Finance	(6 UOC)

and either:

ECON5203 (Internal)	Statistics for Business	(6 UOC)

or

SESC6010 (External)	Descriptive Statistics	(3 UOC)

and

SESC9010 (External)	Research Methods	(3 UOC)

Core Courses - 24 UOC

FINS5531	Risk and Insurance	(6 UOC)
SESC9211	Risk Management	(6 UOC)
SESC9231	Risk Analysis	(6 UOC)
SESC9906	Report	(6 UOC)

Elective Courses - 30 UOC

Students may select courses from any faculty providing they can demonstrate to the program authority the relevance of the course to risk management. A list of possible electives is shown below.

Financial Risk Courses

ACCT5908	Auditing and Assurance Services	(6 UOC)
ACCT5996	Business Processes: Analysis and Improvement	(6 UOC)
FINS5512	Financial Markets and Institutions	(6 UOC)
FINS5513	Investments and Portfolio Selection	(6 UOC)
FINS5517	Applied Portfolio Management and Modelling	(6 UOC)
FINS5535	Derivatives and Risk Management Techniques	(6 UOC)
FINS5551	International Insurance Management	(6 UOC)
FINS5574	Foundations of Financial Decision Making Under Uncertainty	(6 UOC)

OH&S Courses

SESC9020	Occupational Health and Safety Law 1	(3 UOC)
SESC9030	Occupational Health and Safety Law 2	(3 UOC)
SESC9121	Fire and Explosion	(6 UOC)
SESC9201	Safety Risk Management	(6 UOC)
SESC9221	Major Hazards Management	(6 UOC)
SESC9411	Principles of Ergonomics	(6 UOC)
SESC9810	Toxicology	(3 UOC)
SESC9820	Chemical Safety and Toxicology	(3 UOC)
SESC9850	Management of Dangerous Materials	(3 UOC)

Environmental Risk Courses

CVEN9888	Environmental Management	(6 UOC)
GEOH9011	Environmental Impact Assessment	(6 UOC)
GEOH9015	Population Health and Environment	(6 UOC)
MATH5285	Ocean Modelling	(6 UOC)
MATH5295	Atmospheric Modelling	(6 UOC)
SESC9261	Introduction to Environmental Risk Assessment	(6 UOC)
SESC9741	Environmental Management Systems	(6 UOC)
SESC9751	Introduction to Environmental Science	(6 UOC)

Technical Risk Management Courses

CVEN8720	Problem Solving and Decision Making	(6 UOC)
CVEN9701	Engineering Economics and Financial Management	(6 UOC)
CVEN9702	Project Planning and Control	(6 UOC)
CVEN9703	Quality and Quality Systems	(6 UOC)
CVEN9707	Contracts Management	(6 UOC)
CVEN9718	Strategic Management for Engineering	(6 UOC)
CVEN9881	Hazardous Waste Management	(6 UOC)
GBAT9107	Asset Management	(6 UOC)
INFS5984	Information Systems Security	(6 UOC)
SESC9060	Principles of Safety, Health and Environmental Auditing	(3 UOC)
SESC9320	Effective Management	(3 UOC)
SESC9340	OHS Management Systems	(3 UOC)

Courses from the AGSM may also be taken by agreement.

Academic Rules

For academic rules relating to this program, please refer to the **Conditions for the Award of the Degree Master of Science and Technology** under 'Program Rules and Information – Coursework Degrees' in this Handbook.

5668 Graduate Diploma in Risk Management

GradDip

Typical Duration
1 year

Minimum UOC for Award
48 units of credit

Typical UOC per Session
24 units of credit

Program Description

The Graduate Diploma in Risk Management is a postgraduate program in integrated risk management. Courses for the program are offered by the Faculties of Science, Engineering, and Commerce. The program requires 48 units of credit and is normally completed in one year of full-time (or equivalent part-time) study. Students may be exempted from the fundamental knowledge courses where these topics have been studied during previous studies.

Program Structure

Fundamental Knowledge Courses (12 UOC)

FINS5511	Corporate Finance	(6 UOC)
or		
FINS5560	Fundamentals of Corporate Finance	(6 UOC)
And either:		
ECON5203	Statistics for Business	(6 UOC)
or		
SESC6010	Descriptive Statistics	(3 UOC)
and		
SESC9010	Research Methods	(3 UOC)

Core Courses (18 UOC)

FINS5531	Risk and Insurance	(6 UOC)
SESC9211	Risk Management	(6 UOC)
SESC9231	Risk Analysis	(6 UOC)

Elective Courses

Students may select courses (12 units of credit) from any faculty providing they can demonstrate to the program authority the relevance of the course to risk management. A list of possible electives is given with the description of the Master of Science and Technology in Risk Management.

FINS5511 & ECON5203 are internal, and FINS5560 is external.

Academic Rules

For academic rules relating to this program, please refer to the **Conditions for the Award of the Graduate Diploma** under 'Program Rules and Information – Coursework Degrees' in this Handbook.

7438 Graduate Certificate in Risk Management

GradCert

Typical Duration
0.5 years

Minimum UOC for Award
24 units of credit

Typical UOC per Session
24 units of credit

Program Description

The Graduate Certificate in Risk Management provides students with the opportunity to study risk management related courses to meet specific vocational needs or individual interests. The program requires 24 units of credit and is normally completed in one year of part-time study. It is the first stage in an articulated sequence of Graduate Certificate, Graduate Diploma and Master of Science and Technology programs in risk management.

Program Structure

Fundamental Knowledge Courses - 6 UOC

ECON5203	Statistics for Business	(6 UOC)
or		
SESC6010	Descriptive Statistics	(3 UOC)
and		
SESC9010	Research Methods	(3 UOC)

Core Course - 6 UOC

SESC9211	Risk Management	(6 UOC)

Elective courses - 12 UOC

12 UOC of other courses from the core or electives listed for the MScTech in Risk Management. Students may be prevented from taking courses that would duplicate prior studies.

Academic Rules

For academic rules relating to this program, please refer to the **Conditions for the Award of the Graduate Certificate** under 'Program Rules and Information – Coursework Degrees' in this Handbook.

8729 Master of Science and Technology in Ergonomics

MScTech

Typical Duration
1.5 years

Minimum UOC for Award
72 units of credit

Typical UOC per Session
24 units of credit

Program Description

The Master of Science and Technology in Ergonomics is a graduate program intended for students wishing to become professional ergonomists. It provides students with the competencies to identify ergonomics hazards in human-technology-environment systems, to assess their associated risks and to use a user-centred, systems approach to develop controls for the hazards. In addition it provides students with the competencies to plan and conduct an ergonomics research or design project in a scientific manner and to disseminate the results. It is the third stage in a fully articulated sequence of Graduate Certificate, Graduate Diploma and Master of Science and Technology programs in ergonomics. The program requires 72 units of credit and is normally completed in one and a half years of full-time (or equivalent part-time) study.

Program Structure

Fundamental knowledge courses - 6 UOC

ANAT6151	Introductory Functional Anatomy	(3 UOC)
SESC6110	Physical Principles of Safety 1	(3 UOC)

Advanced Standing may be awarded to students who can establish that they have equivalent knowledge in these courses.

Students with no statistics in their background will have to do the following course in addition to the above load:

SESC6010	Descriptive Statistics	(3 UOC)

Core Courses - 57 UOC

SESC9010	Research Methods	(3 UOC)
SESC9201	Safety Risk Management	(6 UOC)
SESC9300	Effective Behaviour in Organisations	(3 UOC)
SESC9411	Principles of Ergonomics	(6 UOC)
SESC9421	Applied Ergonomics	(6 UOC)
SESC9431	Physical Ergonomics	(6 UOC)
SESC9441	Ergonomics and New Technology	(6 UOC)
SESC9451	Experimental Biomechanics	(6 UOC)
SESC9900	Project Methods	(3 UOC)
SESC9912	Project	(12 UOC)

Exemption but not necessarily Advanced Standing may be awarded to students who can establish that they have equivalent knowledge in these courses. Where necessary other approved postgraduate courses may be substituted.

Electives - 9 UOC

Elective courses may be selected from those offered by the School of Safety Science in its other programs, e.g. Master of Safety Science, and Master of Science and Technology in OHS or Industrial Safety. Students may take courses available from other schools within the University subject to the approval of both the relevant program coordinator and the Ergonomics Program Coordinator.

Academic Rules

For academic rules relating to this program, please refer to the **Conditions for the Award of the Degree Master of Science and Technology** under 'Program Rules and Information – Coursework Degrees' in this Handbook.

5669 Graduate Diploma in Ergonomics

GradDip

Typical Duration
1 year

Minimum UOC for Award
48 units of credit

Typical UOC per Session
24 units of credit

Program Description

The Graduate Diploma in Ergonomics is intended for students wishing to become professional ergonomists. It provides students with the competencies to identify ergonomics hazards in human-technology-environment systems, to assess their associated risks and to use a user-centred, systems approach to develop controls for the hazards. It is the second stage in a fully articulated sequence of Graduate Certificate, Graduate Diploma and Master of Science and Technology programs in ergonomics. The program requires 48 units of credit and is normally completed in one year of full-time (or equivalent part-time) study.

Program Structure

Fundamental Knowledge Courses – 6 UOC

ANAT6151	Introductory Functional Anatomy	(3 UOC)
SESC6110	Physical Principles of Safety 1	(3 UOC)

Advanced Standing may be awarded to students who can establish that they have equivalent knowledge in these courses.

Core Courses – 42 UOC

SESC9010	Research Methods	(3 UOC)
SESC9201	Safety Risk Management	(6 UOC)
SESC9300	Effective Behaviour in Organisations	(3 UOC)
SESC9411	Principles of Ergonomics	(6 UOC)
SESC9421	Applied Ergonomics	(6 UOC)
SESC9431	Physical Ergonomics	(6 UOC)
SESC9441	Ergonomics and New Technology	(6 UOC)
SESC9541	Assessment of Workplace Environment	(6 UOC)

Exemption but not necessarily Advanced Standing may be awarded to students who can establish that they have equivalent knowledge in these courses. Where necessary other approved courses may be substituted.

Note: Students with no statistics in their background will have to do SESC6010 - Descriptive Statistics (3 UOC) in addition to the above load.

Academic Rules

For academic rules relating to this program, please refer to the **Conditions for the Award of the Graduate Diploma** under 'Program Rules and Information – Coursework Degrees' in this Handbook.

7439 Graduate Certificate in Ergonomics

GradCert

Typical Duration
0.5 year

Minimum UOC for Award
24 units of credit

Typical UOC per Session
24 units of credit

Program Description

The Graduate Certificate in Ergonomics is intended to provide professionals from other disciplines with an awareness of the principles of ergonomics sufficient for them to be able to identify ergonomics problems in human-technology-environment systems and to be able to recommend a user-centred, systems approach to their assessment and control. It is the first stage in a fully articulated sequence of Graduate Certificate, Graduate Diploma and Master of Science & Technology programs in ergonomics. The program requires 24 units of credit and is normally completed in six months of full-time (or equivalent part-time) study, and is available in on-campus or off-campus learning mode.

Program Structure

Fundamental knowledge courses - 6 UOC

ANAT6151	Introductory Functional Anatomy	(3 UOC)
SESC6110	Physical Principles of Safety 1	(3 UOC)

Advanced Standing may be awarded to students who can establish that they have equivalent knowledge in these courses.

Students with no statistics in their background will have to do the following course in addition to the above load:

SESC6010	Descriptive Statistics	(3 UOC)

Core courses - 18 UOC

SESC9010	Research Methods	(3 UOC)
SESC9201	Safety Risk Management	(6 UOC)
SESC9300	Effective Behaviour in Organisations	(3 UOC)
SESC9411	Principles of Ergonomics	(6 UOC)

Exemption but not necessarily Advanced Standing may be awarded to students who can establish that they have equivalent knowledge in these courses. Where necessary other approved postgraduate courses may be substituted

Academic Rules

For academic rules relating to this program, please refer to the **Conditions for the Award of the Graduate Certificate** under 'Program Rules and Information – Coursework Degrees' in this Handbook.

8671 Master of Safety Science

MSafetySc

Typical Duration
2 years

Minimum UOC for Award
96 units of credit

Typical UOC per Session
24 units of credit

Program Description

The Master of Safety Science is a graduate program for students wanting a broad-based understanding of safety engineering, occupational health, environmental science, risk management and ergonomics to become safety, health and environmental professionals.

The program requires 96 units of credit and is usually completed in two years of full-time (or equivalent part-time) study. It is available in on-campus or off-campus learning mode.

Program Structure

Fundamental knowledge courses - 12 UOC

ANAT6151	Introductory Functional Anatomy	(3 UOC)
SESC6010	Descriptive Statistics	(3 UOC)
SESC6110	Physical Principles of Safety 1	(3 UOC)
SESC6800	Fundamentals of Toxicology	(3 UOC)

Advanced Standing may be awarded to students who can establish that they have equivalent knowledge in these courses.

Core courses - 30 UOC

SESC9010	Research Methods	(3 UOC)
SESC9020	Occupational Health and Safety Law 1	(3 UOC)
SESC9201	Safety Risk Management	(6 UOC)
SESC9300	Effective Behaviour in Organisations	(3 UOC)
SESC9400	Ergonomics 1	(3 UOC)
SESC9600	Occupational Health	(3 UOC)
SESC9751	Introduction to Environmental Science	(6 UOC)
SESC9810	Toxicology	(3 UOC)

Exemption but not necessarily Advanced Standing may be awarded to students who can establish that they have equivalent knowledge in these courses. Where necessary, other approved postgraduate courses may be substituted.

Project courses - 15 UOC

SESC9900	Project Methods	(3 UOC)
SESC9912	Project	(12 UOC)

Elective courses - 39 UOC

Note: Not all courses are necessarily offered every year:

BIOM9541	Mechanics of the Human Body	(6 UOC)
MGMT5690	Strategic People Management	(6 UOC)
MGMT5700	Management Work and Organisation	(6 UOC)
SESC9030	Occupational Health and Safety Law 2	(3 UOC)
SESC9060	Principles of Safety, Health and Environmental Auditing	(3 UOC)
SESC9091	Safety, Health and Environmental Practice	(6 UOC)
SESC9121	Fire and Explosion	(6 UOC)
SESC9130	Noise Management	(3 UOC)
SESC9160	Safety, Health and Environment in the Construction Industry	(3 UOC)
SESC9211	Risk Management	(6 UOC)
SESC9221	Major Hazards Management	(6 UOC)
SESC9231	Risk Analysis	(6 UOC)
SESC9241	Introduction to Injury Risk Management	(6 UOC)
SESC9261	Introduction to Environmental Risk Assessment	(6 UOC)
SESC9340	OHS Management Systems	(3 UOC)
SESC9361	Industrial Safety Management Systems	(6 UOC)
SESC9410	Ergonomics 2	(3 UOC)
SESC9421	Applied Ergonomics	(6 UOC)
SESC9431	Physical Ergonomics	(6 UOC)
SESC9441	Ergonomics and New Technology	(6 UOC)
SESC9451	Experimental Biomechanics	(6 UOC)
SESC9460	Biomechanics of Impact Injury	(3 UOC)
SESC9510	Occupational Hygiene Hazards	(3 UOC)
SESC9530	Personal Protective Equipment	(3 UOC)
SESC9541	Assessment of Workplace Environment	(6 UOC)
SESC9550	Occupational Hygiene Controls	(3 UOC)
SESC9620	Occupational Diseases and Injuries	(3 UOC)
SESC9651	Occupational Rehabilitation	(6 UOC)
SESC9741	Environmental Management Systems	(6 UOC)
SESC9751	Introduction to Environmental Science	(6 UOC)
SESC9761	Environmental Auditing	(6 UOC)
SESC9820	Chemical Safety and Toxicology	(3 UOC)
SESC9850	Management of Dangerous Materials	(3 UOC)
SESC9871	Environmental and Toxicological Laboratory Science	(6 UOC)

Academic Rules

Conditions for the Award of the Degree: Master of Safety Science (MSafetySc)

1. The degree of Master of Safety Science may be awarded by the Council to a candidate who has satisfactorily completed a program of advanced study.

Qualifications

2. (1) A candidate for the degree shall have been awarded an appropriate degree of Bachelor from the University of New South Wales or a qualification considered equivalent from another university or tertiary institution at a level acceptable to the Postgraduate Coursework Education Committee of the Faculty of Science (hereinafter referred to as the Committee).

(2) In exceptional cases an applicant who submits evidence of such other academic and professional qualifications as may be approved by the Committee may be permitted to enrol for the degree.

(3) If the Committee is not satisfied with the qualifications submitted by an applicant the Committee may require the applicant to undergo such assessment or carry out such work as the Committee may prescribe, before permitting enrolment.

Enrolment and Progression

3. (1) An application to enrol as a candidate for the degree shall be made on the prescribed form which shall be lodged with the Registrar at least two calendar months before the commencement of the session in which enrolment is to begin.

(2) A candidate for the degree shall be required to undertake such formal courses and pass such assessment as prescribed. The program of advanced study shall total a minimum of 45 units of credit. The number of credits allocated for each course shall be determined by the Committee on the recommendation of the Course Director (hereinafter referred to as the head of the school).

(3) The progress of a candidate shall be reviewed at least once annually by the Committee and as a result of its review the Committee may cancel enrolment or take such other action as it considers appropriate.

(4) No candidate shall be awarded the degree until the lapse of two academic sessions from the date of enrolment in the case of a full-time candidate or four sessions in the case of a part-time candidate. The maximum period of candidature shall be six academic sessions from the date of enrolment for a full-time candidate and ten sessions for a part-time candidate. In special cases an extension of these times may be granted by the Committee.

Project Report

4. (1) The program of advanced study may include a 48 units of credit project on an approved topic.

(2) The work shall be carried out under the direction of a supervisor appointed from the full-time academic members of the University staff.

(3) The candidate shall give in writing to the Registrar two months notice of intention to submit a report on the project.

(4) Three copies of the project report shall be presented in a form which complies with the requirements of the University for the preparation and submission of project reports for higher degrees.

(5) It shall be understood that the University retains the three copies of the project report submitted for examination and is free to allow the project report to be consulted or borrowed. Subject to the provisions of the Copyright Act, 1968, the University may issue the project report in whole or in part, in microfilm or other copying medium.

Examination of Project Report

5. (1) There shall be not fewer than two examiners of the project report, appointed by the Committee.

(2) At the conclusion of the examination each examiner shall submit to the Committee a concise report on the project and shall recommend to the Committee that:

(a) the project report be noted as satisfactory; *or*

(b) the project report be noted as satisfactory subject to minor corrections being made to the satisfaction of the head of the school; *or*

(c) the project report be noted as unsatisfactory but that the candidate be permitted to resubmit it in a revised form after a further period of study and/or research; *or*

(d) the project report be noted as unsatisfactory and that the candidate be not permitted to resubmit it.

(3) The Committee shall, after considering the examiners' reports and the candidate's results of assessment in the prescribed formal coursework, recommend whether or not the candidate may be awarded the degree. If it is decided that the project report is unsatisfactory the Committee shall determine whether or not the candidate may resubmit it after a further period of study and/or research.

Fees

6. A candidate shall pay such fees as may be determined from time to time by the Council.

5672 Graduate Diploma in Safety Science

GradDip

Typical Duration
1 year

Minimum UOC for Award
48 units of credit

Typical UOC per Session
24 units of credit

Program Description

The Graduate Diploma in Safety Science is a graduate program of study for students with a health and safety background intending to become safety professionals. It is the second stage in a fully articulated sequence of Graduate Certificate, Graduate Diploma and Master of Science and Technology programs in safety science or occupational health and safety. The program requires 48 units of credit, is normally completed in one year of full-time (or equivalent part-time) study and is available in on campus and off campus study modes.

Program Structure

Fundamental Knowledge Courses - 12 UOC

(Advanced Standing may be awarded to students who can establish that they have equivalent knowledge in these courses).

ANAT6151	Introductory Functional Anatomy	(3 UOC)
SESC6010	Descriptive Statistics	(3 UOC)
SESC6110	Physical Principles of Safety 1	(3 UOC)
SESC6800	Fundamentals of Toxicology	(3 UOC)

Core Courses - 24 UOC

SESC9010	Research Methods	(3 UOC)
SESC9020	Occupational Health and Safety Law 1	(3 UOC)
SESC9201	Safety Risk Management	(6 UOC)
SESC9300	Effective Behaviour in Organisations	(3 UOC)
SESC9400	Ergonomics 1	(3 UOC)
SESC9600	Occupational Health	(3 UOC)
SESC9810	Toxicology	(3 UOC)

Note: SESC9400 requires Fundamental Knowledge Course or equivalent as assumed knowledge.

Elective courses - 12 UOC

Electives may be chosen from the elective courses offered in the Master of Safety Science program, or from other Schools within the University, subject to the approval of both the relevant program authorities. The range of electives available in off-campus mode is more restricted than for internal students.

Exemption but not necessarily Advanced Standing may be awarded to students who can establish that they have equivalent knowledge in these courses. Where necessary other, approved postgraduate courses may be substituted.

Academic Rules

For academic rules relating to this program, please refer to the **Conditions for the Award of the Graduate Diploma** under 'Program Rules and Information – Coursework Degrees' in this Handbook.

7442 Graduate Certificate in Safety Science

GradCert

Typical Duration
1 year

Minimum UOC for Award
24 units of credit

Typical UOC per Session
24 units of credit

Program Description

The Graduate Certificate is the first stage of an articulated series of Graduate Certificate, Graduate Diploma and Masters programs. The program requires 24 UOC and is normally completed in 6 months full-time or 12 months part-time. It is available in person or distance delivery modes.

Students enter this program from diverse backgrounds and may lack assumed knowledge for core courses. The school therefore offers a set of Fundamental Knowledge courses to provide this background.

Students in the Graduate Certificate may complete up to 6 UOC of Fundamental Knowledge courses as part of their program. Students then complete 18 UOC from one of the academic plans (specialisations) listed below.

Program Structure

Fundamental Knowledge Courses

ANAT6151	Introductory Functional Anatomy	(3 UOC)
SESC6010	Descriptive Statistics	(3 UOC)
SESC6110	Physical Principles of Safety 1	(3 UOC)
SESC6800	Fundamentals of Toxicology	(3 UOC)

SESCDS7442 Safety Science

6 UOC of Fundamental Knowledge Courses

18 additional UOC from the core and the electives of the Master of Safety Science program.

SESCKS7442 OHS Management

6 UOC of Fundamental Knowledge Courses

SESC9060	Principles of Safety, Health and Environmental Auditing	(3 UOC)
SESC9201	Safety Risk Management	(6 UOC)
SESC9300	Effective Behaviour in Organisations	(3 UOC)
SESC9340	OHS Management Systems	(3 UOC)

3 additional UOC from the core and the electives of the Master of Safety Science program.

Note: SESC9201 requires Fundamental Knowledge course or equivalent as assumed knowledge.

SESCES7442 Occupational Rehabilitation

6 UOC of Fundamental Knowledge Courses

SESC9630	Occupational Medicine	(3 UOC)
SESC9651	Occupational Rehabilitation	(6 UOC)

6 additional UOC from the core and the electives of the Master of Safety Science program.

Note: Advanced Standing for Fundamental Knowledge courses may be awarded to students who can establish that they have equivalent knowledge in these courses by reason of previous tertiary study or completion of an exemption test. Other courses may be substituted for Fundamental Knowledge courses subject to the permission of the program authority.

Academic Rules

For academic rules relating to this program, please refer to the **Conditions for the Award of the Graduate Certificate (GradCert)** under 'Program Rules and Information – Coursework Degrees' in this Handbook.

Master of Safety Science Courses

For Master of Safety Science core and elective courses, please refer to the program entry for 8671 Master of Safety Science.

8733 Master of Science and Technology in Occupational Health and Safety

MScTech

Typical Duration
1.5 years

Minimum UOC for Award
72 units of credit

Typical UOC per Session
24 units of credit

Program Description

The Master of Science and Technology in Occupational Health and Safety is a graduate program of study for students with a health and safety background intending to become occupational health and safety professionals. It is the third stage in a fully-articulated sequence of Graduate Certificate, Graduate Diploma and Master of Science and Technology programs in occupational health and safety or Master of Safety Science.

The program requires 72 units of credit and is normally completed in one and a half years of full-time (or equivalent part-time) study, and is available in on-campus or off-campus learning modes.

Program Structure

Fundamental knowledge courses - 12 UOC

ANAT6151	Introductory Functional Anatomy	(3 UOC)
SESC6010	Descriptive Statistics	(3 UOC)
SESC6110	Physical Principles of Safety 1	(3 UOC)
SESC6800	Fundamentals of Toxicology	(3 UOC)

Advanced Standing may be awarded to students who can establish that they have equivalent knowledge in these courses.

Core courses - 24 UOC

SESC9010	Research Methods	(3 UOC)
SESC9020	Occupational Health and Safety Law 1	(3 UOC)
SESC9201	Safety Risk Management	(6 UOC)
SESC9300	Effective Behaviour in Organisations	(3 UOC)
SESC9400	Ergonomics 1	(3 UOC)
SESC9600	Occupational Health	(3 UOC)
SESC9810	Toxicology	(3 UOC)

Exemption but not necessarily Advanced Standing may be awarded to students who can establish that they have equivalent knowledge in these courses. Where necessary other, approved postgraduate courses may be substituted.

Project courses - 15 UOC

SESC9900	Project Methods	(3 UOC)
SESC9912	Project (12 Units of Credit)	(12 UOC)

Elective courses - 21 UOC

Elective courses may be chosen from the elective courses offered in the Master of Safety Science program, or from other schools within the University, subject to the approval of both the relevant program authorities. The range of electives available in off-campus mode is more restricted than for internal students.

Academic Rules

For academic rules relating to this program, please refer to the **Conditions for the Award of the Degree Master of Science and Technology** under 'Program Rules and Information – Coursework Degrees' in this Handbook.

8734 Master of Science and Technology in Occupational Medicine

MScTech

Typical Duration
1 year

Minimum UOC for Award
48 units of credit

Typical UOC per Session
24 units of credit

Program Description

The Master of Science and Technology in Occupational Medicine is a graduate program for medical graduates intending to become occupational physicians. It is the third stage in an articulated sequence of Graduate Certificate in Occupational Rehabilitation, and Graduate Diploma and Master of Science and Technology programs in Occupational Medicine. The Master of Science and Technology in Occupational Medicine is available in on-campus and off-campus study modes. This program is suitable for occupational physician trainees of the Australasian Faculty of Occupational Medicine of the Royal Australasian College of Physicians. The program requires 48 UOC where 15 UOC are core courses and 33 UOC may include a project of 12 UOC. The program is normally completed in one year of full-time (or equivalent part-time) study, and is available in on-campus or off-campus learning mode.

Program Structure

Core courses - 15 UOC

SESC9620	Occupational Diseases and Injuries	(3 UOC)
SESC9630	Occupational Medicine	(3 UOC)
SESC9640	Occupational Epidemiology	(3 UOC)
SESC9651	Occupational Rehabilitation	(6 UOC)

Exemption but not necessarily Advanced Standing may be awarded to students who can establish that they have equivalent knowledge in these courses. Where necessary, other approved postgraduate courses may be substituted.

Project Courses (Optional)

SESC9912	Project (12 Units of Credit)	(12 UOC)

Elective courses - to a maximum of 33 units of credit

Elective courses may be chosen from other courses offered by the School of Safety Science with the approval of the program authority. The range of electives available in off-campus mode is more restricted than for internal students.

Academic Rules

For academic rules relating to this program, please refer to the **Conditions for the Award of the Degree Master of Science and Technology** under 'Program Rules and Information – Coursework Degrees' in this Handbook.

5674 Graduate Diploma in Occupational Medicine

GradDip

Typical Duration
1 year

Minimum UOC for Award
36 units of credit

Typical UOC per Session
18 units of credit

Program Description

The Graduate Diploma in Occupational Medicine is a graduate program for medical graduates intending to become occupational physicians. The program requires 36 units of credit and is normally completed in one year of full-time (or equivalent part-time) study, and is available in on campus or off campus learning mode. It is the second stage in an articulated sequence of Graduate Certificate in Occupational Rehabilitation, and Graduate Diploma and Master of Science and Technology programs in Occupational Medicine. This program is suitable for occupational physician trainees of the Australasian Faculty of Occupational Medicine of the Royal Australasian College of Physicians.

Program Structure

Core Courses - 15 UOC

SESC9620	Occupational Diseases and Injuries	(3 UOC)
SESC9630	Occupational Medicine	(3 UOC)
SESC9640	Occupational Epidemiology	(3 UOC)
SESC9651	Occupational Rehabilitation	(6 UOC)

Exemption but not necessarily Advanced Standing may be awarded to students who can establish that they have equivalent knowledge in these courses. Where necessary, other approved postgraduate courses may be substituted.

Electives - 21 UOC

Electives may be chosen from the elective courses offered in the Master of Safety Science program, or from other Schools within the University, subject to the approval of both the relevant program authorities. The range of electives available in off-campus mode is more restricted than for internal students.

Academic Rules

For academic rules relating to this program, please refer to the **Conditions for the Award of the Graduate Diploma** under 'Program Rules and Information – Coursework Degrees' in this Handbook.

Institute of Environmental Studies

Contents

About IES 254

Program Rules and Information

8619 Master of Environmental Management 254
5499 Graduate Diploma in Environmental Management 255
7339 Graduate Certificate in Environmental Management 255

About IES

The environmental expertise of six faculties at UNSW has been brought together to provide practical and flexible programs in environmental management, designed for people from a wide range of disciplinary backgrounds, professional experience and environmental knowledge. They provide a solid foundation in the frameworks and tools for environmental management and an understanding of the key disciplinary approaches, whilst also enabling students to tailor a program to suit their special needs, by drawing on more than 100 relevant elective courses at UNSW.

These University-wide programs are coordinated by the Institute of Environmental Studies. They may be taken part-time or full-time and by distance or on-campus.

Entry Qualifications

An appropriate degree of Bachelor from UNSW or a qualification considered equivalent from another university or tertiary institution. Performance in the undergraduate degree and/or relevant experience will be taken into account in granting admission. An applicant may be granted admission to the GradCert on the basis of evidence of other academic or professional attainments, including relevant experience.

Program Rules and Information

8619 Master of Environmental Management

MEM

Typical Duration
1.5 years

Minimum UOC for Award
72 units of credit

Typical UOC per Session
24 units of credit

Program Description

The Master of Environmental Management is a 72 unit of credit program, which will ordinarily be taken over a minimum of three full-time sessions, or six part-time sessions.

The program offers students a solid grounding in the frameworks, tools and basic knowledge relevant to this field. The program particularly emphasises sustainability in environmental management.

This program is articulated with the Graduate Certificate and Graduate Diploma of Environmental Management programs (see Articulation Rules below).

Program Structure

Ordinarily, students must complete:

1. Three compulsory 6 UOC Core Courses (totalling 18 UOC)

2. Four 6 UOC Fundamental Knowledge courses (totalling 24 UOC)

3. Elective courses, to make up the total of 72 UOC overall.

Students who achieve a Distinction level (75%) average in their first four courses may seek approval from the Program Coordinator to replace some electives with an approved project (of 6, 12 or 18 UOC).

Core Courses

IEST5001	Frameworks for Environmental Management	(6 UOC)
IEST5002	Tools for Environmental Management	(6 UOC)
IEST5003	Addressing Environmental Issues	(6 UOC)

Fundamental Knowledge

Students will bring very different knowledge bases to the program, and will need to fill different knowledge gaps to achieve the 'fundamental knowledge' required for the Master of Environmental Management program. Students will be required to take those Fundamental Knowledge courses for which they cannot demonstrate sufficient background. For example, a student with a background in Engineering will probably take Fundamental Knowledge courses in Ecology, Economics, Law and Social Science, while a student with a Social Science/Law background will probably take Fundamental Knowledge courses in Ecology, Economics, Engineering and Physical Science.

The courses to be taken will be determined following discussion of academic qualifications and experience with the Program Coordinator. Ordinarily, students will take four out of the six Fundamental Knowledge courses.

Fundamental Knowledge Courses

BIOS9001	Fundamental Knowledge in Environmental Management: Ecology	(6 UOC)
CHEM7300	Fundamental Knowledge in Environmental Management: Physical Science	(6 UOC)
CVEN9895	Fundamental Knowledge in Environmental Management: Engineering	(6 UOC)
ECON5125	Fundamental Knowledge in Environmental Management: Economics	(6 UOC)
HPSC5520	Fundamental Knowledge in Environmental Management: Social Science	(6 UOC)
LAWS3439	Fundamental Knowledge in Environmental Management: Law	(6 UOC)

Note: Where students can demonstrate sufficient disciplinary background or experience they may, with the permission of the Program Coordinator, take fewer than four Fundamental Knowledge courses, and replace them with additional electives. In exceptional cases, students may be required to take more than four fundamental knowledge courses.

Note: IEST5001 is to be taken at the start of the program, while IEST5003 should be taken in the final session.

Academic Rules

Please refer to the Program Structure and contact the IES Office for further information.

Admission Requirements

(1) A candidate for the MEM shall have been awarded an appropriate degree of Bachelor from the University of New South Wales or a qualification considered equivalent from another university or tertiary institution at a level acceptable to the Admissions and Progression Sub-Committee (hereafter referred to as the Committee) of the Management Committee for the MEM. Performance in the undergraduate degree and/or relevant experience will be taken into account in granting admission.

(2) Candidates not holding an approved Bachelor degree but who are admitted to the Graduate Certificate in Environmental Management and who complete the four courses comprising the Certificate at the first attempt, at a minimum of credit average, may apply to upgrade their enrolment to the Masters and to be given advanced standing for 2 of the courses completed for the GradCert.

(3) In exceptional cases an applicant who submits evidence of such other academic or professional qualifications and/or relevant experience, as may be approved by the Committee, may be permitted to enrol for the degree.

(4) If the Committee is not satisfied with an applicant's qualifications and/or relevant experience the Committee may require the applicant to undergo such assessment or carry out such work as the Committee may prescribe, before permitting enrolment.

Articulation rules

Candidates whose entry to the Masters is approved may carry 24 units of credit from the Graduate Certificate to the Masters, provided the lower award has not been taken out.

Candidates seeking entry to the Masters via credit-level performance in the GradCert may carry 12 units of credit to the Masters program provided that the lower award has not been taken out.

Candidates may carry 48 units of credit from the Graduate Diploma to the Masters, provided the lower award has not been taken out.

Where a GradCert or GradDip has been awarded and students wish to enrol at the next level (the GradDip or the Masters), the Committee will determine the courses already completed which may be credited to the new program. Note that these may not be fully credited to the new program.

5499 Graduate Diploma in Environmental Management

GradDip

Typical Duration
1 year

Minimum UOC for Award
48 units of credit

Typical UOC per Session
24 units of credit

Program Description

The Graduate Diploma in Environmental Management is a 48 unit of credit program, which may be taken in over 2 session (full-time) or over 4 sessions (part-time).

The program offers students a solid grounding in the frameworks, tools and basic knowledge relevant to this discipline. The program particularly emphasises sustainability in environmental management.

The Graduate Diploma program is fully articulated with the Master of Environmental Management (see Articulation Rules below).

Program Structure

Ordinarily, students must complete two compulsory 6 UOC core courses, four 6 UOC Fundamental Knowledge courses, and two 6 UOC Elective course, to make up a total of 48 UOC.

If less than 4 Fundamental Knowledge courses are taken the remaining units of credit will be taken as specialist electives. In special circumstances the Program Coordinator may require a substitution of a fifth Fundamental Knowledge course in place of a specialist elective.

In choosing courses, students will consult with the Program Coordinator. This process will be influenced by the timetabling and availability of courses, as well as the enrolling student's needs, experience and previous qualifications.

Core Courses

IEST5001	Frameworks for Environmental Management	(6 UOC)
IEST5002	Tools for Environmental Management	(6 UOC)

Fundamental Knowledge Courses

BIOS9001	Fundamental Knowledge in Environmental Management: Ecology	(6 UOC)
CHEM7300	Fundamental Knowledge in Environmental Management: Physical Science	(6 UOC)
CVEN9895	Fundamental Knowledge in Environmental Management: Engineering	(6 UOC)
ECON5125	Fundamental Knowledge in Environmental Management: Economics	(6 UOC)
HPSC5520	Fundamental Knowledge in Environmental Management: Social Science	(6 UOC)
LAWS3439	Fundamental Knowledge in Environmental Management: Law	(6 UOC)

Academic Rules

Conditions for the Award of the Degree Graduate Diploma (GradDip)

1. A Graduate Diploma may be awarded by the Council to a candidate who has satisfactorily completed a program of advanced study.

Qualifications

2. (1) A candidate for the diploma shall have been awarded an appropriate degree of Bachelor from the University of New South Wales or a qualification considered equivalent from another university or tertiary institution at a level acceptable to the Postgraduate Coursework Education Committee of the appropriate faculty (hereinafter referred to as the Committee).

(2) An applicant who submits evidence of such other academic or professional attainments as may be approved by the Committee may be permitted to enrol for the diploma.

(3) If the Committee is not satisfied with the qualifications submitted by an applicant the Committee may require the applicant to undergo such assessment or carry out such work as the Committee may prescribe, before permitting enrolment.

Enrolment and Progression

3. (1) An application to enrol as a candidate for the diploma shall be made on the prescribed form which shall be lodged with the Registrar at least two calendar months before the commencement of the session in which enrolment is to begin.

(2) A candidate for the diploma shall be required to undertake such formal courses and pass such assessment as prescribed.

(3) The progress of a candidate shall be reviewed at least once annually by the Committee and as a result of its review the Committee may cancel enrolment or take such other action as it considers appropriate.

(4) No candidate shall be awarded the diploma until the lapse of two academic sessions from the date of enrolment in the case of a full-time candidate or four sessions in the case of a part-time candidate. The maximum period of candidature shall be four academic sessions from the date of enrolment for a full-time candidate and six sessions for a part-time candidate. In special cases, an extension of these times may be granted by the Committee.

Fees

4. A candidate shall pay such fees as may be determined from time to time by the Council.

Admission Requirements

(1) A candidate for the GradDip shall have been awarded an appropriate degree of Bachelor from the University of New South Wales or a qualification considered equivalent from another university or tertiary institution at a level acceptable to the Management Committee for the Master of Environmental Management (hereinafter referred to as the Committee); or

(2) Candidates not holding an approved Bachelor degree but who are admitted to the Graduate Certificate in Environmental Management and who complete the four courses comprising the Certificate at the first attempt, at a minimum of credit average, may apply to upgrade their enrolment to the Graduate Diploma and to be given advanced standing for 2 of the courses completed for the GradCert.

(3) In exceptional cases an applicant who submits evidence of such other academic or professional qualifications and/or relevant experience, as may be approved by the Committee, may be permitted to enrol for the degree.

(4) If the Committee is not satisfied with an applicant's qualifications and/or relevant experience the Committee may require the applicant to undergo such assessment or carry out such work as the Committee may prescribe, before permitting enrolment.

Articulation rules

Candidates whose entry to the GradDip is approved may carry 24 units of credit from the GradCert to the GradDip, provided the lower award has not been taken out.

Candidates seeking entry to the GradDip via credit-level performance in the GradCert may carry 12 units of credit to the GradDip program provided that the lower award has not been taken out.

Where a GradCert has been awarded and students wish to enrol at the next level (the GradDip), the Committee will determine the courses already completed which may be credited to the new program. Note that these may not be fully credited to the new program.

7339 Graduate Certificate in Environmental Management

GradCert

Typical Duration
0.5 years

Minimum UOC for Award
24 units of credit

Typical UOC per Session
24 units of credit

Program Description

The Graduate Certificate in Environmental Management is a 24 unit of credit program, which may be taken over 1 session (full-time) or over 2 sessions (part-time).

The program aims to introduce students to frameworks, tools and basic knowledge relevant to this discipline. The program particularly emphasises sustainability in environmental management.

The Graduate Certificate program is fully articulated with the Graduate Diploma and Master of Environmental Management (see Articulation Rules below).

Program Structure

This process will be influenced by the timetabling and availability of courses, as well as the enrolling student's needs, experience and previous qualifications.

Core Course

IEST5001	Frameworks for Environmental Management	(6 UOC)

Fundamental Knowledge Courses

Students must take two Fundamental Knowledge courses. Their selection will be from those in the following list for which they cannot demonstrate sufficient background:

BIOS9001	Fundamental Knowledge in Environmental Management: Ecology	(6 UOC)
CHEM7300	Fundamental Knowledge in Environmental Management: Physical Science	(6 UOC)
CVEN9895	Fundamental Knowledge in Environmental Management: Engineering	(6 UOC)
ECON5125	Fundamental Knowledge in Environmental Management: Economics	(6 UOC)
HPSC5520	Fundamental Knowledge in Environmental Management: Social Science	(6 UOC)
LAWS3439	Fundamental Knowledge in Environmental Management: Law	(6 UOC)

Students must complete either

IEST5002	Tools for Environmental Management	(6 UOC)

or

1 further Fundamental Knowledge course

or

1 approved specialist elective chosen from a UNSW-wide list

Academic Rules

Conditions for the Award of the Degree Graduate Certificate (GradCert)

1. A Graduate Certificate may be awarded by the Council to a candidate who has satisfactorily completed an approved program of study.

Qualifications

2. (1) A candidate for the Graduate Certificate shall have been awarded an appropriate degree of Bachelor from the University of New South Wales or a qualification considered equivalent from another university or tertiary institution at a level acceptable to the Postgraduate Coursework Education Committee of the Faculty (hereinafter referred to as the Committee).

(2) An applicant who submits evidence of such other academic and professional qualifications as may be approved by the Committee may be permitted to enrol for the Graduate Certificate.

(3) If the Committee is not satisfied with the qualifications submitted by an applicant the Committee may require the applicant to undergo such assessment or carry out such work as the Committee may prescribe, before permitting enrolment.

Enrolment and Progression

3. (1) An application to enrol as a candidate for the Graduate Certificate shall be made on the prescribed form which shall be lodged with the Registrar by the advertised closing date, which shall be set at least two calendar months before the commencement of the session in which enrolment is to begin.

(2) A candidate for the certificate shall be required to undertake courses and pass any assessment prescribed.

(3) The progress of a candidate shall be reviewed by the end of two sessions by the Committee and as a result of its review the Committee may cancel enrolment or take such other action as it considers appropriate.

(4) The normal duration of the course is one academic session from the date of enrolment in the case of a full-time student or two sessions in the case of a part-time. For an open learning or external candidate the normal duration is two sessions from the date of enrolment. In special cases, a variation of these times may be approved by the head of school.

Fees

4. Candidates shall pay such fees as may be determined from time to time by Council.

Admission Requirements

(1)(a) a candidate for the Graduate Certificate shall have been awarded an appropriate degree of Bachelor from the University of New South Wales or a qualification considered equivalent from another university or tertiary institution at a level acceptable to the Management Committee for the Master of Environmental Management (hereinafter referred to as the Committee); or

(b) an applicant who submits evidence of such other academic or professional attainments, including relevant experience, as may be approved by the Committee, may be permitted to enrol for the Certificate.

(2) If the Committee is not satisfied with an applicant's qualifications and/or relevant experience the Committee may require the applicant to undergo such assessment or carry out such work as the Committee may prescribe, before permitting enrolment.

Articulation Rules

A candidate enrolled in the Graduate Certificate who has not taken out their award and whose entry to the Graduate Diploma or Graduate Certificate program has been approved, may carry 24 units of credit from the GradCert program into the Graduate Diploma or Masters Program.

Candidates seeking entry to the GradDip or Masters via credit-level performance in the Graduate Certificate program may carry 12 units of credit to the GradDip or Masters program provided that the lower award has not been taken out.

Where a Graduate Certificate has been awarded and students wish to enrol at the next level (the GradDip or the Masters), the Committee will determine the courses already completed which may be credited to the new program. Note that these may not be fully credited to the new program.

Postgraduate Course Descriptions

ACCT5908
Auditing and Assurance Services
School of Accounting
UOC6 HPW3
Prerequisite: ACCT5930

This course examines the practice of auditing and the underlying concepts. Although the focus of attention is on audits carried out under the provisions of the Australian Corporations & Securities Legislation, 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. Topics include: risk analysis approach; assessment of risk; development of audit strategy; internal control evaluation and compliance testing; substantive testing; analytical review; auditing in an EDP environment; audit sampling; audit reporting; contractual and common law duties; the role of ethics; and an introduction to internal and public sector auditing.

ACCT5909
Current Developments in Auditing Research
School of Accounting
UOC6 HPW3

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.

ACCT5910
Business Analysis and Valuation
School of Accounting
UOC6 HPW3
Prerequisite: ACCT5901 or ACCT5930; Corequisite: FINS5513 or FINS5511

This course examines the: sources of information available to analysts; traditional ratio analysis; application of techniques of financial analysis to equity valuation; credit assessment; and price regulation. Also looked at are: calculations of key indicators of financial performance; issues arising from international differences in accounting standards and practices; off-balance sheet financing and financial instruments; problems arising from complex organisational structures; and strategies for managing the financial analysis function.

ACCT5917
Strategic Management: Systems and Processes
School of Accounting
UOC6 HPW3

This course explores the process and practice of strategic management - the constitution of an organisation's competitive positioning in its environment. Topics to be covered include: strategic thinking and analysis; the formulation and choice of strategic alternatives; managing extended strategic change; and the embedding of organisation al strategy in everyday activities. These topics are explored through a critical examination of relevant literatures, documented case studies and contemporary business practices.

ACCT5919
Business Risk Management
School of Accounting
UOC6 HPW3

In a rapidly changing global world, with decreasing product life cycles and increasing customer and societal expectations, there are significant and increased risks associated with ongoing value creation by organisations. In this world, value is put at risk - by competition, or failures of corporate leadership, strategies, processes, and capabilities. Developing effective ways of managing such Business Risks is proving to be a central agenda item for organisations seeking continuing success. This course addresses this emergent field conceptually, technically and speculatively. Case studies and research reports are used throughout.

ACCT5920
Managing Intangible Resources
School of Accounting
UOC6 HPW3

The gap between the market value of firms and the capitalisation of their assets in the balance sheet highlights the value that investors are prepared to attribute to the "intangible resources" of many organisations (such as financial service, software development and e-commerce companies). The value generating potential of such organisations is attributed to resources, and competencies in managing those resources, that the traditional accounting system is both unable and unwilling to represent in explicit financial terms. This course aims to identify these "intangible resources" and to examine their role in achieving superior financial performance. Topics include: customer relationships; supplier relationships; knowledge management; diversity; and community and government relationships. In addition, this subject will also explore advances in financial reporting that attempt to capture and represent these "intangible resources," for example, triple line reporting, the Scandia Navigator system and other recent attempts at social accounting. This subject is based on the premise that long term sustainable value creation is achieved only from collaborative organisational practices in which the contributions of all stakeholders are recognised and rewarded.

ACCT5921
Business Performance Management
School of Accounting
UOC6 HPW3
Corequisite: ACCT5996 or Equivalent Introductory Management Accounting course

This course examines the management of business performance in organisations through the use of performance measurement and reward systems. Topics include: theoretical frameworks for analysing performance measurement and reward system design; performance measurement in decentralized organizations; systems for measuring continuous improvement; the concept of a "balanced scorecard"; technical issues in developing performance measures such as EVA, SVA and reports such as the balanced scorecard and intangible asset monitor ; designing and implementing/performance-based reward systems; ethical issues in measuring and rewarding performance. Concepts and issues are examined with an extensive use of cases.

ACCT5922
E-Business: Strategy and Processes
School of Accounting
UOC6 HPW3

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 usch organisations, the strategic management of time, cost, flexibility, quality, and integration is critical to sustain value generation. This subject has two aims. First, it seeks to highlight and evaluate the new business strategies and models adopted by E-businesses. Second, it explores how organisational resources may be mobilised to achieve these new value propositions and to facilitate value generation within a dynamic electronic business environment.

ACCT5930
Financial Accounting
School of Accounting
UOC6 HPW3

This course examines the fundamentals of financial accounting for entities of simple organisational design; financial recording processes, systems design and internal control; preparation of general purpose statements of financial position, operating performance and cash flow statements; responsibilities in financial reporting; financial reporting constraints; recognition and measurement of specific financial statement elements; and analysis and interpretation of financial reports.

ACCT5931
Strategic Financial and Resource Management
School of Accounting
UOC6 HPW3
Prerequisite:ACCT5996

This course will introduce emergent thinking about the interfaces between financial and business performance, with a focus on adding value to the business rather than emphasising financial control. The link between strategy, resourcing and change is highlighted, in focusing on the effective use of an organisation's financial and other resources in creating value

for customers and shareholders. The course aims to introduce strategic financial management as an integrated way of thinking about the key drivers of value in organisations.

Note: Not available to students who have completed ACCT3583 or ACCT3593 in the last three years.

ACCT5942
Corporate Accounting and Regulation
School of Accounting
UOC6 HPW3
Prerequisite: ACCT5930

Overview of the external financial reporting environment - Australian and international aspects; arrangements for the regulation of external reporting; the preparation of general purpose financial reports including the treatment of income taxes and the acquisition of other entities. The preparation of consolidated financial statements for reporting entities with more complex structures including subsidiaries, associates and joint ventures.

ACCT5943
Advanced Financial Reporting
School of Accounting
UOC6 HPW3
Prerequisite: ACCT5930; Corequisite: ACCT5942

The analysis of contemporary accounting issues within theoretical frameworks such as agency theory and the context of the conceptual frameworks used in setting accounting standards. Reporting problems in particular industries and with particular types of assets and liabilities (such as complex financial instruments); cutting edge accounting issues and the deliberations of local and overseas accounting rule-making bodies; and proposals for the strengthening of external financial reporting.

ACCT5949
Managing Agile Organisations
School of Accounting
UOC6 HPW3

There has been much change and innovation in the structure and form of organisations in the new millennium. There is now a large array of organisational forms - from simple hierarchies to complex organisational sets and alliances. Given this diversity, managers need an innovative repertoire of managerial skills and competencies.

This course has three aims: (a) to briefly identify the new and innovative ways that productive relationships have been structured at the intra-organisational and inter-organisational levels; (b) to investigate the challenges these pose for the concept of 'managerial work', and (c) to develop the managerial competencies required to manage dynamic 'agile' organisations. Topics covered include: the postindustrial age, managerial work, managing discourse, power, normative rule structures, teams, ambiguity and change. Group discussion is emphasised in this course. There is also a focus on the use of case studies.

ACCT5951
Current Developments in Accounting Research - Financial
School of Accounting
UOC6 HPW3

Enrolment requires School Approval.

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.

ACCT5952
Current Developments in Accounting Research - Managerial
School of Accounting
UOC6 HPW3

Enrolment requires School Approval.

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.

ACCT5955
Value-Based Management in a Global Economy
School of Accounting
UOC6 HPW3
Corequisite: ACCT5996 or Equivalent Introductory Management Accounting course

This course examines the design and use of contemporary management technologies that have been developed to support value creation in organisations. Topics include: design and implementation of strategic cost management systems, advanced cost analysis; advanced cost estimation techniques; assessing and evaluating customer and segment profitability; revenue analysis; capacity management; target costing and life-cycle costing. Cases are used extensively in the course and particular focus is placed on the role of the technologies in multi-national organisations.

ACCT5967
Special Topic in Accounting
School of Accounting
UOC6 HPW3
Prerequisite: ACCT5997 or equivalent

To assist MCom 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.

ACCT5970
Accounting Concepts and Financial Reporting
School of Accounting
UOC6 HPW3
Prerequisite: ACCT5930

This course covers: the preparation of financial statements for entities of complex organisational design; cross border entities and transactions; consideration of issues in asset, liability, expense and revenue recognition and measurement; accounting for primary and derivative financial instruments and analysis and interpretation of financial statements of complex entities.

Note: Not available to students with a Bachelor's degree from an Australian university with a major in Accounting.

ACCT5981
Strategic Resource Management
Graduate Programs in Business & Technology
UOC6 HPW1.5
Prerequisite: must be enrolled in Program 8616, 7333 or 5457

Strategic Resource Management focuses on ways in which organisations utilise available resources to generate value over time. Attention is given to the drivers of both shareholder and customer value as guides to organisational performance in capital and product and service markets respectively. The transformation of resources in and out of financial forms is at issue, as is the elimination of waste in the process. The key question is: 'How does resource deployment effectively support strategy in the midst of continuous change?'

ACCT5996
Business Processes: Analysis and Improvement
School of Accounting
UOC6 HPW3
Corequisite: ACCT5930

This course examines the design and operation of business support systems whose role is to provide financial and non-financial information about resource consumption and value generation, and facilitate the improvement of business processes and organisational performance. The focus is on how organisational processes are evaluated, managed and changed to sustain future profitable operations. The course provides a number of tools that develop an understanding of how processes, as presently configured, consume resources and may be improved in order to generate valued attributes of products and services, including time, quality, invariability, flexibility and cost.

Note: Not available to students who have completed ACCT2522 or ACCT2532 in the last three years.

ACCT5997
Seminar in Research Methodology
School of Accounting
UOC6 HPW3

Enrolment requires School Approval.

This course considers the relationship between science and scientific method; provides an introduction to the interpretation of the key statistical techniques used in accounting research; and considers and reviews some of the principle research methods that have been used to address issues in accounting.

ACCT5998
Project Seminar
School of Accounting
UOC6

Please contact the school for further information.

ACCT5999
Project Report
School of Accounting
UOC12

Please contact the school for further information.

ACTL5000
Thesis - Actuarial Studies
Actuarial Studies Unit
UOC24

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 literature review, analysis of a research problem along with presentation of research methods and data analysis.

ACTL5001
Thesis (part time) - Actuarial Studies
Actuarial Studies Unit
UOC12

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 literature review, analysis of a research problem along with presentation of research methods and data analysis.

ACTL5002
Superannuation & Retirement Benefits
Actuarial Studies Unit
UOC6 HPW3
Prerequisite: ACTL5107, ACTL5101 or ECON5103, ECON5203 Excluded: ECON5114

This course provides a comprehensive analysis of superannuation and retirement benefits, primarily in Australia. Topics include: alternative superannuation arrangements, taxation and regulation of superannuation, risk management and investment strategies for superannuation, design of retirement benefits, the retirement decision, policy developments and controversies and international comparisons.

Enrolment requires school approval.

ACTL5003
Research Topics in Actuarial Studies
Actuarial Studies Unit
UOC6 HPW3

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.

Enrolment requires school approval.

ACTL5004
Project Report - Actuarial Studies
Actuarial Studies Unit
UOC12

Students complete a project under the direction of a supervisor.

ACTL5100
Actuarial Theory and Practice A
Actuarial Studies Unit
UOC6 HPW3

This course develops the theory and practice underlying the actuarial management of risk-based and other products offered by financial institutions. The course draws examples from actuarial practice and discusses implications for life insurance, general insurance, superannuation, asset-liability management and other areas where actuaries are involved in product design, pricing, reserving, investment and surplus management. The course emphasises recent developments in actuarial theory. This course, along with ACTL5200, corresponds to the Part II courses of the professional examinations of The Institute of Actuaries of Australia.

Enrolment requires school approval.

ACTL5101
Probability and Statistics for Actuaries
Actuarial Studies Unit
UOC6 HPW3

This course covers probability and statistics topics relevant to actuarial studies with applications in insurance and related areas. 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 and analysis of variance.

Enrolment requires school approval.

ACTL5102
Financial Mathematics
Actuarial Studies Unit
UOC6 HPW3

This course develops the financial and actuarial mathematics required for the analysis of financial and insurance transactions. Topics covered include: mathematics of compound interest, valuation of cash flows of 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.

Enrolment requires school approval.

ACTL5103
Stochastic Modelling for Actuaries
Actuarial Studies Unit
UOC6 HPW3

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 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 such as Matlab.

Enrolment requires school approval.

ACTL5104
Actuarial Statistics
Actuarial Studies Unit
UOC6 HPW3

This course covers the estimation and application of survival models in actuarial modelling. Topics include: actuarial notation and applications of survival models; state Markov models; binomial and Poison models for mortality; maximum likelihood estimation; construction of multiple decrement tables; models with transition intensities depending on age and duration; the census approximation and formulae; statistical comparison of crude rates with standard actuarial tables; graduation of 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 such as Matlab will form part of the course assessment.

Enrolment requires school approval.

ACTL5105
Life Insurance & Superannuation
Actuarial Studies Unit
UOC6 HPW3

This course covers the actuarial mathematics and models for use in the analysis and actuarial management of life insurance and superannuation

contract. 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; actuarial valuation of disability insurance contracts.

Enrolment requires school approval.

ACTL5106
Insurance Risk Models
Actuarial Studies Unit
UOC6 HPW3

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; and claims reserving for loss run-off data.

Enrolment requires school approval.

ACTL5107
Economics for Actuaries
Actuarial Studies Unit
UOC6 HPW3

Students should enrol in ECON5103 Business Economics in place of ACTL5107 in 2006.

ACTL5108
Finance & Financial Reporting for Actuaries
Actuarial Studies Unit
UOC6 HPW3

The aim of the course is to provide the future actuary with a basic understanding of corporate finance and financial reporting. The course will cover the instruments used by companies to raise finance and manage financial risk and will develop an understanding of how to interpret the accounts and financial statements of companies and financial institutions.

Enrolment requires school approval.

ACTL5109
Financial Economics for Insurance and Superannuation
Actuarial Studies Unit
UOC6 HPW3

The aim of this course is to introduce the mathematical and economic models of financial economics used by actuaries and to overview their application to asset-liability management. The topics are illustrated with applications to the valuation, actuarial and risk management of insurance and superannuation contracts especially those with embedded options and financial guarantees.

Enrolment requires school approval.

ACTL5200
Actuarial Theory & Practice B
Actuarial Studies Unit
UOC6 HPW3

This course, along with ACTL5100 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 ACTL 5100, corresponds to the Part II courses of the professional examinations of The Institute of Actuaries of Australia.

Enrolment requires school approval.

ACTL5301
Models for Risk Management
Actuarial Studies Unit
UOC6 HPW3

This course covers the models used in insurance and reinsurance for frequency and severity of losses for both individual risks and portfolios of risks. Included is the modeling of dependencies amongst risks and links to credit and operational risk models. Topics include: individual and collective risk models; loss distributions; estimation techniques for loss models; GLM's; extreme values and tails of losses; copulas and modeling dependency.

Enrolment requires school approval.

ACTL5302
Risk and Capital Management
Actuarial Studies Unit
UOC6 HPW3

This course covers the integrated risk management approach to balance sheet and capital management for market, credit and operational risk. Pricing theory, risk based capital and capital management are considered in a common framework based on theories of capital structure and integrated risk management. Risk measures for setting capital requirements for market, credit and operations risk such as VaR, TailVar are reviewed and critiqued. Approaches to economic capital and optimal risk and capital management strategies are developed. Topics include: Risk based capital and capital structure theory; risk and capital management products; insurance pricing theory; role of capital in pricing and the frictional cost approach to risk and capital management.

Enrolment requires school approval.

ACTL5303
Asset-Liability Management
Actuarial Studies Unit
UOC6 HPW3

This course covers the models and techniques used for the projection, valuation and risk management of asset and liability cash flows inlcudng interest sensitive liabilities and equity linked liabiltiies. Models reviewed include those for fixed and interest sensitive cash flows, equity return models and more comprehensice models including inflation and exchange rates and the application of the models in Dynamic Financial Analysis (DFA). Topics include; single and multi-period model framework; optimal asset-liability strategies; risk-neutral computation; dynamic programming; incomplete markets; ALM in insurance; DFA modeling in insurance and reinsurance.

Enrolment requires school approval.

ACTL5304
Risk Management Strategies
Actuarial Studies Unit
UOC6 HPW3

This course covers innovative risk management strategies using capital and insurance market techniques including those used in the alternative risk transfer (ART) market. Topics include: product types; securitization; pricing risk-linked securities; credit risk; weather and energy risk; modeling individual risks; industry specific case studies; portfolio considerations; accounting, regulatory and legal issues.

Enrolment requires school approval.

AERO9010
Project
School of Mechanical and Manufacturing Engineering
UOC12

Note: The project must be completed in no more than two sessions.

AERO9105
Aerospace Vehicle Design and Manufacture
School of Mechanical and Manufacturing Engineering
UOC6 HPW3

Design objectives and constraints: function, cost durability. Design process: configuration design, structural design, systems. Integration design. Production methods. Quality control: design manufacture, operation. Design development: prototyping, component and system testing (ground and flight), manufacture. The above topics will be dealt with in the context of workshops associated with an intensive design project.

AERO9415
Finite Element Analysis and Applications for Aerospace Structures
School of Mechanical and Manufacturing Engineering
UOC6 HPW3
Excluded: AERO4401, MECH9410, NAVL4401

Theoretical foundations. Linear static and dynamic analysis. Non-linear material behaviour and geometrically non-linear behaviour. Validation of models. Project: Each student will undertake a project involving the finite element modelling of a structure and the analysis of its static and dynamic characteristics. A major finite element package will be used for the conduct of this project.

AERO9543
Cad/Cam for Aerospace Structures
School of Mechanical and Manufacturing Engineering
UOC6 HPW3
Excluded: MANF9543

Current aviation standards in Australia for CAD/CAM use in aerospace industries. Concepts of CAD/CAM and introductions to CATIA, NC and Fourth Shift. Concurrent engineering. Group technology. Process planning. Integrated manufacturing planning and control. Manufacturing control: computer and numerical, robotics, measurement, analysis and actuation.

AERO9606
Aerodynamics
School of Mechanical and Manufacturing Engineering
UOC6 HPW4

Potential flow and wing theory. Low speed, inviscid and incompressible flow; high-speed viscous and compressible flow. Visualisation in the laboratory and the use of computer modelling techniques.

AERO9607
Flight Dynamics
School of Mechanical and Manufacturing Engineering
UOC6 HPW3

Introduction to atmospheric and space environment. Aerospace vehicle performance. Mission Profiles. Longitudinal and static stability. Neutral and manoeuvre points and margins. Flight test measurements and handling qualities. Dynamic stability and control of atmospheric vehicles and their testing in flight and evaluation.

AERO9705
Aerospace Propulsion
School of Mechanical and Manufacturing Engineering
UOC6 HPW4

Propulsion systems: history, types, basic thrust, efficiency equations. Propellers, rotors and fans: engine cycle thermodynamics, performance, testing. Engine intakes: subsonic, supersonic, ramjets, rockets. Noise and pollution.

ANAT6151
Introductory Functional Anatomy
School of Medical Sciences
UOC3 HPW3

Overview of basic human anatomy and physiology with an emphasis on structures and systems which are most vulnerable to chemical and physical trauma under industrial conditions, such as the eye, ear and skin. Other systems studied include the musculoskeletal system, central and peripheral nervous systems, circulatory, respiratory, gastrointestinal, endocrine and urogenital systems. Offered as a distance-education course, or on campus if enrolments are sufficient.

ARCH7003
Graduate Research Project
Architecture Program
UOC12 HPW8
Excluded: ARCH7001, ARCH7002.

The project comprises research into the theory or practice of architecture in relation to the Program within which the student is enrolled and is nominated by the student and approved by the Program Director. The research should represent both a synthesis of and an extension to the knowledge and skills acquired during the Program and will be supervised by a member of the academic staff. Appropriate research methodologies and techniques are to be used in all aspects of the work leading to the preparation of a written research project. Assessment by written report and seminar.

ARCH7004
Architectural Research Project
Architecture Program
UOC12 HPW8

A studio-based design study related to the project being offered in Architectural Design Project 1 or 2, or Architectural Design Charette, or another study or project agreed with the Program Director allied with architectural design, history, or theory. The study will comprise the investigation and documentation of selected design and theoretical and historical aspects of architectural design, or of the studio project, or of the studio teaching philosophy and process, or of the design methods or techniques being used in the studio. This course will usually require attendance at and participation in the Architectural Design Project studio. A report of 20,000 words including a comprehensive literature review, or an equivalent mode of documentation agreed with the Program Director, is to be submitted for examination.

ARCH7103
Architecture Design Project 1
Architecture Program
UOC12 HPW8

Currently enrolled in program 8142 Architecture.

Theory, research and studio practice, in the form of graduate research projects in design, applied to general architectural themes of high priority in the contemporary context. After thorough theoretical foundation and research analysis, the theme is adapted to a specific and concrete situation to achieve an architectural synthesis of all relevant influences arising from the physical and human context. Assessment by major design studio project.

ARCH7104
Architecture Design Project 2
Architecture Program
UOC12 HPW8

Currently enrolled in program 8142 Architecture.

Theory, research and studio practice, in the form of graduate research projects in design, applied to general architectural themes of high priority in the contemporary context. After thorough theoretical foundation and research analysis, the theme is adapted to a specific and concrete situation to achieve an architectural synthesis of all relevant influences arising from the physical and human context. Assessment by major design studio project.

ARCH7105
Architectural Design Charette
Architecture Program
UOC12 HPW16

A studio-based design study under the direction of a visiting national or international architect, designer, or theorist of repute based around a theme and site selected by the visitor. The charette is offered once per year at the discretion of the Program Director. The name of the visiting architect and will be advertised during the six months preceding the Summer Session. Assessment is by design critique of the studio project.

ARCH7204
Design Computing Theory
Architecture Program
UOC6 HPW2
Excluded: ARCH7201

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 reading and one major essay task.

ARCH7205
Computer Graphics Programming
Architecture Program
UOC6 HPW4
Excluded: ARCH7203

A study of the principles and techniques of interactive computer graphics programming using a high-level procedural language. Topics include: procedural language concepts, computer graphics techniques, event driven programming, and world coordinate systems. Assessment is through a staged series of programming exercises.

ARCH7206
CAD Management and Information Technology
Architecture Program
UOC6 HPW3
Excluded: ARCH7202, ARCH7222

This course is divided into two discrete components: the first relates to the implementation and management of CAD systems; while the second reviews the current state of information technology. The CAD Management component will discuss the implications and impact of change within architectural practice as well as practical issues such as CAD system selection and installation; maintenance and upgrades; software customisation; resource management; office standards; and training. The Information Technology component 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 projects and student seminars.

ARCH7304
Architecture and the City
Architecture Program
UOC6 HPW2

This course investigates the historical formation of selected international cities, with attention focussed on past and present theories. Australian developments are studied. Classes also explore contemporary debates through the projects or writings of Le Corbusier, Kahn, Rossi et al. Assessment is by two essays.

ARCH7305
Theories in History
Architecture Program
UOC6 HPW2
Excluded: ARCH7302

This course investigates the writings of architectural theorists from Vitruvius to the present. Authors to be studied include Alberti, Semper, Loos and Le Corbusier. Interpretations of the texts will be focussed around specific issues critical to modern practice. These will range from broad social concerns, such as the ethical role of the architect, to the qualities of architectural form, such as the relationship of structure to ornament. The aim of the subject is to provide a theoretical foundation capable of responding to the problems we now face. Assessment is by two essays.

ARCH7306
Theory and Architectural Practice
Architecture Program
UOC6 HPW2
Excluded: ARCH7303

Presents theoretical issues which have arisen in 20th-century practice and criticism, raises a number of ethical issues in relation to architectural practice and their impact on theory, examines the validity of certain architectural positions currently adopted within the architectural profession, and finally discusses prospects for a viable architectural future by reviewing ideas informing both visions for and the projected context of the profession. Assessment is project based and requires textual as well as visual modes of production.

ARCH7307
Architectural Design Strategies
Architecture Program
UOC6 HPW2

The course focuses on the recent history and application of design conceptualisation and problem-solving strategies. It reviews architectural design research, design formulation, design thinking and attitudes, strengths and weaknesses of design methods, the use of precedents, problem-solving techniques, conceptual blockages and breakouts, strategies for small-scale and large-scale design tasks, strategies for simple and complex design tasks, design feedback, design reporting, and offers case studies of design strategies by significant architects and designers. Also raised are issues and strategies associated with the new field of 'non-design'. Assessment by essay and design study. Course may be offered in compact mode, including weekends.

ARCH7308
Architectural Design Aesthetics
Architecture Program
UOC6 HPW2

The course considers the aesthetics of contemporary selected local and overseas design approaches such as the aesthetics of the New Urbanism. Also considered are major urban interventions such as designing for the Olympics and the revitalisation of devastated cities. Topics studied may include historic and theoretical issues about style, cultural difference, context and townscape, tradition, authenticity, proportion, scale, materiality and technology. Selected case studies are presented on significant and controversial buildings, projects, and architects/designers, from Australia and overseas. Assessment by essay and design study. Course may be offered in compact mode, including weekends.

ARCH7309
Architectural Writing and Criticism
Architecture Program
UOC6 HPW2

The course examines recent historical and contemporary examples of written and journalistic criticism of architecture, including selected writings by Australian and overseas critics. Key discursive techniques are discussed as well as major critical themes, along with thematic categories in architectural writing over the past three centuries. A selection of the work of Australian and international writers and critics will be presented and discussed. Some seminars will be offered by active Australian architectural writers, journalists and critics. Assessment by two essays. Course may be offered in compact mode, including weekends.

ARTS5020
Oral History and the Interview
School of History
UOC8 HPW2
Excluded: HIST2095, ARTS5007

Focuses on the theory and practice of writing oral history and the use of interviews as a primary source including the philosophical and practical difficulties involved, memory and forgetting, issues of interpretation and analysis, and 'performing' oral history. Workshop topics include: interview ethics, transcribing data, and the problems of interpreting data from interviews. The most important aspect of the course is the oral history project where students will conduct an interview and analyse it. They will also write a research paper where the interview data is analysed and interpreted in a historical context.

Note: For students enrolled in a PhD or Masters by Research program only.

ARTS5021
Medicine, the Body and Society
School of Sociology and Anthropology
UOC8 HPW2
Excluded: SOCA3806, SOCA5126

Presents an overview of sociological and cultural studies of the relationship between medical knowledge and practice, the experience of health and illness and contemporary society. Focuses particularly on medicine's status as simultaneously a social and a scientific practice; the ways medicine affects the experience, understanding and performance of the body; the effect of medical intervention on the organization of sexuality, illness and aging; the decentralisation of medical knowledge, the changing status of the doctor-patient relationship.

Note: For students enrolled in a PhD or Masters by Research program only.

ARTS5022
Qualitative Research Methods
School of Social Science and Policy
UOC8 HPW2
Excluded: SLSP4000, ARTS5004

Aims to provide an understanding of the role of qualitative research in the social sciences; knowledge and experience in the use of qualitative methods; an appreciation of their limitations and the social, theoretical and political context of their use. Includes qualitative data analysis, and writing and presenting qualitative research.

Note: For students enrolled in a PhD or Masters by Research program only.

ARTS5023
Quantitative Social Analysis
School of Social Science and Policy
UOC8 HPW2
Excluded: ARTS5008, SLSP2001

Aims to equip postgraduate students with basic quantitative skills required for analysing social data. Assumes no prior knowledge of statistics. Covers theoretical issues surrounding data analysis, along with the practical issues involved in using SPSS (the Statistical Package for the Social Sciences) to undertake descriptive and inferential analysis. Univariate, bivariate, and multivariate techniques for data analysis will be explored. Will be supported with WebCT.

Note: For students enrolled in a PhD or Masters by Research program only.

ARTS5024
Research Writing and Presentation
Faculty of Arts and Social Sciences
UOC8 HPW2
Excluded: ARTS5012

Assists postgraduate research students in Arts and Social Sciences to develop their thesis writing abilities and skills. Weekly sessions cover the overall structuring of the thesis; writing the introduction; the literature review; the methodology chapter; discussion chapters; the conclusion and the abstract and understanding examiners' expectations. Emphasis on managing the writing process over an extended time period and on managing large amounts of texts. Informed by current applied linguistic and educational research into advanced academic and professional writing. Includes writing a conference paper and journal article and preparing for seminar/conference presentations.

Note: For students enrolled in a PhD or Masters by Research program only.

ARTS5026
Theories of Community and Difference
School of Philosophy
UOC8 HPW2
Excluded: ARTS5001, PHIL5008

Examines models of community that challenge the idea of community as a social formation based on common identity and shared beliefs, values, ways of being etc. The theories examined in this course ask either how communities can accommodate differences without violence, or how ethical community itself is founded in response to difference such that it always opens to the 'foreign' and always in the process of transformation. Theories to be explored include communitarianism, postmodern critics of community, and new ideas of community in the work of, for example, Levinas, Nancy, and Blanchot.

Note: For students enrolled in a PhD or Masters by Research program only.

ARTS5027
Utopianism
School of Sociology and Anthropology
UOC8 HPW2

Utopianism is an ideal interdisciplinary theme for exploring how normative 'value-laden' principles are related to methodological concerns across the social sciences and humanities. Provides a useful introduction to - and discussion point for investigations of - the relationships between critique, contemporary research and interdisciplinarity. Readings should include sources such as: Thomas More's 'Utopia'; Mannheim's 'Ideology and Utopia' ; the role of utopianism in Habermas's and Foucault's differing interpretations of the legacy of the Enlightenment 'project of modernity'. Contemporary issues may include social and economic policy, organisational ethics, new media and public spheres and biotechnology debates.

Note: For students enrolled in a PhD or Masters by Research program only.

ARTS5028
The Mechanisms and Traumas of Social Change
School of Sociology and Anthropology
UOC8 HPW2

Provides a conceptual basis for postgraduate students from various disciplines and engaged in different projects by recognising that the study of social change is at the core of all social investigations. Compares different social discourses of change, like progress, crisis and traumas, focussing on traumatogenic social transformations and establishing a connection between various disciplines in their treatment of social change. Considers various forms of cultural traumas in present day societies and the construction of social time and memory as basic components of the experience of social change.

Note: For students enrolled in a PhD or Masters by Research program only.

ARTS5029
Natural Resources Policy and Management
School of History and Philosophy of Science
UOC8 HPW2

An introduction to policy development and management of complex natural resources and environmental systems. Reviews the public and private sector strategies that can be employed in the management process, as well as the interdisciplinary skills needed for solving problems that involve scientific, political, economic and social factors. Case studies include international issues such as climate change, and ozone depletion, as well as local problems such as bushfires, water and catchment management, agricultural sustainability, and the protection of ecosystems and biodiversity in national parks and world heritage areas.

ARTS5035
Structured Reading Program A
School of History and Philosophy of Science
UOC4

This structured reading program focuses on aspects of Natural Resources Policy and Management that are most relevant to a student's specific research program.

ARTS5036
Structured Reading Program B
School of History and Philosophy of Science
UOC2

This structured reading program focuses on aspects of Natural Resources Policy and Management that are most relevant to a student's specific research program.

ARTS5040
Bodies, Habits and Pleasures
HIV Social Research
UOC8 HPW2

Investigates the cultural, social and political aspects of sex and drug practice using theories of embodiment. We approach the body as a locus of power, pleasure, learning, subjectivity and change. What happens when we conceive the body as a cultural medium rather than a mere object of health and medicine? How do social approaches enliven the doing of health? How are sexuality and drugs grasped by modern regimes of power? How have endangered groups sought to transform embodied practice? Students will gain familiarity with approaches that are redefining the sociology of health, including queer theory, corporeal feminism, and governmentality studies.

ARTS5041
Researching Sex and Drugs A
HIV Social Research
UOC8 HPW2

Introduces students to practical and conceptual aspects of conducting quantitative research on sex and drug practices. Provides students with the theoretical knowledge and practical skills to conduct quantitative research projects and make sense of published research. Introduces concepts and debates underpinning quantitative research methods; considerations for researching sensitive and stigmatised practices; a background to research design and method; how to formulate research questions; sampling theory; questionnaire design; collecting data; reliability and validity theory; quantitative data analysis; intrepreting, presenting and writing about quantitative data. Includes the hands-on use of SPSS statistical software, of which no prior knowledge assumed.

ARTS5042
Researching Sex and Drugs B
HIV Social Research
UOC8 HPW2

Aims to equip students with qualitative research skills relevant to the study of sex and drug practices. These practices are frequently constituted as personal, private, illicit, or even shameful. This raises various challenges for the researcher, including questions of ethics, design, and interpretation of findings. Students will consider a range of qualitative methods suitable for researching sex and drugs including interviewing, ethnography, focus groups, and research with cultural materials. We will carry out a number of practical exercises, providing experience in different research methods. Also covers conceptual/methodological issues relating to the use of social research in public health.

ARTS5050
International Studies and Theories of Global Transformations
Faculty of Arts and Social Sciences
UOC8 HPW2

Addresses the question: What is International Studies and what could International Studies be? Assesses the historical and contemporary parameters of International Studies and the major theoretical approaches that currently dominate the field. The focus will be on a critical engagement with the most influential efforts in International Studies to promote, critique and explain global transformation.

ARTS5051
Global Political Economy, International Development and Human Security
Faculty of Arts and Social Sciences
UOC8 HPW2

In the post-9/11 and post October 12 era, there is a renewed awareness of, or concern about, the connection between security and development. Considers the complex connections between security and development against the backdrop of the changing global political economy. In the context of a broad and critical analysis of the transition from decolonisation to globalisation, and the transformation of the global political economy since the 1950s, this course puts economic development and an array of security questions in critical global perspective.

ARTS5060
Developing a Research Proposal
School of Politics and International Relations
UOC8 HPW2

Provides a grounding for postgraduate students in a wide range of approaches to research in the humanities, with a focus on the discipline of political science. Supports students in the preparation of their first substantive piece of written work for the degree - a comprehensive thesis proposal - but relevant for any humanities student in the early stages of thesis writing. Topics include the selection and framing of a research question; making an original contribution; writing a research proposal; and discussion of a range of epistemological, methodological and theoretical approaches to research in the discipline.

Note: For students enrolled in a PhD or Masters by Research program only.

ASIA5100
Research Project
Department of Chinese & Indonesian Studies
UOC8 HPW2

A research project of 10,000 words on a topic approved by the Coordinator of the Master of Arts in Asian Studies.

Note: This project is available only to students enrolled in a full MA program who have achieved distinction level over three completed courses and demonstrated research capacity. Application forms to undertake this course are available from the Coordinator and must be lodged for consideration by the end of the teaching period of the session preceding the start of the research project.

ASIA5200
Reading Program (Asian Studies)
Department of Chinese & Indonesian Studies
UOC8 HPW2

Reading programs are individually determined. Approval must be obtained from the Coordinator of the program.

Note: Students must have completed at least three courses to be considered for acceptance into a reading program. Students may enrol in a Reading Program as a substitute for one of the optional courses.

ATAX0100
Principles of Australian Taxation Law
Board of Studies in Taxation
UOC6

Principles of Australian Taxation Law is intended to provide graduates from a degree outside Law or Commerce with a sophisticated but broad understanding of the Australian taxation system from a legal perspective. In this course the fundamental elements of the Australian direct and indirect taxation regimes are analysed. The course investigates the income and deductions rules, timing issues in taxation, capital gains tax, the basic fringe benefits tax rules and the taxation of superannuation. The course also gives students an understanding of the Goods and Services Tax and of the administration of the tax system. Important state taxes such as stamp duty and payroll tax are also discussed.

ATAX0103
Microeconomics and the Australian Tax System
Board of Studies in Taxation
UOC6

This course provides an introduction to basic microeconomic concepts and skills, and demonstrates their use in order to gain a clear understanding of 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.

ATAX0104
Framework of Commercial Law
Board of Studies in Taxation
UOC6

This course deals with the basic principles of contract law, agency, misleading and deceptive conduct, cheques and bills of exchange. The course is a building block in the understanding of basic concepts of the enforceability of promises; it deals with the basic principles of misrepresentation, illegality and termination of contracts, and provides an introduction to statutory and equitable remedies applicable where contractual obligations have been broken.

ATAX0105
Accounting 1
Board of Studies in Taxation
UOC6

This is the first course in a sequence of courses dealing with the profession and the practice of accounting and the literature associated with it. Students will be introduced to: the design of accounting information systems (classifications and chart of accounts, cash or accrual systems, concept and measurement selection, continuous or periodic recording); systems of accounting record (the accounting equation, document flows, accounts and ledgers, the double-entry systems, journals and subsidiary ledgers internal and accounting control); recording merchandising operations (sales, purchases, returns, allowances, receipts, payments, inventory effects); accounting for receivables and payables; inventories; and accounting for non-current assets.

ATAX0106
Tax Administration
Board of Studies in Taxation
UOC6

This course examines the operation of tax institutions in Australia's mass decision making process. It includes self-assessment and decision making in the bureaucracy, statutory review in the AAT and courts, the basics of administrative law and the Ombudsman's role. It deals with rulings, information collection powers, powers to collect tax owing and impose penalities. It includes taxpayer protections like the Charter of Taxpayer Rights and Freedom of Information. The course emphasises a coherent, critical understanding of the decision making system and its practical administration.

ATAX0108
Principles of Capital Gains Taxation
Board of Studies in Taxation
UOC6

This course deals with Australia's capital gains tax regime. The course begins with a study of the theory behind taxing capital gains and its place in the income tax base. This is followed by an examination of the background leading to the introduction of Australia's first system for taxing capital gains and why that system was altered to our present system. The main features of the current legislation are then examined in detail, including its structure, main concepts and principal operative provisions. The course concludes with a look at the main concessions and exemptions available to individuals and small business.

ATAX0113
Taxation of Companies, Trusts and Partnerships
Board of Studies in Taxation
UOC6

This course deals with the taxation of companies, partnerships and trusts, the key structures for business and investment in Australia. This comparative treatment emphasises a coherent understanding of the tax structures and a critical appreciation of the reasons for them. The course deals with practical problems arising from concepts of legal personality (or the lack of it), dual tax at the entity and member level, including the various distribution rules and operation of company franking mechanisms. The course also considers the divergences between the taxation of different structures, and the practical consequences of these divergences. Students should have completed or be enrolled in ATAX0009 The Law of Companies, Trusts and Partnerships.

ATAX0116
Critical Perspectives and Ethics
Board of Studies in Taxation
UOC6

This course requires students to evaluate critically key aspects of Australia's tax system especially relating to tax evasion and avoidance. It asks students to evaluate the ethical behaviour of participants in the tax system. It ensures that students understand the ethical rules of Australia's leading professional accounting and legal bodies. It explores legal controls on professional actions and civil liability. It reviews why rules are obeyed and explores whether formal sanctions at the legal or professional level lead to ethical conduct. It concludes with an in-depth analysis of Australia's specific and general anti-avoidance provisions.

ATAX0117
Tax Accounting Systems
Board of Studies in Taxation
UOC6

The primary focus of the course is upon issues of timing. Earlier courses have concerned themselves with the question of what constitutes taxable income. Tax Accounting Systems moves the analysis to issues that are concerned with when. When should income be brought to account? When are deductions to be taken? In other words, the emphasis shifts to the basic question of how we achieve a fair 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.

ATAX0123
Principles of Goods and Services Tax Law
Board of Studies in Taxation
UOC6

The course works through all aspects of the GST law and looks briefly at the underlying policy implications of each area of the law. The object of this course is to provide conceptual and analytical knowledge of GST appropriate for the practical requirements of business, legal and accounting advisers working with GST on a regular basis. The course explores complex legislative and policy structures so that we acquire expert knowledge of what the law is meant to do, what it actually does and where problems arise. Recommended prior knowledge: Completion of ATAX0022 Goods and Services Tax: Design and Structure.

ATAX0301
Tax Policy
Board of Studies in Taxation
UOC6

No tax decision, from the highest tax policy design issue to the most mundane and technical problem of tax accounting, is made in a tax policy vacuum. This course is designed to develop the skills and knowledge necessary to enable the evaluation of government tax policies. An intensive 'hands on' approach is adopted to the development of techniques for practical, policy driven, tax problem solving. Economic issues are given prominence complemented with attention to political, institutional and administrative constraints on the development of tax policy. The skills learnt will enable you to move comfortably from consideration of broad strategic tax policy problems to evaluating tax policy decisions at the practical level. Recommended Prior Knowledge: Completion of a minimum of 18 Units of Credit

ATAX0303
Taxation of Corporations
Board of Studies in Taxation
UOC6

Companies are significant entities for collective investment. This course provides a comprehensive analysis of financial and taxation issues relating to investment in, and distributions by, Australian domestic companies. Examination of companies involves the theoretical framework of corporate tax integration theory, and detailed practical analysis of the Australian imputation system and rules relating to corporate distributions. Corporate structuring issues and anti-avoidance provisions are also detailed.

ATAX0304
Asia Pacific Tax Regimes
Board of Studies in Taxation
UOC6

This course is designed to equip students with an understanding of the operative tax systems in three jurisdictions, namely the United States, Singapore and Hong Kong. A comparison will be made between the operation of these tax systems and the operation of Australia's international tax system. There will also be a detailed examination of the operation of Australia's Double Tax Agreements (DTAs) generally. Recommended Prior Knowledge: Completion of ATAX0320

ATAX0305
Taxation of Trusts
Board of Studies in Taxation
UOC6

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.

ATAX0306
Tax Administration Process
Board of Studies in Taxation
UOC6

This course provides students with insights into current issues affecting tax administration. The course considers compliance research from the perspectives of both taxpayers and the economy in general. Administrative and constitutional law aspects are examined to provide a context for tax administrative law, and the review and appeal processes generally. Additionally the leading works on decision making theory are discussed to provide a perspective on their application in administrative decision making.

ATAX0307
Taxation of Corporate Finance
Board of Studies in Taxation
UOC6

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 ATAX0321/0421 Taxation of Structured Finance. This course complements ATAX0303/0403 Taxation of Corporations.

ATAX0308
International Tax: Anti-Avoidance
Board of Studies in Taxation
UOC6

This course exposes students to the main aspects of the law which are specifically relevant to anti-avoidance of international taxation. It aims to instill a clear understanding of these aspects so that students, when dealing with cross border income flows in their roles as tax professionals, may avoid inadvertently falling into an unexpected trap created by these provisions. Specifically, students studying this course will be required to come to grips with Australia's: (i) controlled foreign company ('CFC') rules; (ii) foreign investment fund ('FIF') rules; (iii) transferor trust rules and (iv) the thin capitalisation and transfer pricing rules. Recommended Prior Knowledge: Completion of ATAX0305, ATAX0311 and ATAX0320

ATAX0310
Taxation of Superannuation
Board of Studies in Taxation
UOC6

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.

ATAX0311
Taxation of Capital Gains
Board of Studies in Taxation
UOC6

This course centres upon the basic structure and central concepts of the Australian Capital Gains Tax. It considers the policy rationale for taxing capital gains, and provides in-depth technical analysis of the legislation. It covers the general scheme, detailed calculation provisions, the impact of CGT on entities (such as companies, trusts and partnerships) and on specific assets, and the CGT concessions that exist in the roll-over and exemption provisions for individuals and large and small businesses. The course explores some of the key anti-avoidance provisions that exist, and aims to provide a thorough understanding of the key aspects of the Australian CGT.

ATAX0314
Selected Problems in Stamp Duty
Board of Studies in Taxation
UOC6

This course provides a general knowledge of Australian duty law, identifying the common themes and important areas of divergence across the various states. The course critically analyses the concepts behind duties in Australia, covering the main rules and problem areas. The course examines duty on transfers of dutiable property, leases, transfers, dutiable transactions and trusts. Although the course has broad focus, duty rules in New South Wales, Victoria, Western Australia and Queensland are specifically covered.

ATAX0315
Taxation of Industry and Technology
Board of Studies in Taxation
UOC6

The tax system is used to support industry through special incentives. Some target specific industries (primary production, mining and energy, films), some target sectors of the economy (small business), while others apply to industry generally (research and development, intellectual property). Modern modes of doing business, most notably the advent of ecommerce, also present problems in the traditional application of tax laws.

This course covers special tax rules and incentives that apply to persons or entities operating in specific industries or sectors of the economy, including small business, as well as more general incentives to encourage inventiveness and increase competitiveness. Concentration is on productive sectors of the economy (as opposed to financial services) and extends to taxation of ecommerce. Coverage includes a critical analysis of why special rules exist and the desirability and effectiveness of using the tax system to achieve government industry policy.

ATAX0318
Consolidations and Group Structures
Board of Studies in Taxation
UOC6

This is a third level course dealing with complex structures at the "big end". It is designed to take you beyond the relatively static consideration of companies, trusts and partnerships considered in foundation courses on taxation of entities, capital gains and corporate finance. It deals with multiple vehicles in groups, the synergies and problems from their interaction. It covers the group consolidation legislation, intra-group transactions and those with outsiders. There is a full treatment of anti-avoidance provisions (particularly Part IVA) and issues of legal formalism. Research emphasises active exploration by you of current structures. Recommended Prior Knowledge: Completion of ATAX0303 and ATAX0311

ATAX0320
Principles of Australian International Tax
Board of Studies in Taxation
UOC6

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. The course provides the foundations for the other postgraduate courses dealing with international tax.

ATAX0321
Taxation of Structured Finance
Board of Studies in Taxation
UOC6

This course deals with the policy and tax issues which underpin new financial techniques and the products which have been based on these techniques. Basic to the course are the principles underpinning the deductibility and timing of interest payments. Derivative products are considered, particularly the instruments on which they are based, such as options, futures and forwards. More detailed consideration is given to specific products which are current in the market place such as instalment warrants, convertible securities, synthetic equity, LEPOS, swaps and the like. Recommended Prior Knowledge: Completion of ATAX0303 and ATAX0307

ATAX0322
Goods and Services Tax: Design and Structure
Board of Studies in Taxation
UOC6

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.

ATAX0323
Principles of Goods and Services Tax Law
Board of Studies in Taxation
UOC6

The course works through all aspects of the GST law and looks briefly at the underlying policy implications of each area of the law. The object of this course is to provide conceptual and analytical knowledge of GST appropriate for the practical requirements of business, legal and accounting advisers working with GST on a regular basis. The course explores complex legislative and policy structures so that we acquire expert knowledge of what the law is meant to do, what it actually does and where problems arise. Recommended prior knowledge: Completion of ATAX0322 Goods and Services Tax: Design and Structure.

ATAX0324
Goods and Services Tax: Complex Issues and Planning
Board of Studies in Taxation
UOC6

This course provides a detailed analysis of the more difficult GST issues and areas. It focuses on the identification and classification of supplies against the background of complex commercial arrangements; the treatment of cross-border transactions; rules governing the financial and insurance sectors (and the design flaws inherent in these rules); supplies made in the course of the sale of businesses, and the application of anti-avoidance provisions. The overall aim of the course is to enhance your capacity to embark upon independent analyses of the hard GST questions, particularly those questions likely to arise at advanced practice levels. Recommended Prior Knowledge: Completion of ATAX0322 Goods and Services Tax: Design and Structure and ATAX0323 Principles of Goods and Services Tax Law.

ATAX0325
Taxation of Employee Remuneration
Board of Studies in Taxation
UOC6

This course provides a comprehensive coverage of the taxation issues relating to the taxation of employee remuneration. The course commences by examining the employer/employee relationship, contrasting it with the principal/independent contractor relationship. Fringe benefits tax and tax collection obligations imposed on employers, including under PAYG and the payroll tax system, are considered in detail. Employers' obligations and employees' rights under the superannuation guarantee system are examined, as are the rules on the deductibility of superannuation contributions and the taxation of payments made on termination of employment. The course concludes with an examination of the rationale and tax consequences of salary packaging, and the ATO's response to arrangements aimed at avoiding tax on payments for services performed.

ATAX0326
Taxation and Investment Regulation in China
Board of Studies in Taxation
UOC6

This course provides comprehensive coverage of the tax system and investment regulation in China. Students completing the course will obtain a thorough working knowledge of the practical operation of China's tax and investment regulatory system in the context of common business, investment and employment activities.

Topics covered include: The enterprise and individual income tax, private enterprise regulation, foreign investment regulation, the value added tax, the business tax, Chinese business vehicles including companies, double taxation agreements, incentives and special zones.

ATAX0327
Tax Strategies in Financial Planning
Board of Studies in Taxation
UOC6

This course provides a comprehensive and in depth study of the investment sectors and funding vehicles used in personal financial planning. It looks in detail at taxation of the investments most commonly used in financial planning and, in addition, looks at taxation of funding vehicles such as managed funds. Also, it looks in detail at taxation strategies used in financial planning for constructing portfolios of these investments.

It crtically examines the taxation of property, equity, structured and alternate investments in a financial planning environment and, also, taxation strategies for including these in a personal financial planning portfolio. That analysis includes such existing tax strategies as negative gearing.

ATAX0328
Foundations in International Taxation
Board of Studies in Taxation
UOC6

This course addresses the fundamental building blocks of those parts of domestic tax income tax systems that deal with cross border investment and income flows. A comparative approach will be adopted in order to highlight the different approaches that can be, and are, adopted by different jurisdictions in dealing with these issues. This comparative approach will extend to consideration of the different outcomes that different approaches produce and the influences (such as tax policy, historical and/or cultural factors) which have contributed to the adoption of these differing approaches. Issues dealt with in the course include: jurisdictional nexus rules (residence and source); taxation of cross border active income flows; taxation of cross border passive income flows; unilateral measures adopted for relief from double taxation; host country and home country considerations in taxing cross border business activities; international anti-avoidance provisions; double tax treaties; and harmful tax competition.

ATAX0334
Specific Tax Jurisdictions: Europe
Board of Studies in Taxation
UOC6

This course involves a detailed study of the domestic taxation laws of a selected country in Europe (or of the EU itself) and is taught with the assistance of a person expert in the taxation laws of that jurisdiction. Particular attention will be paid to the domestic taxation laws of the selected jurisdiction from the perspective of an international investor and comparisons of those rules with international norms or the rules of other commercially important jurisdictions will be made. Students in this course will develop an understanding of where the chosen jurisdiction fits into the scheme of world tax systems and the expectations of the OECD and its member states. The specific jurisdiction to be covered in a particular year of offering should be ascertained by consulting the program convener.

ATAX0336
Specific Tax Jurisdictions: Asia
Board of Studies in Taxation
UOC6

This course involves a detailed study of the domestic tax laws of one or more selected countries in Asia and is taught with the assistance of a person expert in the taxation laws of those jurisdictions. Particular attention will be paid to the domestic taxation laws of the selected countries from the perspective of international investors. Comparisons of those rules with international norms or the rules of other commercially important jurisdictions will be made. The specific jurisdictions to be covered in a particular year will be determined by the program convener.

ATAX0337
Double Tax Agreements
Board of Studies in Taxation
UOC6

This course provides a comprehensive and in depth study of Double Taxation Agreements (DTAs). Critical issues examined will include DTA coverage, dual residency issues, taxation of passive income flows and capital gains and mechanisms to alleviate double tax. Important comparisons are made between the OECD UN and other DTAs so as to highlight the practical operation of the DTAs and where problem areas arise.

ATAX0338
Tax Risk Management
Board of Studies in Taxation
UOC6

The course begins by examining various models and theories relating to decision making given conditions of uncertainty. From this more holistic view of managing risk, the course then specialises in addressing the management of tax as an identified risk in the current environment of self assessment. In doing so, a range of perspectives are adopted including that of taxpayer and of tax administrator. A tax risk assessment is then undertaken according to the perspective of the decision maker and based on an understanding of what drives their behaviour. Finally, appropriate strategies are developed and their effectiveness evaluated as part of the process of tax risk management.

ATAX0355
Taxation of Property Transactions
Board of Studies in Taxation
UOC6

Property transactions are one of the most common and significant dealings within most tax bases. This course examines all income tax, CGT, GST, land tax and stamp duty consequences of acquiring, holding, developing, building on, leasing, disposing of or otherwise dealing with land and buildings, including investment options such as property trusts and their structuring. Income tax considerations dealt with include property sale or development, financing, income recognition, rent, home offices, lease incentives and deductions. CGT, GST, land tax and stamp duty as applied to freehold, leasehold, residential and commercial property are considered, including their many special rules and concessions.

ATAX0400
Research Methods in Taxation
Board of Studies in Taxation
UOC6

This course is designed as an introduction to academic research in taxation at postgraduate level. The aim of the course is to assist students in developing a broad understanding of research processes in general, and taxation research skills in particular. These research skills, which include legal, qualitative and quantitative approaches, will enable students to successfully complete their research papers or theses.

ATAX0401
Tax Policy
Board of Studies in Taxation
UOC6

No tax decision, from the highest tax policy design issue to the most mundane and technical problem of tax accounting, is made in a tax policy vacuum. This course is designed to develop the skills and knowledge necessary to enable the evaluation of government tax policies. An

intensive 'hands on' approach is adopted to the development of techniques for practical, policy driven, tax problem solving. Economic issues are given prominence complemented with attention to political, institutional and administrative constraints on the development of tax policy. The skills learnt will enable you to move comfortably from consideration of broad strategic tax policy problems to evaluating tax policy decisions at the practical level. Recommended Prior Knowledge: Completion of a minimum of 24 Units of Credit

ATAX0403
Taxation of Corporations
Board of Studies in Taxation
UOC6

Companies are significant entities for collective investment. This course provides a comprehensive analysis of financial and taxation issues relating to investment in, and distributions by, Australian domestic companies. Examination of companies involves the theoretical framework of corporate tax integration theory, and detailed practical analysis of the Australian imputation system and rules relating to corporate distributions. Corporate structuring issues and anti-avoidance provisions are also detailed.

ATAX0404
Asia Pacific Tax Regimes
Board of Studies in Taxation
UOC6

This course is designed to equip students with an understanding of the operative tax systems in three jurisdictions, namely the United States, Singapore and Hong Kong. A comparison will be made between the operation of these tax systems and the operation of Australia's international tax system. There will also be a detailed examination of the operation of Australia's Double Tax Agreements (DTAs) generally. Recommended Prior Knowledge: Completion of ATAX0420

ATAX0405
Taxation of Trusts
Board of Studies in Taxation
UOC6

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.

ATAX0406
Tax Administration Process
Board of Studies in Taxation
UOC6

This course provides students with insights into current issues affecting tax administration. The course considers compliance research from the perspectives of both taxpayers and the economy in general. Administrative and constitutional law aspects are examined to provide a context for tax administrative law, and the review and appeal processes generally. Additionally the leading works on decision making theory are discussed to provide a perspective on their application in administrative decision making.

ATAX0407
Taxation of Corporate Finance
Board of Studies in Taxation
UOC6

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 ATAX0321/0421 Taxation of Structured Finance. This course complements ATAX0303/0403 Taxation of Corporations.

ATAX0408
International Tax: Anti-Avoidance
Board of Studies in Taxation
UOC6

This course exposes students to the main aspects of the law which are specifically relevant to anti-avoidance of international taxation. It aims to instil a clear understanding of these aspects so that students, when dealing with cross border income flows in their roles as tax professionals, may avoid inadvertently falling into an unexpected trap created by these provisions. Specifically, students studying this course will be required to come to grips with Australia's: (i) controlled foreign company ('CFC') rules; (ii) foreign investment fund ('FIF') rules; (iii) transferor trust rules and (iv) the thin capitalisation and transfer pricing rules. Recommended Prior Knowledge: Completion of ATAX0405, ATAX0411 and ATAX0420

ATAX0410
Taxation of Superannuation
Board of Studies in Taxation
UOC6

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.

ATAX0411
Taxation of Capital Gains
Board of Studies in Taxation
UOC6

This course centres upon the basic structure and central concepts of the Australian Capital Gains Tax. It considers the policy rationale for taxing capital gains, and provides in-depth technical analysis of the legislation. It covers the general scheme, detailed calculation provisions, the impact of CGT on entities (such as companies, trusts and partnerships) and on specific assets, and the CGT concessions that exist in the roll-over and exemption provisions for individuals and large and small businesses. The course explores some of the key anti-avoidance provisions that exist, and aims to provide a thorough understanding of the key aspects of the Australian CGT.

ATAX0414
Selected Problems in Stamp Duty
Board of Studies in Taxation
UOC6

This course provides a general knowledge of Australian duty law, identifying the common themes and important areas of divergence across the various states. The course critically analyses the concepts behind duties in Australia, covering the main rules and problem areas. The course examines duty on transfers of dutiable property, leases, transfers, dutiable transactions and trusts. Although the course has broad focus, duty rules in New South Wales, Victoria, Western Australia and Queensland are specifically covered.

ATAX0415
Taxation of Industry and Technology
Board of Studies in Taxation
UOC6

The tax system is used to support industry through special incentives. Some target specific industries (primary production, mining and energy, films), some target sectors of the economy (small business), while others apply to industry generally (research and development, intellectual property). Modern modes of doing business, most notably the advent of ecommerce, also present problems in the traditional application of tax laws.

This course covers special tax rules and incentives that apply to persons or entities operating in specific industries or sectors of the economy, including small business, as well as more general incentives to encourage inventiveness and increase competitiveness. Concentration is on productive sectors of the economy (as opposed to financial services) and extends to taxation of ecommerce. Coverage includes a critical analysis of why special rules exist and the desirability and effectiveness of using the tax system to achieve government industry policy.

ATAX0416
Current Research Problems in Taxation
Board of Studies in Taxation
UOC6

This course is designed primarily to give students the opportunity to explore the full depth of the research literature in a significant and challenging area of tax research. The content will vary from year to year to reflect emerging problems and the availability of Atax academic staff and visiting experts. Assessment is by way of one major research paper (of approximately 20,000 words). This is intended as a research oriented Masters course only - accordingly it is not offered to Graduate Diploma in Advanced Taxation students. Moreover, it should only be undertaken by Masters' students who have already completed other Masters courses. Enrolment in this course is restricted to students who have completed at least 4 courses at the Masters (04xx) level and have achieved an acceptable academic standard as determined by the Board of Studies; this will normally be a mark of at least 65% (credit) on average in the courses completed but this may vary to suit individual circumstances.

ATAX0418
Consolidations and Group Structures
Board of Studies in Taxation
UOC6

This is a third level course dealing with complex structures at the "big end". It is designed to take you beyond the relatively static consideration of companies, trusts and partnerships considered in foundation courses on taxation of entities, capital gains and corporate finance. It deals with multiple vehicles in groups, the synergies and problems from their interaction. It covers the group consolidation legislation, intra-group transactions and those with outsiders. There is a full treatment of anti-avoidance provisions (particularly Part IVA) and issues of legal formalism. Research emphasises active exploration by you of current structures. Recommended Prior Knowledge: Completion of ATAX0403 and ATAX0411

ATAX0420
Principles of Australian International Tax
Board of Studies in Taxation
UOC6

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. The course provides the foundations for the other postgraduate courses dealing with international tax.

ATAX0421
Taxation of Structured Finance
Board of Studies in Taxation
UOC6

This course deals with the policy and tax issues which underpin new financial techniques and the products which have been based on these techniques. Basic to the course are the principles underpinning the deductibility and timing of interest payments. Derivative products are considered, particularly the instruments on which they are based, such as options, futures and forwards. More detailed consideration is given to specific products which are current in the market place such as installment warrants, convertible securities, synthetic equity, LEPOS, swaps and the like. Recommended Prior Knowledge: Completion of ATAX0403 and ATAX0407

ATAX0422
Goods and Services Tax: Design and Structure
Board of Studies in Taxation
UOC6

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.

ATAX0423
Principles of Goods and Services Tax Law
Board of Studies in Taxation
UOC6

The course works through all aspects of the GST law and looks briefly at the underlying policy implications of each area of the law. The object of this course is to provide conceptual and analytical knowledge of GST appropriate for the practical requirements of business, legal and accounting advisers working with GST on a regular basis. The course explores complex legislative and policy structures so that we acquire expert knowledge of what the law is meant to do, what it actually does and where problems arise. Recommended prior knowledge: Completion of ATAX0422 Goods and Services Tax: Design and Structure.

ATAX0424
Goods and Services Tax: Complex Issues and Planning
Board of Studies in Taxation
UOC6

This course provides a detailed analysis of the more difficult GST issues and areas. It focuses on the identification and classification of supplies against the background of complex commercial arrangements; the treatment of cross-border transactions; rules governing the financial and insurance sectors (and the design flaws inherent in these rules); supplies made in the course of the sale of businesses, and the application of anti-avoidance provisions. The overall aim of the course is to enhance your capacity to embark upon independent analyses of the hard GST questions, particularly those questions likely to arise at advanced practice levels. Recommended Prior Knowledge: Completion of ATAX0422 Goods and Services Tax: Design and Structure and ATAX0423 Principles of Goods and Services Tax Law.

ATAX0425
Taxation of Employee Remuneration
Board of Studies in Taxation
UOC6

This course provides a comprehensive coverage of the taxation issues relating to the taxation of employee remuneration. The course commences by examining the employer/employee relationship, contrasting it with the principal/independent contractor relationship. Fringe benefits tax and tax collection obligations imposed on employers, including under PAYG and the payroll tax system, are considered in detail. Employers' obligations and employees' rights under the superannuation guarantee system are examined, as are the rules on the deductibility of superannuation contributions and the taxation of payments made on termination of employment. The course concludes with an examination of the rationale and tax consequences of salary packaging, and the ATO's response to arrangements aimed at avoiding tax on payments for services performed.

ATAX0426
Taxation and Investment Regulation in China
Board of Studies in Taxation
UOC6

This course provides comprehensive coverage of the tax system and investment regulation in China. Students completing the course will obtain a thorough working knowledge of the practical operation of China's tax and investment regulatory system in the context of common business, investment and employment activities.

Topics covered include: The enterprise and individual income tax, private enterprise regulation, foreign investment regulation, the value added tax, the business tax, Chinese business vehicles including companies, double taxation agreements, incentives and special zones.

ATAX0427
Tax Strategies in Financial Planning
Board of Studies in Taxation
UOC6

This course provides a comprehensive and in depth study of the investment sectors and funding vehicles used in personal financial planning. It looks in detail at taxation of the investments most commonly used in financial planning and, in addition, looks at taxation of funding vehicles such as managed funds. Also, it looks in detail at taxation strategies used in financial planning for constructing portfolios of these investments.

It crtically examines the taxation of property, equity, structured and alternate investments in a financial planning environment and, also, taxation strategies for including these in a personal financial planning portfolio. That analysis includes such existing tax strategies as negative gearing.

ATAX0428
Foundations in International Taxation
Board of Studies in Taxation
UOC6

This course addresses the fundamental building blocks of those parts of domestic tax income tax systems that deal with cross border investment and income flows. A comparative approach will be adopted in order to highlight the different approaches that can be, and are, adopted by different jurisdictions in dealing with these issues. This comparative approach will extend to consideration of the different outcomes that different approaches produce and the influences (such as tax policy, historical and/or cultural factors) which have contributed to the adoption of these differing approaches. Issues dealt with in the course include: jurisdictional nexus rules (residence and source); taxation of cross border active income flows; taxation of cross border passive income flows; unilateral measures adopted for relief from double taxation; host country and home country considerations in taxing cross border business activities; international anti-avoidance provisions; double tax treaties; and harmful tax competition.

ATAX0429
International Tax Research
Board of Studies in Taxation
UOC6

Students complete a research paper on an approved topic of their choice which addresses some aspects or aspects of international taxation. The completion of this task will be supervised by a member of academic staff. Assessment will be 'progressive' with marks assigned to successful completion of interim tasks such as preparation of a synopsis and a literature; survey. The required length of the paper will be commensurate with the work required for completion of course carrying 6 units of credit. Enrolment in this course is restricted to students who have completed at least 4 courses at the Masters (04xx) level and have achieved an acceptable academic standard as determined by the Board of Studies; this will normally be a mark of at least 65% (credit) on average in the courses completed but this may vary to suit individual circumstances.

ATAX0434
Specific Tax Jurisdiction: Europe
Board of Studies in Taxation
UOC6

This course involves a detailed study of the domestic taxation laws of a selected country in Europe (or of the EU itself) and is taught with the assistance of a person expert in the taxation laws of that jurisdiction. Particular attention will be paid to the domestic taxation laws of the selected jurisdiction from the perspective of an international investor and comparisons of those rules with international norms or the rules of other commercially important jurisdictions will be made. Students in this course will develop an understanding of where the chosen jurisdiction fits into the scheme of world tax systems and the expectations of the OECD and its member states. The specific jurisdiction to be covered in a particular year of offering should be ascertained by consulting the program convener.

ATAX0437
Double Tax Agreements
Board of Studies in Taxation
UOC6

This course provides a comprehensive and in depth study of Double Taxation Agreements (DTAs). Critical issues examined will include DTA coverage, dual residency issues, taxation of passive income flows and capital gains and mechanisms to alleviate double tax. Important comparisons are made between the OECD UN and other DTAs so as to highlight the practical operation of the DTAs and where problem areas arise.

ATAX0438
Tax Risk Management
Board of Studies in Taxation
UOC6

The course begins by examining various models and theories relating to decision making given conditions of uncertainty. From this more holistic view of managing risk, the course then specialises in addressing the management of tax as an identified risk in the current environment of self assessment. In doing so, a range of perspectives are adopted including that of taxpayer and of tax administrator. A tax risk assessment is then undertaken according to the perspective of the decision maker and based on an understanding of what drives their behaviour. Finally, appropriate strategies are developed and their effectiveness evaluated as part of the process of tax risk management.

ATAX0455
Taxation of Property Transactions
Board of Studies in Taxation
UOC6

Property transactions are one of the most common and significant dealings within most tax bases. This course examines all income tax, CGT, GST, land tax and stamp duty consequences of acquiring, holding, developing, building on, leasing, disposing of or otherwise dealing with land and buildings, including investment options such as property trusts and their structuring. Income tax considerations dealt with include property sale or development, financing, income recognition, rent, home offices, lease incentives and deductions. CGT, GST, land tax and stamp duty as applied to freehold, leasehold, residential and commercial property are considered, including their many special rules and concessions.

AVIA5001
Law and Regulation in Aviation
Department of Aviation
UOC6

This course provides an overview of the regulatory structure of civil aviation in Australia. It focuses on the legal system within which this regulatory system operates and the powers, responsibilities and scope of various aviation regulatory authorities. In particular, the course will concentrate on providing a practical insight into the legal implications associated with the various aviation positions such as the pilot in command.

Note: Distance Education mode only

AVIA5003
Aviation and Security
Department of Aviation
UOC6

Aviation security needs to be understood by all those involved in the operational requirements of civil aviation. Past disasters have provided appalling lessons that any departure from strict, internationally accepted procedures creates an "opportunity" for those intent on acts of unlawful interference. The course Aviation and Security deals with the broad issue of security appreciation for professionals and managers, a perspective on the human and organisational dimensions of aviation security, an explicit understanding of responsibilities, the mechanism for implementation, and the ability to determine and report on security events. This course is designed for a wide cross-section of professionals in the aviation, transport and affiliated industries.

Note: Distance Education mode only

AVIA5004
Aviation Safety and Accident Prevention
Department of Aviation
UOC6

Safety and Accident prevention are issues in almost every walk of life, none more so than within the aviation industry. The objective of this course is to provide those working in aviation and associated industries with a broad and detailed understanding of the commercial aviation safety system and strategies developed to make that system safer. While the course specifically relates to commercial air service operations in Australia, it also recognises the vital importance of global co-operation and the role of specific international organisations. It also focuses on the investigation and prevention of accidents, and the roles of the Bureau of Air Safety Investigation and the Aviation Regulatory authorities.

Note: Distance Education mode only

AVIA5005
Airline Operational Management
Department of Aviation
UOC6

Airline Operational Management includes the operational and day to day aspects of airline management such as operational control, aircraft maintenance outsourcing, crew planning and scheduling, airport management, catering, reservations management, delay and punctuality control, marketing and emergency planning. The course covers these aspects of the day to day management and the relationship between these functions and those of the corporate areas in AVIA5009. These matters drive the major airline cost areas.

Note: Distance Education mode only

AVIA5006
Airport Planning
Department of Aviation
UOC6

Airport Planning includes the following: town planning aspects, access, obstacles, growth, longer term issues of noise and other environmental issues, longer term political issues and ownership issues as airports become privatised. Also included are topics covering the process of privatisation and investment evaluation, community benefits, airport master plans, forecasting aircraft movements and passenger and freight flows, terminal planning issues, runway and taxiway planning.

Note: Distance Education mode only

AVIA5007
Airport Management
Department of Aviation
UOC6

This course covers day to day operational issues such as managing annual budgets, fees (landing, passenger, shops, car parking, etc.) determination methods, emergency planning in all aspects, relationships with airlines, short term political issues management, slot management-peak time issues, managing concessions and other airport business opportunities, aircraft parking control, relationship with other industry bodies and general administrative tasks at airports such as roads, signs, flight information, electricity and water.

Note: Distance Education mode only

AVIA5008
Air Traffic Management
Department of Aviation
UOC6

This course includes the following aspects: definition and quantification of risk, primacy and management of Air Traffic System safety, development of efficient procedures, Air Traffic System - 'requirements, management of traffic priorities, environmental management, financial imperatives, aviation industry liaison and public liaison'.

Note: Distance Education mode only

AVIA5009
Airline Corporate Management
Department of Aviation
UOC6

Airline Corporate Management includes organisational structures, business planning and budgeting, financial analysis, supply and demand analysis, economics, forecasting, commercial agreements liaisons, scheduling planning and fleet planning. This course provides an insight into the complex and interwoven nature of the airline business and gives a picture of the prime drivers, which differentiate airlines. This course is complementary to course AVIA5005 Airline Operational Management.

Note: Distance Education mode only

AVIA5018
Aviation Human Factors
Department of Aviation
UOC6

Aviation Human Factors is a fast-developing subject area that influences all aspects of the aviation environment from ramp to maintenance line and from airport to flight deck and has particular relevance for all involved in management. This course provides an indepth introduction to the subject in the context of organisational efficiency, and management of error and safety. Basic principles of physical and cognitive human performance are covered along with a detailed analysis of error, situational awareness, ergonomics and the evaluation of human factors. Specific aviation coverage includes Crew Resource Management (CRM), human factors in aircraft operations air traffic control, maintenance and management.

Note: Distance Education mode only

AVIA5019
Management of Aviation Technical Operations and Maintenance
Department of Aviation
UOC6 HPW6

The Course is designed to provide an introduction to and profile of the engineering and maintenance divisions of an airline. The course includes a description of the typical airline's organisational structure of engineering and maintenance, and its integration within the airline in terms of a systems approach to technical operations. It also describes how this engineering and maintenance structure must meet the regulatory requirements of an Airlines Operating Certificate (AOC). The management of technological advancements in aviation and the effect on an airline will also be covered, including the integration and sharing of data with manufactures and regulatory bodies.

Note: Distance Education mode only

AVIA5020
Aviation Research Project
Department of Aviation
UOC6

This course requires the student, under guidance, to research an issue in aviation management and produce a written report. The course of the project will be agreed between the research supervisor and the student.

Note: Distance Education mode only

AVIA5021
Aviation Safety Analysis and Research Methods
Department of Aviation
UOC6

The collection and analysis of safety data is a major issue in aviation, where past occurences often hold the key to preventing future incidents and accidents. The student is introduced to practical issues in planning, gathering and analysing safety data and the presentation of research findings. Particular emphasis is placed on proactive safety management and continuous monitoring and the processes that exist within the aviation industry to support such strategies. Part the assessment requirements of this module will involve conducting an applied safety research project.

Note: Distance Education mode only

AVIA5022
Aircraft Accident Investigation Techniques
Department of Aviation
UOC6

Aircraft accident investigation is an exacting science that draws upon a complex range of skills. This course introduces students to the skills required of an investigator, and to the processes of investigation. The course covers the principles of investigation, regulatory requirements, material evidence, witness evidence, interview techniques, preservation, transportation and alternative sources of evidence, environmental issues, proactive investigation methods and reporting.

Note: Distance Education mode only

AVIA5024
Flight Deck Operations for Advanced Transport-Aircraft
Department of Aviation
UOC6

This course takes a holistic approach to analysing the factors involved in safe operation of advanced transport aircraft, beginning with a description of current accident statistics, and their analyses. The course includes an extensive description of advanced aircraft technology such as fly-by-wire, and the interfaces between aircraft and crew such as electronic cockpit displays, heads-up displays, cockpit controls, and automation. The course reviews human performance issues such as cognition, mental models, situational awareness and decision-making from the perspective of flight crew. It concludes with an overview of current world best proctices for flight crew and aviation organisations. The course is intended for professional flight crew, aviation managers, equipment manufacturers, researchers, regulators and interested parties who would benefit from a more complete knowledge of this complex area.

Note: Distance Education mode only

AVIA5028
Airline Marketing Management
Department of Aviation
UOC6

This course is designed to give students a general introduction to marketing principles and then move to specialist areas of marketing in airlines. The history of airline marketing and its relationship to the regulatory environment is covered. A comparison of regional/ cultural marketing provides a global perspective. The process of airline marketing is covered from a theoretical approach and from practical implementation perspectives. The course briefly looks at the relationship between airlines and airports and the tourism industry. Future directions for marketing are covered.

Note: Distance Education mode only

AVIA5311
Inflight Services Management
Department of Aviation
UOC3

Inflight services management studies management issues in the provision of passenger food and beverages and in other services provided to passengers and crew during their flight. The course covers interfaces with other industries, quality assurance, menu design and pricing, catering production and operations management, and the design of inflight services.

Note: Distance Education mode only

AVIA5312
Airline Incident Investigation
Department of Aviation
UOC3

The airline industry comprises many component systems. Each of these systems in turn is a combination of other systems. The delivery of a process that is both safe and expeditious can generate a significant potential error. This course provides an introduction to the necessary skills and techniques of effective investigation that will prevent error within the aviation industry, before an accident occurs, and is applicable to all categories of staff throughout the aviation industry. Particular emphasis is placed on the roles and responsibilities of investigators and the gathering of key causal factors. This enables investigators to develop early warning systems that can improve the safety and health of their organisations through study of the principles of system safety and incident analysis.

Note: Distance Education mode only

AVIA5313
Aviation Ground Safety Investigation
Department of Aviation
UOC3

Aviation Ground Safety Investigation concerns the movement areas around an aerodrome and the investigation of incidents and accidents that occur within them. Ground damage represents a major cost to the aviation industry exceeding $200 billion per annum, yet safety measures have tended to focus mainly on aircraft safety in flight. This course covers the investigative process and issues specific to ground safety. This includes principles of safety and human factors, managing the response to incidents and accidents, handling of witnesses, victims and media, legal requirements in investigation, sources of evidence, analysis techniques, reporting and proactive management.

Note: Distance Education mode only

AVIA5314
Aviation System Safety
Department of Aviation
UOC3

Just as aircraft accidents are arguably never the result of a single causal factor, so too safe operations are rarely assured through single safety measures. Rather, it is a system of safety measures or defences that protect complex operating systems from accidents. This course considers the elements of aviation system safety including the theory of systems safety, modelling system safety, safety management systems, continuous monitoring, establishing and assessing safety culture and an introduction to risk management in aviation. In depth consideration is also given to the issue of regulating systems safety including methods of assessing compliance.

Note: Distance Education mode only

BEES9011
Essential Skills for Research Students (Post-Graduate Students Only)
School of Biological, Earth and Environmental Sciences
UOC6
Excluded: BEES4511

The course covers essential skills needed in biological research and subsequent 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. The course must be taken by all commencing postgraduate students in the School of Biological Science unless they have already passed BEES4511.

Note: Required for enrolment in this course: enrolment in a postgraduate research program in a biological discipline within UNSW, or completion of requirements for Honours in Biology or other discipline area.

BEES9917
Alternative Higher Degree Qualifying Program (Full-time)
School of Biological, Earth and Environmental Sciences
UOC42

Similar in content and standard to BIOS4517 Biological Science Honours but designed specifically for students who cannot regularly attend the University.

Note/s: Plus BEES9011

BEES9919
Alternative Higher Degree Qualifying Program (Part-time).
School of Biological, Earth and Environmental Sciences
UOC10.5

Similar in content and standard to BIOS4513 Biological Science Honours P/T but designed specifically for students who cannot regularly attend the University.

Note/s: Plus BEES9011

BENV7140
Multimedia on the Web
Faculty of the Built Environment
UOC6 HPW3
Excluded: ARCH9711

This course will discuss the potential and limitations of the World Wide Web as a tool for the presentation of design information. The course aims to help students develop an understanding of what constitutes a good web page as well as learning HTML. Students will learn to use a range of graphics applications (including Adobe Photoshop) as well as a Web Editor. Assessment will be through the development of a series of web pages.

BENV7141
Multimedia in Design Presentation
Architecture Program
UOC6 HPW3
Excluded: ARCH9714

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.

Note: Assessment is by projects and student seminars.

BENV7142
CAD and Visualisation
Architecture Program
UOC6 HPW3
Excluded: ARCH7220, ARCH7221

Introduction to the concepts and techniques relating to the use CAD systems in architectural design. The course deals with both 2D drawing and 3D modelling, rendering & animation; and will include extensive hands-on use of a CAD system and a modelling & rendering application. Assessment will be through a series of exercises and one major design presentation.

Notes: Exclusions - Students majoring in Architectural Computing

BENV7143
Advanced Visualisation
Architecture Program
UOC6 HPW3

This course 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 staged learning exercises and one major design presentation project.

BENV7147
Information Management Systems for Design Professionals
Architecture Program
UOC6 HPW3

This course provides an understanding of how computer-based information management systems can assist design professionals in their practices. The course is intended for those who wish to have knowledge in both the theoretical and practical aspects of design information management systems. The theoretical aspects include basic concepts of databases, data modelling, database design, implementing a database, implementing a database application and using Internet and network technology with databases. The practical aspects consider writing database proposals, using MS Access for creating databases, writing SQL statements and building database user interfaces (particularly in a network context). Assessment is through class exercises and a major database design project.

BENV7148
Object Based CAD Modelling
Architecture Program
UOC6 HPW4

This course reviews current developments in object-based CAD technologies, with particular emphasis on practical issues of application and implementation. The theoretical component of the course deals with issues of object modelling, information interchange, intelligent objects and concept modelling. The practical side of the course investigates the implementation of object-based CAD technologies in the context of a specific CAD system, covering object manipulation, IFC model interchange and object intelligence. Assessment is mainly through practical hands-on work and one major written report.

BENV7149
Design Collaboration using a Building Information Model
Faculty of the Built Environment
UOC6

This course provides a unique opportunity to participate in a multidisciplinary collaborative architectural design programme with students from a range of disciplines including architects, engineers, interior architects, builders, planners and landscape architects. The course will engage with three major learning contexts: the process of design resolution and refinement, commencing with a real concept design (a building that is at an advanced stage of design on a real site in Sydney) and working through a teamwork process to arrive at a set of well resolved design propositions; participation in a genuine collaborative design process, working as part of a multidisciplinary design team and gaining insights into the way other design professionals work; the use of a shared server-based building information model with a corresponding set of design simulation tools. An international expert in the development and use of shared building modelling technology will lead the studio, supported by a local design professional who will guide the design resolution process. Students work as part of a small multidisciplinary design team, each having equal input to the design process, but responsible for bringing to the table their own area of expertise. There will be regular reviews where guest critics will visit the studio with particular expertise to guide the deliberations of each team. The course is run in a studio format with weekly lectures and associated seminars, critique sessions and group workshops. Assessment is based on both individual and group projects, including a group design presentation at the end of the semester.

BENV7190
People and Urban Space
Architecture Program
UOC6 HPW2
Excluded: ARCH7322

Urban design is concerned with improving the quality of the public realms of human settlements. As a basis for designing guidelines for the achievement of a high quality environment it is important to understand how different patterns of urban space are associated with specific behaviours and aesthetic effects within different cultures. The lectures/ seminars focus on the empirical research on people (designers and users) and urban space uses and meanings. Assessment is by two essays.

BENV7191
Urban Heritage Conservation
Faculty of the Built Environment
UOC6 HPW3

Heritage conservation is more than old buildings. Heritage values underpin the development of a community, and an understanding of how they have been, and are continuing to be, expressed in the urban fabric is critical to the management of the built environment today. This course will provide an introduction to the theory, principles and practice of the conservation of the urban landscape. It will use a combination of lectures, case studies and studio projects to explore the opportunities, issues and dilemmas facing culturally significant items, sites and areas.

BENV7704
Principles of Political Economy
Faculty of the Built Environment
UOC3 HPW3

This course is an introduction to politcal 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.

BENV7710
Planning Law and Administration
Planning and Urban Development
UOC6 HPW6

The course comprises three parts, Planning Law, Planning Administration and Land Valuation. Planning Law: 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.

BENV7711
City Planning Today
Planning and Urban Development
UOC3 HPW2
Excluded: Program 3360.

The way our cities look and operate, their cultural and community life are all considered by town planners. The course deals with the fundamentals of urban planning, its language; its rules and regulations; its controversial nature and the way it operates in practice. It looks at how and why urban planning came into being; how the legal and administrative system works; how the political system operates; and how planners deal with issues-from designing the city to balancing the many conflicts which arise over development projects. Lectures are given by staff of the Faculty of the Built Environment as well as planning practicioners. This course will give you the skills, the understanding and the enthusiasm to play an active role in shaping your city..

BENV7713
Development Control
Faculty of the Built Environment
UOC6 HPW6

This subject 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 subject is placed on familiarising students with the skills required by a professional planner in undertaking various planning tasks.

BENV7714
The Economics of Cities
Planning and Urban Development
UOC6 HPW3

This course examines how economic processes influence the structure and performance of cities and regions in national and global contexts, drawing upon examples from Australia, Asia, North America & Europe, and setting these economic processes against social, cultural, environmental and political influences.

BENV7715
Social Planning
Planning and Urban Development
UOC6 HPW6

This course explores contemporary issues facing the professional planner working in an increasingly diverse and complex society. Various cultural, social and environmental issues that challenge different groups' sense of belonging and claims to the city are examined. These groups include ethnic communities, children, the aged, women, people with disabilities, gays and lesbians, Aborigines and homeless people. 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.

BENV7717
Metropolitan Policy
Planning and Urban Development
UOC6 HPW3

A renewed interest in urban governance is occurring in market economies. Why this is so and how urban management is conceived by different interest groups and implemented are the questions posed in this course. The course considers the answers and implications for property development and investment.

BENV7719
Planning in Practice
Planning and Urban Development
UOC6 HPW3

This course consists of two components: environment law and dispute resolution, and professional practice. Environmental law and dispute resolution examines recent statutory and administrative changes to the planning system, environmental and natural resources law, the operation of the Land and Environment Court, the significance of the court and 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 consultant's brief and preparing for court work. Such hand-on skills are discussed in the broader context of philosophical positions, 'professionalism' and the social, political and industrial environment.

BENV7720
Land and Environment Law
Planning and Urban Development
UOC6 HPW3

Planning, Planning legislation, Environmental planning instruments, Environment - common law - statute - role of public and pressure groups, environmental planning control, environment assessment, heritage legislation. Land law - public and private, Estates and tenures, Co-ownership, Leases, Easements, Restrictive covenants, Licences, Residential tenancies tribunal. Old system title, Possessory title, Torrens title, Land Titles Office practice, Sale of land, Other methods of transferring land, Crown land tenures, Strata title, Community title. Alternative models including other countries, Critical perspective, Heritage Law.

BENV7721
Planning and Land Policy
Planning and Urban Development
UOC6 HPW3

The objectives of planning; The history of land use planning in Australia; The achievement of planning objectives; Planning authorities; Planning codes and development plans; Statutory powers of planning authorities; Planning procedures; Control of the development process; Retail development; Commercial development; Industrial and warehouse development; Special development; Environmental impact assessment. Government intervention in land use matters; Public finance and planning; Political considerations and planning and development; Government control and speculation - laissez-faire or public control; Planning and housing policy; Urban decay and renewal; The problems of the urban fringe; Conservation, preservation, redevelopment.

BENV7722
Qualitative Methods
Faculty of the Built Environment
UOC6

This course focuses on the importance of inter-personal relationship skills in planning practice. The emphasis is on developing and refining such skills to facilitate interviewing techniques for successful qualitative research, dealing with people, team building, community consultations and mediation. Basic instruction is given in interviewing technique, its use in different qualitative research situations, community consultation, mediation and related planning techniques. Students undertake a variety of class exercises to develop their skills. A major qualitative research project involves in-depth interviewing, transcription preparation, data analysis, and reporting of findings. Students have the opportunity to reflect on and share experiences. Assessment is based on participation in class discussions and exercises, a major research project and reading set texts.

BINF9010
Bioinformatics Methods and Applications
School of Computer Science and Engineering
UOC6 HPW5

Bioinformatics methods and data generated or analysed by these methods are of increasing importance in the biological sciences. This course explores the algorithms, assumptions, applications and limitations of a number of bioinformatics methods used for DNA and protein sequence analysis, biomolecular structure prediction and analysis, and functional genomics including microarray data analysis. Practical work emphasises the use and applications of standard bioinformatics tools and databases. The course starts with a choice of modules (biology for engineers, computer science for biologists) and is therefore suitable for students with a range of backgrounds. Assumed knowledge: Introductory statistics and probability. Computer programming skills not necessary.

Further Information: CSE class page **www.bioinformatics.unsw.edu.au/course/**

BIOC5318
Graduate Diploma (Biochemistry)
School of Biotechnology and Biomolecular Science
UOC18

BIOC5319
Graduate Diploma (Biochemistry)
School of Biotechnology and Biomolecular Science
UOC18

BIOM9012
Biomedical Statistics
Graduate School of Biomedical Engineering
UOC6 HPW3

Probability and distributions. Estimation and hypothesis testing. Associations between disease and risk factors. Linear models; analysis of variance, simple and multiple regression, discriminant analysis. Distribution-free methods. Analysis of survival data. Experiment design.

BIOM9020
Research Project
Graduate School of Biomedical Engineering
UOC6

BIOM9020 is the first half of the 12 UOC research project. BIOM9021 is the second half.

Enrolment in these courses allows a student to undertake the equivalent of BIOM9914

Masters Project over two sessions and allows graded results.

BIOM9027
Medical Imaging
Graduate School of Biomedical Engineering
UOC6 HPW3

Fundamentals of producing a medical image, image collection techniques, image reconstruction algorithms. Detailed examination of the four main areas of medical imaging: Nuclear Medicine and Positron Emission Tomography, Ultrasound, Diagnostic Radiology, Magnetic Resonance. Clinical application of each area.

BIOM9060
Biomedical Systems Analysis
Graduate School of Biomedical Engineering
UOC6 HPW3

Analysis of compartmental systems in biology and medicine. Applications include pharmacology, physiology and nuclear medicine. Topics include the mathematics of linear compartmental systems, non-linear systems,

tracer methods, parameter estimation by fitting models to date, the optimum design of experiments, and methods of control.

Note: Mathematics background required.

BIOM9311
Mass Transfer in Medicine
Graduate School of Biomedical Engineering
UOC6 HPW3

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
UOC6 HPW3

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.

BIOM9332
Biocompatibility
Graduate School of Biomedical Engineering
UOC6 HPW3

Interaction of biological fluids and cells with foreign surfaces, in vitro tests to assess biocompatibility and thrombogenicity, current status of biocompatible materials as applied to extracorporeal systems, surgical implants and prosthetic devices.

Students should note that this course will be offered in S1 from 2004.

BIOM9333
Cellular and Tissue Engineering
Graduate School of Biomedical Engineering
UOC6 HPW3

This course outlines concepts underlying development of cell-based products and aims to give students a theoretical and practical understanding of the tools available for producing such "devices" as well as the biological, physical and chemical constraints of these systems. Specific topis that will be covered include introductory cell biology and biochemistry, cellular mechanics, mass transfer in cells and tissue, analysis of cell and tissue functions, regulatory requirements for biological products and tissue engineering applications. Laboratory classes will be used to allow students to gain some practical experience with cell and scaffold manipulations.

BIOM9410
Regulatory Requirements of Biomedical Technology
Graduate School of Biomedical Engineering
UOC6 HPW3

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.

Students should note that this course is web-based.

BIOM9420
Clinical Laboratory Science
Graduate School of Biomedical Engineering
UOC6 HPW3

The technologies, tests and operation of a variety of clinical laboratory testing systems (biochemistry, haematology, immunology, histology). Engineering solutions to physiological problems, chemical and biochemical assays.

BIOM9430
Electromedical Standards
Graduate School of Biomedical Engineering
UOC6 HPW3

Basic effects of electricity on the human body, threshold of ventricular fibrillation, termination of leakage currents, statistical basis of experimental data used to define limits of leakage currents. Formation of safety standards for electromedical equipment. Mechanisms of approval of electromedical equipment. Acceptance testing procedures. Certification schemes for electromedical equipment. National and international legal requirements.

BIOM9432
Chemistry and Physics of Synthetic and Biological Polymers
Graduate School of Biomedical Engineering
UOC6 HPW3

This course outlines the chemistry and physics of synthetic and natural polymers. It is an introductory level offering that covers polymerisation, synthesis of branched macromolecules and networks and polymer behaviour in solution and solid state. It also covers biological polymers. This includes synthesis and characterisation of biological polymers using proteins, polysaccharides and DNA as examples.

BIOM9440
Biomedical Practical Measurement
Graduate School of Biomedical Engineering
UOC6 HPW3

Hands-on practice in the use and testing of medical transducers and electromedical equipment in common use in hospitals and research laboratories to make measurements of biomedical variables of clinical significance.

Note: Limited number of places - contact School Office.

BIOM9450
Clinical Information Systems
Graduate School of Biomedical Engineering
UOC6 HPW3

An introduction to medical informatics and information systems, evidence-based medicine and clinical decision support. Aspects of database design, normalisation and structured query language (SQL). A previous knowledge of Java is necessary.

Note: Limited number of places - contact School Office.

BIOM9501
Computing for Biomedical Engineers
Graduate School of Biomedical Engineering
UOC6 HPW3

Algorithm design and documentation; programming in Java and in JBuilder; object oriented program design; event driven programming in a graphical environment.

Note: Highly recommended for Strand B students. This course is for students with little or no computing experience or for those students who wish to learn about object oriented programming in a Windows environment.

BIOM9510
Introductory Biomechanics
Graduate School of Biomedical Engineering
UOC6 HPW3

The principles of the mechanics of solid bodies, force systems, kinematics and kinetics of rigid bodies, stress-strain relationships, stress analysis of simple elements application to musculoskeletal system.

BIOM9541
Mechanics of the Human Body
Graduate School of Biomedical Engineering
UOC6 HPW2

Statics and dynamics of the musculoskeletal system: mathematical modelling and computer simulation, analysis of pathological situations.

Assumed Knowledge: BIOM9510 and ANAT2111.

BIOM9551
Biomechanics of Physical Rehabilitation
Graduate School of Biomedical Engineering
UOC6 HPW2

The application of biomechanics principles to the areas of performance testing and assessment, physical therapy, design of rehabilitation equipment, design of internal and external prostheses and orthoses.

Note: This course is not offered on a regular basis.

Assumed Knowledge: BIOM9541.

BIOM9561
Mechanical Properties of Biomaterials
Graduate School of Biomedical Engineering
UOC6 HPW3

The physical properties of materials having significance to biomedical engineering; human tissues; skin; soft tissues; bone; metals; polymers and ceramics. The effects of degradation and corrosion.

BIOM9601
Biomedical Applications of Microcomputers 1
Graduate School of Biomedical Engineering
UOC6 HPW3

Microcomputer architecture; physiological data acquisition systems: input/output signals and devices; assembly language programming; interfacing to higher level languages; the numeric data coprocessor; interrupts; graphics; practical sessions on use of Debug, Assembler, familiarisation with interrupt vector table and I/O ports. Major assignment on specific biomedical application (eg. bedside ECG monitor).

Note: A reasonably advanced background in microprocessors is required. Entry to course is by interview.

Assumed Knowledge: BIOM9040 and BIOM9050 or equivalents.

BIOM9613
Medical Instrumentation
Graduate School of Biomedical Engineering
UOC6

A critical comparative analysis of the theoretical physics and practical applications of medical transducers and electromedical equipment in common use in hospitals and research laboratories. How to choose a measurement device for a given situation.

BIOM9621
Biological Signal Analysis
Graduate School of Biomedical Engineering
UOC6 HPW3

Use of digital computers to extract information from biological signals. Signal processing using filtering, averaging, curve-fitting and related techniques, and analysis using model simulations, correlation, spectral analysis etc.

Note: Basic electronics and mathematics background required.

BIOM9701
Dynamics of the Cardiovascular System
Graduate School of Biomedical Engineering
UOC6 HPW3

Structure of the heart; organisation of the mammalian vasculature; mechanical, electrical and metabolic aspects of cardiac pumping; the solid and fluid mechanics of blood vessels; rheology of blood.

Note: Some mathematics background desirable.

BIOM9913
Project Report
Graduate School of Biomedical Engineering
UOC12

Projects are undertaken at the Graduate School or other relevant institutions towards the end of the program. Topics are chosen in collaboration with a supervisor from the Graduate School.

BIOS9001
Fundamental Knowledge in Environmental Management: Ecology
School of Biological, Earth and Environmental Sciences
UOC6 HPW45

Students gain essential knowledge for environmental managers concerning ecosystem structure and function, ecological sustainability, maintenance of biodiversity and ecosystem integrity, restoration of disturbed ecosystems, bioeconomics, conservation of threatened populations, and impacts of particular environmental threats such as climatic change, pollution, salinisation and species invasions. The course emphasises the effective management and monitoring of complex ecosystems where inherent uncertainty, limited ecological understanding and political, economic and legal constraints must be factored into environmental decision making. Issues in management of terrestrial and marine ecosystems are introduced through lectures, learning exercises and field excursions.

Assumed knowledge: This is a basic training in ecological concepts and principles for non-biologists and no biological knowledge is assumed.

Note: This course is one of the Fundamental Knowledge core courses available within the Masters of Environmental Management degree program. If places are available it may also be taken as a short course in stand-alone mode or as part of other postgraduate programs. It is offered as an intensive 2-week course in December with field training at the UNSW Field Station at Smiths Lake followed by a week of study on campus at Kensington.

BIOS9002
Management of Biodiversity
School of Biological, Earth and Environmental Sciences
UOC3 HPW21

The course introduces the concepts of biodiversity and briefly examines its components in Australia and globally. Factors which threaten biodiversity such as habitat loss, habitat degradation and exploitation, pollution and their biological consequences including extinctions are considered. Management tools are discussed covering both methods for assessing existing biodiversity and the methods and planning required to maintain it at appropriate levels.

Note: The course is available as an elective within the Masters, Graduate Diploma and Graduate Certificate in Environmental Management programs, and in other postgraduate programs within UNSW, or on its own as a short course. It is offered as an "on campus" intensive course in the winter break.

BIOS9211
World Conservation Biology
School of Biological, Earth and Environmental Sciences
UOC6 HPW10

Conservation biology is defined as the study of the effect of humans upon the biosphere.

The lectures are in five components: a) basic biology of Homo sapiens and its recent evolutionary history on the planet Earth; b) a consideration of the Future of Australian Threatened Ecosystems (FATE); c) general themes in world conservation biology; d) conservation issues outside Australasia; and e) conservation issues as they affect particular groups of species.

The course is assessed via a review paper on a given topic to be done by all students, and a second paper on a topic of the student's choice after consultation with their lecturer in charge.

Lectures are recorded and the course can be taken entirely online.

BIOS9221
Australasian Mammals and Conservation
School of Biological, Earth and Environmental Sciences
UOC6 HPW10

This course has three basic components: a) lectures on both native and introduced mammals of the region, their conservation and their effect upon the rest of the fauna and flora in this region; b) a field component (four full days) involving handling of native Australian mammals and observations of them in both the terrestrial and marine environment; and c) considerations of contemporary social attitudes to Australasian mammals as seen through the requirements for AE approval of the use of animals for research and teaching.

The course is assessed on the basis of a) participation in the practical component; b) a paper and a seminar on an aspect of wildlife management; c) preparation of an application to an animal ethics committee for either research or teaching using vertibrates.

The lectures are recorded and available online.

BIOS9231
Conservation Project
School of Biological, Earth and Environmental Sciences
UOC12 HPW20

This project may consist of

a) a laboratory investigation,

b) a field investigation,

c) a theoretical population biology investigation,

d) the production of a research technology handbook,

e) an investigation which has a strong biology conservation component, e.g. an examination of the economics of conservation or the historical record of animals or plants in Australia or New Zealand, or

f) the preparation of some educational material which is to be used for conservation purposes, e.g. a handbook which describes how to look after a particular species.

Assessment is based on a paper to be presented in a scientific journal format, and through a seminar which all students are expected to attend. The Conservation Project should include a technology or a methodology component (computer-, lab- or field-based) which extends the student's professional capacity in a significant way.

There are no set lectures, but each student must arrange a program of consultations throughout the semester with academic supervisors. A list of potential projects and supervisors is supplied, together with examples of projects which students have done in previous years. Students are encouraged to interact with municipal and state government, community groups and appropriate industry bodies for possible projects.

BIOT7070
Recombinant Protein Expression Systems
School of Biotechnology and Biomolecular Science
UOC6

Course topics deal with some basic recombinant DNA techniques, and then heterologous protein expression in prokaryotes and eukaryotes is discussed in greater detail. For prokaryotes, Escherichia coli is the model species chosen and for eukaryotes, the cell systems of yeast and mammalian cells are described. The advantages and disadvantages of the various expression cell systems are outlined. The vectors used for cloning of the protein genes are also described and illustrated. Cloning of genes into the vectors, production and subsequent characterisation of the recombinant protein are also described. These examples are actual biopharmaceutical products currently produced by the biotechnology industry and students are referred to published journal papers throughout the modules.

BIOT7071
Biochemical Engineering
School of Biotechnology and Biomolecular Science
UOC6 HPW5

This course is designed to introduce bioprocess engineering principles to biotechnology students with no previous background in bio/chemical engineering. Introduction to quantitation; physical variables, dimensions and units; presentation and analysis of measured data; linear and non-linear modelling; steady-state material and energy balances; fluid flow and mixing; principles and applications of heat and mass transfer; biological reaction kinetics; principles of bioreactor design, operation and analysis; scale-up; downstream operations; commercial aspects of bioprocessing.

BIOT7072
Eukaryotic Cell Physiology and Stem Cell Biology
School of Biotechnology and Biomolecular Science
UOC6 HPW4

Mammalian cells have a long history of application in medicine from viral vaccine production, through to antibody and recombinant protein synthesis. More recent advances in tissue engineering and the understanding of stem cell biology have opened new avenues for treatment of chronic diseases and injury. This course aims to provide a background in applied mammalian cell physiology and then focus on the new and exciting field of stem cell biology from both a fundamental and applied perspective. In addition, the ethical issues surrounding the use of human tissues, adult and embryonic stem cells are explored.

BIOT7080
Biopharmaceutical Production Process
School of Biotechnology and Biomolecular Science
UOC6

The units in this module were selected to give students a good understanding of the fundamental principles associated with biopharmaceutical manufacture. The module begins by discussing basic fermentation principles for the large-scale culture of bacterial and mammalian cells to produce recombinant protein pharmaceuticals. This is followed by a thorough study of the main unit operations associated with product recovery, commonly referred to as downstream processes. The third unit covers modern methods of product characterisation, which forms a critical component of the regulatory procedure. The final unit considers some case studies of biopharmaceutical production, drawing elements of fermentation, product recovery and product characterisation in each case.

BIOT7081
Environmental Biotechnology
School of Biotechnology and Biomolecular Science
UOC6 HPW5

Environmental Biotechnology discusses the commercial applications of bioprocess to environmental problems. Applications include the use of bacteria and fungi to detoxify wastes, converting them to usable substances. Prevention of biodeterioration of valuable materials is also an important area of study. Lectures cover biodeterioration, biomineralogy, biodegradable plastics, bioremediation, biofuels and waste water treatment. Students present research reviews and conduct experimental projects.

BIOT7160
Genomics and Proteomics
School of Biotechnology and Biomolecular Science
UOC6

The course gives a detailed insight into the fields of genomics and proteomics. Genomics is the study of the functions and interactions of the genes in a genome whereas proteomics is defined as the study of all the proteins expressed by the genome. Genomics and proteomics are central to modern biotechnology and are key to a wide range of research areas in the biological sciences including medical and environmental biotechnology. Prior to the human genome project, the number of known genes was limited as was the number of targets available for drug discovery. The sequencing of the human genome and the rapid emergence of high-throughput genomic and proteomic techniques is resulting in a surge of new drug targets such as extracellular receptors, ion channels, transporters, intracellular second messengers, transcription factors and chromosomal DNA itself. The genome and the proteome are intimately linked between a complex pathway of transcription and translation, which principally involves mRNA processing, protein folding and posttranslational modifications. Both genomics and proteomics incorporate areas of biotechnology, bioinformatics and biology, and utilise a multitude of methods and techniques to study gene and protein expression profiles of cells and whole biological systems. The course is divided into four distinct units. Unit one is an introduction to the field of genomics and includes topics such as the organisation and sequencing of the human genome, single nucleotide polymorphisms and techniques for identifying gene expression patterns. Unit two addresses the closely related areas of functional, structural and comparative genomics. Topics such as genetic testing, the use of array technologies for molecular profiling, pharmacogenomics and high-throughput technologies are covered. Unit three gives a detailed description of the current state of expression, cell map and modular proteomics. Basic technologies used in protein separations and detection including chip-based technologies are described. Unit 4 is concerned with protein characterisation and associated techniques and methods including mass spectrometry.

BIOT7170
Therapeutic Modalities of Biopharmaceuticals
School of Biotechnology and Biomolecular Science
UOC6

This course provides a detailed study and analysis of the various classes of biopharmaceuticals and includes case studies of the therapeutic mode of action of selected examples. Recombinant DNA technology has allowed the production of a wide variety of biopharmaceuticals for the treatment of human disease. There are numerous classes of biopharmaceuticals including cytokines, growth factors, clotting factors, growth hormones, enzymes, monoclonal antibodies and oligonucleotide-based compounds. Most biopharmaceuticals approved for human administration are protein-based. For example erythropoietin (EPO), a protein of the cytokine group responsible for red blood cell formation, is used therapeutically to treat anaemia. Biopharmaceuticals are now a significant sector of the health care industry, and EPO is the world's biggest selling biopharmaceutical. Other diseases targeted with biopharmaceuticals include cancer, inflammation, heart disease, diabetes, haemophilia and various viral infections. Biopharmaceuticals are also able to treat conditions such as wound healing, infertility and growth deficiency to name but a few.

The course includes a study of the pharmacology of proteins and peptides as drugs and includes pharmacokinetics, pharmacodynamics and metabolism. Oligonucleotides are also becoming an increasingly important class of biopharmaceuticals, and the mode of action of aptamers, ribozymes, DNAzymes, PNAs and other oligonucleotide-based biopharmaceuticals is studied.

BIOT7180
Biotechnology Research Project 1
School of Biotechnology and Biomolecular Science
UOC6

This course gives students an introduction to the core skills required to undertake a research project in the Biotechnology discipline. Students participate in tutorial and laboratory sessions to learn key skills such as

equipment handling, analytical techniques in biotechnology and data handling. In addition, students develop their skills in the research of the scientific literature. This course is designed as a prelude to the subject BIOT7190 - Biotechnology Research Project 2.

BIOT7190
Biotechnology Research Project 2
School of Biotechnology and Biomolecular Science
UOC6

The course gives students an introduction to Biotechnology research by undertaking a research project in the Biotechnology discipline. Students utilise skills developed in BIOT7180 to undertake directed but independent research, culminating in the submission of a research thesis. Students may also be required to participate in additional tutorial and laboratory sessions.

BIOT8010
Graduate Seminars
School of Biotechnology and Biomolecular Science
UOC3 HPW2

CEIC5333
Experimental Design in the Process Industries
School of Chemical Engineering and Industrial Chemistry
UOC6

This course deals with the design and analysis of experiments with respect to the chemical and process industries. Hypothesis testing and linear/ multiple linear regression are covered. Factorial design and response surface methodology are introduced and taught in some detail, including fractional factorial designs and blocking & confounding, in the context of engineering problems. An introduction to statistical process control, including the six sigma methodology, completes the course. MS Excel is utilised heavily throughout the course. On completing the course, students will be able to design screening experiments to identify key factors, establish first and second order regression models and to find true optimums. Students will also be able to analyse data with statistical rigour. The tools and skills from this course are applicable for students' current and future research projects as well as optimisation work on existing unit operations and even extend to applications outside science and engineering. The focus is on efficient design and robust, objective analysis.

Assumed knowledge: Basic Statistics, Excel.

CEIC7001
The Aluminium Industry
School of Chemical Engineering and Industrial Chemistry
UOC6

Topics include role of aluminium, effects of globalisation and cooperative trade agreements, quality requirements, environmental responsibility, processing options, raw material specifications, production of alumina to meet specifications, plant performance monitoring, troubleshooting, key performance indicators, cost analysis, evolution of proposals, data analysis techniques, project planning/management.

CEIC7002
Electrochemical Engineering
School of Chemical Engineering and Industrial Chemistry
UOC6

Hall-Heroult Process overview, electrode reactions, energy requirements, elec-rode fundamentals, voltage balance and voltage breakdown, voltage and current efficiency losses, cell design options and constraints, electrode materials, current and voltage distributions, magnetic fields and their effects, modeling for design optimisation.

CEIC7003
Process Operation
School of Chemical Engineering and Industrial Chemistry
UOC6

Electrolyte and cell conditions, energy vs material balances, cell dynamics, heat loss control, maintenance of electrolyte (A1F3 and A12O3 control), process control, cell start-up options, alumina feeding, fundamentals of alumina dissolution, different feeding methods, electrolyte volume, super-heat, dry scrubbing and impact on process.

CEIC7004
Material Requirements and Selection
School of Chemical Engineering and Industrial Chemistry
UOC6

Anode requirements, raw materials, production, performance testing, design constraints, anode stubs, rota, physical limits, bath volume, coatings, catalysts, sulphur content of coke, pitch impurities. Cathode blocks, jointing, graphitic for low voltage vs amorphous for low cost, porosity, mechanical/chemical wear, electrical contacting, current collectors, design limits, impact of start-up conditions. Sidewall Materials, SiC (nitride bonded), carbons, refractories.

CEIC7005
Quality Control in Smelting
School of Chemical Engineering and Industrial Chemistry
UOC6

Testing and monitoring - anodes, cathodes, predicting failure. Operating scheduling - crane utilisation, tapping and anode change, cell condition monitoring. Data processing and trend predictions.

CEIC7006
Retrofitting & Advances Cell Design
School of Chemical Engineering and Industrial Chemistry
UOC6

Advanced electrochemical cell design. Increasing productivity by - line current increase, bigger anodes (and impact on bath volume), magnetics and bus bars, cathode design changes. Advanced cell design - magnetics, thermoelectric modeling, magnetic field minimisation, modeling methodology, challenges for large cells, anode change sequence, cover, thermal effect. Process control. Options for robotics.

CEIC7007
Emissions and Waste Minimisation
School of Chemical Engineering and Industrial Chemistry
UOC6

Occupational health issues. Analysis of emissions from cells - design and work practices, impacting and emission release into potroom, dry scrubbing, work practices and dust. Emissions from anodes. Cathode wastes - reactions and chemical composition, cathode waste utilisation and/or disposal.

CEIC8101
Reaction Engineering and Catalysis
School of Chemical Engineering and Industrial Chemistry
UOC6 HPW3

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 heterogeneous reactions, diffusion and reaction in porous crystals, design of fixed bed reactors, trickle-bed and slurry bed reactors.

In addition, there will be a project component on an individual basis. The individual study project is to be chosen in the areas identified by D-Catalysis and E-Chemical Reactions (see School for details).

CEIC8102
Process Control
School of Chemical Engineering and Industrial Chemistry
UOC6 HPW3

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.

In addition, there will be a project component on an individual study basis. The individual study project is to be chosen in the areas identified by codes A-Artificial Intelligency, F-Computer Modelling and Design and Q-Process Control advanced (see School for details).

CEIC8103
Particle & Separation Technology
School of Chemical Engineering and Industrial Chemistry
UOC6 HPW3

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.

In addition, there will be a project component on an individual study basis. THe individual study project is to be chosen in the areas identified by codes O-Particle systems, D-Catalysis and S-Separations (mem., super., mass trans and diff. Oper) (see School for details).

CEIC8104
Topics in Polymer Technology
School of Chemical Engineering and Industrial Chemistry
UOC6 HPW3

This subject is designed for postgraduate chemical engineering students who wish to gain a general understanding of polymerization processes. Particular emphasis is given to free-radical (co)polymerization processes, their reactions, basic kinetics and industrial applications. The course will also address polymer characterization techniques ranging from chromatography to mass spectrometry. In addition, novel living methods of free-radical polymerization will be discussed. The material may be augmented with lab visits, demonstrations, and industry visits. A large research assignment, e.g. a review of current literature material, including an oral presentation is part of the assessment.

CEIC8201
Minerals Engineering 1
School of Chemical Engineering and Industrial Chemistry
UOC6 HPW3

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.

In addition, there will be a project component on an individual study basis. The individual study project is to be chosen in the areas identified by codes M-Minerals and U-Waste Processing and pollution control (see School for details).

CEIC8203
Environmental Management
School of Chemical Engineering and Industrial Chemistry
UOC6 HPW3

Processes: Drinking water treatment (current practice and new technologies), sewage treatment (ocean and inland, primary, secondary and tertiary treatment), solid waste management (landfill, thermal processes and recycling), introduction to clean production.

Case Studies: Topics chosen from industry

Site Visits: to various sewage treatment plans and the NSW waste service liquid waste treatment plan, Lidcombe.

In addition, the above will include a project component on an individual study basis.

CEIC8204
Topics in Business Management in Chemical Engineering
School of Chemical Engineering and Industrial Chemistry
UOC6 HPW3

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.

In addition, there will be a project component on an individual study basis. The individual study project is to be chosen in the areas identified by codes C-Business Management/Inf. Tech and G-Design (at least 3 to 4 students per project) (see School for details).

CEIC8205
Fuel and Energy Engineering
School of Chemical Engineering and Industrial Chemistry
UOC6 HPW3

Current energy resources and alternatives for the future. Basic principles of fuel conversion processes: gasification, carbonisation, oil refining etc. Introduction to combustion of solid, liquid and gaseous (fossil) fuels.

In addition, the above will also include a project component on an individual study basis. The individual study project is to be chosen in the areas identified by Code U-Waste Processing and pollution control (see School for details).

CEIC8301
Electrochemical Engineering
School of Chemical Engineering and Industrial Chemistry
UOC6 HPW3

This course will cover basic and advanced concepts in electrochemistry and electrochemical reactor design including current-voltage relationships, activation and mass-transfer controlled processes, limiting current, electrode material selection, current and voltage distribution as a function of electrode geometry and cell design. Specific examples will be used from important industrial electrochemical applications including aluminium smelting, the chor-alkali process, electroplating and batteries and fuel cells.

The course may also include a project component on an individual study basis. The individual study project is to be chosen in the areas identified by Code I-Electrochemical processes (see School for details).

CEIC8302
Process Heat Transfer
School of Chemical Engineering and Industrial Chemistry
UOC6 HPW3

The course will cover operation and design of process equipment such as heat recovery units, packed beds, dryers, regenerators, economizers, evaporators, thermal desalination systems, compact heat exchangers, and etc. Both practical and fundamental aspects will be covered.

The course may also include a project component on an individual study basis. The individual study project is to be chosen in the areas identified by Code T-Transport processes and R-Refrigeration/drying (see School for details).

CEIC8303
Fouling in Process Industries and Equipment
School of Chemical Engineering and Industrial Chemistry
UOC6 HPW3

Fouling is a universal problem in various types of process equipment and is costing the industrial nations billions of dollars annually. This course aims to approach the problem from both practical and fundamental points of view. The course will discuss applications, process and industrial fouling occurrences, mechanisms and fundamentals, predictive models, prevent and cleaning methods, design considerations, monitoring techniques, economic considerations and some case studies.

The course may also include a project component on an individual study basis. The individual study project is to be chosen in the areas identified by Code T-Transport processes, L-Industrial process and S-Separations (mem., super., mass trans & diff. Oper.) (see School for details).

CEIC8310
Computing Studies in the Process Industries
School of Chemical Engineering and Industrial Chemistry
UOC6 HPW3

Introduction to computing systems. Hardware, personal computers, software. Operating systems: DOS, Windows. Languages: Basic, Pascal. Introduction to computing applications: Word Processing, Spreadsheets, Databases, Equation Solvers with specific reference to solution to Process Engineering problems.

CEIC8311
Instrumental Analysis in the Proc Industries
School of Chemical Engineering and Industrial Chemistry
UOC6 HPW3

This course will encompass both chemical and physical analysis of materials. The basic principles of laboratory and on-line instrumentation will be examined and this material will be reinforced by appropriate laboratory classes. Selected topics include: analyses of and for water, colour, density and viscosity, spectroscopic, electrochemical and chromatographic techniques. The course will also include aspects of sampling and Laboratory Information Management Systems (LIMS).

CEIC8312
Safety & Communication in the Process Industries
School of Chemical Engineering and Industrial Chemistry
UOC6 HPW3

Toxicity of chemicals. Material safety data sheets. Storage of hazardous materials. Disposal of hazardous materials. Air pollution and ventilation, electrical and mechanical aspects of machinery. General laboratory safety. Fire precautions in laboratories. Fire fighting training. The principles of hazard analysis and hazardous operations. Safety with large scale equipment. Plant visits. Oral and written communcation. The basis of writing proposals and reports. Error analysis. Verbal presentations to small and larger audiences. Use of slides and overheads.

CEIC8313
Environmental Technologies
School of Chemical Engineering and Industrial Chemistry
UOC6 HPW3

This course deals with conventional and advanced separation processes for water and air pollution control, effluent treatment and waste minimisation in the Process Industries. Topic areas covered will be selected from: Gravity Separations, Filtration Processes, Sorption Processes, Extraction Processes, Membrane TEchnology, Biological Processes, Design, Control and Monitoring, Clean Production Technologies.

Management Issues: Sustainability, decision making, environmental management system (ISO14001), life cycle analysis, material and flux analysis.

CEIC8319
Minor Project
School of Chemical Engineering and Industrial Chemistry
UOC6
Excluded CEIC8320

The aim of this course is to provide students with an opportunity to undertake independent study of a particular aspect of Process Engineering/ Chemical Engineering/Industrial Chemistry through critical evaluation of literature or the performance of limited laboratory work. Students will be expected to present the results of their investigation in a thesis-style report and in a research seminar. Students will select a project in consultation with the course authority within the program of study in which they are enrolled.

CEIC8320
Process Engineering Project for M.EngSc program only
School of Chemical Engineering and Industrial Chemistry
UOC12 HPW6

An investigation of a problem in any area related to process engineering which involves a significant research or design component. Such an investigation should be related to the research interests and expertise of Staff in the School of Chemical Engineering and Industrial Chemistry.

CEIC8330
Process Engineering in the Petroleum Industry
School of Chemical Engineering and Industrial Chemistry
UOC6 HPW3

1. Origin and nature of crude oil overview of the Petroleum refinery. 2. Petroleum processing operations Hydrotreating, desulphurisation, denitrogenation, demetallation, deoxygenation, hydrocracking. Process description flow sheet, hydrogen supply, operating conditions, reactor types. 3) Catalytic cracking: Feed classification, supply and associated reactions. Mechanism of catalytic cracking. Cracking catalysts bifunctionality, properties, testing, coking and longevity. Process Engineering operating variables, reactor types and arrangement, design of fluid catalytic crackers. 4) Catalytic Reforming: Thermodynamics of catalytic reforming Individual reactions. The balance between catalyst efficiency and catalyst life. Catalysts. Deactivation. Reactor design. Residue Processing. Production of fuels, residues and carbon.

CEIC8331
Process Engineering: Natural Gas and Light Hydrocarbons to Petrochemicals
School of Chemical Engineering and Industrial Chemistry
UOC6 HPW3

Feedstock for the petrochemical industry. Natural gas, synthesis gas, LPG, C4 hydrocarbons. Syngas production. Steam reforming, carbon dioxide reforming, water gas shift, partial oxidation. Process based on C1 chemistry catalysts, processes and reactors. Methanation and Fischer-Tropsch synthesis, methanol synthesis. Olefin production (ethylene, propylene and butene). Steam cracking, catalytic cracking, thermal dehydrogenation, catalytic (oxidative) dehydrogenation. Manufacture of base petrochemicals. Synthesis of ethylene oxide, aldehydes and acetic acid production, hydroformylation, hydration and halogenation compounds. Manufacture of vinyl monomers and condensation polymer feedstocks.

CEIC8332
Process Engineering in the Food Industry
School of Chemical Engineering and Industrial Chemistry
UOC6 HPW3

This course covers the application of process engineering techniques in the food industry, with its particular emphasis on product sensory quality and hygiene. The topics considered will include evaporation and drying, separation, refrigeration, thermal processing, prediction of quality and microbiological changes, and computer techniques. The course will include lectures, assignments and one major design project.

CEIC8335
Advanced Computer Methods in the Process Industries
School of Chemical Engineering and Industrial Chemistry
UOC6 HPW3

Solution of Process Engineering problems, trouble-shooting and Process Design utilising advanced computer applications including flowsheeting, numerical methods, statistical design, CAD and process integration.

CEIC8336
Environmental Chemistry in the Process Industries
School of Chemical Engineering and Industrial Chemistry
UOC6 HPW3

Introduction ot the chemical processes underlying major problems. The following topics will be covered: soil chemistry, acid rain, land degradation, urban air pollution, ozone depletion, global climatic change, radioactive contamination, alternative energy sources, chemical waste contamination, toxic elements, toxic organics, absorption processes and occupational diseases. The role of the chemical industry in causing and resolving the problems will be examined.

CEIC8337
Particle Characterisation in the Process Industries
School of Chemical Engineering and Industrial Chemistry
UOC6 HPW3

This course will cover theoretical and practical aspects of methods of charactersating fine particulate materials. Characteristics investigated include: particle size and size distribution, density, porosity, surface area, zeta potential and electrostatic charge, morphology and structure. Techniques covered include: sedimentation, optical techniques, electrozone sensing, image analysis, time of flight analysis, inertial impaction, mercury porosimetry, gas adsorption, helium pycnometry, morphological analysis. Practical examples of industrial applications will be given together with laboratory demonstrations using all the techniques.

CEIC8341
Membrane Technology in the Process Industries
School of Chemical Engineering and Industrial Chemistry
UOC6 HPW3

Classification of membranes and membrane processes. Driving forces and mass transfer mechanisms. Characterisation for membranes. Control of concentration polarisation and fouling. Aspects of the design of membranes, membrane modules and membrane systems. Operating principles of major membrane processes include microfiltration, ultrafiltration, nanofiltration, reverse osmosis, dialysis, electrodialysis, membrane distillation, pervaporation, gas permeation, liquid membranes. Selected applications and economic aspects of membrane technology in the fields of biotechnology, biosensors (including bioreactors), controlled release, chemical and food processing, water and waste treatment.

CEIC8351
Pharmaceutical Processing
School of Chemical Engineering and Industrial Chemistry
UOC6

This subject will focus on pharmaceutical processing for chemical engineers and industrial chemists. Planned topics include an overview of the pharmaceutical industry, process engineering in the pharmaceutical industry, good manufacturing practices, pharmacokinetics, regulatory aspects, clinical trials, drug delivery systems/formulations, occupational health and safety aspects in the industry, and marketing. This course may be supplemented by site visits and industry speakers.

CHEM5003
Special Program (Chemistry Postgraduate Qualifying)
School of Chemistry
UOC48

CHEM7023
Master of Chemistry (Food and Drug) Project
School of Chemistry
UOC12

CHEM7111
Quality Assurance and Laboratory Practice
School of Chemistry
UOC6 HPW3

Covers: international bodies and regulations; statistical and QA tools; uncertainty and traceability; method validation; accreditation; interlaboratory trials and proficiency testing; GLP, Guide 25 and ISO 9000 etc.; Laboratory Information Management Systems.

CHEM7112
Analysis of Biological and Organic Materials
School of Chemistry
UOC6 HPW3

Analyses biological and organic species in complex matrices (e.g., biological, food, soil, wastewater etc.). Emphasis will be on (i) bioassays and new methods requiring minimal sample preparation: enzyme and immunoassays, assay formats, transduction and design, biosensors including DNA and surface plasmon resonance devices; (ii) conventional instrumental techniques for analysis of biological and organic molecules with emphasis on sample preparation including sampling, extraction, derivatisation and clean-up.

CHEM7113
Elemental Analysis
School of Chemistry
UOC6 HPW3

The course covers the following: elemental analysis for inorganic and organic samples; environmental, water and wastewater, food, soil and plant, geological, petroleum and materials analysis; atomic absorption and emission spectroscopy; AAS (atomic absorption) and ICP-AES (inductively coupled plasma atomic emission spectroscopy) techniques; metallic and non-metallic elements in inorganic and organic matrices; elemental mass spectrometry especially ICP/MS; X-ray fluorescence: wavelength and energy dispersive techniques; elemental organic (C,H,N) analysis; analysers.

CHEM7114
Chromatography
School of Chemistry
UOC6 HPW3

Examines principles of chromatographic separation: gas, liquid and thin layer chromatography; gas chromatography: columns, instrumentation and applications; HPLC: overview of techniques, normal and reverse phase, size exclusion, ion-exchange and ion-pair techniques, and instrumentation, derivatisation and method selection; latest chromatographic software and data handling methods; applications in the food, pharmaceutical, biological and health fields.

CHEM7115
Treatment of Analytical Data
School of Chemistry
UOC6 HPW3

Covers basic definitions; errors and uncertainty; confidence limits; hypothesis testing; Outlier tests, t-tests, F-tests; ANOVA; calibration; experimental design and optimisation; multivariate analysis.

CHEM7116
Chromatography/Mass Spectrometry
School of Chemistry
UOC6 HPW3

Examines principles of mass spectrometry especially when combined with gas chromatography and liquid chromatography; method source and analyser options for environmental, forensic, clinical, pharmaceutical, food, natural product, petroleum, polymer and biological analysis; sampling and clean-up for chromatography-mass spectrometry; interpretation of spectra: use of databases; fast separations and MS/MS; quantitative methods; isotope dilution; isotope ratio MS; management and maintenance of equipment; costing analyses and planning equipment replacements.

CHEM7117
Molecular Analysis
School of Chemistry
UOC6 HPW3

Covers spectroscopic methods for the molecular analysis of materials; FTIR and Raman spectroscopy and microscopy: methods for macroscopic and microscopic analysis based on the vibrational spectrum as a fingerprint; NMR spectroscopy as an analytical technique; NMR of liquids and solids; NMR for analysis of foods; UV, visible and near infrared spectroscopy as analytical methods; X-ray absorption spectroscopy.

CHEM7118
Surface Analysis of Materials
School of Chemistry
UOC6 HPW3

Studies surface characterisation for "wet" and "dry" (vacuum) analysis; ion, electron and photon probes for surface characterisation; spectroscopic techniques for qualitative and quantitative analysis of polymer, mineral and electronic sample surfaces; ultra high-vacuum analytical instruments: principles, operation and maintenance; complementary techniques for chemical and structural analysis of surfaces, e.g. photoemission and surface X-ray absorption; secondary ion mass spectrometry for molecular analysis of surfaces of complex surfaces.

CHEM7122
Analytical Project
School of Chemistry
UOC6

A chemical analysis project compatible with the needs of the student, performed under the supervision of a member of staff. The project may involve aspects of research, method development, problem-solving and applications.

CHEM7300
Fundamental Knowledge in Environmental Management - Physical Science
School of Chemistry
UOC6

This course provides an introduction to the physical principles that underlie an understanding of the environment.

An introduction is given to the 'material' (atoms, molecules) and 'immaterial' (energy, radiation) worlds. From the standpoints of 'Earth', 'Air' and 'Water' a description of the environment is built up, which leads to an appreciation of the place of humankind in the world, and the complex web of relationships between the different aspects of the environment. Approaches to measurement are introduced as a way in which we can discover more about the environment and build a model of the world we live in.

CHIN5000
China's Provinces
Department of Chinese & Indonesian Studies
UOC8 HPW2

Introduces students to the social, political and cultural diversity of China's provinces under decentralisation and the emergence of local identities. Includes an overview of current research by Chinese and international scholars.

Note: Students enrolled in the Chinese Studies postgraduate program will be required to consult Chinese language sources and write an essay in Chinese.

CHIN5006
Business Chinese A
Department of Chinese & Indonesian Studies
UOC6 HPW3

This is an integrated Modern Standard Chinese language skills course which combines listening, speaking, reading and writing.The emphasis is on the development of communicative language competence and the gradual acquisition of business related language usage. The requirements of background speakers of Chinese dialects other than Mandarin are also catered for in this course.

Note: Course available for students enrolled in the Faculty of Commerce and Economics.

CHIN5007
Business Chinese B
Department of Chinese & Indonesian Studies
UOC6 HPW3
Prerequisite: CHIN5006

Further consolidation and development of language skills acquired in CHIN5006.

CHIN5008
Chinese Language Management Case Studies
Department of Chinese & Indonesian Studies
UOC6 HPW3
Excluded: CHIN5908

Provides an introduction to recently published Chinese-language case studies on Strategic Management in China with a focus on management issues that are specific to China. Students will gain familiarity with Chinese management terminology and the operational environment of Chinese and foreign-funded enterprises in China. Students will be expected to prepare group presentations for each session.

Assumed knowledge: Third-year level proficiency in Chinese.

Note: Course available for students enrolled in the Faculty of Commerce and Economics.

CHIN5009
Chinese for Commercial Use
Department of Chinese & Indonesian Studies
UOC6 HPW3
Excluded: CHIN5909

Aims to give students a thorough knowledge of specialised commercial Chinese language usage. Terminology will be studied in the context of actual business transactions and company records of Chinese enterprises. The focus will be on the service sector in such fields as foreign trade, finance and marketing. Emphasis will be placed on project work and group presentations.

Assumed knowledge: Third-year level proficiency in Chinese.

Note: Course available for students enrolled in the Faculty of Commerce and Economics.

CHIN5900
Chinese-English Translation
Department of Chinese & Indonesian Studies
UOC8 HPW2

Aims to give students advanced language and other technical skills needed for specialist translation from Chinese into English and vice versa. Students will complete a portfolio of translations on commercial, legal and technical topics, including one major translation project in an area of their choice. The weekly workshops will be used to discuss general professional issues and work in progress.

Assumed knowledge: Third-year level proficiency in Chinese.

CHIN5901
Chinese-English Professional Interpreting
Department of Chinese & Indonesian Studies
UOC8 HPW2

Reviews and rethinks theories/practice of interpreting and provides training in Chinese-English consecutive interpreting. Students are expected to attempt to reconstruct principles and methodologies of interpreting, to apply theories to public speaking/interpreting practice and to learn to manage pre-job research, process and impact of interpreting. The weekly workshops will provide a forum for discussion of theoretical and ethical issues in the profession.

Assumed knowledge: Third-year level proficiency in Chinese.

CHIN5905
Issues in Chinese Sociolinguistics
Department of Chinese & Indonesian Studies
UOC8 HPW2

Examines a diverse range of issues in Chinese sociolinguistics, including such topics as language planning in China and Taiwan, language variations, bilingualism, Chinese dialectology, Chinese discourse and textual analysis. Students will be expected to complete a project addressing specific issues and applying theories introduced in this course.

Assumed knowledge: Third-year level proficiency in Chinese.

CHIN5906
Chinese Business and Management
Department of Chinese & Indonesian Studies
UOC8 HPW2
Excluded: IBUS5606, MGMT5606

Introduces the regulatory framework of Chinese business and relatively complex enterprise structures and commercial transactions. The focus is on the macroeconomic, legal, cultural and operational environment. Considers the main emerging issues confronting the Chinese business community.

CHIN5909
Chinese for Commercial Use
Department of Chinese & Indonesian Studies
UOC8 HPW2
Excluded: CHIN5009

Aims to give students a thorough knowledge of specialised commercial and legal language usage in China. Terminology will be studied in the context of bi-lingual business transactions and company records. Emphasis will be placed on translation projects in both directions. Requires completion of individual projects by students.

Assumed knowledge: Third-year level proficiency in Chinese.

CHIN5910
Chinese Poetry and Poetics: Theories of Translation
Department of Chinese & Indonesian Studies
UOC8 HPW2

Examines seminal works and themes in Chinese poetry from its inception in the ancient Shijing [Book of Odes] and Chu Ci [Elegies of Chu] to the Tang, Song, and through the Qing, Republican, and contemporary eras as well as literary theory from the Shi pin [Categories of Poetry] and the Wen xin diao long [The Literary Mind and the Carving of Dragons] down to the critical and theoretical writings of Wang Guowei, Lu Xun, Wen Yiduo, Qian Zhongshu, and Liu Zaifu on poetry, poetics, literary and cultural criticism. Also critically examines the theory and practice of translation of Chinese poetry into English from Ezra Pound to Stephen Owen.

CHIN5911
Major Chinese-English Translation Project
Department of Chinese & Indonesian Studies
UOC8 HPW2
Prerequisite: Enrolment in MA (Chinese-English Translation & Interpreting)

Gives students in their final semester of study the opportunity to complete a major Chinese-English translation project in an area of their specialisation. The final translation will be of professional standard and demonstrate mastery of translation skills and the ability to use research techniques and translation tools. The translation project will consist of an annotated translation of approximately 5,000 words, with an additional introduction and a commentary on translation problems encountered during the course of the project.

Assumed Knowledge: Third-year level proficiency in Chinese.

CHIN5912
Australian-Chinese Communication in Documents
Department of Chinese & Indonesian Studies
UOC8 HPW2
Prerequisite: Enrolment in MA (Chinese-English Translation & Interpreting)

Introduces students to language issues in Australian-Chinese bilateral communication on the basis of a wide range of English and Chinese language documents. Students will familiarise themselves with language usage relating to historical links, social and cultural relations, community issues and economic and commercial exchange between Australia and China. Focuses on current issues and practical language usage. Requirements include project work with government, community and business organisations.

Assumed Knowledge: Third-year level proficiency in Chinese.

CHIN5915
Chinese Autobiography
Department of Chinese & Indonesian Studies
UOC8 HPW2

Chinese autobiography covers a literary genre that is new in China. Includes comprehensive theoretical analysis of issues of voice, narratology, mimetics, and Chinese neologisms in the early twentieth century.

Assumed Knowledge: Third-year proficiency in Chinese.

CHIN5916
Discourse Analysis for Chinese-English Translation
Department of Chinese & Indonesian Studies
UOC8 HPW2
Prerequisite: Enrolment in MA (Chinese-English Translation & Interpreting)

Introduces the key discourse concepts and paradigms from a number of discourse analytical approaches, as well as examines the relationship between the language use (particularly in the Chinese-English interpreting/translation context) and the socio-cultural practices of different language

communities. Students will learn to enhance their translation techniques through systematic application of discourse concepts in the analysis of spoken and written discourse.

Assumed Knowledge: Third-year level proficiency in Chinese.

CMED9539
Psychiatry of Old Age
School of Public Health and Community Medicine
UOC6

This course deals with the major psychiatric disorders encountered in the care of older people (dementia; depression; paranoid disorders; late onset schizophrenia and mania; anxiety disorders; stress in late life). It covers the assessment and management of these disorders, as well as other relevant issues such as preventative psychiatry, psychological treatment for the elderly, family assessment and behavioural/psychiatric disturbances in the nursing home. This course is only available to students currently enrolled in the geriatric medicine programs: MMed, GradDip or GradCert.

CMED9540
Pharmacology
School of Public Health and Community Medicine
UOC6

This course examines the pharmacology of ageing. Topics covered include pharmacokinetics, pharmacodynamics, adverse drug reactions, drug interactions and drug prescribing in the elderly. The major drug groups involved in geriatric medicine will also be noted. This course is only available to students currently enrolled in the geriatric medicine programs: MMed, GradDip or GradCert.

CMED9541
Rehabilitation
School of Public Health and Community Medicine
UOC6

This course introduces students to the principles and practice of rehabilitation medicine, with particular reference to rehabilitation of the elderly. Topics covered include the rehabilitation of stroke and other neurological disorders including spinal cord injury, orthopaedic and musculoskeletal rehabilitation, orthotics, prosthetics, and rehabilitation in the palliative care setting. The role of the allied health professional in rehabilitation of the elderly is also considered. This course is only available to students currently enrolled in the geriatric medicine programs: MMed, GradDip or GradCert.

CMED9542
Healthy Aging
School of Public Health and Community Medicine
UOC6

This course addresses a number of health issues relevant to the practitioner in his/her day to day management of older patients. Students consider the concepts of healthy ageing and wellness, and community attitudes to ageing. The value of screening and screening tools in clinical practice is discussed. A number of clinical issues are covered such as dental and oral health, physical exercise, nutrition, sexuality, and addictions in the elderly. The importance of communication and specific communication disorders in the elderly are also examined. This course is only available to students currently enrolled in the M.Med (Ger), GradDipGer or GradCertGer.

CMED9543
Organisation and Delivery of Services for Older People
School of Public Health and Community Medicine
UOC6

A course consisting of primary medical care, hospital based provision, community health services, geriatric assessment teams, institutional care, ethical aspects of care, testamentary capacity and informed consent, guardianship board, terminal care, team concepts and team leadership, funding of care - State and Commonwealth responsibilities. This course is only available to students currently enrolled in the M.Med (Ger), GradDipGer or GradCertGer.

CMED9544
Gerontology
School of Public Health and Community Medicine
UOC6

Biology of ageing - age associated changes in structure and function of majorB body systems, psychology of ageing, psychological theory and cognition in later life, sociology of health and illness in the elderly, politics of ageing. This course is only available to students currently enrolled in the geriatric medicine programs: MMed, GradDip or GradCert.

CMED9546
Major Project (Geriatric Medicine)
School of Public Health and Community Medicine
UOC16

Candidates are required to submit a major project on an approved topic. The project should include qualitative analysis and show some original thinking or critical evaluation. Candidates will be assisted in the planing and preparation of the project by a preparatory course covering aspects of study design, research methods and critical appraisal of scientific papers. Satisfactory completion of this preparatory course is a prerequisite of undertaking the project, but candidates with prior experience in research may be exempted from the preparatory course.The maximum length of the project is 20,000 words. This course is only available to students currently enrolled in the MMed in Geriatrics.

CMED9547
Supervised Clinical Experience
School of Public Health and Community Medicine
UOC8

A minimum of 140 hours of supervised clinical experience is required. Placements will be arranged in association with the students, at geriatric centres approved by the School of Public Health and Community Medicine. Overseas students are required to undertake their clinical attachments in Sydney. Students will be encouraged to spend as much time as possible in these units, and rotation through a number of units will be available, to ensure that students have ample opportunity to experience the practice of geriatric medicine in Australia. This course is only available to students currently enrolled in the MMed in Geriatrics.

CMED9548
Clinical Geriatrics 1
School of Public Health and Community Medicine
UOC6

Presentation of disease: specific features of presentation in old age. Non-specific syndromes: e.g.: immobility, falls. System disorders: e.g. haematological, renal. Also special senses: hearing, vision. This course is only available to students currently enrolled in the geriatric medicine programs: MMed, GradDip or GradCert.

Note: No longer offered

CMED9549
Clinical Geriatrics 2
School of Public Health and Community Medicine
UOC6

Presentation of disease: specific features of presentation in old age. Nonspecific syndromes: e.g. incontinence, confusional states. System disorders: e.g. cardiac, respiratory, neuroloical, vascular, metabolic, bone, endocrine. This course is only available to students currently enrolled in the geriatric medicine programs: MMed, GradDip or GradCert.

Note: No longer offered

CMED9550
Clinical Examination
School of Public Health and Community Medicine
UOC0

This is a clinical exam (oral), which is held in Sydney at the conclusion of the coursework component of the Graduate Certificate, the Graduate Diploma or the Master of Medicine in Geriatrics programs and is only available to students currently enrolled in these programs.

COMM5001
Business Communication, Ethics and Practice
Faculty of Commerce and Economics
UOC6 HPW3

This course addresses learning and communication skills that impact on academic and professional performance. A major component of the course is devoted to communication, teamwork and conflict resolution skills and the capacity to apply them, including in cross-cultural contexts. Specific attention is paid to ethical frameworks and the opportunity for informed self-reflection in applying ethical perspectives in a business context.

COMM5002
Managing for Value Creation 1
Faculty of Commerce and Economics
UOC6 HPW3

Together with COMM5003, this course exposes students to an integrated perspective of the firm and how it creates and sustains value. The course builds a conceptual and analytical framework to examine: the choices managers face at the firm and how these choices are shaped by government, society and competitors. The course positions students to move into a disciplinary specialisations enriched by understanding of the cross functional nature of management. The focus in COMM5002 is on value creation from the perspective of the disciplines of Strategy, Economics, Marketing, HRM, Organisational Behaviour, Organisational Analysis and Design.

COMM5003
Managing for Value Creation 2
Faculty of Commerce and Economics
UOC6 HPW3
Prerequisite or Corequisite: COMM5002 or enrolment in program 8415.

Together with COMM5002, this course exposes students to an integrated perspective of the firm and how it creates and sustains value. The course builds a conceptual and analytical framework to examine: the choices managers face at the firm and how these choices are shaped by conventions, regulations and legal frameworks. The course positions students to move into a disciplinary specialisations enriched by understanding of the cross functional nature of management. The focus in COMM5003 is on the management of value creation from a financial perspective drawing on the disciplines of Accounting, Finance, Information Systems and Business Law. .

COMM5004
Business Capstone Project
Faculty of Commerce and Economics
UOC6 HPW3
Prerequisite: COMM5001, COMM5002, COMM5003, enrolment in program 8404 and completion of 48 units of credit

This course provides a team-based, integrative learning experience at the end of MCom study. It allows students to work in teams to apply their skills and knowledge to a real-world business problem that crosses disciplinary boundaries. Getting to grips with a real-world business problem and reporting an outcome is an important component of the course. The other major learning outcomes of this course concern effective management of the project and the team process.

COMP4001
Object-Oriented Software Development
School of Computer Science and Engineering
UOC6 HPW4
Prerequisite: COMP2011 or COMP2711

This course will cover object-oriented design and implementation methods for complex software systems. Topics covered include: object-oriented program design techniques, object-oriented programming in C++, software reuse and designing for reuse, design patterns and styles, object persistence and distribution. Examples from a wide range of application areas will be used at all stages to illustrate concepts and techniques.

Assumed Knowledge: Competency in C.

Further Information: CSE class page **www.cse.unsw.edu.au/~cs4001**

COMP4003
Industrial Software Development
School of Computer Science and Engineering
UOC6 HPW5
Prerequisite: COMP9024 or enrolment in MIT program 8684 or GradCert program 7344.

Introduction to development and distribution of large software systems. Use of industrial tools for maintaining the code base and for producing quality portable, deliverable code. Methods for producing systematic test suites. Additional topics include licensing issues, software configuration, and internationalisation.

Further Information: CSE class page **www.cse.unsw.edu.au/~cs4003**

COMP4121
Advanced and Parallel Algorithms
School of Computer Science and Engineering
UOC6 HPW4

Topics chosen from: Spatial, semi-structured and multi-dimensional data storage and manipulation techniques, non Von-Neumann techniques, advanced and parallel algorithmic techniques, algorithm engineering and problem solving practices; algorithms for matrices and systems of linear equations, approximation algorithms, FFT and convolution and their software and circuit implementations, iteration methods for the solution of operator equations.

Further Information: CSE class page **www.cse.unsw.edu.au/~cs4121**

COMP4132
Advanced Functional Programming
School of Computer Science and Engineering
UOC6 HPW3
Prerequisite: COMP3131 or COMP9102.

Note: Available to students in CSE programs only.

Programming techniques: combinator libraries, concurrency, monadic programming, graphics and multimedia applications. Implementation techniques: compilation by program transformation, optimisation techniques.

Parallel programming: FP approaches to high performance computing, distributed implementation.

This course will be taught in a seminar format, with students expected to give presentations based on readings of primary and secondary sources. In addition, each student needs to solve a medium sized programming assignment.

Further Information: CSE class page **www.cse.unsw.edu.au/~cs4132**

COMP4151
Algorithmic Verification
School of Computer Science and Engineering
UOC6 HPW4
Prerequisite: COMP3151 or COMP9151 or, enrolment in MIT program 8684 or GradCert program 7344, or permission from the lecturer in charge.

This course is an Advanced Topics in Concurrency occasional elective; a change of name is expected each year.

Topics will be chosen from: semantics models of concurrent and distributed systems (e.g. process algebra, event structures, Petri nets, Chu spaces), linear versus branching time, interleaving versus partial order semantics, true concurrency, semantic equivalences, modal and temporal logic for concurrent systems (proof theory and applicants), algorithmic verification (model checking, automa on infinite structures, synthesis), reasoning about knowledge in distributed systems.

Further Information: CSE class page **www.cse.unsw.edu.au/~cs4151**

COMP4161
Advanced Topics in Software Verification
School of Computer Science and Engineering
UOC6 HPW4

This course is about mechanical proof assistants, how they work, and what they can be used for. It presents specification and proof techniques used in industrial grade theorem provers, teaches the theoretical background to the techniques involved, and shows how to use a theorem prover to conduct formal proofs in practice. The courses is intended to bring third/fourth year and postgraduate students into contact with the current research topics in the field of theorem proving and automated deduction and to teach them the necessary skills to successfully use industrial grade verification environments in modelling and verification.

Topics covered included: higher order logic, natural deduction, lambda calculus, term rewriting, data types and recursive functions, induction principles, calculational reasoning, mathematical proofs, decision procedures for a variety of logical domains, and proofs about programs.

Note: experience with (first-order) logic and functional programming is required.

Further Information: CSE class page **www.cse.unsw.edu.au/~cs4161**

COMP4211
Advanced Architectures and Algorithms
School of Computer Science and Engineering
UOC6 HPW3
Prerequisite: a mark of at least 70 in COMP3211 or COMP9211.

This course builds on an understanding of COMP3211/9211 Computer Architecture to allow advanced features of current general purpose and embedded processors to be appreciated. Related research themes in computer architecture such as multiple issue, instruction level parallelism,

dataflow, multiprocessing and multithreading are exposed. The course develops research and presentation skills through readings, presentations, and project work.

Further Information: CSE class page **www.cse.unsw.edu.au/~cs4211**

COMP4411
Experimental Robotics
School of Computer Science and Engineering
UOC6 HPW5
Prerequisite: Overall WAM of 75 and, 12 units of credit from COMP3### courses or 12 units of credit from COMP9### courses, or enrolment in the postgraduate Autonomous Systems major.

Artificial Intelligence Concepts in Robotics. The approach is experimental, with hands-on experience with a small mobile robot kit. Topics covered will include a selection from: history and philosophy of robotics, hardware components and subsystems, sensors, measurements and perception, robotic architectures, multiple robot systems, localisation problem and solutions, robot learning, navigation and obstacle avoidance, robot planning, robot vision and vision processing.

Further Information: CSE class page **www.cse.unsw.edu.au/~cs4411**

COMP4412
Introduction to Modal Logic
School of Computer Science and Engineering
UOC6 HPW4
Prerequisite: COMP9101 or COMP3121 or COMP2411 or, enrolment in MIT program 8684 or GradCert program 7344, or permission from the lecturer in charge.

This course aims to introduce fourth year and beginning graduate students to modal logic. Modal logic is used widely in computer science to model a variety of systems including databases, communication protocols, software, multi-agency and knowledge systems. This course will address the basic axioms, techniques, model theory of modal logic and some representative applications. This course will be assessed on the basis of student presentations and assignments.

Syllabus: Standard modal axioms such as K, T, 4 and 5. Kripke's possible world semantics. Soundness and completeness. The canonical model theorem. Logics of belief and knowledge. Logics of time and computation. If time permits, filtrations and the finite model property.

Further Information: CSE class page **www.cse.unsw.edu.au/~cs4412**

COMP4415
First-order Logic
School of Computer Science and Engineering
UOC6 HPW4
Prerequisite: COMP9101 or COMP3121 or COMP2411 or, enrolment in MIT program 8684 or GradCert program 7344, or permission from the lecturer in charge.

This course is a presentation of the kind of logic useful for knowledge representation and reasoning. It begins with the elements of first-order logic using tableau methods and proceeds to soundness and completeness, and compactness. Using compactness it addresses issues like expressibility to show, for instance, why transitive closure is not first-order. The course concludes with an introduction to non-monotonic reasoning as a formalization of common sense reasoning.

Note/s: Permission of lecturer in charge is required.

Further Information: CSE class page **www.cse.unsw.edu.au/~cs4415**

COMP4416
Intelligent Agents
School of Computer Science and Engineering
UOC6 HPW3
Prerequisite: a mark of at least 65 in COMP3411 or COMP9414.

Agents are computational entities that act autonomously in a dynamically changing environment in order to achieve their goals. This course covers the foundations, engineering and applications of intelligent software agents, with an emphasis on theories and architectures for rational agents and on personal assistant applications. Topics include modelling intention, BDI (Belief, Desire, Intention) agent architectures, methodologies for engineering multi-agent systems, communication, coordination and negotiation in multi-agent systems, and applications of agents in electronic commerce and interface design.

This course will involve in-depth and intensive reading, and assume a high level of mathematical maturity and critical analysis. Assessment is by participation in class discussion and essay.

Further Information: CSE class page **www.cse.unsw.edu.au/~cs4416**

COMP4418
Knowledge Representation and Reasoning
School of Computer Science and Engineering
UOC6 HPW3
Prerequisite: COMP3411 or COMP9414 or COMP4415, and 6 units of credit in COMP3### or COMP9###.

Knowledge Representation and Reasoning (KRR) is at the core of Artificial Intelligence. It is concerned with the representation of knowledge in symbolic form and the use of this knowledge for reasoning. This course presents current trends and research issues in Knowledge Representation and Reasoning (KRR). It enables students interested in Artificial Intelligence to deepen their knowledge in this important area and gives them a solid background for doing their own work/research in this area. The topics covered in more detail are AI Logics, Probablilistic Reasoning, Constraints, and Game Theory.

Further Information: CSE class page **www.cse.unsw.edu.au/~cs4418**

COMP9008
Software Engineering
School of Computer Science and Engineering
UOC6 HPW4
Prerequisite: COMP9024 or enrolment in MIT program 8684 or GradCert program 7344.

The phases of the software lifecycle: requirements, specification, (informal and formal) analysis, design, implementation, testing, integration, and maintenance are studied. Also focuses on software project management. A major group-based software development project is undertaken.

Further Information: CSE class page **www.cse.unsw.edu.au/~cs9008**

COMP9009
Advanced Topics in Software Engineering
School of Computer Science and Engineering
UOC6 HPW3
Prerequisite: COMP9008, or a mark of at least 75 in COMP3111, or enrolment in a Software Engineering program with an overall WAM at of least 75.

The course focuses on topical aspects of Software Engineering (Science) in practice. The course will provide an in depth treatment of specialist topics in areas selected from the following: Software Engineering Lifecycle Models, Software Engineering Project Management, Risk Management, Estimation and Scheduling, Software Requirements Management, Software Configuration Management, Release Management, Product Line Development and Reuse, plus other topics as deemed topical by the course development group. The web page each session will provide more detailed information of the course to be run that session. The topics will only be relevant to those with experience in Software Engineering practices so students will need to demonstrate that they have 2yrs Industrial Experience in Software Development or 18 months IT experience, and will require permission from the lecturer in charge prior to enrolment.

Further Information: CSE class page **www.cse.unsw.edu.au/~cs9009**

COMP9018
Advanced Graphics
School of Computer Science and Engineering
UOC6
Prerequisite: a mark of at least 65 in COMP3421 or COMP9415.

Assumed knowledge: Experience with OpenGL and Java.

This course covers advanced topics in graphics and related technologies with a strong hands-on and interactive focus. Topics include: advanced features of OpenGL; 2D and 3D still, interactive and animated file formats; advanced modelling and animation techniques; detailed surface models; performance optimisation; radiosity; ray tracing and optimisations; Monte Carlo and 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.

Further Information: CSE class page **www.cse.unsw.edu.au/~cs9018**

COMP9020
Foundations of Computer Science
School of Computer Science and Engineering
UOC6 HPW3

Scope:

* Mathematical methods for designing correct and efficient programs.
* Mathematics for algorithm analysis.
* Logic for proving and verification.

Topics:

* Introduction to set and relation theory
* Propositional logic and boolean algebras
* Induction, recursion and recurrence relations
* Order of growth of functions.
* Structured counting (combinatorics)
* Discrete probability
* Graph theory
* Trees for algorithmic applications

Further Information: CSE class page **www.cse.unsw.edu.au/~cs9020**

COMP9021
Principles of Programming
School of Computer Science and Engineering
UOC6 HPW3

This is a first programming course. It provides an introduction to programming in an procedural language (C in particular) and covers the following fundamentals.

Algorithmic constructs: selection, iteration and recursion, expression evaluation and assignment; library modules and I/O streams.

Data modelling: primitive types, arrays, strings, abstract data types. Sequential ADTs, trees, hashing.

Scripting languages: shell and awk.

Lab: programming exercises and assignments.

Further Information: CSE class page **www.cse.unsw.edu.au/~cs9021**

COMP9024
Data Structures and Algorithms
School of Computer Science and Engineering
UOC6 HPW3
Prerequisite: COMP9021 or enrolment in MIT program 8684.

Data types and data structures: abstractions and representations; lists, stacks, queues, heaps, graphs; dictionaries and hash tables; search trees; searching and sorting algorithms.

Further Information: CSE class page **www.cse.unsw.edu.au/~cs9024**

COMP9031
Internet Programming
School of Computer Science and Engineering
UOC6 HPW3
Prerequisite: COMP9021, or enrolment in MIT program 8684 or GradCert program 7344.

Introduction to objects; classes and methods; events; threads; socket programming; mail protocols; web programming; server side and client side programming; mobile codes; web security. Applications: web servers, mark up languages and parsers; web services.

Further Information: CSE class page **www.cse.unsw.edu.au/~cs9031**

COMP9032
Microprocessors and Interfacing
School of Computer Science and Engineering
UOC6 HPW5
Corequisite: COMP9021 or enrolment in MIT program 8684 or GradCert program 7344. Exclusions: COMP9282, COMP9221.

Instruction Set Architecture (ISA), floating point number representation, computer arithmetic, assembly and machine language programming, machine language fundamentals; addressing modes; instruction repertoire, assembly language programming methodology, interrupts and I/O interfacing (hardware and software), serial communication, timers, analog input and output, converting analog signals to digital signals (data acquisition), taking input from a variety of sensors and driving actuators, buses and memory system, low level device drivers.

Further Information: CSE class page **www.cse.unsw.edu.au/~cs9032**

COMP9041
Software Construction: Techniques and Tools
School of Computer Science and Engineering
UOC6 HPW5
Prerequisite: COMP9021 or enrolment in MIT program 8684.

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.

Further Information: CSE class page **www.cse.unsw.edu.au/~cs9041**

COMP9081
Harnessing the Power of Information Technology
School of Computer Science and Engineering
UOC6 HPW5
Prerequisite: Enrolment in a non-CSE program

In the digital age, it is increasingly becoming essential to use, innovatively and effectively, current and emerging information technologies to meet challenges of the new "knowledge economy". Topics include: history of IT, business and online applications, data and knowledge representation, coding and security, viruses, worms and other malware, programming principles and techniques. The course will examine latest information technology trends and outline new technologies on the horizon. Available to non-computing majors only.

Further Information: CSE class page **www.cse.unsw.edu.au/~cs9081**

COMP9101
Design and Analysis of Algorithms
School of Computer Science and Engineering
UOC6 HPW3
Prerequisite: COMP9024, or enrolment in MIT program 8684 or GradCert program 7344; Excluded: COMP9801.

Techniques for design and performance analysis of algorithms for a variety of computational problems. Asymptotic notations, bounding summations, recurrences, best-case, worst-case and average-case analysis. Design techniques: divide-and-conquer, dynamic programming and memorisation, greedy strategy, backtracking, branch-and-bound. Algorithms: sorting and order statistics, trees, graphs and flow networks, matrices, arithmetic circuits. Intractability: classes P, NP, and NP-completeness, approximation algorithms.

Further Information: CSE class page **www.cse.unsw.edu.au/~cs9101**

COMP9102
Programming Languages and Compilers
School of Computer Science and Engineering
UOC6 HPW5
Prerequisite: COMP9024 or enrolment in MIT program 8684 or GradCert program 7344.

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 programming language for a small programming language.

Further Information: CSE class page **www.cse.unsw.edu.au/~cs9102**

COMP9116
Software System Development Using the B-Method and B-Toolkit
School of Computer Science and Engineering
UOC6 HPW3
Prerequisite: COMP2111 or COMP3111 or COMP9008 or enrolment in MIT program 8684 or GradCert program 7344.

The B-Method is a rigorous mathematically based method for the development of reliable software. The method covers the complete software cycle from requirement s analysis through specification, design, implementation, testing, maintenance, and re-use. The B-Method is supported by the B-Toolkit: a collection tools of 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 programmin g language. The B-Method is object based in the sense that systems of machines use a number of different forms of inheritance to control visibility and inherit operations. There is no dependence on a particular programming language, but the current code generator generates C.

This course will explore the use of the B-Method and the B-Toolkit. The topics covered will include: The Abstract Machine Notation; Machine

Composition; Refinement; Implementation; The method of presentation will use case studies to present the method; laboratory exercises to use the tools; a major project to apply all aspects of the method, and use of the tools.

Further Inform]ation: CSE class page **www.cse.unsw.edu.au/~cs9116**

COMP9117
Architecture of Software Systems
School of Computer Science and Engineering
UOC6 HPW3
Prerequisite: an overall WAM of 65, and COMP3111 or COMP9008 or COMP3141, and COMP3131 or COMP9102 or SENG3020, or enrolment in MIT program 8684 or GradCert program 7344.

Principal architectural issues associated with the design and construction of large scale software systems. Study and evaluation of several well-known and frequently used architectural styles, patterns and frameworks. Study of pipes and filters, layered systems, distributed object-oriented systems, component-based systems, etc. The course will also examine the practical applicability of architecture research, specifically its relationship to the work in software reuse and component interopability of platforms such as J2EE, Microsoft, NET and CORBA. Case studies and exercises will be used to illustrate the architectural issues.

Note/s: This course is available to students in CSE programs only. There are a limited number of places.

Further Information: CSE class page **www.cse.unsw.edu.au/~cs9117**

COMP9151
Foundations of Concurrency
School of Computer Science and Engineering
UOC6 HPW5
Prerequisite: COMP9024 or, enrolment in MIT program 8684 or GradCert program 7344; Excluded: COMP3151.

Concurrency = processes + communication. Communication via shared variables vs message passing. Models of concurrency: true concurrency vs interleaving. Abstractions: 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.

Further Information: CSE class page **www.cse.unsw.edu.au/~cs9151**

COMP9161
Concepts of Programming Languages
School of Computer Science and Engineering
UOC6 HPW3
Prerequisite: COMP9024 or enrolment in MIT program 8684 or GradCert program 7344; Excluded: COMP3161.

Programming language paradigms: imperative, object oriented, declarative (i.e., functional and logic). Theoretical foundations of programming languages: syntax, operatational, axiomatic and denotational semantics. Implementation aspects of central language features, such as dynamic and strong typing, polymorphism, overloading and automatic memory management. Abstracting over programming languages and architectures: byte code approach, component software.

Further Information: CSE class page **www.cse.unsw.edu.au/~cs9161**

COMP9201
Operating Systems
School of Computer Science and Engineering
UOC6 HPW3
Prerequisite: COMP9032 and COMP9024, or enrolment in MIT program 8684 or GradCert program 7344; Excluded: COMP9283.

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 drawn from UNIX, MS-DOS, Mach. Lab. programming assignments.

Further Information: CSE class page **www.cse.unsw.edu.au/~cs9201**

COMP9211
Computer Architecture
School of Computer Science and Engineering
UOC6 HPW5
Prerequisite: COMP9022 or COMP9222 or enrolment in MIT program 8684 or GradCert program 7344; Excluded: COMP3211.

Study the architecture & organisation of modern processors, and influences upon these, with emphasis on pipelined RISC machines; gain understanding of the design of the memory subsystem, I/O, and system level interconnect; become proficient in the use of tools such as VHDL and SimpleScalar for the description, simulation, and verification of architectural designs; complete a series of assignments leading to the design, implementation, validation and assessment of a RISC system. It is assumed students are familiar with combinational and sequential logic design principles and have some experience in the use of CAD tools to describe and simulate digital systems.

Further Information: CSE class page **www.cse.unsw.edu.au/~cs9211**

COMP9222
Digital Circuits and Systems
School of Computer Science and Engineering
UOC6 HPW5
Prerequisite: COMP9032 or COMP9282 or enrolment in MIT program 8684 or GradCert program 7344. Exclusions: COMP9282, COMP9022.

This course aims to provide students with a knowledge of problem solving with digital systems (computer systems and digital circuits). The basic building blocks of combinational and sequential circuits are introduced to develop circuit solutions to problems and to understand and implement the design and operation of hardware models of digital and computer systems. HDLs will be used to describe circuits and state of the art computer aided design tools will be used to design complex systems.

Further Information: CSE class page **www.cse.unsw.edu.au/~cs9222**

COMP9242
Advanced Operating Systems
School of Computer Science and Engineering
UOC6 HPW4
Prerequisite: A mark of at least 75 in COMP9201 or COMP3231.

Covers operating systems design and implementation issues at an advanced level, focussing on specific issues such as performance and on current OS research areas. Topics selected from: Microkernels; user-level servers; performance; kernel implementation; device drivers; scheduling for real-time; effects and control of hardware caches; security and protection; persistent systems; security; dealing with large, sparse address spaces; experimental systems. A laboratory running a state-of-the-art microkernal system will be used to provide hands-on experience with low-level implementation of OS components.

Further Information: CSE class page **www.cse.unsw.edu.au/~cs9242**

COMP9243
Distributed Systems
School of Computer Science and Engineering
UOC6 HPW3
Prerequisite: COMP3231 or COMP9201, COMP3331 or COMP9331.

A detailed coverage of distributed systems, with a particular focus on operating systems issues: client-server paradigm, remote-procedure call as OS support for client-server; distributed shared memory, distributed memory coherency; distributed file systems; distributed process management, including load sharing and process migration; concurrency control; fault tolerance, recoverability and distributed transactions; naming; industry standards; case studies.

Further Information: CSE class page **www.cse.unsw.edu.au/~cs9243**

COMP9245
Real -Time Systems: Specification , Design & Implementation
School of Computer Science and Engineering
UOC6 HPW5
Prerequisite: COMP3231 or COMP9201 and, COMP3111 or COMP9008 or COMP2111 or COMP4001, or extended versions.

System taxonomy. Time and causality. Characteristics of real-time systems and their environment. Real-time systems design such as real-time UML; model driven and software architectures; software and requirements engineering for real-time systems; temporal reflection. Performance analysis: worst case execution time analysis; scheduling tasks (rate montonic, generalised rate, slack scheduling); reliability analysis and fault tolerance. Risk assessment and minimisation. Famous faults and disasters. Time triggered architectures and approaches. Real-time languages and language Extensions. Real-time communication.

Further Information: CSE class page **www.cse.unsw.edu.au/~cs9245**

COMP9283
Extended Operating Systems
School of Computer Science and Engineering
UOC6 HPW3
Prerequisite: a mark of at least 70 in COMP9032 and COMP9024, or enrolment in MIT program 8684 or GradCert program 7344. Excluded: COMP9201

As for COMP9201 Operating Systems but in greater depth and breadth.

Further Information: CSE class page **www.cse.unsw.edu.au/~cs9283**

COMP9311
Database Systems
School of Computer Science and Engineering
UOC6 HPW3
Pre/Corequisite: COMP9021 or enrolment in MIT program 8684, or enrolment in 3978 Co-op program.

A first course on database management systems. Data modelling; principles of database design; data manipulation languages; database application techniques; introduction to DBMS internals; introduction to advanced databases. Lab: design and implementation of a database application using Oracle and SQL.

Further Information: CSE class page **www.cse.unsw.edu.au/~cs9311**

COMP9314
Next Generation Database Systems
School of Computer Science and Engineering
UOC6 HPW3
Prerequisite: COMP9311 or COMP3311 or INFS3608 or INFS5926 or INFS5992, and COMP9024 or COMP2011 or COMP2711, or enrolment in MIT program 8684 or GradCert program 7344.

Detailed examination of current developments and future trends in database, web, and e-commerce technologies. The emphasis will be on the following topics: modeling, querying, and integrating e-catalogs, integration frameworks for B2B EC applications, and web-based databases.

Further Information: CSE class page **www.cse.unsw.edu.au/~cs9314**

COMP9315
Database Systems Implementation
School of Computer Science and Engineering
UOC6 HPW3
Prerequisite: COMP9311 or COMP3311 or INFS3608 or INFS5926 or INFS5992, and COMP9024 or COMP2011 or COMP2711, or enrolment in MIT program 8684 or GradCert program 7344.

Detailed examination of techniques used in the implementation of relational, object-oriented and distributed database systems. Topics are drawn from: query optimisation, transaction management, advanced file access methods, database performance tuning.

Further Information: CSE class page **www.cse.unsw.edu.au/~cs9315**

COMP9318
Data Warehousing and Data Mining
School of Computer Science and Engineering
UOC6 HPW3
Prerequisite: COMP9311 or COMP3311 or INFS3608 or INFS5926 or INFS5992, and COMP9024 or COMP2011 or COMP2711, or enrolment in MIT program 8684 or GradCert program 7344.

Data Warehouse: (a) Data Model for Data Warehouses. (b) Implementing Data Warehouses: data extraction, cleansing, transformation and loading, data cube computation, materialized view selection, OLAP query processing. Data Mining: (a) Fundamentals: data mining process and system architecture, relationship with data warehouse and OLAP systems, data pre-processing. (b) Mining Techniques and Application: association rules, mining spatial databases, mining multimedia databases, web mining, mining sequence and time-series data, text mining, etc. The lecture materials will be complemented by projects /assignments.

Further Information: CSE class page **www.cse.unsw.edu.au/~cs9318**

COMP9321
e-Commerce Systems Implementation Infrastructure
School of Computer Science and Engineering
UOC6 HPW3
Prerequisite: COMP9021 or COMP1021 or COMP1711 or COMP2811; or enrolment in MIT program 8684 or GradCert program 7344; Corequisite: COMP9311 or COMP3311 or INFS3608 or INFS5926 or INFS5992; or enrolment in MIT program 8684 or GradCert program 7344.

The goal of this course is to expose students to basic infrastructure for building web-based ecommerce applications. It discusses web application development techniques and enabling technologies including CGI scripts, remote method invocation, servlets, JSPs, Web access to databases, programmatic access to XML documents. The lecture materials will be complemented by several assignments and labs.

Excluded: COMP9316 and COMP9031

Further Information: CSE class page **www.cse.unsw.edu.au/~cs9321**

COMP9322
e-Commerce Systems Engineering
School of Computer Science and Engineering
UOC6 HPW3
Prerequisite: COMP9321or COMP9031 or COMP9316, and COMP9024 or COMP2011, and COMP9311 or COMP3311 or INF3608 or INFS5926 or INFS5992; or enrolment in MIT program 8684 or GradCert program 7344.

This course covers principles, techniques, architectures, and enabling technologies for the development of the different components and layers of complex e-commerce systems (presentation and personalization layer, business logic, message exchange). It discusses: (1) e-commerce transaction models, system architectures and functions, (2) enterprise applications development using J2EEE, (3) Web services and business process modelling, (4) security, transaction, payment protocols for enterprise applications, (5) e-catalogues, (6) inter-enterprise message exchange, and (6) personalization. The lecture materials will be complemented by several assignments and labs

Further Information: CSE class page **www.cse.unsw.edu.au/~cs9322**

COMP9323
e-Enterprise Project
School of Computer Science and Engineering
UOC6 HPW3
Corequisite: COMP9322.

This course covers principles, techniques, architectures, and enabling technologies for the development of the different components and layers of complex e-Commerce systems (presentation and personalisation layer, business logic, message exchange). In particular, it discusses (1) advanced XML technologies as data exchange/transformation format, (2) a model-driven approach in Web application development, (3) business processes modelling and Web services, (4) business process automation with Web service standards, (5) security, transaction, payment protocols for enterprise applications, and (6) personalisation. The lecture materials will be complemented by several assignments and labs.

Further Information: CSE class page **www.cse.unsw.edu.au/~cs9323**

COMP9331

Computer Networks and Applications
School of Computer Science and Engineering
UOC6 HPW3
Co-requisite: COMP9024; or enrolment in MIT program 8684 or GradCert program 7344; Excluded: COMP9833.

Networking technology overview. Protocol design and validation using the finite state automata in conjunction with time-lines. Overview of the IEEE802 network data link protocol standards. Addressing at the data link and network layers. Network layer services. Introduction to routing algorithms such as Distance Vector and Link State. Congestion control mechanisms. Internetworking issues in connecting networks. The Internet Protocol suite overview. The Internet protocols IPv4 and IPv6. Address resolution using ARP and RARP. Transport layer: issues, transport protocols TCP and UDP. Application level protocols such as: File. Transfer Protocol (FTP), Domain Name System (DNS) and Simple Mail Transfer Protocol (SMTP). There is a substantial network programming component in the assessable material.

Further Information: CSE class page **www.cse.unsw.edu.au/~cs9331**

COMP9332
Network Routing and Switching
School of Computer Science and Engineering
UOC6 HPW3
Prerequisite: COMP3331 or COMP9331.

This course will focus on the routing and switching architectures, algorithms and protocols for packet switching networks, both connectionless and connection oriented networks (such as IP and ATM networks). Advanced Internet addressing : CIDR, VPN, NAT. In depth discussion of interior and exterior routing protocols, such 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 prgramming knowledge is assumed.

Further Information: CSE class page **www.cse.unsw.edu.au/~cs9332**

COMP9333
Advanced Computer Networks
School of Computer Science and Engineering
UOC6 HPW3
Prerequisite: COMP3331 or COMP9331.

This course teaches the fundamentals and practical solutions to quality of service (Qos) based networks, with an emphasis on the next generation Internet architectures and protocols. Topics include: scheduling policies (fair queueing, priority queueing etc.), congestion avoidance/control schemes (RED, RIO etc), admission control, multimedia protocols (RTP, 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.

Further Information: CSE class page **www.cse.unsw.edu.au/~cs9333**

COMP9334
Capacity Planning of Computer Systems and Networks
School of Computer Science and Engineering
UOC6 HPW3
Prerequisite: COMP3331 or COMP9331.

Techniques for performance evaluation of distributed systesms. These techniques will then be applied to designing systems to have good performance, and to the analysis of future workloads and the system changes required to cope with them.

Further Information: CSE class page **www.cse.unsw.edu.au/~cs9334**

COMP9414
Artificial Intelligence
School of Computer Science and Engineering
UOC6 HPW4
Corequisite: COMP9021 or enrolment in MIT programs 8684 or GradCert program 7344; Excluded: COMP9814.

Overview of Artificial Intelligence. Topics include: the representation of knowledge, search techniques, problem solving, machine learning, expert systems, natural language understanding, computer vision and an Artificial Intelligence progrmamming language (Prolog or LISP). Students may be required to submit simple Art ificial Intelligence programs, or essays on an aspect of A.I, for assessment, in areas such as robotics, computer vision, natural language processing, and machine learning.

Further Information: CSE class page **www.cse.unsw.edu.au/~cs9414**

COMP9415
Computer Graphics
School of Computer Science and Engineering
UOC6 HPW3
Corequisite: COMP9024 or enrolment in MIT program 8684 or GradCert program 7344.

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.

Further Information: CSE class page **www.cse.unsw.edu.au/~cs9415**

COMP9417
Machine Learning and Data Mining
School of Computer Science and Engineering
UOC6 HPW3
Prerequisite: COMP9024 or COMP2011 or COMP2711 or COMP2091 (or extended versions) or enrolment in MIT program 8684 or enrolment in GradCert program 7344.

Machine learning is the algorithmic approach to learning from data. This course covers the key techniques in data mining technology, gives their theoretical background and shows their application. Topics include: decision tree algorithms (such as C4.5), regression and model tree algorithms, neural network learning, rule learning (such as association rules), lazy learning, version spaces, evaluating the performance of machine learning algorithms, Bayesian learning and model selection, algorithm-independent learning, ensemble learning, kernel methods, unsupervised learning (such as clustering) and inductive logic programming (relational learning)

Further Information: CSE class page **www.cse.unsw.edu.au/~cs9417**

COMP9431
Robotic Software Architecture
School of Computer Science and Engineering
UOC6 HPW6
Prerequisite: Overall WAM of 80 and, COMP2011 or COMP2711 or COMP9024 or, enrolment in MIT program 8684 or GradCert program 7344.

An introduction to Intelligent agent design. Picking actions using planning, learning or engineered control. Both practical and theoretical components. Practical component: Re-implement parts of a real agent architecture on a robot. Assignment based. Emphasis on engineering a working system. Theoretical component: Introduction to a variety of research agent architectures including classical planning and reinforcement learning. Lecture and lab based.

Further Information: CSE class page **www.cse.unsw.edu.au/~cs9431**

COMP9441
Cryptography and Distributed Systems Security
School of Computer Science and Engineering
UOC6 HPW5
Prerequisite: COMP9024 or enrolment in MIT program 8684 or GradCert program 7344.

Topics chosen from: intrusion detection, prevention, and response, ciphers and cryptanalysis, private key and public key systems, secure hash functions, cryptographic protocols analysis, digital signatures, public key infrastructures, authentication, key agreement, authorization, timestamping, trust management, social and legal issues, Java security model, digital cash, payment protocols, digital rights management, zero knowledge protocols, complexity theoretic foundations, quantum cryptography.

Further Information: CSE class page www.cse.unsw.edu.au/~cs9441

COMP9444
Neural Networks
School of Computer Science and Engineering
UOC6 HPW3
Prerequisite: COMP2011 or COMP2711 or COMP9024, and 12uc COMP3### or COMP4### or COMP9### - excluding Group A, or enrolment in MITprogram 8684 or GradCert program 7344.

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.

Further Information: CSE class page **www.cse.unsw.edu.au/~cs9444**

COMP9511
Human Computer Interaction
School of Computer Science and Engineering
UOC6 HPW3

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. Lab/Tutorial: Optional for Postgraduates.

Further Information: CSE class page **www.cse.unsw.edu.au/~cs9511**

COMP9515
Pattern Classification
School of Computer Science and Engineering
UOC6 HPW3
Prerequisite: COMP9024 or COMP2011 or COMP2711 or COMP2091 (or extended versions) or enrolment in MIT program 8684 or enrolment in GradCert program 7344.

The course has three basic aims: firstly to understand the field of pattern recognition in general, secondly to get familiar with pattern recognition techniques, and thirdly to obtain the ability to apply techniques to applications.

This course is an introduction to the subject of pattern recognition. We will cover theoretical foundations of classification and pattern recognition and discuss applications in character, speech, and other applications. A tentative list of topics includes: Bayesian decision theory, discriminate functions for normal class distributions, supervised learning, unsupervised learning and clustering, Structural and Syntactic pattern recognition, Edit distance, String matching, Statistical pattern recognition, and neural pattern recognition.

Assumed Knowledge for PG: MATH2859 or MATH2801 or MATH2901 or statistical course equivalent.

Further Information: CSE class page **www.cse.unsw.edu.au/~cs9515**

COMP9517
Computer Vision
School of Computer Science and Engineering
UOC6 HPW3
Prerequisite: 12 units of credit from COMP3### or 12 units of credit from COMP9### - excluding Group A.

Cameras and Radiometry, local shading models, Colour Vision perception, representation, modelling, linear filters for smoothing, edge detection using concvolution, fourier transform, scale and image pyramids, texture, segmentation by clustering, model fitting and probabilistic methods, tracking and Kalman filters, model-based vision, template matching using classifiers, recognition by relations, applications in robotics, medical imaging, satellite image analysis.

Further Information: CSE class page **www.cse.unsw.edu.au/~cs9517**

COMP9519
Multimedia Systems
School of Computer Science and Engineering
UOC6 HPW4
Prerequisite: COMP2011 or COMP2711 or COMP9024, 12uc level 3 or level 4 (for undergrads), or enrolment in MIT program 8684 or GradCert program 7344.

Provides an introduction to multimedia computing and distributed multimedia systems. The subject includes multimedia and agent fundamentals; multimedia application, structures and organization; interactive multimedia software authoring basics; information management issues; and dynamic agent and distributed processing.

Further Information: CSE class page **www.cse.unsw.edu.au/~cs9519**

COMP9520
Extended Foundations of Computer Science
School of Computer Science and Engineering
UOC6 HPW3

As for COMP9020 Foundations of Computer Science but in great depth and breadth.

Further Information: CSE class page **www.cse.unsw.edu.au/~cs9520**

COMP9596
Research Project
School of Computer Science and Engineering
UOC12 HPW6

Students undertake a supervised research project equivalent to 2 lecture courses worth 6 units of credit each.

Assessment is graded Satisfactory/Unsatisfactory and is based on a project report produced by the student. Project reports must be spiral bound and submitted on the last day of semester to the CSE Student Office. A receipt will be issued.

Available only in the final session for coursework masters students who have a distinction average.

Further Information: Contact the CSE Student Office via Postgrad@cse.

COMP9790
Principles of Global Navigation Satellite System (GNSS) Positioning
School of Computer Science and Engineering
UOC6 HPW3
Prerequisite: 18 units of credit COMP3### or COMP9### courses, or enrolment in MIT program 8684 or GradCert program 7344; Excluded: GMAT4900.

This course will introduce the student to reference coordinate systems and time systems, satellite orbital motion, signal propagation and satellite tracking observables. The principles of positioning using the current two Global Navigation Satellite Systems (GNSS) will be studied: the U.S. developed Global Positioning System (GPS) and Russia's Global Navigation Satellite System (GLONASS). The mathematical models for pseudo-range and carrier phase-based modes of positioning, for both single receiver (absolute) positioning and relative positioning implementations, will be developed. These principles will be illustrated using the Matlab GNSS toolkit, which allows the student to develop algorithms for real and simulated data processing. Land, marine and airborne positioning applications will be discussed.

Physical attendance at the lab class is optional. Students with own copies of MATLAB need not attend, and may do exercises in their own time.

Further Information: See GMAT4900

COMP9791
Modern Navigation & Positioning Technologies
School of Computer Science and Engineering
UOC6 HPW3
Prerequisite: 18 units of credit COMP3### or COMP9### courses, or enrolment in MIT program 8684 or GradCert program 7344;Excluded: GMAT4910.

This course presents an overview of the various satellite-based and non-satellite navigation technologies and some of their applications. Various user receiver configurations, system augmentations and implementation issues will be analysed. These include: differential GPS schemes and services, real-time systems and their communication links, pseudo-range and carrier phase-based techniques, pseudolites, and other satellite-based positioning systems. In addition, the role of other sensors (such as gyros, accelerometers and inertial navigation systems - INS) and ancillary data can play in navigation will be discussed. Particular emphasis will be placed on the role such positioning technologies will play in Transport Telematics and for personal location, in relation to Location-Based Services, etc. Students will gain hands-on experience with a variety of navigation technology.

Further Information: See GMAT4910

COMP9801
Extended Design & Analysis of Algorithms
School of Computer Science and Engineering
UOC6 HPW3
Prerequisite: a mark of at least 70 in COMP9024 or enrolment in MIT program 8684 or GradCert program 7344; Excluded: COMP9101

As for COMP9101 but in greater depth and breadth.

Further Information: CSE class page **www.cse.unsw.edu.au/~cs9801**

COMP9814
Extended Artificial Intelligence
School of Computer Science and Engineering
UOC6 HPW4
Corequisite: COMP9021 or enrolment in MEngSci programs 8685 or 8684; Excluded: COMP3411 or COMP9414.

As for COMP9414 but in greater depth and breadth.

Further Information: CSE class page **www.cse.unsw.edu.au/~cs9814**

COMP9833
Extended Computer Networks and Applications
School of Computer Science and Engineering
UOC6 HPW3
Prerequisite: a mark of at least 70 in COMP9021; Corequisite: COMP9021; or enrolment in MIT program 8684 or GradCert program 7344; Excluded: COMP9311.

As for COMP9331 Computer Networks and Applications but in greater depth and breadth.

Further Information: CSE class page **www.cse.unsw.edu.au/~cs9833**

COMP9844
Extended Neural Networks
School of Computer Science and Engineering
UOC6 HPW3
Prerequisite: [(A mark of at least 70 in COMP2011 or COMP2711 or COMP9024) and (12uc COMP3 or COMP4 or COMP9 - excluding Group A)] or enrolment in MITprogram 8684 or GradCert program 7344.

As for COMP9444 but in greater depth and breadth.

Further Information: CSE class page **www.cse.unsw.edu.au/~cs9844**

CONS0001
Project Finance
Building Construction Management Program
UOC6 HPW3

The application of financial analysis to building and construction projects. The workings and regulation of financial markets and institutions in Australia. International financial markets; the impact of financial market conditions on the construction industry. Sources of finance and financial instruments used in providing projects with capital. Structuring project finance packages and lender's management of risk. The characteristics of the various techniques used in project finance. Case studies are used to demonstrate the features of project financing.

CONS0002
Human Resources Management
Building Construction Management Program
UOC6 HPW3

Human resource management in context. Human resource management in the construction industry. The mechanics of human resource management. Industrial relations; equal opportunities; occupational health and safety. The human resource implications of news business ideas; evaluating human resource management activities.

CONS0003
Project Quality Management
Building Construction Management Program
UOC6 HPW3

Total quality management theory and application, alternative approaches to quality management, quality management plans, quantifying quality management and control. Analysis of ISO 9000.

CONS0005
Computers in Construction Management
Building Construction Management Program
UOC6 HPW3

This course discusses issues, problems and solutions relating to computer applications for construction project management, and the creation and distribution of information within the construction industry. It includes topics such as: project information systems structure; Internet and communication technologies; digital document formats and environment; spreadsheets; database systems; project planning software; web-based project management systems and CAD product modeling standards for interoperability with estimating and planning applications. The course involves practical use of spreadsheet, database and project planning programs for project feasibility studies; project planning; cost management, as well as web page design programs.

CONS0006
Property Management
Building Construction Management Program
UOC6 HPW3

Property development process; property market research; financial evaluation of property development. Property lifecycle. Marketing and disposal of property development. Principles of sustainable development and their application. Introduction of property asset management; commercial/industrial property management; retail property management. Building maintenance. Strata title management. Taxation in property management.

CONS0007
Principles and Practice of Management
Building Construction Management Program
UOC6 HPW3

This course provides a framework for studying the principles and practice of management. Management is the process of planning, organising, leading and controlling the work of all the members in an organisation and of using all the resources available in the organisation to reach specific organisational goals. More specifically, this course is about how organisations are managed and how managers can best help their organisations to set and achieve their goals. The emphasis is on the so-called formal organisations which provide goods and services to their customers or clients and offer career opportunities to their members.

CONS0009
Construction Planning and Control
Building Construction Management Program
UOC6 HPW3

The concept of construction planning and control; scheduling techniques - barchart, CPM, PERT, line of balance, multiple activity chart. Critical chain scheduling. Computer based scheduling. Applications of work study. Risk and scheduling; theory of decision making; utility theory.

CONS0010
Contracts Management and Law
Building Construction Management Program
UOC6 HPW3

Principles of administration of construction contracts; formation of construction contracts and subcontracts; options for project delivery; subcontracting; partnering and strategis alliance; analysis of selected contracts; contract disputes, dispute resolution; contract claims; risk allocation in construction contracts; international contracting; joint ventures.

CONS0012
Quantitative Methods in Management
Building Construction Management Program
UOC6 HPW3

Statistical analysis and modelling methods in construction management; Forecasting methods; qualitative methods.

CONS0013
Construction Management Applications
Building Construction Management Program
UOC6 HPW3

This course aims to expose students to the realities of involvement and the practical challenges that arise in the procurement of large construction projects. Topics covered include tendering, site investigation, site establishment, occupational health and safety, risk management, material management, time management, cost management, quality management, contract management and customer relationship management as well as current construction management issues. Actual case projects will be studied in detail in terms of project initiation, feasibility, design and documentation, tendering, pre-construction, construction and commissioning, with a view to demonstrating the practical application of construction management theories in industry situations. By simulating typical scenarios that are likely to be encountered, students will be given the opportunity to identify potential problems and solutions. Case studies, group projects and site visits will be used as a means of learning and teaching approach.

CONS0014
Project Management
Building Construction Management Program
UOC6 HPW3

Introduction to the concept of project management; project management theory; project delivery strategies; organisation of projects from design to commissioning; role of project manager; organisation structure; managing cultural diversity; leadership in project management; negotiation; conflict management.

CONS0015
Building Construction
Building Construction Management Program
UOC6 HPW3

This course provides a descriptive overview of the building construction process for the students from a non built environment background. The topics covered include basic construction management theory, construction estimating, planning and procurement. This course will enable non built environment students to evaluate technical construction reports from a technical and financial aspect.

CONS0016
Project Risk Management
Building Construction Management Program
UOC6 HPW3

This course discusses the fundamentals of risk management and risk management theories in relation to construction projects, definitions of risks and opportunities, risk identification and classification, risk probability and impact, qualitative analysis, quantitative analysis, decision making, risk analysis software introduction, risk versus opportunity, crisis management, business continuity management.

CONS0020
Research Project
Building Construction Management Program
UOC18 HPW9

This course aims to develop students' critical thinking and analytical skills as well as problem solving and decision making skills through a specific research project in the field of construction project management. As such students are required to develop and submit an outline on an approved topic, including a full literature review and a justification of the proposed research methodology, then move on to develop an hypothesis, collect and analyse information and data, effectively process and document the research results and draw reasoned conclusions from them.

CVEN7800
Urban Hydrology and Stormwater
School of Civil and Environmental Engineering
UOC3 HPW21

An introduction to human impacts on the hydrological cycle with an emphasis on the additional factors that need consideration in urban environments, an introduction to impacts of urban development on stormwater quantity and quality, management of urban stormwater quantity and quality, an introduction to impacts of urban developments on groundwater, case studies.

CVEN7801
Design of Stormwater Structures
School of Civil and Environmental Engineering
UOC3 HPW21

Design of stormwater quantity and quality management structures such as detention basins, retention basins, infiltration basins, artificial wetlands, gross pollutant traps, sedimentation basins, and pollution booms.

CVEN7802
Coastal Dynamics
School of Civil and Environmental Engineering
UOC3 HPW21

Theory of periodic waves in coastal waters. Wave growth, refraction, diffraction, shoaling and breaking processes. Measurement, analysis and prediction of waves.

CVEN7805
Coastal Zone Management
School of Civil and Environmental Engineering
UOC3 HPW21

Coastal hazards and management options assessment within local, State and Federal government frameworks. Environmental and ecological aspects including climate change and marine biota. Dredging and spoil disposal. Asset management and risk assessment in the coastal zone.

CVEN7807
Groundwater Hydrology
School of Civil and Environmental Engineering
UOC3 HPW21

Physical properties of groundwater. Darcy flow; porosity, hydraulic conductivity and intrinsic permeability - field and laboratory tests. Principles of groundwater flow. Storage and transmissivity. Groundwater in the hydrological cycle: flow nets; local and regional flow systems - springs; interactions with surface water. Groundwater modelling. Unsaturated zone flow and calculation of infiltration. Groundwater recharge mechanisms and water balance calculations.

CVEN7808
Investigation of Groundwater Resources
School of Civil and Environmental Engineering
UOC3 HPW21

Groundwater investigation methods. Drilling methods; well design and completion for water production and contamination investigation. Contract specification and supervision. Solutions to the radial flow equation; pumping test interpretation; programme of field work and data analysis.

CVEN7809
Geophysical Techniques in Groundwater and Geotechnical Studies
School of Civil and Environmental Engineering
UOC3 HPW21

Introduction to geophysical methods in civil and environmental engineering; physical properties of soils, rocks and contaminated material. Seismic methods - field equipment and methods for seismic refraction. Properties of seismic waves. Cross-hole surveys, tomography and characterisation of bulk modulii. Seismic refraction interpretation methods. Borehole geophysics - field equipment and methods; caliper, electrical, fluid, nuclear and electromagnetic logs. Gravity and magnetic methods. Case histories describing the use of geophysical methods in geotechnical engineering and environmental investigation.

CVEN7813
Estuarine Processes
School of Civil and Environmental Engineering
UOC3 HPW21

The objective of this subject is to extend the student s knowledge of physical and biochemical processes which occur in estuaries and how to measure, model and predict those processes. Topics include estuarine classification and density structure. Tides and water level response of estuaries. Tidal flushing of estuaries and inlets. Mixing processes and random walk and box models. Two layer models. Difference models for hydrodynamics and algal dynamics. Biochemical processes in estuaries.

CVEN7815
Introduction to Catchment Models
School of Civil and Environmental Engineering
UOC3 HPW21

An introduction to the concepts and reductionist approach involved in the modelling of catchment processes influencing the quantity and quality of surface runoff from a catchment. Also introduced are the different forms of models, how these models are combined to provide a catchment modelling system, and implementation of catchment modelling systems. The information and data required for operation of these modelling systems and sources of this information are also discussed. Finally, the calibration, validation, and reliability of catchment modelling systems is presented.

CVEN7816
Catchment Surface Models
School of Civil and Environmental Engineering
UOC3 HPW21

An introduction to processes influencing the generation of surface runoff and the transportation of pollutant constituents with the surface runoff. The surface runoff models considered include UH methods, time-area methods, linear and non-linear reservoir models and, kinematic wave methods. Water quality models considered include UAL, Simple methods, and process based models. Selection of appropriate models is discussed also.

CVEN7818
Channel and River Models
School of Civil and Environmental Engineering
UOC3 HPW21

Selection of models for routing flows along the channels and rivers in a catchment drainage network. Also included is a detailed discussion of the theory of these models. Models considered include Muskingum with both variable and constant parameters, kinematic wave models, non-inertial and diffusion models, and dynamic wave models. These models will be discussed with reference to single channel situations and network situations. Also included is a discussion of water quality models for motion of pollutant constituents in channels and rivers. These models will include plug-flow methods, and advection-dispersion models in both a coupled and uncoupled situation.

CVEN7824
Risk Analysis in Water Engineering
School of Civil and Environmental Engineering
UOC3 HPW21

Introduction to the theory of probability; joint, marginal and conditional probability; commonly used probability distributions; expectations and estimation of model parameters; hypothesis testing and confidence limits; uses in water and coastal engineering - applications to flood design, monte carlo simulation, bootstrap, and hydrological, human and environmental risk assessment.

CVEN7825
Aquatic Chemistry for Engineering
School of Civil and Environmental Engineering
UOC3 HPW21

Introduction to principles of the chemistry of natural waters and polluted systems covering basic processes of acidity and alkalinity, mineral precipitation, complexation, oxidation/reduction and surface and colloid chemistry. Tools developed enabling solution of realistic water chemistry problems including introduction to use of chemical speciation computer codes.

CVEN7826
Microbiology for Engineering
School of Civil and Environmental Engineering
UOC3 HPW21

The objective of this unit is to familarise the student with the fundamentals of water and wastewater chemistry along with the microbiology that drives most of these reactions in various environments. A structured approach is used to introduce concepts governing chemical equilibria, reaction rates, pH, alkalinity, oxidation-reduction and complexation, and integrates this knowledge with an understanding of microbial growth, metabolic diversity and persistence of disease-causing microorganisms.

CVEN7827
Contaminant Transport in the Environment
School of Civil and Environmental Engineering
UOC3 HPW21

Fundamentals of dispersion common to all environmental media (air, water, soil). Dispersion processes: nature of dispersion processes, advection and diffusion. Modelling of dispersion in the atmosphere, water bodies and soil. Transport processes in wetlands, lakes, reservoirs, estuaries, and coastal waters. Data collection relating to transport and dispersion.

Assumed knowledge: CVEN7825.

CVEN7828
Transformation and Fate of Contaminants in the Environment
School of Civil and Environmental Engineering
UOC3 HPW21

Major variables and general principles of the transformation and fate of pollutants. Air chemistry: interaction and degradation of gaseous pollutants in the atmosphere. Aquatic chemistry: transformation and fate of particles, organic contaminants, nutrients and metals released to coastal waters.

Assumed knowledge: CVEN7825.

CVEN8414
Transport Systems Part 1
School of Civil and Environmental Engineering
UOC6

Definition of basic traffic elements, zero flow travel time, capacity, impedance flow relationship. Transport networks. the determination of shortest path, maximum flow, in networks. The topological description of networks. Location theory applications in relation to transport networks. System parameters, performance. application of network analysis to existing road, rail and air transport systems.

CVEN8415
Transport Systems Part 2
School of Civil and Environmental Engineering
UOC6

Historical introduction to transport systems and development of various transport modes, road (vehicles, pedestrains, cycles), conveyor, rail, sea and air. Analysis of the opertational charactersitics of vehicles in the transport modes of road, rail and air. Analysis of congestion-related issues using queuing theory, development of optimum criteria for the distribution of cargo and passenger traffic. Terminals and mode transfer facilities. Development of system opertational models. Energy consideration, new systems.

CVEN8421
Fundamentals of Traffic Engineering
School of Civil and Environmental Engineering
UOC6

Traffic flow, concentration and speed. Fundamental diagram of traffic. Measurements, data collection presentation and statistical analysis. Traffic surveys; volume, composition, speed and travel time. Highway capacity and level of service; multi-lane and two-way-two-lane roads, urban roads, HCM-software calculations. Economic analysis of transport investments.

CVEN8702
Project Planning and Control
School of Civil and Environmental Engineering
UOC6

The planning process; time estimating; the link between planning and control; control systems; the critical path method, networks, resource levelling, resource constrained scheduling, network compression, overlapping relationships, applied cpm, cost influences, project control, legal considerations, simulation in networks, stochastic networks, project management, applications.

CVEN8703
Quality and Quality Systems
School of Civil and Environmental Engineering
UOC6

Quality management principles, practice and responsibilities; applications; quality systems documentation, manuals, implementation and procedures; quality assurance; quality control; relevant codes on quality; total quality management, quality circles and related approaches; quality requirements in contracts; continuous improvement.

CVEN8707
Contracts Management
School of Civil and Environmental Engineering
UOC6

Elements of contract law and a contract; contracts; contract documents including specifications; procurement methods (contract or project delivery strategies); tendering; time in contracts; variations; payments; rights and obligations, planning and programming; risk management and insurance; dispute resolution and dispute avoidance; claims.

CVEN8712
Dispute Avoidance and Resolution
School of Civil and Environmental Engineering
UOC6

One important aspect of project management is the commercially wise handling of disputes on projects. Few projects do not involve disputes. The source of these disputes variously might be personalities, different opinions, values, desires, needs and habits, performance, insufficient attention to documentation, unexpected eventualities, and so on. Disputes have the potential to convert an otherwise successful project into an unsuccessful one. This course focuses on a number of issues to do with disputes within projects. It firstly looks at dispute avoidance practices, non-adversarial projects and issues such as trust, goodwill and cooperation. Secondly it looks at first-attempt dispute resolution through negotiation; and where negotiation fails, other means and methods that are sought to resolve the disputes. Case studies are used to illustrate the ideas and practices.

CVEN8714
Resource Management
School of Civil and Environmental Engineering
UOC6

The management of non human (inert) resources such as equipment, plant, materials infrastructure and assets, including maintenance management, asset management, fleet management and related topics; resource acquisition, maintenance and repair policies; procurement, inventory, supply management and control; optimisation, applications; resource planning; resource disposal.

CVEN8717
Marketing in Technology and Engineering
School of Civil and Environmental Engineering
UOC6

The interface of technology and engineering with marketing. Marketing of professional consultant services; promoting; advertising; pricing of services. Client management; briefs. Marketing for contractors; competition, competitive bidding; tendering and proposals. Winning and securing work and commissions. Entrepreneurship. Marketing research; environment; products; distribution; strategies.

CVEN8727
Construction Estimating and Tendering
School of Civil and Environmental Engineering
UOC6

Estimating procedures, estimating cost of labour plant and materials, indirect costs and overheads, profit; preparation of cost estimates for engineering projects; the conversion of an estimate into a tender; bidding strategies and models; the tendering process; marketing.

CVEN8731
Project Management Framework
School of Civil and Environmental Engineering
UOC6

An overview of project management; the nature of technical and non-technical projects; the project life cycle; the project team, organisational

and behavioural aspects; the project manager; the organisation and management of project resources; project success evaluation techniques; project delivery; management information and decision support systems; case studies in project management; management theory and processes; relationship to general management; functions of project management.

CVEN8855
Water and Wastewater Analysis and Quality Requirements
School of Civil and Environmental Engineering
UOC6

The effects of impurities in water and wastewater on its suitability for various beneficial uses, and methods used for detecting impurities. Analytical methods used in water and wastewater treatment for monitoring and process.

CVEN8856
Water Treatment
School of Civil and Environmental Engineering
UOC6

Integrated design of facilities for the treatment of various types of raw water to meet specified water quality, with emphasis on water for municipal supply, including: chemical selection, dosing and mixing; coagulation - flocculation - clarification - filtration and disinfection technology. Processes for water softening, iron and manganese removal and demineralisation, including precipitation oxidation, ion exchange reverse osmosis. Taste and odour control. Disposal of water treatment residuals.

CVEN8857
Wastewater Treatment
School of Civil and Environmental Engineering
UOC6

Principles and applications of aerobic and anaerobic biological processes for treatment of wastewaters and sludges. Design of integrated systems of biological, physical, chemical and sludge treatment processes to satisfy effluent quality objectives. Effluent disposal and reuse. Stabilisation, processing, disposal and utilisation of treatment residuals.

CVEN8872
Solid Waste Management
School of Civil and Environmental Engineering
UOC6

Characterisation of municipal solid waste; collection; transfer stations; waste minimisation and recycling; waste treatment, including size reduction, composing, incineration, emerging technologies; landfill disposal, including preparation of landfill management plans and operational aspects; introduction to planning of waste management systems.

CVEN8881
Hazardous Waste Management
School of Civil and Environmental Engineering
UOC6

Waste audits and characterisation of hazardous wastes in regions and industries; control of generation and transport of hazardous waste, manifest systems; waste minimisation; on-site treatment methods; integrated off-site treatment facilities; management of residues from treatment facilities; introduction to planning of regional hazardous waste management systems. Characteristics of individual waste types (dioxins, PCBs, pesticides, heavy metal, etc.) and waste management in individual industries (steel, pulp and paper, petro-chemical, food processing, etc.).

CVEN8884
Environmental Engineering Science 1
School of Civil and Environmental Engineering
UOC6

Application of chemical principles to aqueous systems; pH and alkalinity, solubility and precipitation, complexation, redox and surface chemistry. Chemical equilibrium modelling. Introduction to chemical reaction kinetics. Introduction to Microbiology; Structure and metabolism of cells and micro-organisms; monitoring methods for pathogens and indicator organisms; impact of water and wastewater treatment on disease transmission.

CVEN8885
Environmental Engineering Science 2
School of Civil and Environmental Engineering
UOC6

Processes controlling transformation and fate of chemicals in the environment. Measurement and prediction of contaminant behaviour in natural and engineered systems. Fundamentals of dispersion common to all environmental media (air, water, soil). Air chemistry; interaction and degradation of gaseous pollutants in the atmosphere. Dispersion processes; nature of dispersion processes, advection and diffusion. Modelling of dispersion in the atmosphere, water bodies and soils.

CVEN8888
Environmental Management
School of Civil and Environmental Engineering
UOC6

Spectrum of modern environmentalism and sustainable development; environmental impact statement techniques and EIA procedures; environmental management systems; tools for the analysis and management of environmental impacts of engineering projects, including environmental risk assessment, environmental and waste audits, Life Cycle Assessment and other materials accounting techniques.

CVEN8930
Masters Project
School of Civil and Environmental Engineering
UOC12

A minor research investigation involving analysis and interpretation of data, or a critical review and interpretation of literature on a selected topic, or a design project, and the presentation of same in a thesis format.

CVEN9405
Urban Transport Planning Practice
School of Civil and Environmental Engineering
UOC6 HPW3

Analytical techniques for urban land use/transport planning practice. Planning methodology: traffic generation, trip distribution, modal-choice, traffic assignment, evaluation. Land use forecasting: calibration and verification of behavioural models, application of mathematical programming models, case studies, public transport problems.

CVEN9414
Transport Systems Part 1
School of Civil and Environmental Engineering
UOC6 HPW3

Definition of basic traffic elements, zero flow travel time, capacity, impedance flow relationship. Transport networks. The determination of shortest path, maximum flow, in networks. The topological description of networks. Location theory applications in relation to transport networks. System parameters, performance. Application of network analysis to existing road, rail and air transport systems.

CVEN9415
Transport Systems Part 2
School of Civil and Environmental Engineering
UOC6 HPW3

Historical introduction to transport systems and development of various transport modes, road (vehicles, pedestrians, cycles), conveyor, rail, sea and air. Analysis of the operational characteristics of vehicles in the transport modes of road, rail and air. Analysis of congestion-related issues using queuing theory. development of optimum criteria for the distribution of cargo and passenger traffic. Terminals and mode transfer facilities. Development of system operational models. Energy consideration, new systems.

CVEN9421
Fundamentals of Traffic Engineering
School of Civil and Environmental Engineering
UOC6 HPW3

Traffic flow, concentration and speed. Fundamental diagram of traffic. Measurements, data collection presentation and statistical analysis. Traffic surveys; volume, composition, speed and travel time. Highway capacity and level of service: multi-lane and two-way-two-lane roads, urban roads, HCM-software calculations. Economic analysis of transport investments.

CVEN9500
Engineering Geology and Geotechnical Models
School of Civil and Environmental Engineering
UOC3 HPW21

A framework for recognising the important geotechnical features of the various geological environments: namely igneous, volcanic, metamorphic,

sedimentary and carbonate. Superimposed onto this stratigraphic base are the overprinting effects of geological structure and environmental effects including stress, valley bulging, tectonic setting, glaciation, weathering and alteration; and Holocene geology. The lectures cover the continuous spectrum from soil to high strength rock. Geomorphology, the surface expression of the underlying geology and geological processes is a key part of the course. These elements and relationships are brought together within the umbrella of modern engineering concepts such as Total Geology. The final section of the course and probably the most important deals with geotechnical engineering models, what they comprise and how are developed,

CVEN9501
Geotechnical Site Investigation Methods
School of Civil and Environmental Engineering
UOC3 HPW21

Planning of site investigations and the parameters required, drilling, trenching and in-situ permeability of soil and rock. In-situ testing of soil, including SPT, CPT, piezocone, vane shear. Laboratory testing of soil including triaxial, direct shear and ring shear. Field instrumentation for pore pressure and displacement. Basics of geotechnical models.

Assumed knowledge: CVEN9500.

CVEN9502
Geotechnical Engineering of Foundations
School of Civil and Environmental Engineering
UOC3 HPW21

Principles of foundation types and design. Shallow foundations - general bearing capacity equations for vertical and inclined loads, settlement calculation, foundations in sand, rock and reactive clays. Pile foundations - pile types and construction, ultimateload capacity, equation, ultimate capacity from pile driving formulae, settlement analysis; lateral loading; use of code for design of piles. Earth pressures, retaining walls.

CVEN9506
Geotechnical Mapping
School of Civil and Environmental Engineering
UOC3 HPW21

The course deals with all key elements of mapping and logging, everything from collecting the data to processing, understanding and presenting the results. Materials range from soil to rock. Data and sampling biases; together with the shortcomings of each method are addressed.

In the mapping section the different genetic maps are covered including geological, structural, geotechnical, geomorphological, air photo, specialised vector maps and landslides. The logging is an extension of the surface mapping and deals with techniques for gatherin data in the other dimension; from pits, tunnels, trenches and cuttings; using tools such as detailed face-logs, Sirojoint, simple photogrammetry, sketch maps etc.

The logging of core is covered from first principles, dealing initially with the drilling process then leading through to processing the data. Elements covered include orientation techniques, oriented core, orientation logs, blind zones, Terzaghi corrections, drilling and sampling biases. The roles of the detailed, structure and summary logs are explained.

The course covers four days and each course is split approximately evenly between field and laboratory/lecture room time. Field work will be at sites in the Greater Sydney area. Students should plan to allow up to a further 1 to 2 days in the field to complete the field work.

CVEN9508
Rock Slope Instability and Stabilization
School of Civil and Environmental Engineering
UOC3 HPW21

Rock slope stability analysis including stereographic methods for planar, wedge and toppling modes. Probabillistic methods in rock slope stability analysis. Rock slope stabilization by anchors, bolts, cables and drainage. Pre and post failure deformations of excavated rock slopes.

Assumed knowledge: CVEN9773.

CVEN9701
Engineering Economics and Financial Management
School of Civil and Environmental Engineering
UOC6 HPW3

Project initiation and development, feasibility studies, planning; economics, review of practical decision making problems and relevant techniques, benefit/cost analysis, methods of economic appraisal; consideration of inflation and taxation in investment decisions; depreciation; management decision processes, decision theory, utility; life-cycle costing, value management; models and techniques to assist the manager, forecasting; optimisation; applications; multiple objective planning; project delivery systems; financial planning, accounting.

CVEN9702
Project Planning and Control
School of Civil and Environmental Engineering
UOC6 HPW3

The planning process; time estimating; the link between planning and control; control systems; the critical path method, networks, resource levelling, resource constrained scheduling, network compression, overlapping relationships, applied cpm, cost influences, project control, legal considerations, simulation in networks, stochastic networks, project management, applications.

CVEN9703
Quality and Quality Systems
School of Civil and Environmental Engineering
UOC6 HPW3

Quality management principles, practice and responsibilities; applications; quality systems documentation, manuals, implementation and procedures; quality assurance; quality control; relevant codes on quality; total quality management, quality circles and related approaches; quality requirements in contracts; continuous improvement.

CVEN9706
Human Resources Management
School of Civil and Environmental Engineering
UOC6 HPW3

The development of skills for the management of people and their workplaces; industrial relations, health and safety issues, the recognition of people as the basic unit of engineering productivity; the structure and function of organisations, management of group action; work delegation across organisational boundaries; interpersonal skills, conflict management; learning curves; motivation.

CVEN9707
Contracts Management
School of Civil and Environmental Engineering
UOC6 HPW3

Elements of contract law and a contract; contracts; contract documents including specifications; procurement methods (contract or project delivery strategies); tendering; time in contracts; variations; payments; rights and obligations; planning and programming; risk management and insurance; dispute resolution and dispute avoidance; claims.

CVEN9710
Management of Risk
School of Civil and Environmental Engineering
UOC6 HPW3

Introduction to the concept of risk and decision making under conditions of uncertainty; project objectives and planning, risk/factors affecting project performance; risk identification in engineering processes; human error, natural hazards and unforeseen risks; risk evaluation and quantification methods; relevant statistical techniques; risk avoidance and minimisation; financial risk, portfolio theory, risk sharing and financing; ambient and acceptable risk levels; insurances.

CVEN9718
Strategic Management for Engineering
School of Civil and Environmental Engineering
UOC6 HPW3

Strategic management for engineering and technology based organisations. Strategic versus operational planning; approaches to developing strategies. Influence of environment, resources (people, materials, plant/equipment), opportunities, competition. Strategic change, implementation, control. Influence of organisation size and shape.

CVEN9723
Design of Construction Operations
School of Civil and Environmental Engineering
UOC6 HPW3

Design theory as applied to construction processes; application to selected areas of the construction industry; building construction; queueing and simulation models; work study (method study and work measurement) procedures; productivity; job planning, layout planning, capacity

planning; planning and design of production systems (construction oriented); reliability, availability, applications.

CVEN9730
International Project Management
School of Civil and Environmental Engineering
UOC6 HPW3

International project management practices and a comparison with local practices. Managing projects overseas. Multicultural managment including values, human resources, negotiations and diversity. Globalisation. Technology transfer. Appropriate technology. Joint ventures. The management of time, costs, quality, risk, resources and people in an international setting. International contracts and dispute resolution. International marketing.

CVEN9731
Project Management Framework
School of Civil and Environmental Engineering
UOC6 HPW3

An overview of project management; the nature of technical and non-technical projects; the project life cycle; the project team, organisational and behavioural aspects; the project manager; the organisation and management of project resources; project success evaluation techniques; project delivery; management information and decision support systems; case studies in project management; management theory and processes; relationship to general management; functions of project management.

CVEN9770
Introduction to Numerical Methods in Civil Engineering
School of Civil and Environmental Engineering
UOC3 HPW3

Introduction to finite element and boundary element methods. Mathematical formulation of finite elements. Two and three dimensional elements. Linear and nonlinear analysis. Steady state and transient field problems - heat conduction, seepage etc. Dynamic analysis - frequency domain and time domain.

CVEN9773
Introduction to Rock Engineering
School of Civil and Environmental Engineering
UOC3 HPW3

Introduction to rock engineering including the engineering description of rocks, discontinuities and rock mass; the strength of rock substance, defects and rock mass; laboratory testing of rock, defect surveys, data presentation and hemispherical projections; in-situ stress and its measurement; stresses about underground openings; classification systems and introductory tunnel support requirements.

CVEN9776
Rock Engineering for Tunnels and Underground Structures
School of Civil and Environmental Engineering
UOC3 HPW3

A lecture and problem based course on the investigation, design and construction of tunnels and other underground structures, rock and rock mass strength and deformability. In-situ stresses; stresses about underground openings by elastic and numerical methods; classification systems for prediction of support requirements, including NATM; design of support elements including bolts, dowels, mesh and anchors. Measurement of in-situ stresses; instrumentation and monitoring; squeezing and swelling ground. Tunnel excavation methods and their applicability, including drill and blast, heading and bench, tunnel boring machine, road headers.

Assumed knowledge: CVEN9773.

CVEN9784
Pavement Analysis and Design
School of Civil and Environmental Engineering
UOC6 HPW6

Types of pavement, selection on basis of cost and performance. Sub-grade conditions, working platforms. Role of environmental factors including temperature and moisture. Soil moisture equilibria and drainage requirements. Prediction and characterisaton of traffic loadings. Stress distribution in flexible and rigid pavements. Computer-based and approximate methods of analysis. Principles of mechanistic design. Comparative evaluation of design criteria and design procedures for flexible and rigid pavements for roads. Concrete block paving.

CVEN9786
Industrial, Airport and Heavy Duty Pavements
School of Civil and Environmental Engineering
UOC3 HPW3

Functions of airport, industrial and heavy-duty pavements. Airport and port pavements, container facilities, bulk cargo areas, factory and warehouse floors and hardstand operation requirements. Economic considerations. Types of industrial pavement. Advantages and disadvantages of flexible, rigid and segmental pavements. Types of load, aircraft and industrial vehicles, container stacking, bulk cargo. Load equivalency concepts, port area wheel loads, standard design aircraft and vehicles, formulation and application of loading spectra. Subgrade improvement and characterisation. Selection of pavement materials. Pavement design procedures.

CVEN9793
Geomechanics
School of Civil and Environmental Engineering
UOC6 HPW3

The fundamentals of the effective stress concept, clay mineralogy, seepage analysis and Laplace Equation, basic and advanced theories of consolidation, nonlinearity and Biots theorem, critical state soil mechanics, fundamentals of continium mechanics, theory of elasticity, constitutive relationships and failure criteria for real soils, soil plasticity and Cam-clay model, theorem of collapse, fundamentals of unsaturated soils mechanics.

CVEN9798
Fundamentals of Geomechanics
School of Civil and Environmental Engineering
UOC3 HPW3

Fundamentals of Geomechanics for geologists and other professionals who wish to work in geotechnical engineering, engineering geology, and environmental engineering. Classification of soil, phase relationships, flow of water in soil. The principle of effective stress. Consolidation theory, stress distribution and settlement. Mohrs Circle, failure criteria, stress paths and strength of soils. Lateral earth pressures. Compaction of soil.

CVEN9802
Structural Stability
School of Civil and Environmental Engineering
UOC6 HPW3

Euler strut; uniform and non-uniform cross sections. Eccentric loading; stressing beyond the elastic limit. Struts continuous over several supports. Stability of frames.

CVEN9806
Prestressed Concrete Design
School of Civil and Environmental Engineering
UOC6 HPW3

Introduction to prestressed concrete. Design for serviceability. Design for strength. Statically indeterminate beams. Behaviour and design of two-way slabs. End block design.

CVEN9809
Reinforced Concrete Design
School of Civil and Environmental Engineering
UOC6 HPW3

Design of reinforced concrete structures. Topics covered will be chosen from: design of beam-columns, non-symmetric sections, flexure-shear-torsion, serviceability and detailing. Special provisions for the use of high strength concretes, strut and tie modelling and collapse load methods for the design of reinforced concrete slabs.

CVEN9818
Bridge Engineering
School of Civil and Environmental Engineering
UOC6 HPW3

Introduction to bridge engineering; site selection, type selection, bridge hydraulics, design philosophies. Transverse load distribution. Simple supported and continuous slabs on beam bridges. Box girder bridges. Cable-stayed.

CVEN9820
Computational Structural Mechanics
School of Civil and Environmental Engineering
UOC6 HPW3

Stiffness analysis of structures. Basis of finite elements: principle of virtual work, variational theorems, constraint equations. Effects of inplane rigid floors and axially rigid members on the behaviour of multi-storey frames.

CVEN9822
Steel Structures
School of Civil and Environmental Engineering
UOC6 HPW3

Introduction to limit states design. Design of compression members. Effective lengths of columns. Tension members. Local buckling. Design of plate girders. Lateral buckling of beams. Design by buckling analysis. Behaviour of beam-columns. Introduction to connection design.

CVEN9824
Advanced Materials Technology
School of Civil and Environmental Engineering
UOC6 HPW3

Concrete: high performance concrete; new methods of workability measurement; methods of placing-pumping, spraying; mix design methods; special concrete mixes. Fibre Reinforced Plastics (FRP): advanced polymer composites for structures; polymer matrix materials; fibres used properties of polymers; properties of fibres; structural applications; durability of FRP.

CVEN9855
Water and Wastewater Analysis and Quality Requirements
School of Civil and Environmental Engineering
UOC6 HPW3

The effects of impurities in water and wastewater on its suitability for various beneficial uses, and methods used for detecting impurities. Analytical methods used in water and wastewater treatment for monitoring and process.

CVEN9856
Water Treatment
School of Civil and Environmental Engineering
UOC6 HPW3

Integrated design of facilities for the treatment of various types of raw water to meet specified water quality, with emphasis on water for municipal supply, including: chemical selection, dosing and mixing; coagulation - flocculation - clarification - filtration and disinfection technology. Processes for water softening, iron and manganese removal and demineralisation, including precipitation, oxidation, ion exchange and reverse osmosis. Taste and odour control. Disposal of water treatment residuals.

CVEN9857
Wastewater Treatment
School of Civil and Environmental Engineering
UOC6 HPW3

Principles and applications of aerobic and anaerobic biological processes o treatment of wastewaters and sludges. Design of integrated systems of biological, physical, chemical and sludge treatment processes to satisfy effluent quality objectives. Effluent disposal and reuse. Stabilisation, processing, disposal and utilisation of treatment residuals.

CVEN9872
Solid Waste Management
School of Civil and Environmental Engineering
UOC6 HPW3

Characterisation of municipal solid waste; collection; transfer stations; waste minimisation and recycling; waste treatment, including size reduction, composing, incineration, emerging technologies; landfill disposal, including preparation of landfill management plans and operational aspects; introduction to planning of waste management systems.

CVEN9881
Hazardous Waste Management
School of Civil and Environmental Engineering
UOC6 HPW3

Waste audits and characterisation of hazardous wastes in regions and industries; control of generation and transport of hazardous waste, manifest systems; waste minimisation; on-site treatment methods; integrated off-site treatment facilities; management of residues from treatment facilities; introduction to planning of regional hazardous waste management systems. Characteristics of individual waste types (dioxins, PCBs, pesticides, heavy metal, etc.) and waste management in individual industries (steel, pulp and paper, petro-chemical, food processing, etc.).

CVEN9888
Environmental Management
School of Civil and Environmental Engineering
UOC6 HPW3

Spectrum of modern environmentalism and sustainable development; environmental impact statement techniques and EIA procedures; environmental management systems; tools for the analysis and management of environmental impacts of engineering projects, including environmental risk assessment, environmental waste audits, Life Cycle Assessment and other materials accounting techniques.

CVEN9895
Fundamental Knowledge in Environmental Management: Engineering
School of Civil and Environmental Engineering
UOC6 HPW3

Systems approach to defining environmental problems and developing engineering solutions; simplified models of real world processes; introduction to a range of technologies for environmental protection and resource conservation; applications of science principles to engineering; engineering interfaces with science and sociology.

Note: This is a servicing course for MEM students.

CVEN9901
Special Topic in Civil and Environmental Engineering
School of Civil and Environmental Engineering
UOC6 HPW3

This syllabus changes to allow presentation of a special topic of currrent interest particularly by visitors with recognised expertise in the topic.

CVEN9930
Masters Project
School of Civil and Environmental Engineering
UOC12

A minor research investigation involving analysis and interpretation of data, or a critical review and interpretation of literature on a selected topic, or a design project and the presentation of same in a thesis format.

ECON5103
Business Economics
School of Economics
UOC6 HPW3

An introduction to economic analysis and policy, with particular application to decision-making in business. The course provides students with the tools to use economic principles in decision-making and an understanding of the broader economic environment in which business decisions must be made.

ECON5104
International Economics
School of Economics
UOC6 HPW3
Prerequisite or corequisite: ECON5103.

Primarily a theoretical treatment of international trade and finance. This course 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, international and external balance; foreign exchange markets; international monetary system; international monetary system; foreign investment.

ECON5106
Financial Economics
School of Economics
UOC6 HPW3
Prerequisite or Corequisite: ECON5203

This course is concerned with developing the economic principles underlying the pricing of financial assets and the management of financial risk in an uncertain world. The course begins with a discussion of stock market indices, the concept of market efficiency and fixed interest securities. We then study decision making under uncertainty, portfolio theory and the capital asset pricing model. An important part of the course

is concerned with how to price a contingent claim, for example, an insurance policy or a financial option. Many new financial products can be viewed as contingent claims. By applying contingent claims analysis, the arbitrage-free price of a new financial product can be ascertained. We will also consider how to value the capital structure of a firm using contingent claims analysis. The course concludes with a brief discussion of binomial option pricing.

ECON5108
Public Finance
School of Economics
UOC6 HPW3
Prerequisite or corequisite: ECON5103.

Public expenditure and taxation, budgetary policy and federal-state financial relations; partial and general equilibrium analysis of taxation; incidence and resource allocation effects of income taxes, wealth taxes and outlay taxes.

ECON5110
Managerial Economics
School of Economics
UOC6 HPW3
Prerequisite or Corequisite: COMM5002 or enrolment in program 8415.

This course emphasises logic and conceptual modelling - reinforced by real life examples - to highlight the pivotal link between economics and key business concerns such as costs, prices, markets, organisational architecture and government. Using the tools of economics, students learn to weigh the strategic costs and benefits of each business choice. Building on demand and costs concepts, students will learn how the details of stratedic interation and market structure (eg oligopoly, monopolistic competition) determine potential industry earnings and a firm's individual profitability. Students will then identify how firms can maintain their profitability through innovation, firm design, maintaining barriers to entry and product differentation, as well as understanding how firms can benefit from globalisation (eg trade, exchange rates) and government tax and regulatory policies.

ECON5111
Economics of Strategy
School of Economics
UOC6
Prerequisite or Corequisite: ECON5110

This course covers the fundamentals of Game Theory and its applications. Game Theory is a revolutionary way of analysing strategic interactive situations. It is basic to the understanding of market competition among large firms, the designing of incentive contracts, bidding at auctions, bargaining, and other similar problems central to economics and business. This course covers simultaneous and sequential games and their solution concepts, games of imperfect information, repeated games, and a selection of applications and case studies.

ECON5112
Organisational Economics
School of Economics
UOC6 HPW3
Prerequisite or Corequisite: ECON5110

The course draws upon the influential transaction cost literature to examine the existence and boundaries of firms. Representing a firm as the focal point of a set of contracts, the fundamental conflicts that arise within firms are discussed and a coherent economic framework is introduced to analyse the design of organisational architecture. The effect of strategy and business environment on choice of organisational design is explored. Utilizing the recent advances in game theory and information economics, the course provides a toolkit for managers to analyse the key features of organisational architecture - decision-making authority, the reward system, and the performance evaluation system.

ECON5114
Superannuation and Retirement Benefits
School of Economics
UOC6 HPW3
Prerequisite: ECON5103, ECON5203 Excluded: ACTL5002

This course provides a comprehensive analysis of superannuation and retirement benefits, primarily in Australia. Topics include: alternative superannuation arrangements, taxation and regulation of superannuation, risk management and investment strategies for superannuation, design of retirement benefits, the retirement decision, policy developments and controversies and international comparisons.

ECON5121
Topics in Business Economics
School of Economics
UOC6 HPW3
Prerequisite or corequisite: ECON5103.

This course consists of two seven-week modules chosen from a prescribed list. The modules are self-contained and examine important economic issues. Possible module topics include economics of climate change, project analysis.

ECON5123
Economics of E-Business
School of Economics
UOC6 HPW3
Prerequisite or corequisite: ECON5103.

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.

ECON5125
Fundamental Knowledge in Environmental Management: Economics
School of Economics
UOC6 HPW3

This course is specially designed for students undertaking the University-wide Master of Environmental Management. It is one of 6 "Fundamental Knowledge" courses which form core courses in the MEM. It is designed for people without a background in Economics. The course provides a basic understanding of economic principles and of the roles of economics in environmental management. The course will also explore the economics of ecologically sustainable development. Microeconomics topics include: markets, supply and demand, pollution, environmental assessment, benefit cost analysis, renewable resources and price incentives for environmental improvements. Macroeconomic topics include: sustainable development and inflation, employment versus the environment, and economic growth, development and the environment. The course will explore and critically examine both market and non-market approaches in the attempt to analyse solutions to major environmental problems.

ECON5153
International Macroeconomics
School of Economics
UOC6 HPW3
Prerequisite: ECON5103

This course considers topics in international macroeconomics, including nominal and real exchange rates, international capital markets and capital mobility, international business cycles, policy coordination and the international monetary system, financial crises and currency unions.

ECON5164
Economic Reasoning
School of Economics
UOC6 HPW3

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, you will be able to apply economics logically to practical problems..

ECON5197
Project Report
School of Economics
UOC12 HPW3

Please contact the school for further information.

ECON5198
Economics Research Seminar
School of Economics
UOC6 HPW3

Students enrolled in ECON5198 are required to present a seminar on their research topic.

ECON5203
Statistics for Business
School of Economics
UOC6 HPW3

The aim of this course is to provide students with an appropriate basic knowledge of statistical tools used in business. Topics will include: descriptive analysis of statistical data, sampling distributions, statistical estimation; hypothesis testing; simple linear regression; introduction to time series analysis; forecasting; index numbers.

ECON5204
Mathematics for Business
School of Economics
UOC6 HPW3

The aim of this course is to provide students with the appropriate mathematical tools for application to applied problems and current research in business. Topics will include: calculus, basic optimisation techniques, mathematics of finance, matrix algebra, introduction to linear programming. This course will emphasise practical aspects of mathematics in business applications.

ECON5206
Financial Econometrics
School of Economics
UOC6 HPW3
Prerequisite or Corequisite: ECON5203

This course is concerned with the application of quantitative methods to the study of financial data. It begins by establishing the key empirical characteristics of financial data. These relate to the shape of the empirical distribution for asset returns. We then turn to an examination of the methods that are used to model these regularities. We begin with the linear regression model and discuss its application to tests of the capital asset pricing model (CAPM), the arbitrage pricing model (APT), and the forward market efficiency. We also discuss the 'spurious regression problem' which arises in financial applications. This leads to a discussion of non-stationary data and how to model long-run relationships among financial time series. We then discuss techniques of modeling time series more generally, particularly in an error correction framework. The main emphasis of the course is on applications. Students will be asked to work through a number of questions with a broad range of financial data sets.

ECON5233
Operations Research
School of Economics
UOC6 HPW3
Prerequisite: ECON5204, ECON5203

Introduces operations research as the systematic application of quantitative methods to the analysis of problems involving decision making in economics and related disciplines. Linear programming, quadratic programming, and dynamic programming with applications to transportation, inventory, portfolio selection and other fields related to economics. In addition, students are required to undertake a case study requiring data collection and analysis.

ECON5248
Business Forecasting
School of Economics
UOC6 HPW3
Prerequisite: ECON5203

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.

ECON5252
Advanced Econometric Theory
School of Economics
UOC6 HPW3
Prerequisite: ECON5251

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.

ECON5254
Econometric Theory
School of Economics
UOC6 HPW3
Prerequisite: ECON5207

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 auto correlation and heteroskedasticity.

ECON5257
Introductory Statistics and Data Analysis
School of Economics
UOC3 HPW1.5
Prerequisite: must be enrolled in program 8409

The aim of this course is to provide students with an introduction to basic statistical tools and quantitative methods that are useful in understanding the type of data encountered in business. Importantly, it will provide a framework for approaching economics and business problems, and experience in learning from associated data. Topics covered include: understanding data, examining relationships, randomness and sampling distributions, introduction to inference, and probability. The course also aims to provide familiarity with the use of computer spreadsheet software for data analysis and problem solving.

ECON5298
Econometrics Research Seminar
School of Economics
UOC6 HPW3

Students enrolled in ECON5298 are required to present a seminar on their research topic.

ECON5299
Project Report
School of Economics
UOC12 HPW6

Please contact the school for further information.

ECON6001
Microeconomic Analysis
School of Economics
UOC6 HPW3
Prerequisite: Enrolment in program 8412 or approval of Head of School of Economics

Consumer theory: utility maximisation, duality, household production theory, revealed preference, measuring welfare changes, choice under uncertainty. Production theory: profit maximisation, cost minimisation, factor demands. Market structure: competition, monopoly, oligopoly, monopolistic competition. Markets in general equilibrium: competition, the two-sector model, welfare economics.

ECON6002
Macroeconomic Analysis
School of Economics
UOC6 HPW3
Prerequisite: Enrolment in program 8412 or approval of Head of School of Economics

Advanced analysis of macroeconomic issues. Topics include: the structure of macroeconomic models, growth theory and capital accumulation, the structure of short run classical and Keynesian models, equilibrium and disequilibrium models of the business cycle, open economy models, fiscal policy and deficits, monetary policy and stabilisation theory.

ECON6003
Econometric Analysis
School of Economics
UOC6 HPW3
Prerequisite: Enrolment in program 8412 or approval of Head of School of Economics

The simple and multivariate regression models with economic applications emphasising practical aspects of model building. Extensions of multiple regression models when the classical assumptions break down. Introduction to simultaneous equation models. Quantitative studies of applied econometric themes such as consumption, demand, investment and production.

ECON6004
Mathematical Economics
School of Economics
UOC6 HPW3
Prerequisite: Enrolment in program 8412 or approval of Head of School of Economics

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 neo-classical theory of optimal growth.

ECON6101
Advanced Microeconomic Analysis
School of Economics
UOC6 HPW3
Prerequisite: ECON6001

Advanced topics in microeconomics. These may include: existence and uniqueness of competitive equilibrium, the welfare theorems, incomplete markets, games with complete information, games with incomplete information, market equilibria with asymmetric information (adverse selection and moral hazard), principal-agent models and mechanism design.

ECON6102
Advanced Macroeconomic Analysis
School of Economics
UOC6 HPW3
Prerequisite: ECON6002

Consumption and investment theories including models of optimisation, overlapping generation models with money, real business cycle models, equilibrium asset pricing, multiplicity of equilibrium and bubbles. Recent topics in contracting and market imperfections and the role of policy.

ECON6201
Advanced Econometric Theory
School of Economics
UOC6 HPW3
Prerequisite: ECON6003

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 and heteroscedasticity.

ECON6202
Computational Statistics and Econometric Modelling
School of Economics
UOC6 HPW3
Prerequisite: ECON6003

Statistical and econometric modelling enhances our understanding of the behaviour of individuals, firms and other economic agents. This may simply involve the quantification of relationships between important driving forces within the economy but more fundamentally statistical and econometric models can provide evidence that will help discriminate between alternative views of how economic agents behave. Over the last 20 years computing power has increased dramatically and led to the development of statistical and econometric methods that utilize this power to more directly model behavioural relationships. The purpose of this course is to introduce computationally intensive statistical and econometric methods to carry out inference - estimation, hypothesis testing, confidence intervals and prediction - for complex models used in the Social Sciences. The course will provide an introduction to Bayesian inference using Markov Chain Monte Carlo simulation, simulated methods of moments estimation, and bootstrap methods. Examples and case studies of the applications of the methodology will also be provided. Actual applications will be drawn from economics, finance and marketing, but similar methods can be applied to statistical problems in the physical sciences and engineering.

ECON6203
Applied Econometrics
School of Economics
UOC6 HPW3
Prerequisite: ECON6003

This course considers alternative analytical approaches to applied econometric work. Various empirical problems are considered and the relative merits of available solutions are assessed. Specific attention is given to diagnostic testing in an LM framework, dynamic specification, influential data and non-stationarity. Practical experience is gained through replicating and extending published applied studies.

ECON6301
Strategic Market Behaviour and Government Regulation
School of Economics
UOC6 HPW3
Prerequisite or corequisite: ECON6001

Topics covered will be from amongst the following. Theory of the firm, production costs, monopoly, dominant and fringe firms, cartels, oligopoly and monopolistic competition, differentiated products, regulation, advertising, horizontal and vertical integration, strategic behaviour by firms, and R & D. Both theoretical and empirical results will be covered in the course.

ECON6302
International Trade
School of Economics
UOC6 HPW3
Prerequisite or corequisite: ECON6001

The theory and practice of international trade. The course will emphasise 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.

ECON6303
Economics of Labour Markets
School of Economics
UOC6 HPW3
Prerequisite or corequisite: ECON6001

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.

ECON6304
Business Cycles and Growth
School of Economics
UOC6 HPW3
Prerequisite or Corequisite: ECON6002

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 sources of business cycle fluctuations, endogenous growth theories, and cross-country growth analysis will be considered.

ECON6305
Economics of Natural Resources
School of Economics
UOC6 HPW3
Prerequisite: ECON6001

An introduction to the exploitation of natural resource systems within an economic framework, particularly forestry, fisheries, water, oil and other minerals. Policies required to ensure improved management without exploitation of these renewable and non-renewable resources under different property rights regimes.

ECON6306
Environmental Economics
School of Economics
UOC6 HPW3
Prerequisite: ECON6001 and ECON6002

This course 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.

ECON6307
The Economics of Health and Medical Care
School of Economics
UOC6 HPW3
Prerequisite or corequisite: ECON6001

The course provides an economic approach to the analysis of health and medical care markets. Topics covered include the production of health, the production and consumption of medical care, the relationship between health and wealth, the health workforce and the training of health professionals, social insurance and the organisation of health insurance markets. Throughout the course reference is made to current government health policy.

ECON 6308
Policy Evaluation Methods
School of Economics
UOC6
Prerequisite: ECON6003

The aim of this course is to learn the tools used in practice to determine whether programs and policies are achieving their objectives. The course will critically discuss the various techniques and indicate their strengths and weaknesses. Several modern methods of cost benefit analysis will be reviewed such as natural experiments, social experiments, choice experiments and discrete choice experiments. The course will examine policies and programs in a broad range of areas including labour markets, health care, social welfare and poverty. Other areas may be discussed as well such as criminal justice, the environment, education, and development.

ECON6350
Special Topics in Economics
School of Economics
UOC6 HPW3
Prerequisite or Corequisite: ECON6001, ECON6002, ECON6003 and ECON6004

This course provides a comprehensive and indepth treatment of a topic at the forefront of contemporary research in economics. Potential topics include auction theory, personnel economics, real business cycle theory and semiparametric econometrics.

ECON7105
Business Economics (International)
School of Economics
UOC6

Note: Only offered to students in the International Professional Accounting Program Beijing ACCTES8405.

ECON7203
Statistics for Business (International)
School of Economics
UOC6

Note: Only offered to students in the International Professional Accounting Program Beijing ACCTES8405.

ECON8105
Business Economics (International)
School of Economics
UOC6

Note: Only offered to students in the International Professional Accounting Program Guangzhou ACCTES8403.

ECON8203
Statistics for Business (International)
School of Economics
UOC6

Note: Only offered to students in the International Professional Accounting Program Guangzhou ACCTES8403.

EDST5015
Modes of Thought and Their Instructional Implications
School of Education
UOC12 HPW4

Cognition and instruction. The manner in which instructional material is designed and taught can be guided usefully by cognitive theory. Current findings based on schema theory and cognitive load theory suggest that many commonly used instructional techniques are ineffective. The same theories and findings provide alternatives structured to facilitate learning, thinking and problem solving. Procedures for designing instruction that accords with our mental processes, and research techniques to test the effectiveness of novel instructional methods are central issues that are discussed.

Note: This course is available only to EdD students.

EDST5031
Research Methods 1
School of Education
UOC6 HPW2

A compulsory program of study prescribed to meet individual needs which takes account of the student's background in research methods.

Note: This course is only available to EdD students.

EDST5032
Research Methods 2
School of Education
UOC6 HPW2

Continuation of the program prescribed in EDST5031 which is finalised after discussion with the student's supervisor.

Note: This course is only available to EdD students.

EDST5101
Introduction to Design and Analysis
School of Education
UOC8 HPW2
Excluded: EDST2101, EDST3101

Focuses on concepts and applications. Chacteristics of sets of scores; descriptive statistics. Sampling, estimation, inference. Probability and its estimation. Sampling distributions. The unit normal distribution. Analysis of data from 'two-sample experiments': Student's t-test, the Mann-Whitney U test, Wilcoxon's matched-pairs signed-ranks test. Contingency tables. Correlation and its estimation: Pearson, Spearman and Goodman indices. Chi-squared test of independence. Introduction to the analysis of 'variance'. Simple regression analysis. Use of computer package programs.

EDST5103
Multivariate Design and Analysis
School of Education
UOC8 HPW2
Prerequisite: EDST5101; Excluded: EDST2103, EDST3103.

Explores issues of research design in considerable depth and focuses on more advanced statistical applications. General linear models and nonlinear relationships. The extraction and rotation of common factors by graphical and analytic means. Factor analysis as a tool in the construction of educational and psychological inventories. Structural equation modelling. The extension of factorial analysis of variance designs to include many dependent variables. Application of factor analysis and multivariate analysis of variance to educational research problems. Meta analysis, computer analysis of qualitative data. Use of computer package programs.

EDST5120
Qualitative Research Methodology
School of Education
UOC8 HPW2

Focuses on the examination of the different types of qualitative method in educational research. Various aspects of investigation are treated: ethnographic methods, interview techniques, formation of questionnaires, data collection (and what to do with it), processes of inquiry and ways of communication (multi-media). Emphasises the construction of text, written, verbal and non-verbal (art, music), discourse and content analysis, the types of discourse formation and the relationship between information and theory.

EDST5201
Philosophical Issues in Education
School of Education
UOC8 HPW2
Excluded: EDST2201, EDST3201

Philosophical views underlying educational practices and debates. Examines topics such as aims in education, the ideal of an educated person, neutrality and indoctrination in teaching, authority relations in schooling, curriculum construction, intelligence testing, learning and understanding, and other topics, in order to develop philosophical competence and knowledge. The work of one educational theorist is examined.

EDST5204
History and Philosophy in Science Education
School of Education
UOC8 HPW2
Excluded: EDST2204, EDST3204

Examines some central philosophical questions raised by the Scientific Revolution - the role of authority in science, the place of mathematics in science, the relation of sensory evidence to theory, the place of metaphysics in science, the construction and interpretation of experiments and how these can bear upon school history and science courses. Examines the extent to which individual learning recapitulates the history of science.

EDST5303
Human Cognitive Architecture
School of Education
UOC8 HPW2
Excluded: EDST2303, EDST3303

How cognitive structures are organised into a coherent architecture and how that architecture allows human beings to learn, think, reason and solve problems. The major concepts methods, and research findings which have been produced over the last half century, along with relevant applications.

EDST5306
Child Growth and Development
School of Education
UOC8 HPW2
Excluded: EDST2306, EDST3306

An examination of the principles of child development and how these principles interact with the educational process, including a study of individual differences and the manner in which these differences relate to education. Analysis of learning and how learning principles can be translated into educational practice is also discussed.

EDST5307
Mental Processes and Instructional Procedures
School of Education
UOC8 HPW2
Excluded: EDST2307, EDST3307

Factors which affect learning and problem solving. Cognitive theories that can guide us in designing instruction. How to format instruction so that it accords with students' mental processes. Techniques designed to hasten the development of problem solving expertise.

EDST5314
Stress Management Research and Practice in the Workplace
School of Education
UOC8 HPW2

Emphasises multifaceted approaches to stress management research and practice. Evaluation of various stress management procedures. Includes cognitive, behavioural and transactional models. Discusses applications in different social settings and developmental stages. Examines the role of the educator/manager as a helper, and also global and specific prevention programmes, crisis management, and recent developments in dealing with different types of anxiety and tension. A kit of readings will be provided.

EDST5320
Individual Differences and Education
School of Education
UOC8 HPW2
Excluded: EDST2320, EDST3320

Examines ability and personality differences and their effects in school, university and workplace training educational settings. Examines general intelligence, specific abilities, cognitive and learning styles, creativity, and such personality traits as extraversion and anxiety level. Examines theories of intelligence. Looks at advantages and disadvantages of ways in which educational institutions deal with individual differences.

EDST5321
Motivation in Educational Settings
School of Education
UOC8 HPW2
Excluded: EDST2321, EDST3321

Looks at the importance of motivation in school, university and workplace training educational settings and various problems and issues surrounding it. Cultural and ethological reasons why motivation is such a problem in education today. Examines theories of motivation, ethological and psychological approaches to its study, the range of motives people have and how they interact, achievement motivation and motivational consequences of self-perceptions of ability. Looks at practical applications. Also examines common motivational enhancement systems used in various institutions and their applications in educational settings.

EDST5323
Psycholinguistics
School of Education
UOC8 HPW2

Examines current psycholinguistic research into how language is represented, processed, acquired, and sometimes lost. Considers the relevance of psycholinguistic findings for the teaching and learning of language and literacy (in English and other languages), and for language revitalisation.

EDST5324
Research in Technology and Language Skills
School of Education
UOC8 HPW2

Introduces students to current research in the use of technology (e.g., computer audio, video, speech recognition, text-to-speech, internet, messaging) in developing language proficiency (speaking, listening, reading and writing skills) and electronic literacy (online communication, critical evaluation of information). Examines the design, findings, and direction of research in this area which is relevant to teaching English, English as a second language, and foreign languages.

EDST5432
Administrative and Organisational Behaviour in Education
School of Education
UOC8 HPW2
Excluded: EDST4102, EDST4302

Deals with the contexts, roles and functions of management in educational institutions: team work, decision-making, communication, planning and policy-making, human resource management, staff motivation and satisfaction, exercising power/authority/influence, structuring and organising, problem solving, quality assurance and total quality management, managing learning and teaching, and managing physical resources. Study of research into these issues in educational settings.

Note: This course may be undertaken as part of the Master of Educational Administration program.

EDST5433
Organisation Theory in Education
School of Education
UOC8 HPW2
Excluded: EDST4103, EDST4303

The application of organisation theory to educational administration. Scientific management theory, bureaucracy and professional educators, human relations, open systems theory. Contemporary critiques of conventional theories of educational organisations. Educational goals, organisational culture, educational technology, the educational environment, interorganisational linkages, organisational effectiveness. Alternative theories of educational organisation.

Note: This course is a core component of the Master of Educational Administration program.

EDST5436
Development and Evaluation of Educational Programs
School of Education
UOC8 HPW2
Excluded: EDST4206, EDST4306

Explores contemporary theory and practice in the evaluation of educational programs. Introduces students to the relationships between program development and evaluation by providing a conceptual overview of evaluation theory and examination of the practical processes involved in the evaluation of educational programs.

Note: This course may be taken as an elective in the Master of Educational Administration program.

EDST5438
Leadership Theory, Research & Practice
School of Education
UOC8 HPW2
Excluded: EDST4208, EDST4308

Develops students' understanding of leadership theories, current research and practice. Considers the major approaches to leadership such as trait, behaviour, contingency and transformational leadership theory. Also considers current research and practice in the context of education.

Note: This course may be taken as an elective in the Master of Educational Administration program.

EDST5445
Supervised Fieldwork in Educational Administration
School of Education
UOC8 HPW2
Excluded: EDST4215, EDST4315

On-the-job administrative training for a specified period under the joint supervision of a practising educational administrator and the Coordinator of the Master of Educational Administration course. Available to students by individual arrangement; placements depend on the needs and interests of students and on availability of suitable locations. Intended to give the student experience in a new administrative context. Written report required on completion.

Note: Students must contact the MEdAdmin Coordinator before enrolment.

EDST5450
Work Motivation in Educational and Training Organisations
School of Education
UOC8 HPW2
Excluded: EDST4220, EDST4320

Critically examines various models, including those based upon the needs hierarchy, goal, two-factor, congruence and expectancy theories. Analysis of empirical studies, which investigate the relationships of job satisfaction with other variables such as stress, communication, role conflict, role ambiguity, participative decision-making and organisational commitment. Considers teachers' and trainers' job characteristics, their relationship with job satisfaction and job redesign.

EDST5451
Politics of Education
School of Education
UOC8 HPW2

Offers deep insights into the political nature of our educational institutions. The implications of this research are of great benefit to educational administrators as well as students of educational management and organisations. Explores the relationship between theory and practice with direct reference to the political nature of policy making and policy implementation. Critically reviews the ideological implications of the power of political play in education policy and draws upon the work of theorists who have examined the relationship between knowledge and power.

Note: This course may be taken as an elective in the Master of Educational Administration program.

EDST5607
Research on the Learning and Teaching of Mathematics
School of Education
UOC8 HPW2
Excluded: EDST2607, EDST3607

A study of recent and current research in Mathematics Education, including problems in the areas of arithmetic, algebra, geometry, representation, computers and mathematics learning, teaching and the training of teachers. Emphasis is placed on experimental designs and methodologies as well as on findings and underpinning resulting theory. Encouragement for students to engage in research of their own.

EDST5608
Effective Teaching and Effective Schools
School of Education
UOC8 HPW2

Focuses on the literature and research into effective teachers and schools. Examines the educational outcomes used to measure effective teachers and schools. Analyses the methods used to identify effective teachers including public examination data. Examines the qualities associated with effective teachers and how these attributes are developed. Explores the classroom techniques employed by effective teachers across the disciplines and the relationship between effective schools and effective teachers. Examines the various national and international government policies to foster a climate of quality teaching and effective schools.

EDST5800
Current Issues in the Education of Intellectually Gifted Children
School of Education
UOC8 HPW2
Excluded: EDST2800, EDST3880

Focuses on Australian and international attitudes to the education of children of high intellectual potential. Explores the concept of giftedness from an analysis of its historical and cultural roots to an examination of the current focus on domains and levels of giftedness. Evaluates a range of techniques for identifying giftedness and talent in primary and secondary students, including those from minority and disadvantaged groups. Explores research on the academic, social and emotional needs of gifted children and investigates teaching strategies and school organisational structures which assist or impede the full development of high potential.

EDST5801
EdD Project
School of Education
UOC12
Prerequisite: EDST5800

Individual program of study on a topic approved by the Head of School with appropriate consultation and supervision.

EDST5803
Developing and Evaluating Programs for Intellectually Gifted Children
School of Education
UOC8 HPW2
Prerequisite: EDST5800; Excluded: EDST2803, EDST3803

Focuses on current research on the components of appropriate program development for gifted and talented children. Critical evaluation of program models currently used in Australia and internationally. Students are required to conduct needs analyses, develop and design programs appropriate for gifted students within the education system of NSW. Examines research on the effectiveness of 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.

EDST5806
Catering for the Affective Needs of Intellectually Gifted Children
School of Education
UOC8 HPW2
Prerequisite: EDST5800; Excluded: EDST2806, EDST3806.

Examines the research dealing with the many dimensions of appropriate affective curriculum design for intellectually gifted students. Concentrates on the development and monitoring of affective competencies, as they complement the attainment of cognitive competencies. Focuses on the research dealing with strategies and counselling interventions which can be provided by teachers trained and experienced in guidance procedures, the role of the school counsellor and current research on the vital role of parents in this context.

EDST5888
Project
School of Education
UOC8 HPW2
Excluded: EDST3888

Individual research on a topic approved by the Head of School with appropriate consultation and supervision. Intended to prepare students for further research at doctoral level.

Note: Project topic and supervisor must be registered with the Administrative Officer.

ELEC8350
Optical Fibres (Distance Learning)
School of Electrical Engineering and Telecommunications
UOC6
Excluded: TELE4313 AND ELEC9350

Wave propagation in optical fibres. Gaussian approximation of fields in single-mode fibre, spot-size, equivalent step index fibre. Material, waveguide and intermodal dispersion. Polarisation and birefringent fibres. Ray theory, in multimode fibre. Optical fibre measurement and characterisation. Launching efficiencies in fibres. Fibre-based devices. Nonlinear and anisotropic effects.

ELEC8355
Optical Communication Systems
School of Electrical Engineering and Telecommunications
UOC6

Active optical devices: optical sources and detectors. Optical modulation techniques. Optical amplification and fibre amplifier. Optical transmitter and receiver analysis and design. Launching efficiency Fibre splicing and connection. Fibre measurement and sensing. Optical fibre cables. Digital optical communication systems. Analogue optical communication system. Optical and Wavelength Division Multiplex. Passive optical components. Optical nonlinearities. Optical fibre local area networks.

ELEC8505
Microsystems Technology
School of Electrical Engineering and Telecommunications
UOC6
Excluded: ELEC9505

Interdisciplinary overview of MST (MicroElectroMechanical Systems - MEMS). Transducer definition: Sensors and Actuators. Micromachining techniques including silicon bulk micromachining, silicon surface micromachining, stiction problems, bonding processes, LIGA technique, micromachined mould template and electroplating, sealed cavity formation, stereolithography, chemical mechanical polishing for planarisation, electric discharge micromachining, laser micromachining, focused ion beam micromachining. Properties of materials for micromachining. Mechanical transducers. Optical transducers.Thermal transducers. Magnetic transducers. Chemical and biological transducers. Microfluidic devices. Circuit interfaces to transducers. System considerations. Case studies. Technology trends.

ELEC9201
Electricity Industry Planning and Economics
School of Electrical Engineering and Telecommunications
UOC6 HPW3

The nature of the electricity & gas industries; climate change and the electricity industry; objectives & options for restructuring; insights from electricity pricing theory; wholesale electricity market design; Australia's restructured electricity industry; National Electricity Market design & performance; the role of electricity networks in a restructured electricity industry including market representation, network pricing and network regulation; ancillary services; design & implementation of retail electricity markets; electricity industry regulation.

ELEC9202
Power System Operation and Control
School of Electrical Engineering and Telecommunications
UOC6 HPW3

Induction to the evolving electricity industry drivers of restructuring, technological developments and environmental concerns, and their impact on power system operation. Conventional approaches and tools for economic dispatch, unit commitment, hydroscheduling, production costing, reliability measures and operations planning in traditional industry structures. Power system operation within restructured electricity industries-wholesale spot electricity markets, bilateral trading, forward markets and full retail competition. Operation of power systems with renewable energy resources.

ELEC9213
Electrical Energy Systems
School of Electrical Engineering and Telecommunications
UOC6 HPW3
Excluded: ELEC4205

Review of the basic concepts used in power system analysis: phasors, complex power, three phase systems and per-unit methodology. Modelling of power system components, including transformers and synchronous machines. Aspects of power system operation, including power flow, reactive power control and fault analysis. Harmonics and their effects. Choice and use of protective equipment, including fuses, circuit breakers, relays and surge arresters. Equipment rating for operation in steady state and cyclic modes. Overvoltages and their effect in power systems. Insulation system design and practical limitations. Insulation coordination. High voltage equipment testing methods and their use in insulation condition monitoring of electrical energy systems. Quality of supply.

ELEC9214
Power Systems Equipment
School of Electrical Engineering and Telecommunications
UOC6 HPW3

A detailed coverage of the common features of major items of power delivery equipment, including analysis of the field properties and its use in determining insulation design, magnetic circuit design and analysis, thermal design and operation of equipment and the design of both static and dynamic contact systems for equipment.

Detailed coverage of the design and operation of specific items of equipment including: Transformers (power and instrument), switchgear, protection systems, cables, overhead lines, surge arresters, earthing systems and condition monitoring and testing.

ELEC9225
Special Topic in Power
School of Electrical Engineering and Telecommunications
UOC6 HPW3

This course has no fixed format. The content changes to allow presentation of a special topic of current interest in a short course format.

ELEC9226
Electrical Services in Building
School of Electrical Engineering and Telecommunications
UOC6 HPW3

The course coverage will include the following aspects of commercial and industrial electrical systems. Regulatory aspects, switchboard design and operation, (HC and LV) cabling systems, earthing, electrical safety issues including personnel protection and fire protection, protection of electrical systems (including both overcurrent and surge protection), lightning protection, electrical lighting systems. Equipment operation and energy efficiency will also be covered, together with condition monitoring aspects of major plant. Transformers and switchgear operation and monitoring. Power quality and the effect of voltage and current Larmonics. Power frequency magnetic fields and their impact in building and industrial sites.

ELEC9231
Electrical Drive Systems
School of Electrical Engineering and Telecommunications
UOC6 HPW3
Excluded: ELEC4216

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.

ELEC9232
Motion Control Systems
School of Electrical Engineering and Telecommunications
UOC6 HPW3

This course contents the review of elementary mechanics; Force and torque balance, Characteristics of motion elements; Parameter measurement; Elements of a Motion Control System; System requirements; Position, velocity and torque/acceleration controls; Sensors in Motion Control: Position, velocity and acceleration sensors; voltage and current sensors; Force and torque sensors; Motion Actuators: Analysis of the dynamics of induction, brushless dc and synchronous machines. Scalar VS vector control, parameter sensitivity and identification. Stepping and switched reluctance motors, static and dynamic characteristics, Piezoelectric motors; Motion systems modeling; machine, converter and controller modeling; Motion Control System Design: Stability; hierarchical design techniques, Error analysis and elimination; Disturbance rejection.

ELEC9233
Electrical Safety
School of Electrical Engineering and Telecommunications
UOC6 HPW3

Effects of electric current passing through the human body; factors normally providing protection from electric shock; lightning hazards; earthing of power supplies; earthing of electrical enclosures; the need for bonding; protection of personnel: RCDs, effects of electric and magnetic fields and electromagnetic radiation; electrosurgical hazards; electrical fires and their investigation; electrical discharges; electrical safety and the law; hazardous areas and their classification; gas grouping; temperature classification; Exd, Exi, Exe, Exn, Exp, Exs methods of protection; dust ignition proof; cabling and terminations for hazardous atmospheres; certification, marking, quality control and maintenance requirements for hazardous atmospheres.

ELEC9240
Power Electronics
School of Electrical Engineering and Telecommunications
UOC6 HPW3
Excluded: ELEC4240.

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 uniterruptible power supplies, and for computer systems, telecommunications, automobiles, traction and other industrial processes. Utility interaction, harmonic distortion, and power factor. EMI and EMC considerations.

ELEC9340
Electronic Communication Systems
School of Electrical Engineering and Telecommunications
UOC6 HPW3

Review of signal, spectra and modulation techniques. Electronic building blocks for modulation and demoduation. Analog/digital AM modulation and demodulation. Phase lock loop design analysis and techniques for modulation and demodulation. Design of VCO, phase detectors, mixers etc. FM modulation and demodulation. S/N performance of AM and FM systems. Noise. Design of LNA. RF amplifiers.

ELEC9342
Digital Signal Processing and Applications
School of Electrical Engineering and Telecommunications
UOC6 HPW3
Excluded: ELEC4042

Processing of analogue and digital signals, design of digital filters and their realisation, filter stability, frequency and phase responses, finite word length effects in digital filters. Comb filters, adaptive filters. Autocorrelation and crosscorrelation. Convolution and deconvolution. Multi-rate signal processing, Decimation and interpolation. Time - frequency analysis. Wavelets. . Applications include: tone detection, noise reduction, pitch estimation, speech compression and auditory modeling.

ELEC9344
Speech and Audio Processing
School of Electrical Engineering and Telecommunications
UOC6 HPW3

Fundamentals of speech production, speech analysis: pitch and period extraction, formant estimation, voiced - unvoiced decision. Non-linear smoothing. Linear prediction. Inverse filtering. Implementation of speech/speaker recognition systems. Auditory modelling, auditory masking. Audio signal processing. Speech and audio compression. Compression standards. Speech enhancement.

ELEC9350
Optical Fibres
School of Electrical Engineering and Telecommunications
UOC6 HPW3
Excluded: TELE4313, ELEC8350

Wave propagation in optical fibres. Gaussian approximation of fields in single-mode fibre, spot-size, equivalent step index fibres. Material, waveguide and intermodal dispersion. Polarisation and birefringent fibres. Ray theory, in multimode fibre. Optical fibre measurement and characterisation. Launching efficiencies in fibres. Fibre-based devices. Nonlinear and anisotropic effects.

ELEC9353
Microwave Circuits: Theory & Techniques
School of Electrical Engineering and Telecommunications
UOC6 HPW3

The general flow of the course is Applications, Systems, Components. Applications of microwaves: (terrestrial and satellite communications, radar, remote sensing, wireless). System requirements for elements are to be analysed. Propagation modes (TEM, TE, TM, quasi-TEM), attenuation, dispersion, S-parameters are parts of general fundamentals. Analysis of circuit components and MIC are to be introduced.

ELEC9355
Optical Communications Systems
School of Electrical Engineering and Telecommunications
UOC6 HPW3
Excluded: ELEC8355 and TELE4314

Review of Single Mode and Multimode Optical Fibre Theory; Source to Fibre Coupling;

Optical Fibre Lasers and Amplifiers; Wavelength Division Multiplexing; Other Multiplexing Systems Photonic Components; Analog Optical Communication Systems; Digital Optical Communication Systems; Signal to Noise Ratio in Optical Communication systems; Optical Networks; Optical sources and detectors; Optical Fibre Cables; Nonlinear Optical Effects in Optical Fibres; Current Topics of Optical Communications.

ELEC9370
Digital Image Processing Systems
School of Electrical Engineering and Telecommunications
UOC6 HPW3

The fundamentals of digital image processing with topics selected from the following: image models and physical imaging systems; visual perception; rendering systems; linear filtering; linear transforms; mathematical morphology; compression; tomographic image reconstruction; inverse problems in imaging; image enhancement; edge detection; feature extraction; and geometric diffusion.

ELEC9403
Real Time Computing and Control
School of Electrical Engineering and Telecommunications
UOC6 HPW3

Examines the implementation of modern control techniques and associated instrumentation using distributed computers. Practical hardware aspects, including measurement and actuation, data conditioning, acquisition and transmission, microprocessor devices, and other distributed computing components. Commercial realisations ranging from PLCs to full process control computing systems. Software: executive operating systems, concurrency, control algorithms, numerical problems, languages and development tools in the real-time context. Design of the man-machine interface using interactive computer display systems. The role of simulation and other CAD tools. Steps of engineering development from concept to commissioning. The viewpoint of industrial design is maintained throughout.

ELEC9405
Human Movement Control Topics
School of Electrical Engineering and Telecommunications
UOC6 HPW3

We will explore, from a control-engineering point of view, the structure and function of neural circuits responsible for controlling several hundred functional muscles and coordinating the impedances, forces and displacements of some 110 elemental movements of the human body. The muscles, biomechanical and external systems controlled by the brain can be modelled as multivariable, redundant, varying, potentially unstable, nonlinear dynamical processes. The nervous system displays an impressive ability to stabilise and control this complex system. Clearly, solutions have evolved to problems of control which are only just being recognised in control engineering. To achieve such versatility the brain functions as a family of self-organising, adaptive, optimal, feedforward-feedback controllers and can switch smoothly from one controller to another depending on the task. We will study, with neuroanatomical and neurophysiological detail, the neural circuits and signal processing algorithms that might underlie the development of human movement control systems, from conception to the mature nervous system.

ELEC9411
Introductory Physiology for Engineers
School of Electrical Engineering and Telecommunications
UOC6 HPW3
Excluded: ELEC3402

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.

ELEC9412
Biomedical Instrumentation and Informatics
School of Electrical Engineering and Telecommunications
UOC6 HPW3
Excluded: ELEC4483.

Design and development of biomedical instrumentation for clinical measurement and biomedical research. Hardware and software design issues required to produce instruments which satisfy Australian and International standards for safety, performance and quality control. Tutorials and laboratories will be closely integrated so that design and analysis carried in tutorial sessions will be followed by testing and development in the laboratory sessions. A design project and/or case study will also be required as part of this course.

ELEC9421
Robust and Linear Control Systems
School of Electrical Engineering and Telecommunications
UOC6 HPW3

Rationale for the study of linear methods. Continuous and discrete LTI systems (tf,zpk and ss), discrete-time approximations. Controllability, canonical forms, pole placement (state feedback design). Observability. Lyapunov stability applied to linear systems. Basic robustness (SISO), sensitivity and complementary sensitivity, classical loop shaping, SISO dynamic controller design using polynomial methods. Robustness (MIMO), singular value decomposition, loop shaping analysis and loop shaping (state feedback). Basic least squares theory as basis for LQR and LQE. The optimal linear regulator, discrete and continuous. Kalman filter and predictor (discrete, continuous). Advanced loop shaping, LTR (continuous time). Advanced robustness, disturbance rejection, H-infinity. Decoupled MIMO controller design. Recursive least squares identification.

ELEC9422
Analysis and Design of Nonlinear Controls
School of Electrical Engineering and Telecommunications
UOC6 HPW3

The course is taught in two halves. The first half covers basic nonlinear control, design and analysis. The second half is devoted to robotic applications. The nonlinear control will cover topics drawn from analysis and design. Analysis includes: general state description of nonlinear systems, linearisation techniques, Lyapunov stability, constrained linear systems, constrained optimisation, multimode control. Design includes: actuator saturation, linearisation and gain scheduling, feedforward control, interactions and LQG control, sliding mode control, adaptive control. The above will be developed with illustrative simulation studies and CAD, and both physical modelling and systems identification will be covered. The robotics material will cover topics drawn from: manipulator kinematics and dynamics, velocity propagation and Jacobians, linear and nonlinear control of manipulators.

ELEC9450
Engineering Finance: From Random Processes to Derivative Pricing
School of Electrical Engineering and Telecommunications
UOC6 HPW3

The course aims to provide a grounding in random processes leading to a solid but understandable treatment of derivative pricing and the mathematics behind it; but all done from an 'engineering' point of view. Spreadsheet and matlab software will be used for illustration and exercises. It is expected there will be guest lectures from experts. The course is in three parts. (1) Random Process background: including topics such as Markov processes, Kolmogorov forward and backward equations, Brownian motion; simulation studies will be used to assist the theoretical material. (2) Elementary Finance Background: including topics such as futures, options, swaps, futures pricing and arbitrage methods. (3) Derivative Pricing: including topics such as binomial tree-based option pricing; Ito calculus and risk neutral pricing; pricing of European and American options; and a selection from pricing of stock indices, currency exchange instruments, interest rate instruments.

ELEC9501
Advanced Semiconductor Devices
School of Electrical Engineering and Telecommunications
UOC6 HPW3

Overview of the current status of VLSI chip technology and its limits, including Moore's Laws. The principles of semiconductor band-gap engineering and the use of advanced heterostructure materials such as GaAs and SiGe. Applications of band-gap engineering in devices such as high-electron mobility transistors (HEMTs), resonant tunneling diodes (RTDs) and semiconductor lasers. Future trends using quantum principles, such as quantum wire devices, single electron transistors (SETs) and quantum computers. Semiconductor nanofabrication technologies for advanced devices.

ELEC9502
VLSI Technology
School of Electrical Engineering and Telecommunications
UOC6 HPW3

Introduction to silicon VLSI technology. Future trends in VLSI technology. Technology limitations. Basic technology modules include: crystal growth and wafer preparation; mask generation techniques; lithography; diffusion process; ion implantation; oxidation; etching techniques - wet etching and plasma etching; thin film deposition - epitaxial growth, chemical vapor deposition techniques, metallisation; clean room technology; Advanced process integration for CMOS, BiCMOS and Bipolar fabrication; Failure analysis techniques.

ELEC9503
Microelectronics Design
School of Electrical Engineering and Telecommunications
UOC6 HPW3

Properties and modelling of BJT and MOS devices and circuit components, SPICE circuit simulation, Layout rules, Basic analog building blocks, 2 stage op-amps, DRAM design, Yield, Reliability, Low power low voltage designs, Subthreshold design, Charge-redistribution and oversampled A/D conversion, Cascode and fully differential op-amps, Switched op-amp, Switched capacitor filters, Gm-C filters, Transconductors, Sample/Hold circuits and Reference sources.

ELEC9505
Microsystems Technology: Design and Microfabrication
School of Electrical Engineering and Telecommunications
UOC6 HPW3
Excluded: ELEC8505

Interdisciplinary overview of MST (MicroElectroMechanical Systems - MEMS). Transducer definition: Sensors and Actuators. Micromachining techniques including silicon bulk micromachining, silicon surface micromachining, stiction problems, bonding processes, LIGA technique, micromachined mould template and electroplating, sealed cavity formation, stereolithography, chemical mechanical polishing for planarisation, electric discharge micromachining, laser micromachining, focused ion beam micromachining. Properties of materials for micromachining. Mechanical transducers. Optical transducers.Thermal transducers. Magnetic transducers. Chemical and biological transducers. Microfluidic devices. Circuit interfaces to transducers. System considerations. Case studies. Technology trends.

ELEC9912
Project Report A
School of Electrical Engineering and Telecommunications
UOC6 HPW6

The project is done in a major area, in which it is offered under the supervision of an academic member of staff. Where the work is carried out externally a suitable co-supervisor may be required. Projects can take many forms such as the design and construction of experimental equipment or a theoretical investigation. Work is to be carried out over 2 sessions. At the end of the work a comprehensive project report giving an account of the student s own research must be submitted. Information on the preparation of project reports is contained in the University Calendar.

ELEC9913
Project Report B
School of Electrical Engineering and Telecommunications
UOC6 HPW6

The project is done in a major area, in which it is offered under the supervision of an academic member of staff. Where the work is carried out externally a suitable co-supervisor may be required. Projects can take many forms such as the design and construction of experimental equipment or a theoretical investigation. Work is to be carried out over 2 sessions. At the end of the work a comprehensive project report giving an account of the student s own research must be submitted. Information on the preparation of project reports is contained in the University Calendar.

ELEC9930
Project Report (12 UOC)
School of Electrical Engineering and Telecommunications
UOC12

The project is done in a major area, in which it is offered under the supervision of an academic member of staff. Where the work is carried out externally, a suitable co-supervisor may be required. Projects can take many forms such as the design and construction of experimental equipment or a theoretical investigation. At the end of the work a comprehansive project report giving an account of the student's own research must be submitted. Information on the preparation of project reports is contained in the University Calendar.

ENGL5000
Individual Reading Program
School of English
UOC8 HPW2

Designed to accommodate, where possible, students with particular interests not served elsewhere. The program is designed in consultation with the Head of School and may be substituted for one elective by students who have completed three MA courses in English with a Distinction average. The Reading program requires the special permission of the Head of School and involves writing a 6,000 word essay.

ENGL5001
Introduction to Literary and Critical Theory
School of English
UOC8 HPW2

Introduces some key questions, writers and texts in contemporary critical theory. Designed for students who have done little or no previous study in the field and aims to address the needs and interests of both literary and cultural studies students. Covers a broad range of theorists, including psychoanalytic, structuralist, poststructuralist, postcolonial, feminist, and queer approaches.

ENGL5009
Shakespeare and Revenge
School of English
UOC8 HPW2

Shakespeare made vital contributions to the genre of revenge (which remained the most popular genre on Elizabethan and Jacobean stages) not only with the notoriously horrible Titus Andronicus and the best-known revenge play of all, Hamlet, but also with major revenge comedies like Twelfth Night and The Merchant of Venice. Examines Renaissance attitudes to revenge, justice and providence, and the search by Shakespeare and some of his contemporary dramatists for appropriate forms in which to express these attitudes, under the influence of the Senecan tradition.

ENGL5029
Poetry Between the Wars
School of English
UOC8 HPW2

A detailed analysis of poetry produced between 1919 and 1929, including the work of Kathleen Raine, Roy Campbell, Edith Sitwell and others.

ENGL5300
Poetry Plus
School of English
UOC8 HPW2

Encourages experimentation with a range of contemporary poetic forms and movements, and the development of an individual 'poetics' in relation to current debates about poetry. Provides the opportunity to develop a substantial and coherent body of poetic work within a supportive and critically engaged workshop environment. Focuses on the concept of poetry as public discourse rather than private expression to foster an awareness of the institutional, political and literary contexts of work produced.

ENGL5301
Innovative Fiction
School of English
UOC8 HPW2

Develops awareness of the stylistic and generic range of contemporary fiction, and understanding of the formal, narratological elements of the craft. Develops professional competency in the craft of writing. Provides the opportunity to develop original, innovative fiction within a rigorous workshop environment, and encourages consideration of wider critical and social contexts of work produced on structuring large-scale work.

ENGL5302
Intergeneric Writing
School of English
UOC8 HPW2

Generic hybridity is a feature of much contemporary literature. This course explores a range of experimental writing methodologies which use inter- or cross-generic strategies including collage and fictocritical writing (a term used to describe writing projects which combine 'creative' and fictional/poetic modes with those of criticism and commentary - the latter being drawn in particular from post-structuralist theory).

Prerequisite: English Major or special permission.

ENGL5303
Writing Workshop
School of English
UOC8 HPW2

Provides an opportunity for students to workshop their own work intensively in the productive and stimulating environment that postgraduate work at UNSW provides. At the beginning of the session students individually draw up 'contracts' in consultation with their tutor in which they develop a project proposal for the session. They subsequently meet weekly in a workshop group to work through their projects as they develop.

Prerequisite: English major or special permission.

ENGL5305
Literary Controversies
School of English
UOC8 HPW2

Covers some of the major literary scandals of the twentieth century, involving obscenity trials, religious fatwas, censorship debates, hoaxes and public controversies. Explores such topics as the nature of censorship, particularly in relation to pornography; the ethics of 'hoaxology'; the responsibility of authors (to society or to art?); the relationship of literature to other forms of public discourse; the notion of literary 'taste'; and the implication of literature in the construction of ethical identities at an individual and social level.

ENGL5521
Issues in Literary History - The English Renaissance to Modernism
School of English
UOC8 HPW2

Examines key literary texts in terms of their historical, social, cultural and political contexts, using theories of literary history to enquire into issues such as the meanings of the terms "text" and "context", their relations to one another, and the range of readings facilitated and/or prohibited by such an enquiry. Particular attention will be paid to Shakespeare and the English Renaissance, Milton and the Seventeenth Century, Pope and the long Eighteenth Century, the Romantic Revival in poetry and prose, mid-Victorianism, and the triumph of Modernism.

EXCH8001
Arts and Social Sciences Exchange Program

EXCH8002
Built Environment Exchange Program

EXCH8003
College of Fine Arts Exchange Program

EXCH8004
Commerce and Economics Exchange Program

EXCH8005
Engineering Exchange Program

EXCH8006
Law Exchange Program

EXCH8007
Medicine Exchange Program

EXCH8008
Science Exchange Program
Division of Registrar and Deputy Principal
UOC24

These courses are for administrative use by Schools and Faculty Offices only. Students will not be able to enrol in these courses via myUNSW.

UNSW actively encourages all students to take part of their degree program overseas through formal reciprocal exchange agreements with over 160 universities in 34 countries. Under the program, students can spend one or two semesters at a university in Asia, Europe, USA, India, Canada, or Latin America. Studies completed at the overseas university are credited towards the UNSW degree.

Local and international undergraduate and postgraduate students with a satisfactory academic record may apply to participate in the exchange program after one semester of study at UNSW. During their period of exchange, students remain enrolled at UNSW and pay normal activity fees and student contributions, local or international fees. The overseas university waives tuition fees for exchange students, but students are responsible for their own travel, accommodation and living expenses.

Given the objectives of Exchange programs, and reciprocal agreements with partner institutions, students are required to enrol in a full-time 24 unit exchange program. Students are usually enrolled in a 24 unit of credit exchange course that relates to the faculty that administers their degree program, and will be charged the corresponding Student Contribution amount (for Commonwealth supported students) or UNSW tuition fees (for fee-paying students). Where combined degree program students are approved to take their exchange in areas related to both component degrees, enrolment will be in equivalent 12 unit of credit courses, on the same fee principles. Please refer to Fee Band above for more information.

For details on institutions participating in the International Exchange Program at UNSW, visit **www.international.unsw.edu.au**.

EXCH8021
Arts and Social Sciences Exchange Program

EXCH8022
Built Environment Exchange Program

EXCH8023
College of Fine Arts Exchange Program

EXCH8024
Commerce and Economics Exchange Program

EXCH8025
Engineering Exchange Program

EXCH8026
Law Exchange Program

EXCH8027
Medicine Exchange Program

EXCH8028
Science Exchange Program
Division of Registrar and Deputy Principal
UOC12

These courses are for administrative use by Schools and Faculty Offices only. Students will not be able to enrol in these courses via myUNSW.

UNSW actively encourages all students to take part of their degree program overseas through formal reciprocal exchange agreements with over 160 universities in 34 countries. Under the program, students can spend one or two semesters at a university in Asia, Europe, USA, India, Canada, or Latin America. Studies completed at the overseas university are credited towards the UNSW degree.

Local and international undergraduate and postgraduate students with a satisfactory academic record may apply to participate in the exchange program after one semester of study at UNSW. During their period of exchange, students remain enrolled at UNSW and pay normal activity fees and student contributions, local or international fees. The overseas university waives tuition fees for exchange students, but students are responsible for their own travel, accommodation and living expenses.

Given the objectives of Exchange programs, and reciprocal agreements with partner institutions, students are required to enrol in a full-time 24 unit exchange program. Students are usually enrolled in a 24 unit of credit exchange course that relates to the faculty that administers their degree program, and will be charged the corresponding Student Contribution amount (for Commonwealth supported students) or UNSW tuition fees (for fee-paying students). Where combined degree program students are approved to take their exchange in areas related to both component degrees, enrolment will be in equivalent 12 unit of credit courses, on the same fee principles. Please refer to Fee Band above for more information.

For details on institutions participating in the International Exchange Program at UNSW, visit **www.international.unsw.edu.au**

FINS5510
Personal Financial Planning and Management
School of Banking and Finance
UOC6 HPW3
Prerequisite or corequisite: COMM5003

Provides the knowledge necessary to effectively manage personal financial resources and needs in the context of globalised financial and stock markets. Considers the whole range of personal financial affairs and the planning required to optimise available opportunities to enhance individual wealth.

FINS5511
Corporate Finance
School of Banking and Finance
UOC6 HPW3
Prerequisite or Corequisite: ACCT5930, ECON5103; COMM5001, COMM5002, COMM5003

Essential aspects of financial decision-making in business. Designed to enable the student to usefully employ the following concepts in a business environment: investment decisions under uncertainty; capital structure; dividend distribution; applications of option pricing analysis to corporate finance.

Note: Does not meet disciplinary requirements for Finance.

FINS5512
Financial Markets and Institutions
School of Banking and Finance
UOC6 HPW3
Prerequisite or corequisite: COMM5003

Serves as an introductory course. Focuses on major financial markets, including the equity, money, bond, exchange rate and derivatives markets. The basics of financial instruments in these markets, such as bank bills, treasury bonds, futures and options are taught. Exposure to the tools of analyses and the roles and innovations of major financial institutions, eg the banks and non-banks, such as finance companies, building societies and credit unions, life and insurance companies and funds management companies.

FINS5513
Investments and Portfolio Selection
School of Banking and Finance
UOC6 HPW3
Prerequisite or corequisite: COMM5003

Develops a basic conceptual framework to understand modern investments. Students learn to evaluate alternative investment strategies, develop a more complete understanding of the risk-return relation, and discuss recent developments in investment management. Surveys various financial markets and provides a review of the instruments used to allocate capital and manage risk. Topics include measuring risk and return, designing portfolios, pricing risk, valuing equities, valuing fixed income securities, hedging with derivatives. Students are assessed through a variety of means; including quizzes and exams, computer exercises, and case study discussions.

FINS5514
Capital Budgeting and Financial Decisions
School of Banking and Finance
UOC6 HPW3
Prerequisite or corequisite: FINS5513

Primarily concerned with the major financial decisions faced by the firm. These decisions can be broadly classified as the investment decision, the financing decision, the dividend decision and the restructuring decision. Examines the main theories and empirical evidence surrounding these decisions. This body of knowledge is then used to help solve typical 'real 'problems faced by senior finance managers. Special emphasis is given to group project work and computer applications.

FINS5515
Issues in Corporate Finance
School of Banking and Finance
UOC6 HPW3
Prerequisite: FINS5513, FINS5514

Focuses on studying corporate finance topics such as cost of capital estimation, forecasting and valuation, initial public offerings, seasoned equity offerings, debt issuance and refinancing, use of lease and convertibles, stock repurchase, mergers and takeovers, financial distress and divestiture. Mini-cases and local companies of different ownership

structures are used for illustration. There are emphases on applying current empirical evidence in estimation and problem solving, as well as spreadsheet modeling of all aspects of corporate finance.

FINS5516
International Corporate Finance
School of Banking and Finance
UOC6 HPW3
Prerequisite or corequisite: FINS5513 or enrolment in program 8406.

Management of the financial functions for 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, international equity markets and financial management of multinational corporations in new regions such as APEC, NAFTA and the EU.

FINS5517
Applied Portfolio Management and Modelling
School of Banking and Finance
UOC6 HPW3
Prerequisite or corequisite: FINS5513 or enrolment in program 8406.

Provides the foundation for the analysis of active funds management: the dynamic management of equity and fixed-income portfolios. Emphases are model construction (including forecasting), data analysis, the use of derivative securities (such as options, futures, FRAs, swaps), both international and domestic diversification benefits, performance and risk measures, and risk management and control.

FINS5522
Emerging Financial Markets
School of Banking and Finance
UOC6 HPW3
Prerequisite: FINS5513 or enrolment in program 8406.

Emerging capital markets have become in vogue as a result of a wave of mass financial liberalization, which occurred towards the end of the 1980s. Emerging financial markets behave differently to developed financial markets because of their level of integration (or conversely degree of segmentation) with world markets. A major aim of this course is to examine the issues pertinent to investment in emerging financial markets from both the perspective of international investors and policy makers. These broadly revolve around financial crises, liberalization and capital flows, pricing of political risks and other risks, governance and financial architecture, and regional integration.

FINS5523
Alternative Asset Classes
School of Banking and Finance
UOC6 HPW3
Prerequisite: FINS5513 or enrolment in program 8406.

Examines various aspects of entrepreneurial finance for small and medium enterprises. Financial theories associated with entrepreneurial and closely held firms are analysed. Including: how to value new start-up firms/projects; optimal financing strategy; finance investment and innovation; asymmetric information and credit rationing; financing intellectual property rights; venture capital, business angles and pooled development funds; equity and debt capital from the public and private sectors.

FINS5526
International Corporate Governance: Accounting and Finance Perspectives
School of Banking and Finance
UOC6 HPW3
Prerequisite or corequisite: FINS5513

Aims to provide students with a practical and in-depth understanding of the way corporations are monitored, governed and controlled. Examines relationships and conflicts between key stakeholders (e.g. shareholders, managers, directors, employees, banks, regulatory bodies, etc.). Both internal aspects (e.g. performance evaluation, board structure, audit process, executive compensation, ownership structure, etc.) and external environments of corporate governance (legal protection of shareholders, hostile takeovers, proxy contests, bank monitoring, competition, etc.) are discussed in detail. The scope of coverage extends beyond Anglo-Saxon countries to examine issues in alternative governance systems adopted in Continental Europe, Asia and Latin America.

FINS5530
Financial Institution Management
School of Banking and Finance
UOC6 HPW3
Prerequisite or corequisite: FINS5513 or enrolment in program 8406.

The application of modern finance theory and financial modelling techniques to financial decision-making and risk management in financial institutions. Includes: (i) Uniqueness of financial institutions; (ii) Application of portfolio, arbitrage pricing, option pricing and corporate finance theories to the management of assets, liabilities, capital structure and off-balance sheet operations; (iii) Interest rate risk management and financial futures; (iv) Liquidity risk management; (v) Loan portfolio management, credit evaluation models, loan pricing and credit rationing; (vi) Capital adequacy and prudential regulation and management.

FINS5531
Risk and Insurance
School of Banking and Finance
UOC6 HPW3
Prerequisite or corequisite: FINS5513 or enrolment in program 8406.

Introduces the discipline of risk management and precedes advanced work in the risk management and insurance major. Focuses on the principles associated with corporate risk management and provides a structured and well-reasoned methodology in the identification and analysis of risk. Investigates the management of identified risk through both risk control and risk financing techniques. Introduces the basic principles of insurance products, as one possible risk-financing tool.

FINS5533
Real Estate Finance and Investment
School of Banking and Finance
UOC6 HPW3
Prerequisite: FINS5513 or enrolment in program 8406.

Evaluates real estate financing, the mechanics of the mortgage market, and the application of modern finance theory to the evaluation, selection and management of direct and securitised property investments. Topics include the role of regulation, taxation, government agencies, property trusts, and the banking system on real estate activity. Analyses real estate, diversification aspects, valuation techniques, evaluates lease structures concepts of rent and yields.

FINS5534
Strategic Management of Credit Risk and Loan Policy
School of Banking and Finance
UOC6 HPW3
Prerequisite or corequisite: FINS5513 or enrolment in program 8406.

Focus is on latest approaches to loan portfolio selection and credit risk modelling. Topics include: credit scoring; credit ratings and default probabilities; pricing bonds and loans as options; reduced-form models; simulation-based approaches; capital structure and risk return analysis; overview of credit risk markets. Includes Excel-based project on portfolio credit risk.

FINS5535
Derivatives and Risk Management Techniques
School of Banking and Finance
UOC6 HPW3
Prerequisite: FINS5513 or enrolment in program 8406.

Focuses on approaches to valuing standard and non-standard derivatives and on using derivatives for hedging. Theoretical, with some practical examples. Topics considered include: Forwards and futures pricing and hedging, swaps and swap valuation, numerical procedures for option pricing and hedge ratio calculation, continuous time (Black-Scholes) pricing of options and hedge ratio calculations, and introduction to exotic options.

FINS5536
Fixed Income Securities and Interest Rate Derivatives
School of Banking and Finance
UOC6 HPW3
Prerequisite: FINS5513 or enrolment in program 8406.

Studies pricing, hedging and risk management of fixed income securities and interest rate derivatives. Includes: 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 and swaps), the interaction between interest rate risk and credit risk, mortgage-backed securities and value-at-risk, the

concepts of general collateral, an accessible treatment of the arbitrage-free models of the term structure, including the concept of state prices and no-arbitrage.

FINS5541
Advanced Investment and Funds Management
School of Banking and Finance
UOC6 HPW3
Prerequisite: FINS5517 and prerequisite or corequisite FINS5535, or enrolment in program 8406.

Covers advanced techniques of modern funds management. Includes asset allocation decisions, integration of equities and bonds, domestic versus international fund components. Covers issues in pension funds management, investment in real assets and introduces hedge funds. Structure consists of lectures, computer laboratory work and may include speakers from the funds management industry.

FINS5542
Applied Funds Management
School of Banking and Finance
UOC6 HPW3
Prerequisite or Corequisite: FINS5517 or enrolment in program 8406.

Laboratory and theoretical based course that develops fundamental concepts of asset valuation in a world with time varying risk, in order to construct and manage an investment portfolio. The course focuses on the recent advances in quantitative finance including risk modelling, forecasting, portfolio construction and evaluation. The aim is to provide students with a practitioner-orientated view of asset management where concern is based on generating superior returns. Topics focus primarily on empirical and practical tools required to actively manage an investment over time through the extensive use of computer spreadsheets.

FINS5550
International Banking Management
School of Banking and Finance
UOC6 HPW3
Prerequisite: FINS5513 or enrolment in program 8406.

Provides students with an understanding of international banking and finance in the contemporary environment. Due to the dynamic nature of the international banking environment, it is necessary to develop skills to effectively identify and understand the effects of current developments. Firstly, the international banking functions are presented; international trade financing, participation in the interbank foreign exchange and Eurocurrency markets, international investment banking services, and sovereign lending. In addition, other important topics are presented; international money laundering, international banking and debt crises, regulation of international banking activities, and offshore banking markets. Some of the topics covered may vary over time.

FINS5551
International Insurance Management
School of Banking and Finance
UOC6 HPW3
Prerequisite or corequisite: FINS5513 or enrolment in program 8406.

Designed to acquaint the student with the planning and administration of a worldwide corporate insurance program under conditions of uncertainty. International dimensions of risk management are surveyed. Topics include, inter alia: the structure of insurance markets internationally; the economics of international trade in insurance; the integration and globalisation of financial services; 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. Deals with insurance with a focus on global risk management.

FINS5566
Trading in Financial Securities
School of Banking and Finance
UOC6 HPW3
Prerequisite or Corequisite: COMM5003 or FINS5512 or enrolment in program 8406

Studies how and why investors trade and the impact of various market structures on the interaction and outcomes of security transactions. Examines existing market structures, types of traders and the strategies they use to achieve their objectives. By concentrating on how market participants trade, the course lays the foundation necessary to understand the practical implications of the introduction of new technologies to securities trading and the economic opportunities they present to market participants. Emphasis is placed on case studies, examples, practitioner presentations and illustrations inspired by the shift from traditional to electronically-facilitated trading. Analyses securities trading venues as operating firms; in particular concentrating on implications for competition between markets and trading systems.

FINS5574
Foundations of Financial Decision Making Under Uncertainty
School of Banking and Finance
UOC6 HPW3
Excluded:FINS3774, FINS4774

Provides an intermediate exposition of the fundamentals of portfolio selection and corporate finance. Examines: (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.

FINS5575
Research Methods in Finance 1
School of Banking and Finance
UOC6 HPW3
Excluded: FINS3775 or FINS4775

Provides an introduction to econometric theory and its application in empirical finance. Much emphasis is on the practical aspects. There is extensive use of leading statistical and econometric software that is employed extensively in research and practice.

FINS5576
Advanced Topics in Asset Pricing
School of Banking and Finance
UOC6 HPW3
Excluded: FINS4776

Provides an in-depth treatment of asset pricing theories, including surveying the evidence from tests of these models. Both general asset pricing techniques and the micro-foundations of these models are covered. Emphasis is on applications of mathematical and statistical tools to provide a rigorous development of each topic. Students are assessed through a variety of means, which may include problem sets, exams, papers, and presentations.

FINS5577
Advanced Topics in Corporate Finance
School of Banking and Finance
UOC6 HPW3
Excluded: FINS4777

The main emphasis is exposure to the latest research on selected topics in corporate finance. The topics covered will primarily be selected on the basis of the lecturer's area of expertise, but will include methodological considerations in corporate finance research, corporate restructuring, agency theory and governance, performance measurement, valuation models, dividend policy and repurchases, forecasting, and capital structure. A combination of assessment methods will be used, including group projects, case studies and student presentations. Assumes a sound knowledge of the theories relating to the foundations of finance.

FINS5579
Research Methods in Finance 2
School of Banking and Finance
UOC6 HPW3
Prerequisite or corequisite: FINS3775 or FINS4775 or FINS5575;
Excluded: FINS4779

A more advanced course in empirical methodology in finance covering general methodological aspects, testing of hypotheses, falsifiability principle. Review of relevant econometric material, applications to topics such as generalised beta models of market equilibrium (including CAPM, APT), foreign exchange risk premium, stock price variability, volatility estimation.

FINS5591
Special Topics in Finance
School of Banking and Finance
UOC6 HPW3

A course designed in a flexible way to provide students with advanced knowledge in important areas of finance that fit in with the supervisory capacity of the academic staff. The content areas may thus vary from

year to year. A more detailed course outline will be provided prior to the commencement of the unit. May be undertaken with the permission of the Head of School.

FINS5598
Project Seminar
School of Banking and Finance
UOC6

FOOD1517
Chemistry, Biochemistry and Physics of Foods
School of Chemical Engineering and Industrial Chemistry
UOC3 HPW3

An introduction to the chemical, physical and biochemical properties of foods; food proteins, lipids, carbohydrates, nucleic acids, vitamins, minerals, pigments; food enzymes, main classes and factors affecting their activity; food rheology and texture; heat transfer in foods; effect of processing upon the properties of foods; basic techniques for the analysis of food components and properties.

FOOD1567
Food Preservation
School of Chemical Engineering and Industrial Chemistry
UOC6 HPW6
Excluded: FOOD1577, FOOD1587, FOOD1597

Introduction to food preservation and food processing; heating, chilling, freezing, dehydration; use of salt, sugar, acid, chemical preservatives, modified atmospheres in food preservation; water relations and chemical and microbial stability of foods; an integrated program of laboratory and plant exercises designed to illustrate the principles and procedures presented in the lecture course.

FOOD1577
Food Processing Principles
School of Chemical Engineering and Industrial Chemistry
UOC6 HPW6

Food processing is introduced in a series of integrated labs and lectures covering the basics of food engineering: heat transfer and fluid flow. This includes heat and mass balances, heat and mass transfer, Fourier's equation, modes of heat transfer, heat exchangers, transient heat transfer and Heisler charts for cans, food properties, physical chemistry of phases in crystalline, steam and enthalpy, thermal death, sterility, Fo, Z and D values, retorting, lethality, texture of solids and liquids, product flow and pumping, non-Newtonian behaviour, esp. viscoelasticity, and intermediate moisture foods. Some example food operations are presented, including mixing, powders and slurries, baking, frying, roasting, cooling, thawing, and freezing.

FOOD1587
Food Preservation: Principles and Applications
School of Chemical Engineering and Industrial Chemistry
UOC6 HPW6

The basis of food science is presented in a series of lectures and integrated labs covering traditional and novel methods of preserving foods for distribution and storage. Food commodities are introduced in groups, including dairy, meat, fish, fruit, vegetables, beverages, eggs, sugars, cereals and lipids. The need for preservation is discussed, including physical, chemical and biological deterioration factors and water relationships. Technologies covered are heating, chilling, freezing, drying, brining, pickling, sugar, radiation, packaging (MAP and CAP), chemical preservatives and novel methods.

FOOD1597
Unit Operations in Food Processing
School of Chemical Engineering and Industrial Chemistry
UOC6 HPW6
Prerequisite: FOOD1577, FOOD1587

The principles introduced in FOOD1577 and FOOD1587 are used in studying some of the more important unit operations in the food industry. The procedure used for each unit operation is to firstly describe the process, its applications, effects on the food product and requirements, appropriate process diagrams, mass and heat balances and flows, solving unit operation problems. Unit operations covered are refrigeration, dehydration, evaporation, extrusion, physical separation and comminution.

FOOD1657
Postharvest Physiology and Handling of Fruit and Vegetables
School of Chemical Engineering and Industrial Chemistry
UOC6 HPW6
Prerequisite: FOOD1597

Biochemistry and physiology of metabolism in fresh fruit and vegetables; respiration measurements as an index of metabolism, maturation and senescence; concept of climacteric and non-climacteric produce; physiological and metabolic changes occurring during ripening. Effect of temperature on metabolism; constraints of high and low temperatures; role of humidity control and water loss in quality maintenance; use of atmosphere control to delay senescence and ripening. Physiological disorders of stored produce; microorganisms of importance to post-harvest tissue; physical and chemical methods of control; post-harvest disinfestation and quarantine measures. Examination of current commercial storage and marketing operations.

FOOD1667
Postharvest Storage of Foods
School of Chemical Engineering and Industrial Chemistry
UOC6 HPW6
Prerequisite: FOOD1597

Pre-harvest considerations, post-harvest physiology and biochemistry, post-harvest factors affecting quality, methods of storage and handling, marketing strategies for selected food commodities.

FOOD1677
Product Design and Development
School of Chemical Engineering and Industrial Chemistry
UOC6 HPW6

Consumer, commercial and national needs for new products, types of new products, the steps in the product development process; development team, idea generation; market research: its role, specific tasks, techniques, and limitations; roles of advertising and supermarkets in new product success; product lifecycles, reasons for new product failure and preventative strategies; ingredient and additive properties and contributions to foods, effects of processing on their properties and functionality; optimisation of quality and acceptability of foods by manipulation of formulations; packaging and processing for food acceptability; sensory 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.

FOOD1697
Advanced Food Chemistry
School of Chemical Engineering and Industrial Chemistry
UOC6 HPW6
Prerequisite: CHEM3811 or equivalent

Chemistry and analysis of volatile food components; qualitative and quantitative analysis, fractionation of proteins, starch and its derivatives, non-starch polysaccharides, dietary fibre constituents and lipids using advanced methods; detection and measurement of mycotoxins; analysis of selected vitamins; application of advanced separation techniques to food components.

FOOD1747
Special Topics in Food Science and Technology
School of Chemical Engineering and Industrial Chemistry
UOC6 HPW6

An individually supervised program of investigation in specialised aspects of food science and technology not otherwise offered. Embraces a literature review, laboratory work and/or industrial liaison as may be appropriate. Available only to appropriately qualified students.

FOOD1757
Topics in Food Science and Technology
School of Chemical Engineering and Industrial Chemistry
UOC3 HPW3

An investigation similar to but shorter than that outlined in FOOD1747.

FOOD1767
Reading Assignment
School of Chemical Engineering and Industrial Chemistry
UOC3 HPW3

A reading assignment in an area supporting the candidate's major disciplines or commodity interests. Presentation of a seminar may be required.

FOOD1777
Food Choice: Psychology, Preference and Acceptability
School of Chemical Engineering and Industrial Chemistry
UOC6 HPW4

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.

FOOD1787
Forensic Food Science
School of Chemical Engineering and Industrial Chemistry
UOC6 HPW3

This course consists of a series of lectures, discussions and assignments that examine a wide range of techno-legal issues which frequently confront companies involved in the manufacture and service of foods and beverages. A portfolio of case studies are used to demonstrate the fundamental and practical aspects of the investigative process: defining the cause of the problem, acquisition of appropriate information and analytical evidence; loss assessment; reporting; communication with solicitors, barristers and insurance companies; appearance at court. Topics covered include: the legal process; prosecution for breach of food safety, quality and labelling regulations; prosecution of fraud, deception and adulteration; compensation disputes between companies when products and processes do not meet contractual specifications; compensation claims from consumers who have experienced foodborne illness; food composition and labelling authenticity, including religious certification for halal and kosher foods, genetic modification using recombinant DNA technology, species homogeneity; sabotage, deliberate adulteration, tampering; protection of intellectual property, patents. The course is aimed at students in food science and technology, but its content and structure are designed to accommodate students with a broader background in science and technology, as well as practicing professionals in the food/ beverage industries, government regulatory agencies and consulting companies.

FOOD2627
Food Microbiology
School of Chemical Engineering and Industrial Chemistry
UOC6 HPW6

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 food-borne 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; sub-lethal injury; standard methods for determination of total plate counts, indicator organisms, food-borne pathogenic species, principal spoilage species. Microbiological quality assurance: specifications and standards; decision criteria; hazard analysis and critical control point (HACCP) concept; cleaning and sanitation.

FOOD2637
Quality Assurance and Control
School of Chemical Engineering and Industrial Chemistry
UOC6 HPW4

This course aims to provide students with a knowledge base of concepts in quality assurance (QA) and quality control (QC) in the context of the food industry. 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.

FOOD2647
Food Safety
School of Chemical Engineering and Industrial Chemistry
UOC6 HPW4

This course presents a package of information and exercises designed to demonstrate the public health risk associated with the production and consumption of foods and the strategies adopted by industry, government and consumers to manage and control these risks. Topics covered include: chemical risks - natural, additives and residues; microbiological risks - bacteria, fungi, viruses, algae, 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; safety in the workplace.

FOOD2657
Analytical Microbiology
School of Chemical Engineering and Industrial Chemistry
UOC6 HPW6

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.

FOOD2667
Advanced Food Microbiology
School of Chemical Engineering and Industrial Chemistry
UOC6 HPW3
Prerequisite: FOOD2627

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, 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.

FOOD3567
Nutrition
School of Chemical Engineering and Industrial Chemistry
UOC6 HPW6
Corequisite: 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.

FOOD3577
Advanced and Applied Nutrition
School of Chemical Engineering and Industrial Chemistry
UOC6 HPW6
Prerequisite: FOOD3567

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.

FOOD4617
Advanced Food Engineering
School of Chemical Engineering and Industrial Chemistry
UOC6 HPW6
Prerequisite: FOOD1577, FOOD1587

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, membrane processes.

FOOD5117
Minor Project
School of Chemical Engineering and Industrial Chemistry
UOC6 HPW6

The aim of this course is to provide students with an opportunity to undertake independent study of a particular aspect of food science and technology through critical evaluation of literature or the performance of limited laboratory work. Students will be expected to present the results of their investigation in a thesis-style report and in a research seminar. Students will select a project in consultation with the course authority within the program of study in which they are enrolled.

FOOD5127
Research Project
School of Chemical Engineering and Industrial Chemistry
UOC12 HPW12

The aim of this course is to provide students with an opportunity to undertake independent study of a particular aspect of food science and technology through performance of laboratory-based research work. Students will be expected to present the results of their investigation in a thesis-style report and in a research seminar. Students will select a project in consultation with the course and/or program authority, within the program of study in which they are enrolled.

GBAT9101
Project Management
Graduate Programs in Business & Technology
UOC6 HPW1.5
Prerequisite: must be enrolled in Program 8616, 7333 or 5457

Project management involves the overall planning, control and coordination of a project. It is the process by which the responsibility for all phases is combined within one multi-disciplinary function. This course introduces you to the project management skills needed during the lifetime of a project by working through a chronological model. It explores key concepts of project management from the beginning to the termination of the project.

GBAT9102
Management of Manufacturing Systems
Graduate Programs in Business & Technology
UOC6 HPW1.5
Prerequisite: must be enrolled in Program 8616, 7333 or 5457

Management of Manufacturing Systems presents an integrated and coherent account of current production management philosophies to give managers a sound grounding in the modern principles and techniques of managing manufacturing companies. There is strong emphasis on strategic perspectives of manufacturing, the relationship between manufacturing and business strategies, and the implications of a given manufacturing strategy for detailed manufacturing management decisions, plans, policies and performance measures.

GBAT9103
Environmental Management
Graduate Programs in Business & Technology
UOC6 HPW1.5
Prerequisite: must be enrolled in Program 8616, 7333 or 5457

Environmental Management provides an overview of the range of environment issues facing our community, and the responsibilities of managers in addressing those issues. Via an understanding of the big picture, managers can make sound economic decisions compatible with a commitment to a sustainable environment. The more specific issues and control strategies discussed provide insights into environmental control techniques and methods for handling environmental problems ranging from legal aspects to quantitative risk assessment.

GBAT9104
Management of Innovation and Technical Change
Graduate Programs in Business & Technology
UOC6 HPW1.5
Prerequisite: must be enrolled in Program 8616, 7333 or 5457

This is one of two capstone courses and integrates some of the key elements of all MBT courses, including the role of quality and continuous improvement. This course considers how organisations approach and support the imperatives of innovation and creativity, and how managers can influence their organisations to be more innovative. The course also examines the broad area of change and how to manage the change process whether stimulated internally from within the organisation or imposed by external forces.

GBAT9105
Risk Management
Graduate Programs in Business & Technology
UOC6 HPW1.5
Prerequisite: must be enrolled in Program 8616, 7333 or 5457

All managers must manage risk because decisions must be made in a fast changing and uncertain world. Organisations are increasingly implementing integrated risk management programs in which the same process is applied to all types of risk whether financial or technical. This course follows the risk management process and discusses how it is applied to issues of interest to the class. The particular focus is on risks that arise in a technical context such as project management, outsourcing, liability, IT, the environment and safety.

GBAT9106
Information Systems Management
Graduate Programs in Business & Technology
UOC6 HPW1.5
Prerequisite: must be enrolled in Program 8616, 7333 or 5457

Information Systems Management addresses current management issues in the deployment of information systems and information technology. It deals with the relationship between the organisation and its information systems, strategic and tactical planning for information systems and the management and acquisition of systems and technology. Attention is paid to issues such as outsourcing enterprise systems and business continuity planning. The focus is on management of the systems, not the technology itself.

GBAT9109
Energy Management
Graduate Programs in Business & Technology
UOC6 HPW1.5
Prerequisite: must be enrolled in Program 8616, 7333 or 5457

Energy Management examines the role of energy in business and our society. It discusses the use of major energy resources and technologies. It gives an insight into the role of markets over the price and availability of energy fuels and sources, the impacts of energy use on the natural environment and the application of an energy management program in a corporate setting.

GBAT9112
Managing Occupational Health and Safety
Graduate Programs in Business & Technology
UOC6 HPW1.5
Prerequisite: must be enrolled in Program 8616, 7333 or 5457

Workplace injury involves organisations in insurable costs (workers' compensation premiums) and uninsurable costs (productivity losses, low morale, reputation damage, equipment losses and downtime). This course concentrates on the prevention of workplace injury and associated costs and losses through the application of effective management systems. Industry case studies are used as are analysis and application of management techniques.

GBAT9113
Strategic Management of Business and Technology
Graduate Programs in Business & Technology
UOC6 HPW1.5
Prerequisite: must be enrolled in Program 8616, 7333 or 5457

This is one of two capstone courses and integrates some of the key elements of all MBT courses, including ethical considerations and sustainability. This course focuses on the role of high level strategic thinking and planning, and the measurement of strategic outcomes. It examines the characteristics of an effective strategy and highlights the need to integrate technology into corporate strategy along with ethics, strategic HR and risk analysis.

GBAT9114
Principles of Marketing
Graduate Programs in Business & Technology
UOC6 HPW1.5
Prerequisite: must be enrolled in Program 8616, 7333 or 5457

Principles of Marketing is a course designed to introduce basic marketing concepts, theories and analytical tools to managers working in today's highly competitive and complex business environment. The course places particular emphasis on the management of profitable exchange processes in the context of modern organisations and covers a diverse range of marketing topics including marketing strategy and planning, the marketing environment and how to monitor it, consumer and organisational behaviour, marketing research, market segmentation and development of target markets, new product development, pricing, distribution, promotion and international marketing.

GBAT9115
Information Technology for Managers
Graduate Programs in Business & Technology
UOC6 HPW1.5
Prerequisite: must be enrolled in Program 8616, 7333 or 5457

The pervasiveness of Information Technology means that it affects almost every aspect of our lives, so that today's managers need a set of skills that equip them to work comfortably with new technologies. Information Technology for Managers provides an understanding of the implications of the introduction and use of information technologies in the workplace. The course enables participants to recognise the potential of new and existing technologies and promotes informed decision making about their adoption.

GBAT9117
E-Business Strategy & Management
Graduate Programs in Business & Technology
UOC6 HPW1.5
Prerequisite: must be enrolled in Program 8616, 7333 or 5457

Drawing on the application of information technology for competitive advantage, this course looks at the potential effects of e-Business on the value chain, product differentiation, strategic relationships and market share. Important technologies are emerging in the vital areas of data transfer and personal interaction and these will set the foundations for the future management of e-Business. Topics in the course include the potential impact of e-Business in both business-to-business and business-to-consumer transactions, security and communications, legal and ethical issues, EDI and electronic payments systems and revenue-generation strategies.

GBAT9119
Managing for Organisational Sustainability
Graduate Programs in Business & Technology
UOC6 HPW1.5
Prerequisite: Currently enrolled in program 8616, 7333 or 5457;
Excluded: ACCT5985.

The current global business environment continues to throw up challenges for organisations and their managers. Managers now face increasing pressure to balance short and long-term needs for economic, social and environmental sustainability. This course examines how organisations and their management can support sustainable organisational strategies. We see how holistic and integrated approaches to people management and stakeholder relations can increase an organisation.s capability for continuous renewal and long-term viability.

Managing for Organisational Sustainability deals with topics such as organisational capabilities and sustainability, triple bottom line thinking, corporate social responsibility, stakeholder management, alternative performance management systems, organisational learning and change, and managerial competencies for sustainability.

GBAT9120
Accounting: A User Perspective
Graduate Programs in Business & Technology
UOC6 HPW1.5
Prerequisite: must be enrolled in Program 8616, 7333 or 5457

Accounting: A User Perspective is designed for those who use accounting information, rather than those whose task it is to prepare it. The focus is on the understanding and use of accounting information, as well as the composition and meaning of the financial statements. The course covers accounting reports prepared for external users as well as accounting reports used by managers to plan, control and make decisions.

GBAT9121
Managing Agile Organisations
Graduate Programs in Business & Technology
UOC6 HPW1.5
Prerequisite: must be enrolled in Program 8616, 7333 or 5457

Managing Agile Organisations seeks to develop the managerial perspectives and competencies required for the emergent knowledge economy. It addresses the new challenges posed by fast-moving service life cycles, workforce empowerment, the virtual structuring of organisations, globalisation, and heightened ambiguity. It examines how these challenges should be met by managers in agile organisations, as they negotiate time and space, interactions and discourse, power and culture, diversity and commitment, and innovation and change.

GBAT9122
Business Economics
Graduate Programs in Business & Technology
UOC6 HPW1.5
Prerequisite: must be enrolled in Program 8616, 7333 or 5457 Excluded ECON5109

An understanding of economics is essential for the run viability of a business. The economic environment in which business operates will have a vital bearing on day-to-day decisions. Business Economics lays the foundations for such knowledge. It provides a basic introduction to those economic principles which are important for business, as well as providing general economic literacy to enable participants to read and understand economic reports and to be able to communicate with and understand business people, economists and policy makers.

GBAT9123
Fundamentals of Corporate Finance
Graduate Programs in Business & Technology
UOC6 HPW1.5
Prerequisite: must be enrolled in Program 8616, 7333 or 5457

This course stresses the fundamentals of corporate financial decision making with special reference to investment, financing and dividend distribution. The course develops distinct conceptual frameworks and specialised tools for solving real-world financial problems at both the personal and corporate level. Examples include funds management, mergers and acquisitions, capital raisings, portfolio selection of financial securities, public floats and the pricing of assets in the stock market. Illustrations from real-life corporate practices are used to highlight the importance and relevance of financial management to the realisation of personal and corporate financial objectives.

GBAT9124
Business Law and Technology
Graduate Programs in Business & Technology
UOC6 HPW1.5
Prerequisite: must be enrolled in Program 8616, 7333 or 5457

Fundamentals of People Management seeks to enhance the knowledge and awareness of people management and examines the different ways in which organisations approach the management of their employees. We explore the behaviour of people at work and the impact this has on others and on the organisation itself. We consider the relationship

between people management and the organisation's strategy and locate the management of 'people at work' within various theoretical, philosophical, historical and regulatory contexts.

GBAT9125
Fundamentals of People Management
Graduate Programs in Business & Technology
UOC6 HPW1.5
Prerequisite: must be enrolled in Program 8616, 7333 or 5457

Fundamentals of People Management seeks to enhance your knowledge and awareness of 'people management'. It examines the different ways in which organisations approach the management of their employees. We explore the behaviour of people at work, and the impact this has on others and on the organisation itself. We consider the relationship between people management and the organisation's strategy and locate the management of 'people at work' within various theoretical, philosophical, historical and regulatory contexts.

GEOH9011
Environmental Impact Assessment
School of Biological, Earth and Environmental Sciences
UOC6 HPW4

Environmental planning legislation and decision making processes in Australia with special reference to NSW. The content and structure of Environmental Impact Statements and the stages in the granting of development consent. Approaches to EIA with reference to the assessment of impacts on the natural, social and economic environments. Case studies exemplifying procedures, techniques, methods, and issues. Trends in EIA in Australia and selected other countries.

GEOH9015
Population Health and Environment
School of Biological, Earth and Environmental Sciences
UOC6 HPW4

Relationship between environmental factors and disease morbidity and mortality is examined by consideration of the epidemiological transition in different countries, and the spatial and occupational-specific variation in disease incidence in Australia. Methodology for standardising, testing for significance and data quality.

GEOH9018
Transportation Applications of Geographical Information Systems
Built Environment Geography
UOC6 HPW3

This course provides an overview and hands-on experience in the design, use, and interpretation of Geographic Information Systems for Transportation (GIS-T s). Topics covered include transportation layers, transportation related referencing systems, data structures, network structures, urban transportation planning models, logit and other spatial models. At the end of the course, the student will have a sound working knowledge of transportation GIS and an ability to work directly with real problems in government and private sectors.

GEOH9019
Special Topic in GIS
School of Biological, Earth and Environmental Sciences
UOC6 HPW3

Selected topics may be pursued in the forum of individually supervised readings and assignments linked to studies in postgraduate programs offered through the School

Note: This course requires prior approval of the Supervisor.

GEOH9530
Project
School of Biological, Earth and Environmental Sciences
UOC12 HPW0

An investigation of a problem in environmental management, remote sensing or geographical information systems which may involve an identifiable research component. Such an investigation should be related to the research interests of particular schools within the Faculty of Science.

GEOL0114
Project in Geology
School of Biological, Earth and Environmental Sciences
UOC12

A project equivalent to 6 hpw study for one session which requires the student to carry out detailed processing and analysis of a comprehensive data set for a geological project that may relate to the student's field of employment.

GEOL9053
Hydrogeochemistry
School of Biological, Earth and Environmental Sciences
UOC3

This course covers chemical composition of natural and contaminated groundwaters; inorganic parameters in natural waters; calculation and presentation of hydrochemical data as a basis for interpretation; chemical reactions and processes in groundwater systems; chemical evolution of groundwater; aqueous geochemistry; equilibrium and disequilibrium; dissolution and precipitation of minerals; carbonate system.

GEOL9054
Analysis and Interpretation of Hydrogeochemical Data
School of Biological, Earth and Environmental Sciences
UOC3

This course covers oxidation and reduction processes; redox conditions and redox zonation of natural and contaminated groundwaters; water-rock interaction; ion exchange and sorption reaction; weathering and water chemistry; mass balance; groundwater salinity; corrosion and incrustation in groundwater bores; analysis and interpretation of hydrochemical data using graphical techniques; study of chemical reactions and processes using field and laboratory data.

GEOL9055
Hydrogeochemical Modelling
School of Biological, Earth and Environmental Sciences
UOC3

The course covers: a review of isotope theory and methodology; stable and radioactive isotope studies; a review of modelling theory; hydrogeochemical modelling using speciation and mass balance modelling codes (NETPATH, WATEQ-4F, PHREEQC, MINTEQ-A2); case studies and applications in natural and contaminated groundwater systems; the application of hydrogeochemical modelling in dryland salinity, seawater intrusion, mining, water-rock interaction and landfill studies.

GEOL9111
Groundwater Environments
School of Biological, Earth and Environmental Sciences
UOC3

A study of the detailed occurrence and the environmental problems associated with groundwater in aquifer systems of importance to Australia. Environments include karst hydrogeology and hydrogeochemical processes in karst terrains, natural saline groundwaters, deep sedimentary basins, groundwater-surface water interaction, fractured rock, alluvial plains, and unconsolidated sediments.

GEOL9112
Investigation and Management of Salinity
School of Biological, Earth and Environmental Sciences
UOC3

The course covers fresh water-saline water interaction in coastal aquifers; occurrence and salinity mechanisms of naturally occurring saline groundwaters; saline lakes and playa brines; dryland salinity mechanisms, occurrence and management; irrigation-induced salinity, mechanisms and management; case studies.

GEOL9124
Groundwater Project
School of Biological, Earth and Environmental Sciences
UOC12

A project equivalent to 10HPW study for one session which requires the student to carry out a detailed investigation relating to groundwater or hydrogeology. The study may relate to the student's field of employment.

GEOL9151
Petroleum Geology
School of Biological, Earth and Environmental Sciences
UOC6

Studies petroleum generation, including kerogen types and maturation, entrapment and degradation processes; sedimentology of petroleum-

bearing sequences; features of sedimentary rocks, with special reference to reservoir materials; primary and secondary porosity; introduction to clay minerals; structural and stratigraphic traps, including diapirs and fractured rock reservoirs; coal-bed methane, oil shale and other non-conventional petroleum sources; geological setting of Australian petroleum basins; exploration and evaluation of petroleum deposits, including an introduction to geophysical techniques.

Note/s: External only.

GEOL9152
Petroleum Geophysics
School of Biological, Earth and Environmental Sciences
UOC6

Studies principles and applications of gravity, magnetic refraction and reflection methods; nature and properties of seismic waves; acquisition of seismic data in land and marine environments; fundamentals of signal processing; processing of seismic reflection data; three-dimensional and four-dimensional (time-lapse) seismic methods; inversion of seismic traces; amplitude variation with offset (AVO); vertical seismic profiling (VSP); integration of geology and geophysics in petroleum exploration and development programs.

Note: External only.

GEOL9252
Groundwater Quality and Protection
School of Biological, Earth and Environmental Sciences
UOC3

Studies water quality determinations and standards; principles of water quality control; monitoring and sampling methods; field and laboratory studies; groundwater contamination evaluation; site assessment and investigation; risk assessment and risk management; aquifer protection and rehabilitation; remediation. Includes case studies.

GEOS0310
Image Processing in Geophysics
School of Biological, Earth and Environmental Sciences
UOC6

The course covers geophysical data types, sources and formats; data acquisition techniques and methodologies;. pre-processing, display, filtering and enhancement techniques; statistical analysis of geophysical data, classification, data integration and interpretation; computer software for geophysical image interpretation; applications of geophysical imagery in Geology and Environmental Science. Computer-based exercises are an essential part of this course.

Note: This course is offered as a 5 day short course in either Winter or Summer Session and will require the completion of additional assignment and assessment materials.

GEOS0360
Hyperspectral Remote Sensing
School of Biological, Earth and Environmental Sciences
UOC6 HPW3

The course covers spectral properties of natural and synthetic materials; physical interaction of EMR with the atmosphere and Earth; imaging spectrometry and hyperspectral images; processing of multi-spectral and hyperspectral images; applications of hyperspectral remote sensing to geological, botanical and environmental studies; mapping and data integration methodologies; implementation in commerce. Computer-based exercises are an essential part of this course.

Note: This course is offered as a 5-day short course in either Winter or Summer Session and requires the completion of additional assignment and assessment materials.

GEOS9012
Remote Sensing Applications
School of Biological, Earth and Environmental Sciences
UOC6 HPW3

Using a diverse range of case studies, this course demonstrates broad remote sensing applications in forestry, agriculture, natural resource management, wildlife conservation, environmental change, pedology, oceanography, geology, meteorology, and politics. Specific applications relate to the assessment of tropical and sub-tropical land cover change, ecosystem dynamics and biogeochemical cycles, vegetation biophysical properties, wetlands management and monitoring, fire, pollution, urban studies and cold region hydrology. Computer-based laboratories allow the students to explore a range of optical, thermal and radar data appropriate to particular applications, and provide exposure to practical image processing and interpretation techniques including classification, change detection, formulation of indices and derivation of empirical relationships. Practical experience with IDL ENVI and Erdas Imagine is provided.

GEOS9013
Directed Problems in Remote Sensing
School of Biological, Earth and Environmental Sciences
UOC6 HPW3

A detailed investigation of a particular aspect of remote sensing technology or an area of applications relevant to candidates' interests and background.

Note: This course requires prior approval of the School's Postgraduate Coursework Supervisor.

GEOS9016
Principles of Geographic Information Systems and Science
School of Biological, Earth and Environmental Sciences
UOC6 HPW3

Approximately 80% of all data collected have associated geographic attributes, and there is an increasing need for people with the skills and abilities to manipulate and make sense of that information. This course provides an introduction to, and understanding of, the basic principles, structures, procedures and applications of geographic information systems and science. Topics covered in the course provide a comprehensive overview and practical experience in the analytical treatment of geographical information, including: information sources; data storage, representation and visualisation; projections and coordinate systems; the analysis of spatial data to generate new information; and the dissemination of such digital information through avenues including the internet.

GEOS9017
Advanced Geographic Information Systems and Science
School of Biological, Earth and Environmental Sciences
UOC6 HPW3
Prerequisite: GEOG9016 or GEOS9016

Geographic information systems have improved considerably over the past decade in response to a world that has become very much richer in digital geographic information. The requirement to build complex applications and simulations has become more urgent with the need to plan for a changing climate, to feed an increasing population and to provide pinpoint marketing analysis for business. This course explores a toolbox of conceptual approaches and methods to model and analyse a range of highly complex, often non-deterministic problems. It provides a true enabling technology for the natural sciences and a rich source of computational and representational challenges for the computer sciences. Topics covered include spatial dynamic spatio-temporal modelling; geostatistics; error analysis and data accuracy; network analysis; and machine learning and artificial intelligence methods in GIS

GEOS9019
Special Topic in GIS
School of Biological, Earth and Environmental Sciences
UOC6 HPW3

Selected topics may be pursued in the forum of individually supervised readings and assignments linked to studies in postgraduate programs offered through the School

Note: This course requires prior approval of the Supervisor.

GEOS9021
Image Analysis in Remote Sensing
School of Biological, Earth and Environmental Sciences
UOC6 HPW3

This course, which is largely laboratory based, provides an in-depth understanding of image processing, analysis and interpretation. Topics include human vision and colour, the construction, display, enhancement and filtering of images, geometric, radiometric and atmospheric correction, supervised and unsupervised classification, principal components analysis, and spatial modeling. The course also demonstrates the theory of hyperspectral and radar remote sensing through lectures and practical computer-based processing. The course provides training in both remote sensing and GIS software, including ERDAS, ENVI, ArcView and Arc/Info.

GEOS9023
Innovations in Spatial Informational 1
School of Biological, Earth and Environmental Sciences
UOC3 HPW2

A presentation of new data acquisition techniques or processing methodologies applied to a current issue within the fields of remote sensing, Geographic Information Systems, image processing or geopositioning.

Note: This course may require attendance at a residential short course of up to 4 days duration and will require the completion of additional assignment and assessment exercises.

GEOS9024
Innovations in Spatial Information 2
School of Biological, Earth and Environmental Sciences
UOC3 HPW2

A presentation of new data acquisition techniques or processing methodologies applied to a current issue within the fields of remote sensing, Geographic Information Systems, image processing or geopositioning. This course addresses content significantly different from that addressed in Innovations in Spatial Information 1.

Note: This course may require attendance at a residential short course of up to 4 days duration and will require the completion of additional assignment and assessment exercises.

GEOS9530
Project
School of Biological, Earth and Environmental Sciences
UOC12 HPW0

An investigation of a problem in environmental management, remote sensing or geographical information systems which may involve an identifiable research component. Such an investigation should be related to the research interests of particular schools within the Faculty of Science.

GMAT9023
Innovations in Spatial Information 1
School of Surveying & Spatial Information Systems
UOC3 HPW2

A presentation of new data acquisition techniques or processing methodologies applied to a current issue within the fields of remote sensing, Geographic Information Systems,image processing or geopositioning. This course may require attendance at a short course of up to four days duration and will require the completion of additional assignment and assessment exercises.

GMAT9024
Innovations in Spatial Information 2
School of Surveying & Spatial Information Systems
UOC3 HPW2

A presentation of new data acquisition techniques or processing methodologies applied to a current issue within the fields of remote sensing,Geographic Information Systems, image processing, or geopositioning. This course will address content significantly different from that addressed in Innovations and Spatial Information 1. This course may require attendance at a short course of up to four days duration and will require the completion of additional assignment and assessment exercises.

GMAT9106
Special Topic in Geomatic Engineering A
School of Surveying & Spatial Information Systems
UOC6 HPW3

This syllabus is flexible to allow presentation of a special topic of current interest presented by visitors with recognised expertise in the topic.

GMAT9107
Special Topic in Geomatic Engineering B
School of Surveying & Spatial Information Systems
UOC6 HPW3

A special course taken by an individual student or a small group of students by private study in conjunction with tutorial sessions with the member(s) of staff supervising the course.

GMAT9200
Principles of GNSS Positioning
School of Surveying & Spatial Information Systems
UOC6 HPW3

This course will introduce the student to reference coordinate systems and time systems, satellite orbital motion, signal propagation and satellite tracking observables. The principles of positioning using the current two Global Navigation Satellite Systems (GNSS) will be studied: the U.S. developed Global Positioning System (GPS) and Russia's Global Navigation Satellite System (GLONASS). The mathematical models for pseudo-range and carrier phase-based modes of positioning, for both single receiver (absolute) positioning and relative positioning implementations, will be developed. These principles will be illustrated using the Matlab GNSS toolkit, allowing students to develop algorithms for real and simulated data processing. Land, marine and airborne positioning applications will be discussed.

GMAT9201
GPS Receivers and how they work
School of Surveying & Spatial Information Systems
UOC6 HPW3

This course will introduce the electronic and signal processing aspects of L1 Global Positioning System (GPS) receivers. The following topics will be dealt with: signal specifications, introduction to CDMA, calculating a position, problems receiver designers must overcome (multipath etc.), front end RF design, correlator principles and approaches, signal acquisition/reacquisition and tracking, how measurements are made, receiver interfaces, augmentation systems (e.g. EGNOS, WAAS) and a discussion of off-the-shelf solutions such as boardsets and chipsets. These principles will be illustrated using Matlab, allowing students to develop algorithm components of receivers.

GMAT9202
Designing GNSS Receivers
School of Surveying & Spatial Information Systems
UOC6 HPW3

This course will deal with the more advanced aspects of Global Navigation Satellite System (GNSS) receiver design. GNSS receivers considered will be those that can track signals from GPS both current and modernized constellations, GLONASS and Galileo. Initially, GNSS positioning is introduced for those who have not completed GMAT9201. The remaining topics will likely vary from year to year to ensure new developments are incorporated into the teaching, but will typically include: specifications for the GPS L2C and L5, GLONASS and Galileo signals, frequency plan implications of the new GNSS signals, correlator implications of the new GNSS signals, antenna design challenges, time transfer, integrity and RAIM, weak signal GPS assisted GPS (A-GPS), integration with inertial systems and Software Radio basics. These principles will be illustrated using Matlab-based exercises and working receiver development kits.

GMAT9205
Fundamentals of Geopositioning
School of Surveying & Spatial Information Systems
UOC6 HPW3

Basic concept of geodesy, fundamentals of positioning, Cartesian and geodetic coordinate systems and datums for spatial information applications, including mathematical conversions between geodetic, Cartesian and topocentric coordinate systems, basic ellipsoid geometry, and transformations between national and international datums. Orthometric and ellipsoid height systems, and geoid models for height transformations. Principles and classifications of map projections and the Universal Transverse Mercator (UTM) projection in particular. Emphasis on Australian datums and projections: AGD/AMG, GDA/MGA and AHD. Fundamentals of Global Navigation Satellite Systems and their applications in geopositioning. Introduction to principles of geopositioning using GPS techniques. Geo-referencing of space/airborne and land-based spatial information acquisition systems. Lectures complemented with class dicuss ions,lab.computations,and field exercises in the use of GPS equipment.

GMAT9210
Modern Positioning Technologies and Applications
School of Surveying & Spatial Information Systems
UOC6 HPW3

This course presents an overview of the various satellite-based and non-satellite navigation technologies and some of their applications. Various user receiver configurations, system augmentations and implementation issues will be analysed. These include : differential GPS schemes and services, pseudo-range and carrier phase-based techniques, pseudolites, terrestrial RF-based and other satellite-based positioning systems. In addition, the role of other inertial sensors (such as gyros, accelerometers and magnetometers) and ancillary data can play in navigation will be discussed. Particular emphasis will be placed on the role such positioning technologies will play in Transport Telematics and for personal location, in relation to Location-Based Services, etc. There will be some guest lecturers from industry.

GMAT9211
Introduction to Geodesy
School of Surveying & Spatial Information Systems
UOC6 HPW3

Selected topics from: The earth's gravity field. The earth's motion in space. Coordinate and time systems used in geodesy. Horizontal and vertical control networks. Earth satellite motion. Principles of satellite positioning. Gravimetric geodesy. Space geodetic methods. Variations of geodetic positions with time.

GMAT9212
Introduction to GPS Surveying
School of Surveying & Spatial Information Systems
UOC6 HPW3

Fundamental concept of satellite positioning, the GPS components (satellite,ground and user segments), field planning and office procedures for GPS surveying, GPS instrumentation, GPS observables and modelling, data processing for single point positioning, differential positioning and precise relative positioning.Integer ambiguity resolution. Introduction to modern GPS surveying techniques, real-time and post processed baseline solutions, adjustment of baselines within networks, datum transformations and height determination. Applications of GPS surveying. Integration of GPS with GIS. Current status and future trends of GPS positioning. Tutorials, class discussions and field exercises will permit a greater understanding of the principles of GPS surveying, and the current GPS performance using commercial hardware/software systems.

GMAT9600
Principles of Remote Sensing
School of Surveying & Spatial Information Systems
UOC6 HPW3

Remote sensing techniques are powerful tools for spatial data acquisition and this course will describe the history, challenges and developments in remote sensing. Topics covered include definition and physics of basic electromagnetic radiation propertises, energy-matter relationships, spectral signatures of surfaces and the atmosphere, the reduction of atmospheric effects, sensor concepts (including film and electro-optical sensors), an introduction to data processing and enhancement (including image interpretation procedures). Satellite missions such as Landsat, SPOT, and ERS will be briefly introduced, as well as future remote sensing satellite constellations. The variety of satellite and airborne platforms, and the greater access to imagery, now make it possible to use remote sensing to address a wide range of applications. The diverse and ever-growing applications will be reviewed.

GMAT9606
Microwave Remote Sensing
School of Surveying & Spatial Information Systems
UOC6 HPW3

Use of passive and active (radar) microwave techniques in remote sensing of earth resources. Topics include: real and synthetic aperture radar systems; passive microwave radiometry; energy-surface interactions; interpretation of microwave image data: applications in agriculture, geology, oceanography and hydrology; issues in signal and image processing; characteristics of airborne and spaceborne microwave sensors.

GMAT9906
Major Assignment
School of Surveying & Spatial Information Systems
UOC12 HPW3

This course provides an opportunity for an individual student to study a selected topic in the areas of surveying and spatial information systems. Students will be expected to discuss the potential topics and work plan with the member(s) of staff in charge of the course before the enrolment.

HPSC5001
Introduction to History and Philosophy of Science
School of History and Philosophy of Science
UOC8 HPW2

Introduces issues and techniques in the history and philosophy of science, taking the origins of modern science as an extended case study. The content and philosophical presuppositions of the new science are analysed, along with its relations to social, religious and political developments in the period. Emphasis is placed on critical historical thinking and use of tools from the sociology of knowledge. Major interpretations of the rise of modern science by Duhem, Hessen, Koyre, Merton, Kuhn, Popper and Shapin will be assessed.

Note: Please consult School before enrolment.

HPSC5002
Environment, Sustainability and Development
School of History and Philosophy of Science
UOC8 HPW3

Introduces relationships between Environmental Policy and Sustainable Development and their links to science, technology and modern society. Key themes: Notions of Sustainable Development; Technical and Social Innovation; Globalisation and Governance; & Eco-politics and Controversy. Topics include: the contested meaning of Sustainable Development; innovations promoted as 'Sustainable Development'; dynamics of globalisation and governance; authority and social relations of science; models of technological and social change; public understanding and participation in technological and environmental controversy. Topics, explored theoretically and through case studies, may include: energy systems, waste, modern genetics and its use in agriculture; conservation of biodiversity, and technologies in everyday life.

Note: Please consult School before enrolment.

HPSC5010
Key Themes in the History of Science
School of History and Philosophy of Science
UOC8 HPW2
Excluded: HPST5400

Introduces students to key issues, methods and debates in the history of science by means of close examination of several case studies of significant turning points in the development of Western science. The critical examination of select primary sources will be stressed, along with the central historiographical debates concerning each case. Related issues in the philosophy of science and sociology of scientific knowledge will be introduced into each case study as appropriate. Case studies will be selected from amongst the following: The Copernican Debate and the demise of the Medieval world-view; Galileo, Science and the Church; the rise of the Newtonian world-view; the Chemical Revolution of the 18th century; the emergence of modern biology and geology in the early 19th century; the Darwinian Revolution; Origins and Development of Molecular biology.

HPSC5020
Supervised Reading Program
School of History and Philosophy of Science
UOC8 HPW2

Allows students to pursue an area of interest in consultation with a supervisor. Involves writing a 6,000 word essay.

HPSC5120
Issues in the History of Life Sciences and Biotechnology
School of History and Philosophy of Science
UOC8 HPW2

Examines some of the historiographic issues surrounding the rise of molecular biology, and in general the development of technologically-oriented life science and industry over the past century. Specific themes may include the political dimensions of biomedical science policy, the evolution of industrial involvement in academic life science and medicine, and the changing social significance of the pharmaceutical and biotechnology industries.

HPSC5130
History and Politics of Medicine and Health
School of History and Philosophy of Science
UOC8 HPW2

Examines issues relating to the history and politics of medicine and health, with an emphasis on the social context of medical knowledge, practices and institutions including conceptions of medical health and policy, the perception and management of risk, and the use and expansion of medical technology and testing. Topics may include: perceptions and expectations of health and disease; ethics and professionalisation; changes in Western medical theory and practice; public health and preventative medicine.

HPSC5200
Foundations of Cognitive Science
School of History and Philosophy of Science
UOC8 HPW2
Excluded: HPST5100

Intended to introduce and provide an overview of foundational issues in the interdisciplinary field of Cognitive Science. The field includes psychology, artificial intelligence, linguistics, neuroscience and philosophy. Topics include: philosophy of mind and psychology from Plato, Aristotle and Descartes to the present; neural nets, finite automata and Turing Machines; Godel's Theorem, mechanism and the mind - can a computer be conscious?; Chomsky's revolution - rediscovering the mind; from behaviourism to mentalism; representation, symbols and intentionality - the Language of Thought; classical symbolic AI or connectionist neural nets?

HPSC5210
Philosophical Issues in Cognitive Science
School of History and Philosophy of Science
UOC8 HPW2
Excluded: HPST5200

Examines a range of philosophical issues in cognitive science, including folk psychology, neurological reductionism, levels of explanation, computational approaches to cognition, situated action theory, cognition and evolution, distributed representation, and dynamical systems theory.

HPSC5300
History of Technology: Concepts and Cases
School of History and Philosophy of Science
UOC8 HPW2

Examines key concepts for a sophisticated treatment of technological change, including: invention, innovation and diffusion; technological paradigms; technological systems their 'evolution' and 'momentum'; deterministic versus interactive models of change; interpretive flexibility of technical artefacts and the social construction of technology. Applies these concepts to the understanding of historical cases with contemporary resonances, including: power in the industrial revolution; the electrification of societies since 1850; the industrialisation of food and eating; telephony; and automobility.

HPSC5500
Society, Environmental Policy and Sustainability
School of History and Philosophy of Science
UOC8 HPW2
Excluded: SCTS5315

Examines the principles of sustainable development in the social, historical and political context within which they've been devised, and their application in different spheres and programs of government, industry, institutions, and community groups. Students will engage with the social and historical context of modern environmentalism, science and the environment, the precautionary approach, sustainability and the built environment, and the international agreements and national commitments to ecologically sustainable development. As an outcome, participants will gain practical insights into key environmental issues and the capacity to apply this knowledge to policy making and management problems, and to problems arising in planning and design.

HPSC5510
Risk Policy, Decision Making and Communication
School of History and Philosophy of Science
UOC8 HPW2
Excluded: SCTS5316

Examines risk controversies that highlight a matter of growing prominence in policy more generally. That is the pressure for public involvement in the management of matters of concern, such as climate change or the regulation of genetic engineering that currently rely on expert risk management. Illuminates this state of affairs by examining social theories of risk and work on risk perception. These are used to develop an appreciation of risk policy and decision making, and the related field of risk communication. Also examines public involvement in decision making via a local case study.

HPSC5520
Fundamental Knowledge in Environmental Management: Social Science
School of History and Philosophy of Science
UOC6 HPW3
Excluded: SCTS5317

The social sciences play an integral role in comprehensive environmental management, and their importance has been recognised in recent years. Explains the social, political and historical contexts of organisational and theoretical frameworks within which environmental issues are interpreted and decision making occurs. Investigates the role of science and the influence of technological change on both environmental impacts and environmental management. Uses case studies of important environmental issues to explore social science methods and provide an overview of the contributions made by a range of disciplinary areas.

HPSC5600
Environment and Development in the Asia-Pacific
School of History and Philosophy of Science
UOC8 HPW2
Excluded: SCTS5312

History of cultural and economic change in the Asia Pacific, with a focus on the approaches to technological and industrial development which has allowed first Japan and now Korea, Taiwan, Singapore and mainland China to achieve rapid economic growth. Australia's orientation towards the region is also examined, together with the impact which knowledge-intensive high-technology industries and global economic pressures have had on this relationship.

IEST5001
Frameworks for Environmental Management
Institute of Environmental Studies
UOC6

This course provides an introduction to the Master of Environmental Management program. Participants will gain an appreciation of the complex and transdisciplinary nature of environmental management issues and of the inherent challenges in multi-disciplinary group approaches to environmental management issues. The emphasis is on exploring conceptual and practical frameworks for environmental management. Starting from the premise of sustainability as a current broadly-endorsed framework for environmental management, the following are explored: the development of the concepts of sustainable development and sustainability; problems in practically interpreting and implementing sustainability; disciplinary perspectives on the concepts (e.g. from philosophy, planning, health sciences etc); the "principles" of sustainable development and experience in their application; responses to the "sustainability framework" at different levels of governance, by different sectors, by corporations, by professional organizations; critiques of sustainability as a framework for environmental management; alternative models.

IEST5002
Tools for Environmental Management
Institute of Environmental Studies
UOC6

Provides an introduction to the wide range of "tools" used in environmental management and for environmental decision-making. These include: environmental impact assessment, social impact assessment, public participation, policy formulation, risk management, environmental management systems, life cycle assessment, materials flux analysis, State of the Environment reporting/accounting, auditing, modelling. Links will be drawn between the "tools" course and material covered in "Frameworks for environmental management" and the "fundamental knowledge" courses. This course will provide an introduction to a number of specialist courses that may be taken as electives (in for example environmental impact assessment).

IEST5003
Addressing Environmental Issues
Institute of Environmental Studies
UOC6

Brings participants in the Master of Environmental Management together in the final stage of their program to focus on analysis and problem solving in multi-disciplinary teams. Will further illustrate the nature of, and need for, a transdisciplinary approach to addressing environmental problems. Group work will draw on current or recent key environmental issues and will be supported by high level seminars addressed by guest speakers from both within UNSW and externally.

IEST5004
Environmental Management Research Project Part A
Institute of Environmental Studies
UOC6

A 6 unit of credit project relevant to the program of study. Students are required to undertake an investigative project under appropriate supervision and present a satisfactory report.

Prerequisite: Completion of 4 courses toward the Master of Environmental Management at a distinction level average (i.e. 75%).

IEST5005
Media Advocacy and Public Education
Institute of Environmental Studies
UOC8 HPW2

This course, offered as a short course, develops practical abilities in designing media-based education campaigns (suitable for health, environmental issues, for example). The media are seen as a resource to be utilised in advocating social or behavioural change and as the conduit for public education programs. Cross-cultural issues are considered as well as questions of 'targeting' groups by age, gender and sub-cultural definition. Introduces techniques of qualitative media/social research in the context of public education.

IEST5009
Professional Competencies in Sustainability: External Drivers
Institute of Environmental Studies
UOC3 HPW27

IEST 5009, led by Dr Robert Gale, other IES faculty and guest speakers, explores the professional competencies that environmental and sustainability managers must have to understand the fundamental drivers of sustainability and to develop strategies to engage with and respond to these drivers. These competencies include contextual scanning (environmental scanning) of external drivers and influences on the organisation's economic, social and environmental situation. External drivers to be considered include the stock market and shareholder activism, lender's liability, insurance risks, and technological change.

IEST5010
Professional Competencies in Sustainability: Internal Responses
Institute of Environmental Studies
UOC3 HPW26

IEST 5010, led by Dr Robert Gale, other IES faculty and guest speakers, examines specific case studies on business practice in environmental management and sustainability including corporate sustainability reports to draw out lessons learned about how environmental and sustainability managers integrate sustainability into the core management functions of their organisations. Learners will acquire knowledge and skill about internal responses and change management strategies to integrate ecologically sustainable development goals and objectives into organisational design, strategic plans, program budgets, procurement policies, environmental performance, monitoring and reporting.

IEST5011
Managing Greenhouse Gas Emissions
Institute of Environmental Studies
UOC6

This short course, led by Dr Mark Diesendorf, aims to teach students to explain and evaluate the scientific evidence for the anthropogenic greenhouse effect and its potential impacts; develop policies and strategies for all levels of government to reduce substantially greenhouse gas emissions from energy and transportation; compare and evaluate different scenarios for achieving these reductions.

IEST5012
Environmental Management Research Project Part B
Institute of Environmental Studies
UOC6

A 6 unit of credit project relevant to the program of study. Students are required to undertake an investigative project under appropriate supervision and present a satisfactory report.

Prerequisite: Completion of IEST 5004 at a satisfactory level.

IEST5018
Environmental Management Research Project Part C
Institute of Environmental Studies
UOC6

A 6 unit of credit project relevant to the program of study. Students are required to undertake an investigative project under appropriate supervision and present a satisfactory report.

Prerequisite: Completion of IEST 5004 and 5012 at a satisfactory level

IMGT5110
Information Retrieval Systems
School of Information Systems, Technology & Management
UOC6 HPW3
Prerequisite or corequisite: INFS5988

Characteristics and structure of textual records: definition, content, structure and context; elements of record metadata. Databases of textual records: databases as collections of textual records, categorisation of database types, contrast and comparison with other types of databases eg relational, electronic record keeping principles. Textual information retrieval principles: boolean operators, proximity operators, limit operators, truncation, inverted indexes, keyword versus phrase indexing, controlled vocabulary and thesaurus use versus uncontrolled keyword searching, retrieval command languages, set logic and construction for retrieval purposes. Construction and implementation of search strategies: search sequence diagrams, query expansion, broadening and narrowing search results, strategies to avoid information overload. Advanced retrieval features: relevance feedback, introduction to weighting and probabilistic retrieval. Information retrieval systems for specific information environments: libraries, archives, records management systems, etc. Basic design and creation of text-based databases using information retrieval systems: data structures, documentary and management metadata elements and their properties, data entry or conversion requirements, data output techniques. Creation of basic information resources for delivery and access via the World Wide Web.

IMGT5120
Organisation of Knowledge
School of Information Systems, Technology & Management
UOC6 HPW3

The primary focus of the course is the organisation of knowledge for effective management and retireval. Students are introduced to systems of classification and representation of knowledge as essential processes for providing systematic knowledge management and resource discovery. Because knowledge management values both explicit and tacit knowledge resources, the course focuses on strategies and processes of organization of information resources available within an organization (namely records and internal documents) and resources from the public domain that are essential to an organisation's operations. The course focuses on theories and practice of knowledge organization as it relates to meanings, contexts and subjects of information products in whatever form. The methods by which knowledge is created, categorized, classified and represented are studied, as are the standards used internationally for knowledge representation and categorization. New mechanisms for organizing and providing efficient access to the subject content carried by the various media are studied, including traditional print-based materials, electronic documents, and the World Wide Web. For example, particular attention is paid to initiatives such as metadata and global information locator schemes (GILS) as applied to content and document organisation in the electronic media and the World Wide Web.

INDO5002
Politics and Society in Indonesia
Department of Chinese & Indonesian Studies
UOC8 HPW2
Excluded: HIST5204

The Indonesian response to colonial domination in the 20th century, the impact of Japanese occupation, the Indonesian Revolution which culminated in the defeat of the Dutch in 1949, and the search for a new political order down to the 'coup' of 1965. Emphasis on the communists, the Muslims and the populists, and attempts to create political linkages between the elites and the masses. Analysis of those forces for and against an economic and social revolution in Indonesia and of the emergence of the military as a dominant force in Indonesian society.

INFS5731
Information Technology and Business Strategy
School of Information Systems, Technology & Management
UOC6 HPW3
Prerequisite: must be enrolled in program 8407

Information systems and information technology are integral components of every modern organisation. Part of this relationship is the role IS and IT plays in the pursuit of a business's strategy and long term goals. The relentless development of information technology capability, as seen most recently in e-business, has lead to many organisations seeking to bring the deployment of information systems within the organisation into the strategic planning process so as to assist the organisations make effective use of their IT resources in the pursuit and support of the long term viability and competitiveness of business.

This course examines the nature of business strategy and the role IS plays in that strategy from both a theoretical and practical perspective, looking at both the common traditional approaches and the latest emerging strategies. Cases and examples will be used throughout the course to

illustrate concepts and focus class discussions. The experiences of the course participants will also be an important component of the course.

This course will be of benefit to all practitioners looking towards a career in the management of information systems.

INFS5732
Managing and Delivering Information Technology services
School of Information Systems, Technology & Management
UOC6 HPW3
Prerequisite: must be enrolled in program 8407

This course examines evolving methodologies, best practices, standards, and technologies for the management and delivery of IT as a service. After studying this course students will be able to:

Analyse and design (systematically) IT managment requirements from a business service perspective;

- Explain the role of different levels of international standards for the delivery and management of IT services;
- Compare and critically evaluate the management solutions provided by different vendors;
- Discuss the limitations of standards-based solutions;
- Discuss the pros and cons of outsourced vs in-house strategies for the management of IT services.

INFS5733
Information Technology Quality and Project Management
School of Information Systems, Technology & Management
UOC6 HPW3
Prerequisite: must be enrolled in program 8407

This course aims to give students an appreciation of: successful IS project management and the impact of quality considertions on this; the role of standards and methodologies; PM methodology - tools and techniques, supplemented with examples from case studies and group case analysis exercises in class. After studying this course students will be able to: describe the evolution of quality and project management and their importance to improving the success of information technology projects; discuss the benefits of good project management; explain a range of quality and project management terms and techniques; detail the project management life cycle; apply project management methodologies across the key PM knowledge areas; integrate quality systems across all aspects of project management; discuss the benefits and limitations of a range of project management software programs and select the best program for a given project.

INFS5740
Information Technology Management Project
School of Information Systems, Technology & Management
UOC6 HPW3
Prerequisite: must be enrolled in program 8407

Information Technology Management Project is a capstone course offering each student the opportunity to demonstrate mastery of the theory and practice of information systems management by applying the knowledge and skills gained in the Master of Information Systems (MIS) program to a project of the student's choice. This is done by completing a project report reflecting the cumulative knowledge gained from these experiences. Ideally this course should be completed by students who are enrolled in their last session of the MIS program. This course is focused on developing fundamental research skills enabling students to conduct quality and rigorous enquiry in organisational settings.

INFS5848
Information Systems Project Management
School of Information Systems, Technology & Management
UOC6 HPW3
Prerequisite: INFS5988

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.

INFS5885
Management of E-Business Technology
School of Information Systems, Technology & Management
UOC6 HPW3
Prerequisite: INFS5988

This course aims to provide students with an introduction to the issues that surround the management of E-Business Technologies within the business environment. The course will address business issues that impinge on E-Business in a commercial environment. It will give students an introduction to technologies of E-Business that are widely used in Commerce/Industry and an appreciation of the management issues which surround the application and use of these technologies. Case organisation examples will be used throughout the course to illustrate the application of course materials.

INFS5905
Information Systems Auditing
School of Information Systems, Technology & Management
UOC6 HPW3
Prerequisite: INFS5988 or INFS5978

Management of information systems audit and the evaluation of IT management. Analysis and review of internal controls in contemporary computer installations and applications. Use of basic and advanced information systems audit techniques and methodologies, including audit software, integrated test facility, and concurrent auditing techniques. Technology audit reviews of the audit requirements for such technologies as LANs, EDI, and expert systems. Legal and professional requirements, amd computer abuse/fraud auditing. Review of future IS audit techniques, methodologies, research and social implications.

INFS5926
Advanced Data Management
School of Information Systems, Technology & Management
UOC6 HPW3
Prerequisite: INFS5992

The principle and practice of data administration in a large organisation. Design, redesign and tuning of database. Distributed databases and database management systems. Reliability, security and integrity of the database.

INFS5927
Knowledge Management Systems and Technology
School of Information Systems, Technology & Management
UOC6 HPW3
Prerequisite: INFS5988

The objective of this course is to provide the student with an understanding of the business of managing the generation, organisation, distribution, maintenance, storage, analysis, application, archiving and disposition 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 meaningful patterns in data.

INFS5953
Information Systems Management
School of Information Systems, Technology & Management
UOC6 HPW3
Prerequisite: INFS5988

This course aims to assist students to develop their knowledge and understanding of important issues involved in the management of information systems in organisations and their ability to critically analyse these issues. Management of information systems will be considered at strategic, tactical and operational levels. Particular emphasis will be given to the management of enterprise-wide and inter-organisational systems and planning for their strategic use. Students without knowledge of and experience in management or the use of IS in organisations, may wish to undertake Information Systems Project Management INFS5848 before enrolling in this course.

INFS5978
Accounting Information Systems
School of Information Systems, Technology & Management
UOC6 HPW3
Prerequisite or Corequisite: ACCT5930

Accounting Information Systems aims to provide an introduction to the use and management of information systems used within the realm of accounting. Students will have the opportunity to develop their knowledge and understanding of the role of accounting information systems in organizations, examine the information technology components of information systems and review the means by which organizations acquire and deploy accounting information systems. The course will include hands-on usage of accounting information systems and tools germane to the area. The course also includes a study of contemporary

issues confronting accounting information systems, and a consideration of the ethical practices related to the development and use of these systems.

Note: Only offered to students in the Accounting Program (ACCTAS8404) and the Professional Accounting Program (ACCTDS8404).

INFS5983
Business Data Communications
School of Information Systems, Technology & Management
UOC6 HPW3
Prerequisite: INFS5988

Data communication networks, interfaces between networks and computers, data communications software, standard communication protocols, network architectures, distributed databases, design of information systems which include data communications.

INFS5984
Information Systems Security
School of Information Systems, Technology & Management
UOC6 HPW3
Prerequisite: INFS5988 or INFS5978

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.

INFS5986
Research Topics in Information Systems 1
School of Information Systems, Technology & Management
UOC6 HPW3

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.

INFS5987
Research Topics in Information Systems 2
School of Information Systems, Technology & Management
UOC6 HPW3

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.

INFS5988
Business Information Systems
School of Information Systems, Technology & Management
UOC6 HPW3

This course aims to provide an introduction to the use and management of information systems in business. Students will have the opportunity to develop their knowledge and understanding of the role of information systems in organisations, study relevant and current topics to the area, and examine the components that interact within information systems. This course also encourages students to consider ethical practices related to the development and use of information systems.

INFS5989
Information Systems Design
School of Information Systems, Technology & Management
UOC6 HPW3
Prerequisite or corequisite: INFS5988.

An understanding of the role and expectations of a systems analyst in the context of the organisational environment, exploring and using the tools and techniques available to the systems designer, expanding and building on the framework of analysis and design acquired from the other courses and student experiences.

INFS5991
Decision Support Systems
School of Information Systems, Technology & Management
UOC6 HPW3
Prerequisite: INFS5988

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.

INFS5992
Data Management
School of Information Systems, Technology & Management
UOC6 HPW3

A review of data management principles including both simple and complex file designs, and the concept of database management systems. Alternative database management system architectures, including network hierarchical and relational approaches. Database query systems, including relational algebra. Case studies and assignments embodying these principles.

INFS5993
Special Topic in Information Systems and Management
School of Information Systems, Technology & Management
UOC6 HPW3

A specially assigned project, program or set of readings relating to information systems and management research.

INFS5998
Project Seminar
School of Information Systems, Technology & Management
UOC6

Please contact the school for further information.

INFS5999
Project Report
School of Information Systems, Technology & Management
UOC12 HPW3

Please contact the school for further information.

JAPN5000
Special Project
Department of Japanese & Korean Studies
UOC8 HPW2

A project of 8,000 English words or 16,000 Japanese characters on a topic approved by the Department.

Assumed knowledge: Third-year level proficiency in Japanese or equivalent for those writing in Japanese.

JAPN5001
Features of Language: Japanese
Department of Japanese & Korean Studies
UOC8 HPW2

Offers a profile of spoken and written Japanese, with specific reference to the meaning of grammatical features interpreted in functional terms and related to the contexts in which they operate. Reference is also made to other languages such as Chinese and English, offering a typological-comparative perspective. Examines major grammatical features eg transitivity, mood and theme.

Note: No prior knowledge of Japanese or any language other than English is necessary.

JAPN5002
Issues in Teaching Japanese as a Foreign Language
Department of Japanese & Korean Studies
UOC8 HPW2

Current issues in teaching Japanese as a foreign language are explored. Topics include innovative curriculum development, materials and resources, teacher roles, teacher discourse, teaching styles that promote learning, teaching of culture, communication and grammar, assessment and evaluation. Students will have opportunity to experience micro teaching, as well as observe undergraduate Japanese classes at UNSW. Conducted in Japanese.

Assumed knowledge: Third-year level proficiency in Japanese.

JAPN5003
Japanese In-Country Research Project I
Department of Japanese & Korean Studies
UOC8

Students will be required to study one session at a Japanese university in a program approved by the Department and complete a research report of 12,000 - 15,000 Japanese characters. Upon their return from Japan students will give a presentation and sit an oral exam on their research report.

Assumed knowledge: Third-year level proficiency in Japanese.

JAPN5004
Japanese In-Country Research Project II
Department of Japanese & Korean Studies
UOC8

Students will be required to study one session at a Japanese university in a program approved by the Department and complete a research report of 12,000 - 15,000 Japanese characters. Upon their return from Japan students will give a presentation and sit an oral exam on their research report.

Assumed knowledge: Third-year level proficiency in Japanese.

JAPN5006
Japanese Sociolinguistics
Department of Japanese & Korean Studies
UOC8 HPW2

Provides an introduction to sociolinguistics showing the relevance of an understanding of the social and cultural context of Japan to the analysis of spoken and written Japanese discourse. Includes methodology, speech varieties, language contact, language change, language behaviour, language attitude, language acquisition and management. Students will examine issues through practical experiences. Focuses equally on issues related to intercultural communication problems in foreigner-Japanese contact situations.

Assumed knowledge: Third-year level proficiency in Japanese.

JAPN5007
Creative Reading & Writing A: Learning about Semiotic Resources
Department of Japanese & Korean Studies
UOC8 HPW2

Offers a multidimensional view of how Japanese works creating meaning through grammar in the context of communication. Provides students with an opportunity to explore their own Japanese language-based experiences through semi-autonomous learning. Students will learn to 'read' and 'write' creatively in order to 'think' and then 'speak' and write in Japanese. Students are expected to give verbal presentations and write a short essay in Japanese (4,000 - 5,000 Japanese characters).

Assumed knowledge: Third-year level proficiency in Japanese.

JAPN5008
Creative Reading & Writing B: Acting on Semiotic Resources
Department of Japanese & Korean Studies
UOC8 HPW2
Prerequisite: JAPN5007

Builds on what has been achieved in JAPN5007. Helps students develop and further their own academic interest: their research interest will be expanded and enriched into their academic area or specialisation in Japanese. Students are expected to give verbal presentations and write an essay in Japanese (5,000 - 7,000 Japanese characters).

JAPN5011
Japanese Teaching Practicum
Department of Japanese & Korean Studies
UOC8 HPW2
Prerequisite: JAPN5002 or JAPN5020

Fourteen weeks of practicum teaching (or 6 intensive weeks in summer). Students will be involved in the team teaching of Japanese in the Department of Japanese and Korean Studies, while keeping a detailed journal. Includes observation of lessons conducted by experienced lecturers, participation in course planning meetings, delivery of lessons, and assessment of student learning under the guidance of the lecturer-in-charge.

Note: Students need to have completed two JAPN5000 level courses to enrol in this course.

JAPN5015
Research Methods in Japanese Studies
Department of Japanese & Korean Studies
UOC8 HPW2
Excluded: JAPN3901

Introduces students to a variety of research methodologies and techniques for analysis that are relevant to a wide range of research in Japanese Studies. Students will experience some of the components of research, such as micro proposal writing, interviewing, and analysis of a short transcript.

Assumed knowledge: Third-year level proficiency in Japanese.

JAPN5018
Discourse and Society in Japan
Department of Japanese & Korean Studies
UOC8 HPW2

Explores various types of discourse located in the socio-cultural contexts that make up Japanese society by interpreting discourse as the verbal manifestation of the social activity. Through our investigation of the nature of discourse, we shed light on the social activities that create meaning in society. The types of discourse dealt with include casual conversation, media discourse, children's literature, professional discourse and academic discourse. Students will be required to analyse a short discourse and its socio-cultural context in terms of the theoretical framework presented in the course.

Assumed knowledge: Third-year level proficiency in Japanese.

JAPN5019
Empowerment through Japanese Grammar
Department of Japanese & Korean Studies
UOC8 HPW2

Explores key areas of the grammar of Japanese and how they can be taught to learners of Japanese as a foreign language at the intermediate and advanced levels. To empower students as teachers and researchers of Japanese, provides them with opportunities to observe Japanese grammar classes, and participate by assisting FL learners in carrying out tasks and by taking part in discussions dealing with course planning and delivery of lessons.

Note: Conducted in both English and Japanese.

JAPN5020
Issues in Learning Japanese as a Foreign Language
Department of Japanese & Korean Studies
UOC8 HPW2

Current issues in learning of Japanese as a foreign language are explored. Topics include learner characteristics and diversity, second/foreign language acquisition of Japanese, learner-centred approach to language education, learning resources, learner autonomy, collaborative learning, and learner discourse. Students will have the opportunity to observe undergraduate Japanese language classes at UNSW. Conducted in Japanese.

Assumed knowledge: Third-year level proficiency in Japanese.

KORE5000
Special Project
Department of Japanese & Korean Studies
UOC8 HPW2

A project of 8,000 English words or equivalent Korean words on a topic approved by the Department.

Assumed Knowledge: Third-year level proficiency in Korean.

KORE5001
Korea's Place in East Asia
Department of Japanese & Korean Studies
UOC8 HPW2

Introduces Korea's role in East Asia in the late 19th and 20th centuries, focussing on social, cultural and political conflicts with Japan, particularly the intellectual foundations of its national identity.

KORE5002
Creative Reading and Writing A
Department of Japanese & Korean Studies
UOC8 HPW2

Offers a multidimensional view of how Korean creates meaning through grammar in the context of communication. Opportunities to explore Korean language-based experiences through semi-autonomous learning:

eg learning to 'read' and 'write' creatively in order to 'think' and then 'speak' and write in Korean.

Assumed Knowledge: Third-year level proficiency in Korean.

KORE5003
Creative Reading and Writing B
Department of Japanese & Korean Studies
UOC8 HPW2

Further consolidation and development of skills acquired in KORE5002. Deals with a broader range of topics/issues relevant to Korean language-based curricula.

Assumed Knowledge: Third-year level proficiency in Korean.

KORE5004
Korean In-Country Project I
Department of Japanese & Korean Studies
UOC8

Participation in 3-4 weeks of intensive language and culture study at a Korean university in a program approved by the Department and completion of a training course specially arranged for them. Upon returning from Korea, students will submit a 2000-3000 Korean word essay on a special topic and sit for an oral examination based on the essay and their in-country learning.

Assumed Knowledge: Third-year level proficiency in Korean.

KORE5005
Korean In-Country Project II
Department of Japanese & Korean Studies
UOC8

Participation in 3-4 weeks of intensive language and culture study at a Korean university in a program approved by the Department and completion of a training course specially arranged for them. Upon returning from Korea, students will submit a 2000-3000 Korean word essay on a special topic and sit for an oral examination based on the essay and their in-country learning.

Assumed Knowledge: Third-year level proficiency in Korean.

KORE5006
Workshop in Teaching Korean
Department of Japanese & Korean Studies
UOC8 HPW2

Explores current trends and issues in teaching and learning Korean as a Foreign Language. Topics include balanced literacy program, literature-based language learning, critical thinking and multiple literacy, classroom interaction, student-controlled discourse, collaborative learning and integrated curriculum.

Assumed Knowledge: Third-year level proficiency in Korean.

KORE5007
Insights into the Korean Language
Department of Japanese & Korean Studies
UOC8 HPW2

Systematic approach to learning Korean grammar, covering theoretical and practical issues from the introductory through advanced levels. Deals with phonology, syntax, semantics and pragmatics, including practical topics such as romanisation, sentence patterns, cross-linguistic issues and idioms. Specific teaching topics might vary, with focus on one or two particular areas of grammar (eg Korean syntax, semantics, etc).

Assumed Knowledge: Third-year level proficiency in Korean.

KORE5008
Korean Teaching Practicum
Department of Japanese & Korean Studies
UOC8 HPW2

Designed for those who have little or no experience in teaching Korean. Includes both campus and field-based experience. Students will be introduced to professional practice in an institution where Korean is offered, drawing together theory and practice needed for effective Korean language teaching.

Assumed Knowledge: Third-year level proficiency in Korean.

KORE5009
Research Methods in Korean Studies
Department of Japanese & Korean Studies
UOC8 HPW2

Introduces students to a variety of research methodologies and techniques for analysis that are relevant to a wide range of research in Korean Studies. Students will experience some of the components of research, such as micro proposal writing, interviewing, and analysis of a short transcript.

Assumed Knowledge: Third-year level proficiency in Korean.

LAWS3009
Comparative Criminal Justice: From Investigation to Trial
Faculty of Law
UOC8 HPW2

This course pursues particular topical and specialist themes utilising guest speakers, class discussion and student presentations. Particular encouragement is given to students to pursue, if they wish, areas of interest. Examples of topics likely to be covered in 2006 include: the impact of the state on policy and decision-making in pre-trial matters and the recognition given to individual rights (such as the right to a fair trial, to silence and/or to liberty) and including where relevant, the impact of Bill of Rights legislation; issues associated with prosecutorial charging practices; restorative justice (from South Africa's Truth & Reconciliation Commission to youth and drug courts in common law jurisdictions); issues arising from countries' decisions to alter their legal practices and their legal institutions – e.g. Spain and Japan's move to 'jury' adjudication and Italy's move to an adversarial trials from an inquisitorial ones; criminal trial decision-making and advocacy practices in select European and common law countries; and how and why differences arise within the common law adversarial legal tradition.

LAWS3011
Anti-Money Laundering and Proceeds of Crime
Faculty of Law
UOC8 HPW2

This subject will examine the money laundering process and common typologies and will provide a critical appreciation of international initiatives, including recent measures to combat the financing of terrorism. It will cover Commonwealth and State laws and the requirements for reporting of financial transactions and include an analysis of comparative anti-money laundering regimes and the more problematic policy issues surrounding confiscation legislation. Consideration will also be given to the relationship between the development of anti-money laundering initiatives and the impact of globalisation including: the use by criminals of the means that have allowed for increased trade; the emergence of economically powerful non-state actors; cross border crime and corruption; and counter measures in developing economies.

LAWS3012
Corruption Law and Policy: Australian and International Perspectives
Faculty of Law
UOC8 HPW2

This subject will provide a theoretical understanding of the nature of corruption and a critically analysis of the impact of corruption in different societies. It will cover the development of anti-corruption laws and the creation of inquisitional commissions in Australia with particular focus on the laws and institutions in New South Wales. This will include an analysis and evaluation of the additional investigative and special coercive powers granted to those commissions and the applicable practices, procedures and evidentiary rules. The course will also consider global efforts to counter corruption and will compare some of the laws, strategies and methods that have been adopted in an attempt to combat corruption in developed and developing economies.

LAWS3029
Issues in Broadcasting Regulation: A Comparative Analysis
Faculty of Law
UOC8 HPW2

Despite new media developments, broadcasting regulation remains a matter of central importance. This course provides students with an opportunity to consider contemporary issues affecting the policy and legal regulation of broadcasting using comparative examples, particularly the United Kingdom, the United States, Australia and Canada. An underlying theme of the course is how current developments - technological, economic and regulatory - are affecting fundamental assumptions about the role of broadcasting regulation and the regulatory design itself. By examining different aspects of broadcasting regulation, you should gain an insight into the challenges and importance of designing appropriate regulation for broadcasting. Themes will include: rationales for, and approaches to regulation; structural aspects of regulation; broadcasting control and competition; content regulation; and, broadcasting regulation futures.

LAWS3033
Defamation, Privacy and the Media
Faculty of Law
UOC8 HPW2

This course deals with the laws which seek to strike a balance between protection of reputation and privacy, on the one hand, and freedom of speech for the media, on the other. Topics include: relevant aspects of constitutional protection of freedom of speech in Australia; the law of defamation (the concept of reputation; what the plaintiff must prove; the available defences; remedies; procedural aspects); other causes of action protecting reputation; criminal libel; legal protection of privacy. Attention is paid to the operation of the relevant laws in practice, to the impact of new technologies of communication and to theoretical, historical, comparative and policy aspects of the various topics.

LAWS3035
Developing Computer Applications to Law
Faculty of Law
UOC8 HPW2
Excluded: LAWS1032

This subject covers the theory and practice of developing computer applications for use in the law. It combines critical analysis and 'hands on' experience. It covers the use of text retrieval and hypertext techniques, knowledge-based technologies such as expert systems (systems that give legal advice) and automated legal document generators, with a strong Internet emphasis.. Systems in use in public administration and private practice will be demonstrated and discussed critically. Each student will design and implement an internet-based computer application in an area of law. The use of appropriate development tools is taught during the course. Familiarity with the use of a microcomputer and a word processing program is a pre-requisite. Familiarity with computerised legal research is desirable.

LAWS3037
Data Surveillance and Information Privacy Law
Faculty of Law
UOC8 HPW2

The subject examines laws protecting privacy and regulating data surveillance in both public administration and electronic commerce. Australian laws are examined in their international context. There is emphasis on the role of technologies in both privacy protection and privacy invasion. Topics may include: uses and effectiveness of data surveillance; data surveillance law as a new method of public administration; identification (population registers, smart cards, digital signatures etc); general law and administrative law protection of privacy; 'Information Privacy Principles' as a new general body of privacy law; sector-specific privacy legislation (eg credit reporting, spent convictions, health, telecommunications); personal data exports. Each student will conduct research on the legality, use and effectiveness of data surveillance techniques, and the effects of data protection law, on one area of public administration or commercial practice. The subject is supported by extensive Internet resources (see http://www2.austlii.edu.au).

LAWS3039
Law and Internet Cultures
Faculty of Law
UOC8 HPW2

U.S. technology powers the internet and disseminates American culture on an unprecedented scale. U.S. law and policy dominates the way we understand the regulatory challenges posed by the technology. Especially for those who are not U.S. citizens, there are important and complex political, economic, social and cultural questions that need to be asked. How is American influence wielded through the internet and its technologies? How is this influence being negotiated? Where and why is it being resisted? This study of cultural and economic issues informs a comparison of U.S., Australian and non western regulatory approaches.

LAWS3041
Contempt and the Media
Faculty of Law
UOC4 HPW2

This course deals with the laws which seek to strike a balance between protection of the integrity of legal proceedings, on the one hand, and freedom of speech for the media, on the other. Topics include: relevant aspects of constitutional protection of freedom of speech in Australia; the principles of contempt of court, together with associated statutory provisions, in their application to media publications (scandalising the court; the sub judice doctrine; restrictions on reporting court proceedings or jury deliberations; journalists' confidential sources; remedies; procedural aspects). Attention is paid to the operation of the relevant laws in practice, to the impact of new technologies of communication and to theoretical, historical, comparative and policy aspects of the various topics.

Note: This course will be taught during the first half of Session 2.

LAWS3042
Censorship and Free Speech
Faculty of Law
UOC4 HPW2

This course deals with the laws which prohibit the publication of material on the ground that it is deemed to offend some community standard, such as racial tolerance or respect for religious sensibilities. These laws are evaluated in the light of legal, political and philosophical principles of freedom of speech. Topics include: the concept of freedom of speech; legal protection of freedom of speech; laws directed against vilification on grounds of gender, race or religion; censorship on grounds of obscenity or pornography; the law of blasphemy. Attention is paid to the operation of the relevant laws in practice, to the impact of new technologies of communication and to theoretical, historical, comparative and policy aspects of the various topics.

Note: This course will be taught during the second half of Session 2.

LAWS3044
Electronic Commerce Law and Practice
Faculty of Law
UOC8 HPW2

Electronic commerce is now an accepted way of conducting business. In a relatively short period of time commerce via the World Wide Web and other online platforms has boomed, and a new field of legal theory and practice is now recognisable. This course offers the student a comprehensive overview of the legal and regulatory structure of electronic commerce, including: current legislative and self regulatory responses to electronic commerce, commentary on recent case law; plus an analysis of proposed law reform. The course covers electronic commerce jurisdiction, online contract formation, electronic authentication, online payment systems and transactions, online dispute resolution, security and the determination of liability for unauthorised transactions.

LAWS3049
Advanced Issues in Torts
Faculty of Law
UOC8 HPW2
Prerequisite: Academic Program must be either 9200, 9210 or 5740.

This course considers current issues in tort law and focuses on providing some of the tools necessary to understand how the law of tort(s) might develop in new contexts. The course reviews recent developments in a range of torts, including intentional torts, economic torts, and torts covering claims for personal injury including negligence. The course does not review the tort of defamation. In addition it considers the interaction between tort and human rights in a number of countries, including Canada and the United Kingdom and how rights might be protected in a country without a Bill of Rights such as Australia.

LAWS3080
Insurance Law
Faculty of Law
UOC8 HPW2

This course provides an advanced analysis of law and policy covering general insurance. The insurance industry faces unprecedented levels of economic and legal reform, as well as rapid convergence with other financial services. Topics covered will include prudential regulation, mergers, licensing, disclosure requirements and the complaints system. The course will include in depth analysis of several leading cases, as well as consideration of the legal issues arising from the collapse of HIH Insurance and the subsequent Royal Commission. Legislation and regulations considered will include the Insurance Contracts Act, the Insurance (Agents and Brokers) Act, the General Insurance Code of Practice, the General Insurance Brokers' Code of Practice and the Financial Services Reform legislation.

Note: This course does not cover life insurance and health insurance.

LAWS3082
Risk Management and Insurance in Sport
Faculty of Law
UOC4 HPW2

This course has been designed to give postgraduates an in depth understanding of the commercial issues which arise in the context of the conduct of sport and sporting events. Issues such as assessing potential liability of organisations and individuals in a sporting context, implementing risk management programs and processes, and effectively dealing with insurance issues will be dealt with from a commercial perspective.

LAWS3083
Sports Sponsorship and Marketing: Commercial Issues
Faculty of Law
UOC8 HPW2
Prerequisite: Academic Program must be either 9200, 9210 or 5740.

This course has been designed to give postgraduates an in depth understanding of the commercial issues which arise in the context of the sponsorship and marketing of sport. Issues such as development and protection of intellectual property by organisations and individuals, licensing images, merchandising and branding, essential contractual terms, drafting and negotiating sponsorship agreements, dealing with sponsorship conflicts, as well as legislation affecting these arrangements will be considered in a detailed manner.

LAWS3088
Regulation of Online Investing
Faculty of Law
UOC8 HPW2
Prerequisite: Academic Program must be either 9200, 9210 or 5740.

This course will begin with an introduction to the Internet and the institutions and new business types in the online investing industry. It will then consider the relevance of the Australian Financial Services Licensing provisions to these online market operators. The course will go on to consider the operating conditions of online brokers, and the legal implications of their customer relations. Subsequent parts of the course will cover public securities and financial products offered using electronic offer documents and the challenges to traditional exchanges from alternative trading systems. Internet fraud, market manipulation and misleading and deceptive conduct in online financial services will be covered next followed by an analysis of the enforcement and liability implications of a number of the topics previously considered during the course. Finally, the international dimension of online investing will be considered.

The course will raise cross-cutting issues: eg. behavioral finance and online investors, the loss of regulatory 'gate-keepers' ie advisory brokers; the overwhelming amounts of financial information available and new actors such as day-traders.

LAWS3089
Corporate Law and Regulation
Faculty of Law
UOC8 HPW2
Prerequisite: Academic Program must be either 9220 or 5750

This course provides an introduction to the structure and regulation of business corporations in Australia. It will also examine some of the theoretical debates about the nature of the corporation and consider their influence on approaches to regulation of corporations. The first part of the course focuses on factors influencing choice of business organization, the process and consequences of incorporation. This part of the course will also consider various aspects affecting the structure of the corporation: its internal rules; the corporate organs and the financing of the corporation. Attention will be given to the differences in regulatory approach between small and large corporations. The second part of the course will focus on corporate governance and topics will include directors' duties and remedies available for breach of directors' duties or to protect against oppression of minority shareholders. Finally, the course will consider briefly some issues of concern to the larger corporation such as fundraising and takeovers. The course is designed for students with a non-law background and will provide a useful introduction to other courses in the corporate and commercial law program.

LAWS3091
Corporate Control Transactions
Faculty of Law
UOC8 HPW2

This course explores the concept of corporate control through a study of the legal doctrines defining control and affecting its exercise, and of the regulation of transactions touching its acquisition and transfer. The provisions of Chapters 6 –6A of the Corporations Law are at the centre of this study. In addition to key issues in the form and conduct of transactions effecting control transfers, the subject also examines theories shaping legal regulation and the policies and interests which influence its contours.

LAWS3092
Securities and Financial Markets Regulation
Faculty of Law
UOC8 HPW2

The broad aim of this course is to examine the structure and regulation of markets for corporate securities. The study is primarily a legal analysis although it considers some financial theory relevant to legal responses to market operations. Topics include: the legal structure of co-regulation of securities markets including the role and powers of the ASX and ASIC; the efficient market hypothesis and its implications for mandatory corporate disclosure and prospectus regulation; prospectus disclosure and liability; the licensing of securities dealers and investment professionals; the conduct of securities business; abusive trading on secondary markets, including stock market manipulation and insider trading.

LAWS3095
Corporate Insolvency
Faculty of Law
UOC8 HPW2
Prerequisite: Academic Program must be either 9200, 9210 or 5740.

The course examines the theory and practice of corporate insolvency focussing on company receivership and liquidation. It covers the winding up of a corporation, the appointment of a provisional liquidator, the powers and duties of the receiver and manager, the operation of the administration procedures under the Corporation Law (with UK analogies), and the powers and duties of the liquidator including an examination of the realisation and distribution of the corporation's assets, the position of unsecured creditors, and the potential liability of a corporation's controllers. Reference will be made, as appropriate, to the insolvency regimes in force in other countries, and to the theoretical difficulties in loss sharing in 'common pool' activities.

LAWS3099
Managed Funds, Superannuation and Insurance
Faculty of Law
UOC8 HPW2

Financial Services is an innovative and rapidly changing sector which is highly regulated. This course offers the student a comprehensive examination of the regulatory environment governing the managed investments, superannuation and insurance industries (including the recent reforms under the Financial Services Reform Act) and related compliance issues. The course focuses on providing a comprehensive and practical examination of the regulatory framework presented in a way which will help you understand the interrelationship between these industries. This intensive course will provide both those unfamiliar, and those with practical knowledge of the financial services sector with a solid understanding of the regulatory framework in which participants in these industries operate and will address topical issues faced by industry participants today, including the increasing convergence of regulation of these industries. This course will not cover issues relating to general insurance, which is covered in our other postgraduate elective, Insurance Law.

LAWS3439
Fundamental Knowledge in Environmental Management: Law
Faculty of Law
UOC6 HPW3
Excluded: LAWS4361, LAWS4362

Note: This is a service course for another faculty, not offered to postgraduate law students

This course has been specifically designed for candidates undertaking the MEM program. It is one of six fundamental knowledge courses for students without any formal background in the relevant disciplinary area. The course aims to provide students with an introduction to the fundamental principles and concepts of environmental law and policy. In addition, the course examines the basic legal institutions and mechanisms that comprise the environmental legal system as well as the legal techniques used in environmental protection. The focus of the course is both international and domestic. Topics that will be addressed in the course include: introductions to domestic and international legal systems; concepts and principles of environmental law and policy; the design of environmental laws and institutions; environmental planning and assessment; pollution control; environmental dispute resolution; protection of biological diversity; and heritage conservation.

LAWS4015
Strata and Community Title
Faculty of Law
UOC8 HPW2

Please view course outline online at http://www.law.unsw.edu.au/course/postgraduate.asp

LAWS4016
The International Context of Intellectual Property
Faculty of Law
UOC8 HPW2
Pre-requisite: LAWS4017

This course has been designed to give postgraduates an overview of intellectual property in the international context. The course will cover aspects of policy related to globalisation, cultural diversity, issues of world trade and the Internet. The role of global industry and non governmental organisations in policy formation will be explored and the development of major international agreements and fora examined. The role of intellectual property as a major tool of world trade will be evaluated in the light of political, social and cultural dimensions. This course is an important element in postgraduate consideration of IP, IT and communications issues.

LAWS4017
Intellectual Property: Regulation and Policy
Faculty of Law
UOC8 HPW2

This course has been designed to give postgraduates from a non-legal background an overview of intellectual property, which is becoming one of the most important areas of commercial legal practice, and is vital to the marketing, advertising, entertainment and communications industries. This course aims to introduce students to each of the general law and statutory protections outlined below. There are increasing interrelationships and overlaps between these protections, particularly because of the Trade Practices Act. For each of the heads of protection, the course gives consideration to the subject matter which is protected, the pre-conditions for protection, and the nature of infringement. Other matters such as remedies, competition law and international protection are dealt with briefly but cannot be examined in detail in an intensive course. However, as far as possible in an intensive overview, this course focuses on the commercial and business aspects of intellectual property.

LAWS4019
Competition Law
Faculty of Law
UOC8 HPW2
Prerequisite: Academic Program must be either 9200, 9210 or 5740.

The course is intended to provide students with a detailed understanding of competition law in Australia as well as an introduction to specialist topics in competition. The course will cover the following topics: The economic and policy objectives of competition law; Collusive arrangements, including price fixing and collective boycotts; Monopolisation; Access and Utility regulation; Vertical arrangements, including exclusive dealing and resale price maintenance; Mergers.

LAWS4021
Issues in Intellectual Property
Faculty of Law
UOC8 HPW2
Prerequisite: LAWS4017

The aim of this course is to develop themes and explore issues concerning the protection of ideas, business reputation or innovations and commercialising and trading in such matter. The course assumes in the student an understanding of intellectual property law. General principles will not be covered, rather, specific topics. International, policy and theoretical aspects may be addressed. Typically, the topics may include: global information policy and the role of copyright in a technological society; digital piracy and copyright control mechanisms; developments in moral rights; protection of cultural property; patenting of biotechnological inventions; biopiracy; global protection of trade marks; the interface of IP law and competition law; current law reform initiatives and other topical issues.

LAWS4023
Commercial Contracts: Problems of Performance, Breach and Termination
Faculty of Law
UOC8 HPW2
Prerequisite: Academic Program must be either 9200, 9210 or 5740.

This course focuses in depth upon principles of contract law which govern the performance, breach and termination of many commercial and conveyancing transactions; it is concerned with complex applications of general contract law principles rather than with more specific rights that are sometimes conferred by statutes dealing with consumer contracts. The course systematically examines a large number of issues which may arise in the course of contractual performance but can seldom be fully considered in undergraduate contract law courses despite their considerable practical importance. In the course of this examination the course addresses a range of difficult questions that have been raised in recent judgments of the High Court of Australia but often remain unanswered. While the course seeks primarily to reveal frequently unrecognised interrelations between legal principles, very considerable class time is devoted to discussion of issued problems which highlight the practical significance and dimensions of conceptual issues. Some specific topics likely to be considered are: contingent conditions precedent to the duty of performance, and their elimination; confusion arising from the multiple classifications of serious breaches; problems in identifying a repudiation and acting upon it; the effect of an unaccepted repudiation; the consequences of repudiation where the victim is not ready, willing and able to perform its own obligations; unconscionable exercises of a right to affirm, or a right to terminate, following serious breach; problems raised by Shevill's case; identification of rights surviving termination.

LAWS4025
Commercial Property Transactions
Faculty of Law
UOC8 HPW2
Prerequisite: Academic Program must be either 9200, 9210 or 5740.

This course is designed to equip students with a knowledge of contract, equity and property law and cognate statute law governing the conduct of commercial land dealings. The course goes beyond a study of the standard form contract for sale of land used in New South Wales and treats topics of national interest and importance and of significance for cross border transactions. Where a study of state legislation is made, the New South Wales model will be used although reference may be made, for comparative purposes, to the legislation in other states. Topics to be studied include: Issues of formation - formal and informal agreements; intention; agreements deferring essential terms; machinery for settlement of terms; exclusive dealing and restitution for expenses incurred; agreements to negotiate in good faith; estoppel; Enforceability - statutory formalities; part performance; estoppel; Options - nature of put and call options; formalities for creation; assignment of options; exercise of options; relief against forfeiture of options; rights of pre-emption; Vendor disclosure - the common law and caveat emptor; mandatory vendor disclosure legislation; the Trade Practices Act, 1974 and the Fair Trading Act, 1987; Title - the fee simple; strata title; community land title; native land title; objections to and requisitions on title; termination for defective title; compensation and damages for defective titles; Remedies - rescission and termination; rescission for non-fulfilment of condition; discharge for breach under the general law; termination for failure to complete - the essentiality of time and notices to complete; anticipatory breach and repudiation; the obligation to tender performance and the right to dispense with tender of performance; express avoidance clauses; damages under the general law; liquidated damages and penalties; compensation for errors and misdescription; remedies under the Trade Practices Act, 1974; specific performance; forfeiture of land and development contracts and relief against forfeiture.

LAWS4026
Banking and Finance Law
Faculty of Law
UOC8 HPW2
Prerequisite: Academic Program must be either 9200, 9210 or 5740.

Banking and Finance Law is a single semester course which examines the law and practice concerning the provision of corporate finance. The course is of particular relevance to those seeking to strengthen professional skills and will be taught primarily by specialist practitioners, principally by leading banking and finance law partners of Mallesons Stephen Jaques. A transactional approach will be adopted in appropriate classes. The focus of the course is upon legal issues in debt finance, including secured transactions, bank finance and capital market borrowings, subordinated and unsecured lending, syndicate loan financing, negotiable instruments and stamp duty and other revenue considerations. Equity capital raising will not be covered in this course but will be dealt with in LAWS3092 Securities and Financial Market Regulation.

LAWS4027
Advanced Debt Capital Markets
Faculty of Law
UOC8 HPW2
Prerequisite: Academic Program must be either 9200, 9210 or 5740.

The most significant development in the Australian financial markets over the last decade has been the development of the debt capital markets. The local and international debt capital markets represent an important source of funds for Australian business. In this advanced course, students will examine in detail the operation of the capital markets and focus on the key legal and other issues relevant to a comprehensive understanding of these markets.

Topics include: Introduction to the debt capital markets and their operation; Australian regulation; taxation of debt capital markets; stamp duty and rating agency issues relevant to a debt capital markets issue; issuer insolvency and structured capital markets products.

LAWS4028
Corporate Governance
Faculty of Law
UOC8 HPW2
Prerequisite: Academic Program must be either 9200, 9210 or 5740.

This course builds upon foundational study in corporate law to examine in greater depth the principles and practices that shape the sound governance of business corporations. Topics examined include: the desirable role, structure and composition of the board of directors with a view to enhancing corporate performance; the board's relationship to management; the role and responsibility of shareholders including institutional investors; the recognition and management of risk; ensuring the integrity of financial reporting systems; executive remuneration; and corporate social responsibility: responding to social claims and stakeholder expectations.

LAWS4029
Elements of Contract
Faculty of Law
UOC4 HPW2
Prerequisite: Academic Program must be either 9220 or 5750

This course is designed to introduce non-law graduates to the law governing the formation and performance of contracts. The course looks at the distinctive nature of contractual obligations particularly as these obligations affect the regulation of relationships in society, business and the commercial world.

LAWS4031
Discharge of Contracts
Faculty of Law
UOC8 HPW2
Prerequisite: Academic Program must be either 9220 or 5750

The course examines some basic principles governing five major ways in which contracting parties may be discharged from their obligations: (i) by performance; (ii) by express or implicit agreement of the parties that their obligations be terminated; (iii) by failure of a non-promissory condition precedent to major performatory obligations;

(iv) by election of the innocent party to terminate further delegations following a serious breach by the other party; and (v) by the occurrence of supervening events which frustrate the originally intended operation of the contract. Significant attention will be given to some legal remedies that become available following discharge in the five situations just mentioned.

LAWS4032
Construction Law for Non-Lawyers
Faculty of Law
UOC8 HPW2
Prerequisite: Academic Program must be either 9220 or 5750

Construction Law concentrates on the legal aspects of construction contracting, from a practical and legal perspective. The course looks at construction terms and roles, project delivery structures, tendering, contract formation, the site, scope, variations, extensions of time, liquidated damages, warranties, dispute resolution, payment, defects rectification and statutory rights. The course focuses on four standard form contracts commonly in use in the industry (JCCF, PC1, AS 4300 and AS 4000) and considers how the risk profiles of each contract differ. The course does not deal with all aspects of law relating to construction; rather, it is focussed on the construction contracting aspects of projects.

LAWS4036
Restitution and Unjust Enrichment Law
Faculty of Law
UOC8 HPW2
Prerequisite: Academic Program must be either 9200, 9210 or 5740.

Restitution is the law's response to unjust enrichment. This course will deal with the question of how and when a plaintiff can compel a defendant to hand over enrichment gained at the plaintiff's expense. Courts in Australia, alongside those in other common law jurisdictions, recognise unjust enrichment as a source of rights and obligations.

The course will also deal with such fundamental questions as:

(1) the reasons for and measures of an unjust enrichment claim;

(2) the constituent elements of a claim in unjust enrichment; and

(3) how the law of unjust enrichment is conceptually related to other sources of rights and obligations (eg tort, contract).

LAWS4037
Securitisation - International Law and Practice
Faculty of Law
UOC8 HPW2
Prerequisite: Academic Program must be either 9200, 9210 or 5740.

Securitisation has become an indispensable of a financial institution's capital market toolbox. This course allows the student a comprehensive overview of the wide-ranging securitisation products as well as their legal and regulatory regime, both in a domestic and in an international context.

The course will look in detail at the building blocks of securitisation, and demystify the financial, accountancy and regulatory environment as to enable legal practitioners to work closely and efficiently in a multi-disciplinary team.

Various case studies will be part of the course, to enhance students self-work and stimulate discussion with experienced practitioners.

LAWS4080
Issues in International Law
Faculty of Law
UOC8 HPW2
Prerequisite: Academic Program must be either 9200, 9210, 9220, 5740 or 5750

This course provides a solid introduction to the central principles and issues in public international law. Topics covered include: history and development of international law; how international law is made; how the basic units of international law, States, are constituted; and how States and other international legal persons resolve their disputes. These principles and issues are examined and their application assessed in the context of current affairs and evolving international legal developments.

LAWS4081
Advanced Issues in International Law
Faculty of Law
UOC8 HPW2
Prerequisite: LAWS4080

This course will study selected currently relevant topics of public international law in more depth than is available/possible in the basic Public International Law course. The focus of the course will vary from year to year depending on current international events. The operation of the rules of International Law will be examined and assessed in action in the context of the chosen topic/event.

LAWS4083
International Commercial Arbitration
Faculty of Law
UOC8 HPW2

Many cases of injury to multinational companies which would formerly have been pursued as a diplomatic claim by the national State of the company are now resolved by arbitration directly between the company and the respondent State. In this sense, international commercial arbitration can be seen as a natural extension of inter-State dispute settlement procedures, of great and growing importance. This course will examine the law and practice relating to the arbitral process and recognition and enforcement of arbitral awards. Reference will be made to the Model Arbitral Rules and the case law emanating from a number of Arbitral Bodies and Tribunals such as the ICC, UNCITRAL, ICSID and to the decisions of ad-hoc arbitral tribunals.

Prerequisite or corequisite: LAWS2081 Public International Law or equivalent.

LAWS4088
Law of Armed Conflict
Faculty of Law
UOC8 HPW2

This course examines international humanitarian law, the law that governs the conduct of internal and international armed conflict. It examines rules governing the methods and means of warfare and protection of civilians and combatants with particular reference to the 1949 Geneva Conventions, the 1977 Additional Protocols and the Hague Conventions on the laws of war. Also examined are issues of enforcement including the nature and identification of war crimes and crimes against humanity and the principles of jurisdiction upon which enforcement rests. Analysis of the role of the law of armed conflict as a moderating influence in the conduct of states is a central focus of the course.

Prerequisite or corequisite: LAWS4080 Issues in International Law or equivalent

LAWS4091
International Law of Equality and Discrimination
Faculty of Law
UOC8 HPW0
Exclusion: LAWS2412 and LAWS4092

Equality (or non-discrimination) is central to the enjoyment of human rights and freedoms. This course explores the fundamental principles of the international law of equality and non-discrimination and their place in human rights law. It also examines the application of these principles to selected contemporary circumstances. The course focuses particularly on sex, disability and race discrimination, looking closely at gross or entrenched violations, comparing the approaches of various domestic non-discrimination law regimes and analyzing the main policy debates. Special attention is given to the role and accountability at law of non-state actors. Several eminent guest speakers will address the class on particular topics.

LAWS4092
Issues in Discrimination Law
Faculty of Law
UOC4 HPW2
Exclusion: LAWS2412 and LAWS4091

Equality (or non-discrimination) is central to the enjoyment of human rights and freedoms. This course explores the fundamental principles of the international law of equality and non-discrimination and their place in human rights law. It also examines the application of these principles to selected contemporary situations of sex, disability and race discrimination, looking closely at gross or entrenched violations.

LAWS4120
Themes in Asian and Comparative Law
Faculty of Law
UOC8 HPW2

Asia is of increasing relevance to both practising lawyers and policymakers. With Australasian law firms expanding their network of offices into Asian countries and government departments increasingly linking up with their Asian counterparts, there is growing demand for 'Asia-literate' lawyers. This course provides students with the suite of skills necessary to successfully navigate Asian laws and legal institutions. The course reminds students of the dangers of uncritically projecting their own values and assumptions about law onto Asia. Thus, the first part of the course explores a wide range of theoretical concepts - legal orientalism, comparative legal historiography, parallelism, law and culture, legal development and capitalism, Asian legal theories, transplantability of law and interdisciplinarity in Asian law - to equip students with a new framework for interpreting and engaging with Asian law. The second part of the course invites student to apply these concepts to a contemporary issue in Asian law -either a commercial law or human rights issue, depending on student interest - to enable students to exercise these new skills in context. By the end of the course, students will be able to question whether or not traditional comparative law method is suitable for analysing Asian law and devise their own framework for solving Asia-related practice and policy problems.

LAWS4127
Japanese Law in Context
Faculty of Law
UOC8 HPW2

Japanese Law in Context invites students to look inside Japanese law. The purpose of this course is to go beyond a mere description of the 'external' contours of the Japanese legal system and explore the 'internal' workings of the system. The course is divided thematically into issues of the 'who', 'what', 'where', 'when', 'why' and 'how' of Japanese law. Thus, the course covers: the reasons for engaging with the Japanese legal system, including the economic, political and cultural rationales (the why); where to locate Japanese law, ie, as part of comparative law, the 'new' Asian law or Japanese studies (the where); the structure, institutions and classification of the legal system (the what); the various methodologies that may be adopted in analysing Japanese law (the how); Japanese legal history and historiography (the when); and the major theoretical positions on Japanese law and their advocates (the who). The course concludes with a case study on a major contemporary issue in Japanese law - eg, product liability, administrative law reform or sexual harassment, depending on student interest - in which students will be encouraged to apply these contextual factors to evaluate the impact of that issue on Japanese society.

LAWS4128
Japanese Law and Politics
Faculty of Law
UOC8 HPW2

Japanese Law and Politics explores the relationship between law and governance in Japan. Although the course ostensibly deals with public law topics such as constitutionalism, administrative law and judicial activism, the course adopts a thematic approach to how these topics are played out in the Japanese legal setting. Thus, the theme of policymaking in Japan examines how the public policy agenda is set in Japan, focusing on the policy-making powers of the Diet, the bureaucracy, the judiciary and other legal agents. The theme of parochialism investigates Japan's political and legal engagement with the global community, tracing the tension between Japan's eagerness to assume a more prominent political role within the global community and its reluctance to internalise unwelcome international norms on the other. The theme of privatization charts the rise of corporate governments in Japan, exposing three trends of privatization in Japan - deregulation of rules, delegation of adjudication to private parties and relegation of public functions to the corporate domain. The final theme of pluralism explodes the myth of homogeneity in Japan and examines how the Japanese are prepared to use State legal institution to transform social protest into legal action.

LAWS4129
Japanese Law and Society
Faculty of Law
UOC8 HPW2

Japanese Law and Society examines how contemporary social issues are regulated within Japanese law. Thus, the course looks at how Japanese law articulates the position of the family unit in society, using an interdisciplinary lens to analyse marriage, divorce, adoption, family registration, succession and aged care. The course continues with an exploration of how Japanese law impacts on women, indigenous Ainu people, ethnic minorities, persons with disabilities, members of the pariah community (burakumin) and religious minorities. The course then analyses the torts of defamation, negligence and wartime compensation to define the socio-cultural basis to how Japanese law apportions blame. Finally, the course concludes by examining Japan's system of crime and punishment. By the end of the course, students will be able to dismiss common stereotypes about Japanese society and develop a more nuanced understanding of social law and policy in Japan.

LAWS4130
Japanese Law and the Economy
Faculty of Law
UOC8 HPW2

Japanese Law and the Economy takes a problem-based approach to examining how Japanese law regulates commercial transactions. Students will work on a hypothetical business deal between an Australian and Japanese party. Throughout the course, students will be exposed to a wide variety of commercial law topics - contract law, anti-trust, product liability, corporate law, intellectual property, banking and finance regulations, and commercial dispute resolution - as part of advising on the transaction. In the process, students will learn how Japanese law defines business relationships, allocates commercial risk, ensures compliance with public policy responsibilities, and generally regulates commercial conduct. By the end of the course, students will gain such practical legal skills as negotiating across cultural domains, drafting transnational documents and issue-spotting in international transactions.

LAWS4131
Tutorial in Japanese Law and Language
Faculty of Law
UOC8 HPW0

The growing number of lawyers with Japanese language skills highlights the need to prepare lawyers for the types of socio-linguistic challenges they will face in legal practice, business and policy settings. In this self-paced tutorial, students with at least 3 years tertiary-level Japanese language training (or equivalent) will gain the necessary skills in reading and interpreting a variety of Japanese legal documents, including cases, statutes, regulatory instruments, corporate documents and contracts. Students will learn the 'language of the law', incorporating not only the grammar and lexicon of law, but also legal translation theory, the sociology of legal language, and the legal/political/economic/cultural context of Japanese legal texts. Students will also acquire research skills necessary to find Japanese legal sources. Depending on linguistic ability, students may complete either a portfolio of language-related assessment (eg, a major translation and word bank) or a theory-based project (eg, a research essay on gendered language in Japan and Australia).Students will not be assessed on linguistic competence.

LAWS4132
Tutorial in Advanced Japanese Law
Faculty of Law
UOC8 HPW0

Students with a specialist interest in a particular area of Japanese law may, in conjunction with the course coordinator, develop their own specialist course. For example, students may elect to complete the subjects Japanese Law and Politics, Japanese Law and Society or Japanese Law and the Economy in a self-paced tutorial format if the relevant subject is not offered in that year. Alternatively, students may wish to co-develop a program in Japanese Labour Law, Gender and Japanese Law, Japanese Constitutionalism, Japanese Corporate Law and so on. This might be an especially effective way for students to investigate an area of law prior to completing a LLM, SJD or PhD thesis in the field.

LAWS4133
Tutorial in Advanced Asian and Comparative Law
Faculty of Law
UOC8 HPW0

Students with a specialist interest in a particular area of Asian and comparative law may, in conjunction with the course coordinator, develop their own specialist course. For example, students may elect to co-develop a program of study in Chinese law, Korean law or Indonesian law where an equivalent subject is not available in the regular curriculum. Alternatively, students may wish to co-develop a more thematic approach to Asian and comparative law, such as Law and Economic Development in Asian states, Asian Constitutionalism, Culture and the Law in Asia, and so on. This might be an especially effective way for students to investigate an area of law prior to completing a LLM, SJD or PhD thesis in the field.

LAWS4134
Chinese Law in Context
Faculty of Law
UOC8 HPW2
Prerequisite: Academic Program must be either 9200, 9210 or 5740; or Plans CHINAF8225 or CHINAF5225.

Chinese Law in Context invites students to look inside Chinese law. The purpose of this course is to go beyond a mere description of the 'external' contours of the Chinese legal system and explore the 'internal' workings of the system. It also explores the inter-relationship between the legal systesm of PRC, Hong Kong and Taiwan. The course covers: the reasons for engaging with the Chinese legal system, including the economic, political and cultural rationales (the why); where to locate Japanese law, ie, as part of comparative law, the 'new' Asian law or Chinese studies (the where); the structure, institutions and classification of the legal system (the what); the various methodologies that may be adopted in analysing Chinese law (the how); Chinese legal history and historiography (the when); and the major theoretical positions on Chinese law and their advocates (the who). Special emphases are placed on dispute resolution, the rule of law in China, and human rights regulation in China.

LAWS4135
Chinese Law and Economy
Faculty of Law
UOC8 HPW2
Prerequisite: Academic Program must be either 9200, 9210 or 5740; or Plans CHINAF8225 or CHINAF5225.

Chinese Law and the Economy takes a problem-based approach to examining how Chinese law regulates commercial transactions. Students will work on a hypothetical business deal between an Australian and Chinese party. Throughout the course, students will be exposed to a wide variety of commercial law topics - contract law, anti-trust, product liability, corporate law, intellectual property, banking and finance regulations, and commercial dispute resolution - as part of advising on the transaction. In the process, students will learn how Chinese law defines business relationships, allocates commercial risk, ensures compliance with public policy responsibilities, and generally regulates commercial conduct. By the end of the course, students will gain such practical legals skills as negotiating across cultural domains, drafting transnational documents and issue-spotting in international transactions.

LAWS4136
Tutorial in Advanced Chinese Law
Faculty of Law
UOC8 HPW0
Prerequisite: Academic Program must be either 9200, 9210 or 5740.

Students with a special interest in a particular area of Chinese law may, in conjunction with the course coordinator, develop their own specialist course. For example, students may elect to complete the subjects Chinese Law in Context or Chinese Law and the Economy in a self-paced tutorial format if the relevant subject is not offered in that year. Alternatively, students may wish to co-develop a program in Chinese Labour Law, Gender and Chinese Law, Chinese Constitutionalism, Chinese Corporate Law and so on. This might be an especially effective way for students to investigate an area of law prior to completing a LLM, SJD or PhD thesis in the field.

LAWS4151
European Union: Institutions and Legal Systems
Faculty of Law
UOC8 HPW2

A comprehensive introduction to the constitutional history, institutional structure and legal system of the unique quasi-federation which is the European Union. Particular attention will be paid to the composition, powers and functions of the main legislative and executive organs (Council, Commission and European Parliament) and to the judicial organs (European Court of Justice and Court of First Instance). The course will then focus on the most important aspects of the legal system: supremacy and direct effect of Union law; general principles of law including fundamental rights; Union citizenship; the role of Union and national courts in enforcing and applying Union law.

LAWS4152
European Union: Economic & Trade Law
Faculty of Law
UOC8 HPW2

A comprehensive introduction to the substantive law of the European Union; the world's largest integrated market economy and a principal economic and trade partner for both Australia and the Asia-Pacific region. The Common Market and the Internal Market with particular reference to; the free movement of goods, persons, services and capital; the Common Commercial Policy towards non-EU countries; Introduction to EU competition law; Economic and Monetary Union; State Aids.

LAWS4156
Constitutionalism in the European Union
Faculty of Law
UOC8 HPW2
Prerequisite: LAWS4151

The European Union represents a peculiar type of polity. It is not a nation-state and not a federation as well as not an international organisation. The European integration process went outside the economic dimension and not it is possible to identify a clear distinctive body of constitutional law and public law of the European Union. Recent work of the European Convention prepared the draft of the constitutional treaty at present in the process of ratification. The aim of the course is to cover in depth the functional constituionalism of the European Union. Also its public law and external relations will be analysed and discussed.

LAWS4157
European Human Rights Law and Institutions
Faculty of Law
UOC8 HPW2

Europe enjoys the world's most advanced regional human rights system. The 1950 European Convention on Human Rights was the world's first

major human rights treaty, adopted by the Council of Europe after massive rights violations in the Second World War, and creating binding complaints procedures and judicial remedies. This course examines the origins of the Convention; which rights it protects; its institutional architecture (including post-1998 reform of the European Commission and European Court of Human Rights); and key jurisprudence of the Court. The course also covers the Convention's implementation in national law (such as the Human Rights Act 1998 UK); the relationship of the European system to international human rights law; and the interaction of the Convention with the 1961 European Social Charter and the European Union's human rights processes (especially the Charter of Fundamental Rights in the draft EU Constitution). Topics covered may vary from year to year.

LAWS4158
European Union: Business Law
Faculty of Law
UOC8 HPW2

"EU Business Law" provides an opportunity to become familiar with the legal and political dynamics of the rapidly changing law and business environment in Europe. European Union law today represents more than 60 per cent of the national legal systems of the 25 member states. The course enables the student to understanding the legislative process in the Union and the conflict-ridden ways Union law becomes part of the national systems. The course covers the "four fundamental freedoms" that enable Europeans and foreigners to do business and get employed in Europe. Case studies of telecommunications and anti-discrimination law will be used to put European legal development into context. Basics of EU competition law are also presented.

LAWS4181
Contemporary Issues in International Human Rights
Faculty of Law
UOC8 HPW2
Prerequisite: Academic Program must be either 9200, 9210 or 5740.

A study of the fundamental legal principles and institutions of international human rights, through the medium of contemporary human rights concerns. The course focuses particularly on economic and social rights in the context of rapid economic globalisation. The course examines the impact on human rights of major international forces for change, including the rise of terrorism, trade and investment liberalisation and the expansion of multinational corporations. Special attention is also given to gross human rights violations and the responsibility of the international community to protect, refugees, indigenous rights and women's' rights.

LAWS4182
International Aspects of Social Justice
Faculty of Law
UOC8 HPW2
Exclusion: LAWS4183

This course examines ways in which intergovernmental agreements and other international processes can advance social justice. It includes global agreements, especially within the United Nations system, and also regional agreements within groupings such as the European Union and Association of South East Asian Nations (ASEAN). It will focus principally on agreements and processes which establish or closely affect economic and social rights, especially in the context of rapid economic and technological globalisation. Special attention is given to the role of non-governmental organisations in the processes by which such agreements and processes can be developed, monitored and enforced. The course will include expert guest speakers from within Australia and overseas as well as a "case study" research essay.

LAWS4183
Aspects of International Governance
Faculty of Law
UOC4 HPW2
Prerequisite: Academic Program must be either 9200, 9210 or 5740.
Exclusion: LAWS4182

This course examines aspects of the structures, processes and consequences of international governance, especially in relation to social justice. It includes aspects of global governance, especially within the UN system, and also regional governance within groupings such as the European Union and the Association of South East Asian nations. Special attention is given to relevant international agreements at both global and regional levels, and to the role of civil society organisations in their development, monitoring and enforcement.

LAWS4187
International Trade Law: Environment and Development
Faculty of Law
UOC8 HPW2
Prerequisite: Academic Program must be either 9200, 9210 or 5740.
Exclusion: LAWS4188

This course examines the ways in which the law of the World Trade Organisation interacts with environmental protection and development. Students will become familiar with the relevant WTO agreements and will gain a solid understanding of the principles of WTO law. Disputes which have raised environmental and development issues before the WTO's Appellate Body are studied in detail. Special attention is given to areas where conflicts have arisen, including trade bans for environmental purposes; the application of the "precautionary principle" in WTO law; intellectual property protection and biodiversity; trade liberalisation, food security and poverty-reduction; and, the adequacy of the special treatment of developing countries under WTO law. Students will also explore the environment and labour rights protections under the WTO agreements and NAFTA.

LAWS4188
Environmental Issues in the World Trade Organization
Faculty of Law
UOC8 HPW2
Exclusion: LAWS4187 and LAWS9972

This course comprises the first half of course LAWS4187 International Trade Law: Environment and Development. This segment of the course is a stand alone half course.

LAWS4189
Transnational Business & Human Rights
Faculty of Law
UOC8 HPW2

This course equips students to navigate the legal principles and policies operating in the global economy and focuses on the relationship and interconnection between business activities and human rights obligations. It examines the basic principles of international human rights law, with particular emphasis on economic and social and cultural rights and uses this as a basis with which to examine current initiatives - in international human rights law, company and commercial law, tort law and trade practices law - for the regulation (and self-regulation) of transnational business both in Australia and internationally. Controversial issues will be explored, including the lending policies of the World Bank and the IMF and the human rights impacts of the law of the World Trade Organisation. The course will also examine the effectiveness of various self regulatory mechanisms to hold transnational business accountable for human rights and environmental obligations using mechanisms such as codes of conduct.

LAWS4190
Refugee Law
Faculty of Law
UOC8 HPW2
Prerequisite: Academic Program must be either 9200, 9210 or 5740.

This course will provide an overview of Australian and International Refugee Law. After examining the international refugee regime, the course will consider the practice and politics of refugee law in Australia and examine current pressures in both Australia and internationally for refugee law reform. Students will be introduced to leading international refugee jurisprudence and to some key decisions of the Australian High Court and Federal Court. In addition, students will look at the day to day decision-making of Australian bureaucrats, and at the work of the Australian Refugee Review Tribunal. Students will participate in refugee decision making simulations.

LAWS4191
Feminist Perspectives on Law and Human Rights
Faculty of Law
UOC8 HPW2
Prerequisite: Academic Program must be either 9200, 9210 or 5740.

Feminist analyses of law and human rights provide some of the most significant and challenging explanatory frameworks for understanding the practice and organisation of laws and legal institutions both at a national and international level. Part I of the course traces the 'evolution' of feminist theorising about law, including its early critiques of legal liberalism and its interactions with postmodernism and postcolonialism. There will be a particular emphasis on work that examines conceptions of equality,

rights based strategies for reform, the intersections between categories such as race, gender, disability, class and sexuality, and feminist analyses of international law regimes. Part 1 provides students with a background in a range of theoretical perspectives, with materials drawn from feminist legal and social theory, to apply in the analysis of the specific case studies relating to legal regulation, and the protection of human rights in Part 2 of the course. Case studies may include: the implementation of the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW), the significance of gender and sexuality in claims for refugee protection, the role of public interest advocacy organisations, issues affecting Indigenous women in Australia and overseas, and the effectiveness of current anti-discrimination regimes.

LAWS4212
Native Title Law, Policy and Practice
Faculty of Law
UOC8 HPW2

Just over ten years ago the High Court shook Australia up with the recognition of common law native title. A whole new area of Australian law was born with the Mabo decision. This course takes students through the statutory and judge-made law on native title (the claims process, extinguishment, recognition, future acts etc). But native title law does not make sense unless one steps back and also looks at the policy and political debates which have surrounded it since 1992. As well as doing that, the course will offer insights into how native title has played out on the ground, within government and amongst practitioners, with the help of selected guest lecturers. The course will progress by both direct teaching and class discussion through this significant and controversial new area of Australian law. Students will develop their legal knowledge and a better understanding about an issue of fundamental social and political importance.

LAWS4271
Australian Legal System
Faculty of Law
UOC8 HPW4

This course provides a basic understanding of common law and the Australian legal system. It is intended for students whose legal background is in non-common law jurisdictions. It has a strong focus on techniques of common law legal reasoning, which are essential for the non-common law practitioner to understand when dealing with common law legal systems. 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 - its history, role, interrelationships, operation and techniques; the doctrine of precedent and statutory interpretation, practice and theory; sources of Australian law including the past and present status of Aboriginal customary laws; the origins of common law; the colonisation of Australia; classifications within the common law, and the jurisdiction of Australian courts.

LAWS4272
Australian Legal System and Process
Faculty of Law
UOC8 HPW2
Prerequisite: Academic Program must be either 9220 or 5750

This course is designed to introduce non-law graduates to the principal institutions of the legal system in Australia, doctrines of precedent, statutory interpretation, historical influences on our law and also provides training in the tools required for reading cases and using legal material.

LAWS4273
Introduction to Property Law
Faculty of Law
UOC4 HPW2

The course aims to provide students with some of the basic building blocks essential to an understanding of property law. These key concepts are not only important to property law itself but also to understandings in related fields such as succession, taxation, water law, native title, trusts and equity, for example. The course explores the concept of the fragmentation of proprietary interests and discusses how interests may be divided spatially according to the doctrine of tenure, and temporarily, according to the doctrine of estates. The course also aims to provide students with an overview of the creation, transfer and acquisition of various types of property interests. Its primary focus is on real property but it also touches on personal and intellectual property.

LAWS4274
Introduction to Public Law
Faculty of Law
UOC4 HPW2

This course introduces the students to the study of public law, including its methods of reasoning, history and fundamental principles. It deals with introductory principles and theories of constitutional and administrative law and the essential features of our system of government. Topics include the Westminster System, Federation, Indigenous Peoples and the Question of Sovereignty, the Federal Parliament, the Separation of powers, Human Rights and Bills of Rights and Constitutional Change.

LAWS4290
Law, Constitutionalism and Cultural Difference
Faculty of Law
UOC8 HPW2

This serves as both a course in legal and political theory appropriate to culturally diverse societies (including the international arena) and a course in advanced constitutional law, international human rights law, indigenous rights, and other political and legal domains where cultural difference becomes relevant. We will discuss justifications and institutional options for cultural accommodation in law, legal interpretation, and constitutional structure. We will review theoretical arguments for and against cultural accommodation, and examine how those arguments might be translated into institutional form. Contexts considered include the constitutions of culturally diverse societies, indigenous self-government, separate schools, and the international protection of human rights.

LAWS4423
Research Thesis: 8 UOC
Faculty of Law
UOC8 HPW0

Enrolment in a Research Thesis shall be approved by the School of Law if: 1. A clearly defined project is proposed: the thesis topic must be approved at the outset but may be modified at a later stage; 2. The student has a sufficient academic background in legal study to enable the thesis to be completed in a satisfactory manner; 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.

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 15,000.

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.

LAWS4425
Research Thesis: 4 UOC
Faculty of Law
UOC4 HPW0

Enrolment in a Research Thesis shall be approved by the School of Law if: 1. A clearly defined project is proposed: the thesis topic must be approved at the outset but may be modified at a later stage; 2. The student has a sufficient academic background in legal study to enable the thesis to be completed in a satisfactory manner; 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.

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 7,500 words.

Examination: Each thesis shall have one examiner who will, ordinarily, 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.

LAWS4430
Research and Writing in a Legal Environment
Faculty of Law
UOC4 HPW2
Prerequisite: Academic Program must be either 9220 or 5750

This course is designed to introduce non-law graduates to legal texts, and to legal research skills and techniques. It introduces students to the many types of legal text which they will encounter during their MLS studies, and helps them to understand and appreciate the differences between them. The course also teaches students relevant legal research methods, and includes practical classes in researching case law, statute law, and secondary material.

LAWS7001
Internationalisation of Financial and Commercial Law
Faculty of Law
UOC8 HPW2

What does legal globalisation refers to the ever increasing sources of modern commercial and financial law in an environment of liberalisation deregulation and privatisation. Major issues concern the place of domestic and international legal orders and the role of comparative law in an environment where common law and civil law are both relevant. Topics will include issues relating to contracts, international payments, banking matters, financial services provision, ownership of goods, leasing and sale of chattels and intangible property.

LAWS7003
Global Issues in Competition Policy
Faculty of Law
UOC8 HPW2

An in-depth comparative study of the legal and economic concepts which underpin competition enforcement in the United States, Australia, New Zealand and the European Union and the mechanisms for extending or rejecting antitrust jurisdiction across jurisdictional boundaries. The course aims to develop in students an understanding of the different approaches to competition law in the jurisdictions selected so that they may utilise the jurisprudence from these jurisdictions more effectively when acting or advising in competition matters whether in Australia or elsewhere. The course proceeds concept by concept rather than country by country. No prior study of trade practices is required.

LAWS7004
International Child Law
Faculty of Law
UOC8 HPW2
Pre-requisite/Co-requisite: LAWS4080

Over the past ten years the concept of children's rights has received a greater amount of attention in legal discourse. Internationally, incidents of child labour, child sexual exploitation and child abductions appear to be increasing at an exponential rate. In many nations of the Western world, high suicide rates amongst teens, the growth of the child prostitution industry, and a higher number of young offenders accused of violent crimes have impacted all our communities. In the South and in many countries in transition the use of child soldiers, a high child mortality rate and the widespread trafficking of young people seem to continuously expanding their reach. Jurisprudence developing from the decisions of domestic courts, administrative tribunals and within international fora have provided insights into policy issues while at the same time offering contradictory messages on the legal responsibility and status of children. Because of this, there is a need to better understand the current status of the law and what your role may be - as lawyers, advocates or concerned members of civil society - in ensuring that the rights of all citizens are respected, regardless of their age. It is often said that the phrase "children's rights" is a slogan in search of a definition. This course will attempt to find its meaning by surveying the history and legal development of children's rights internationally.

LAWS9119
International Environmental Law
Faculty of Law
UOC8 HPW2
Pre-requisite/Co-requisite: LAWS4080

The first part of the course will provide students with an overview of the historical context, political processes and international institutions which are shaping the development of international environmental law. It will examine the role of UN institutions, regional negotiating blocs and the non-governmental community. An introduction to the incorporation of international environmental law in Australia and the management of the political processes in Australia will focus these concerns in the "here and now". In the second part, systemic concerns will be explored through case studies of the major sectoral issues current today. Lectures will examine the existing and emerging laws in each sector and view these as examples of the application of international environmental law principles. The challenges and possible solutions which may be adopted in each sector will be explored. The third part will return to the systemic concerns raised earlier and consider the ways ahead. Study will focus on some of the many aspects of regime design and the trade and environment interface. These include the use of dispute resolution, compliance mechanisms, trade sanctions, eco-taxes, environmental standards and ecolabels in international trade, and the roles of institutions such as the WTO, UNCTAD and APEC. The increasing use of economic instruments in the international context, such as prior informed consent, polluter pays, liability and tradeable emissions quotas, will be considered. The course will conclude with discussion on the future challenges and directions facing international environmental law.

LAWS9194
Animal Law
Faculty of Law
UOC8 HPW2
Prerequisite: Academic Program must be either 9200, 9210, 9220, 5740 or 5750

Animal law may be briefly defined as the statutory and case law in which the nature - legal, social or biological - of nonhuman animals is an important factor. After examining a current high profile animal issue, the live export of animals from Australia, the course looks at the context for animal law: modern and past ethics and jurisprudence on the way that humans think of and treat animals.

The course looks at the major topics in black letter law: animals as property and the implications of treating them as property; standing to represent the interests of animals; protection from cruelty; companion animal law; the liabilty of owners and keepers of animals; laws relating to agriculture; ethics, ethical guidelines and law of using animals for research; wild animals, wildlife animal and threatened species law, and game and hunting law; and the regulation of veterinarians.

LAWS9800
Law for Psychologists 1
Faculty of Law
UOC6 HPW2

Note: Service course not offered to postgraduate law students

This course will provide an introduction to certain aspects of law relevant to forensic psychologists. Topics to be covered will include an overview of the Australian legal system, civil obligations (tort and contract) and family law.

LAWS9810
Law for Psychologists 2
Faculty of Law
UOC6 HPW2

Note: Service course not offered to postgraduate law students

This course will consider legal issues for forensic psychologists. Topics to be covered will include relevant areas of children and the law, and a range of issues arising in the fields of criminal law and procedure and the laws of evidence.

LAWS9972
International Trade Law
Faculty of Law
UOC8 HPW0
Must be enrolled in Prog 9200, 9210 or 5740. Excluded LAWS2084
Pre-requisite/Co-requisite: LAWS4080

This course is an introduction to the legal order of international trade in a broad sense, i.e. including trade in goods, in services, the regulation of foreign direct investment and international sales transactions. It starts with providing a conceptual framework of international economic law, its main actors and institutions. In particular, the limits of the jurisdiction of states, i.e. their power to regulate transborder commercial activities, will be discussed. The emphasis will be on the principal obligations of the WTO/GATT system (National Treatment, Most-Favoured-Nation Principle, Technical Barriers, provisions on quantitative restrictions, developing countries and government procurement; General Agreement on Trade in Services; Trade-Related Intellectual Property Rights). The course will also address issues raised by the dispute settlement procedures of the WTO as well as by unilateral trade remedies (anti-dumping, countervailing duties, safeguards, etc.) according to national laws.

LAWS9980
Principled (Interest Based) Negotiation
Faculty of Law
UOC8 HPW2

Parties to a negotiation often have poorly developed understanding of what might be an appropriate preparation process and how success may be measured. Significant benefit can be obtained from having the opportunity to identify, practise and review a process by which their negotiation performance can be enhanced and evaluated. This program will provide participants with the opportunity to:-

- identify the elements of a good outcome to a negotiation
- apply the elements in the preparation for and conduct of negotiation
- identify the steps to be taken, prior and during negotiation, to develop and enhance existing working relationships
- identify and apply evaluation procedures for reviewing a completed negotiation so as to enhance future performance
- practise these processes in a safe, encouraging environment
- apply these principles in a personal setting and within the procedural framework and culture of their business environment.

LAWS9987
Managing Knowledge in Legal Services
Faculty of Law
UOC8 HPW2

Please view course outline online at http://www.law.unsw.edu.au/course/postgraduate.asp

LAWS9991
International Criminal Law
Faculty of Law
UOC8 HPW2
Pre-requisite: LAWS4080

This course will endeavour to systematically analyse the most current state of international criminal law and its place in the modern international legal system in light of: (a) the entry into force of the Rome Statute of the International Criminal Court in July 2002; (b) a series of judgments on the substantive criminal law rendered by the International Criminal Tribunal for the Former Yugoslavia and that for Rwanda; and (c) other recent developments, such as the proceedings against General Augusto Pinochet in England, and the attempt to bring the members of the Khmer Rouge to justice. While the focus of the course will be on the substantive law, important procedural aspects will also be considered. Inevitably, emphasis will be placed on the present and future prospect of international criminal law in the hands of the International Criminal Court (ICC) set up by the Rome Statute. At the same time, the possibility of domestic courts or ad hoc international tribunals applying international criminal law alongside the permanent international criminal court must be reckoned with. The course will proceed with the examination of relevant international legal concepts, general principles of international criminal law, and the functioning of ad hoc international tribunals and their comparison with the ICC. Particular international crimes (genocide, crimes against humanity, war crimes, aggression, and other international crimes), modes of participation in the commission of such crimes, and defences will then be analysed. The course will conclude by dealing with procedural aspects as well as the present and future implementations of international criminal law.

LAWS9993
International Business Transactions
Faculty of Law
UOC8 HPW2

This course examines the legal framework of the international business transaction by focussing on trade terms, the Vienna Convention on the International Sale of Goods and the structure and finance of international trade. The course covers a wide range of topics, including the commercial terms of the sales agreement, shipping contracts, financing arrangements (letters of credit, electronic transfers, etc.), insurance and customs documentation. The course also examines the foreign direct investment transaction, international franchise and distribution agreements and contracts for the transfer of technology. International business regulation is also reviewed with particular attention focussed on the World Trade Organization Agreements and regional trade agreements. Finally, dispute resolution is considered with emphasis on choice of law and forum, arbitration and enforcement of arbitral awards and foreign judgments.

LAWS9994
Commercial Fraud
Faculty of Law
UOC8 HPW2
Prerequisite: Academic Program must be either 9200, 9210 or 5740.

This course examines the criminal law in NSW dealing with theft and fraud. It traces the development of the common law concepts of larceny and the legislative initiatives of false pretences through to more modern offences of forgery, obtaining by dishonesty, defrauding and computer-related offences. Emphasis is given to difficulties of applying the existing law to modern developments, in particular the use of the corporate vehicle in business and the problems of the meaning of property in electronic environments. The course is based on two streams of topics. The first provides a detailed analysis of the elements of current and proposed property and dishonesty offences. The second stream of topics examines definitions of fraud, the causes and motivations behind fraudulent activity, and particular forms of fraud that are currently prevalent.

LEGT5411
Legal Strategies for Knowledge Protection
School of Business Law and Tax
UOC6 HPW3

While it is imperative to promote knowledge flows within a business, it is just as imperative to quarantine that knowledge from the outside world. A business' profitability and long-term viability depend on the cultivation and exploitation of distinct and protected knowledge stores. Such knowledge can be protected by the use of available bodies of law, including those commonly labelled intellectual property and theft laws.

This course examines the various legal frameworks that have been developed to protect information and knowledge and analyses the extent to which these laws can either promote or inhibit the flows of knowledge within a business or organisation. The course highlights why businesses promoting knowledge flows need to be aware of how their ability to do so is underpinned by a supportive legal framework and, just as importantly, how deficiencies in those laws require sophisticated and vigilant strategies to protect a business' knowledge stores.

LEGT5421
E-Business and the Law
School of Business Law and Tax
UOC6 HPW3
Excluded: LEGT5563

Electronic commerce relies on the new wave of technologies associated with the internet. It raises significant legal and regulatory issues. This course reviews the existing legal and regulatory regimes applying to E-business and critically examines the need, and proposals, for reform. Topics covered will focus on three primary areas of legal regulation, transactional regulation including contract law and consumer protection; digital and internet related regulatory issues including privacy, internet content and intellectural property protection; and industry sector specific regulation such as banking, securities, gaming and software technology.

LEGT5511
Legal Foundations of Business
School of Business Law and Tax
UOC6 HPW3

Law is an increasingly significant factor in business. In any business decision fundamental legal questions may arise about the potential liabilities of the parties, the rights that the parties have and how the business or transaction should be organised. This subject introduces the Australian legal system; outlines alternative forms of business organisation; discusses the legal framework of business regulation; and examines areas of law particularly relevant to business including the law of contract and torts, the laws relating to specialised commercial transactions, the regulation of restrictive trade practices and sales promotion, and intellectual property.

LEGT5512
Legal Foundations for Accountants
School of Business Law and Tax
UOC3 HPW1.5
Prerequisite: must be enrolled in program 8409

In presenting and analysis financial data and in the financial management of enterprises accountants need to be aware of the legal responsibilities and risks that arise in business. This course begins by outlining the framework of the Australian legal system and the sources and nature of Australian law. It then introduces the student to areas of law particularly relevant to accountants including: the law of contract; consumer protection law; real and personal property; intellectual property; securities over property interests; torts (such as negligent mistatement); crimes (such as fraud and other 'white collar' crimes); payment systems; and competition law.

This course is offered only for students in the Master of Professional Accounting program.

LEGT5522
Special Topic in Business Law
School of Business Law and Tax
UOC6
Prerequisite: Approval required from Head of School.

A specially assigned project, program or set of readings relating to research in business law.

LEGT5523
Special Topic in Taxation
School of Business Law and Tax
UOC6
Prerequisite: Approval required from Head of School.

A specially assigned project or set of readings relating to research in taxation.

LEGT5531
Competition and Consumer Law
School of Business Law and Tax
UOC6 HPW3
Prerequisite: LEGT5511

Trade practices and fair trading laws have assumed fundamental importance in the Australian marketplace. This subject examines the regulation of restrictive trade practices under the Trade Practices Act 1974 (Commonwealth) and the Competition Code with particular reference to collusive activity, distribution methods, pricing arrangements, abuse of market power, mergers and access to essential facilities. This subject also examines major fair trading initiatives under the Trade Practices Act, and State and Territory Fair Trading legislation, with particular reference to misleading or deceptive conduct, unconscionable conduct, advertising and marketing strategies and product liability. Aspects of the protection of intellectual property are also examined.

LEGT5541
Corporations and Business Associations Law
School of Business Law and Tax
UOC6 HPW3
Prerequisite or Corequisite: LEGT5511 or LEGT5512

The course begins by comparing the key legal features of different forms of business organisation (such as companies, partnerships and trusts) in relation to considerations such as liability, ownership of assets, transfer of onwership and termination. It then examines corporations law in detail. Topics dealt with include: the process and legal effects of incorporation; dealings between the corporation and outsiders; the raising of corporate finance; corporate distributions; legal aspects of corporate governance (including director's duties, members' remedies, and accounts and audit provisions); and the external administration of corporations

LEGT5542
Law of Corporate Governance
School of Business Law and Tax
UOC6 HPW3
Prerequisite: LEGT5541.

The corporate structure dominates both Australian and global commerce. This course examines the operation of the modern corporation from the perspective of corporate governance issues. Topics include the changing character of the corporation, the respective roles of shareholders, management and directors, the position of institutional shareholders, performance and conformance aspects of the board's function and international standards of corporate governance. The course will incorporate case studies based on contemporary examples and practices.

LEGT5551
Taxation Law
School of Business Law and Tax
UOC6 HPW3
Prerequisite or Corequisite: LEGT5511 or LEGT5512

The complexity and comprehensiveness of the Australian tax system mean that tax considerations are now of major importance in most business decisions. After outlining tax policy, tax mix and tax reform considerations, 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; and fringe benefits tax.

LEGT5561
Legal Aspects of Finance
School of Business Law and Tax
UOC6 HPW3

The size and complexity of modern capital markets requires a comprehensive understanding of essential legal concepts involved. Topics include commercial structures including companies, joint ventures, partnerships and trusts; procedures for equity and debt financing of entrepreneurial schemes with special reference to both law and practice; the regulation of the securities market; corporate restructuring and take-overs, mergers and reconstructions; the law of company charges; aspects of the taxation of commercial financing.

LEGT5562
Business Law in a Global Economy
School of Business Law and Tax
UOC6 HPW3

Developments in technology, telecommunications and deregulation which have taken place in the latter part of this century have led to the creation of a global economy. This subject addresses the legal environment of this economy and aspects of its operation. Topics include GATT and the World Trade Organisation; the laws and practices relating to international sales and financing agreements; arrangements for conducting international business, including franchising, licensing, joint ventures and technology transfer; the resolution of international disputes and the protection of intellectual property.

LEGT5563
Technology, Information and the Law
School of Business Law and Tax
UOC6 HPW3

The rapidly evolving developments in computers and information technology pose particular challenges for society and the law. This subject examines those areas of law which have a major regulatory impact on the hardware, software, and networked communications which make up information technology. Topics include the intellectual property regime (in particular copyright, patents and confidential information); technology crimes; tortious and contractual issues in relation to the supply of goods and services; data protection and privacy; regulation of the Internet; and other current issues.

LEGT5564
Regulation of Government Agencies
School of Business Law and Tax
UOC6 HPW3

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 the major regulatory agencies with particular reference to the Australian Competition and Consumer Commission, the Australian Securities Commission and the Australian Taxation Office are also examined.

LEGT5565
Contemporary Issues in IT Law
School of Business Law and Tax
UOC6 HPW3
Prerequisite: must be enrolled in program 8407

This course presents an in depth consideration of contemporary legal issues pertinent to Information Technology managers. It is intended that the specific content of course will be student driven and will reflect the range of legal issues of contemporary concern to the IT manager. Issues which may typically be covered are: teh effect of utilising electronic communication media, including the internet, on the formation and terms of contracts in particular the use of click wrap, shrink-wrap and browse wrap terms and licences; the impact of Australian and overseas privacy legislation on data collection, usage and storage; intellectual property creation, protection and exploitation with particular focus on copyright, patent and trademark laws; regulation of teh internet, including content regulation, domain name dispute resolution and cyber squatting regulation in Australia and overseas; the position of and regulation of cyptography in data protection, digital signatures and e-commerce; the exposure to defamation, negligent misrepresentation and/or other tortious liability in networked communications; the regulation of unsoclicited email or spam; the regulation of electronic surveillance measures in the workplace, with particular reference to surveillance of email and internet usage;

the position of cybercrime and anti-terrorist legislation in the context of network security; and the effect of Australia's constitutional structure on the regulation of IT commerce. In addition, some pervasive considerations such jurisdictional and ethical issues will recur throughout the course.

The course assumes a level of basic legal knowledge regarding Australia's legal system including how laws are made, contract law, tort law and property law. Students who do not possess such knowledge will be given self guided readings to all them to achieve the assumed level of knowledge.

LEGT5571
Franchising
School of Business Law and Tax
UOC6 HPW3

Franchising is becoming the dominant force in the distribution of goods and services. This subject 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 other distribution strategies - technology transfers, trademark licensing, character and personality merchandising - are also examined.

LEGT5575
Corporate Fraud and Crime
School of Business Law and Tax
UOC6 HPW3
Prerequisite: LEGT5511.

Corporate fraud costs Australian business tens of billions of dollars every year. This course examines aspects of fraud and corporate crime in their legal and commercial contexts. Topics include analysis of the various laws relating to theft, fraud, conspiracy 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 issues and strategies for minimising legal exposure to fraud.

LEGT5581
Taxation Policy, Principles and Planning
School of Business Law and Tax
UOC6 HPW3
Prerequisite: LEGT5551.

Taxation is a necessary component of any modern economy. In Australia the dominant form of taxation is income taxation. Any country imposing an income tax will face several fundamental policy options. Responsible businesses in any country with an income tax will endeavour to legitimately minimise their tax liability. In this subject Australian income tax law is examined in the context of the policy principles influencing Parliament and of planning opportunities that currently exist in Australia.

LEGT5582
Taxation of Business Entities
School of Business Law and Tax
UOC6 HPW3
Prerequisite: LEGT5551.

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 subject 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.

LEGT5583
International Business Taxation
School of Business Law and Tax
UOC6 HPW3
Prerequisite: LEGT5551.

In the world economy, barriers to international investments are rapidly falling. Of the remaining barriers some of the most significant are differences in tax systems, and the inadequate coordination of different tax systems. This course discusses the principles relevant to international taxation and uses the Australian international tax rules to highlight possible international tax policy choices and problems. Prospects for the improved coordination of international tax rules through harmonisation and through bi-lateral and multi-lateral treaty networks are examined. Special emphasis is given to practical tax issues associated with international direct investments.

LEGT5586
Corporate Law, Tax and Strategy
School of Business Law and Tax
UOC6 HPW3
Prerequisite: LEGT5551, LEGT5541.

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 subject 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 simulations.

LEGT5589
Capital Gains Tax
School of Business Law and Tax
UOC6 HPW3
Prerequisite: LEGT5551.

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.

LEGT5998
Research Seminar in Commercial Law
School of Business Law and Tax
UOC6
Prerequisite: Approval required from Head of School.

LEGT5999
MCom(Hons) Project Report
School of Business Law and Tax
UOC12

LING5000
Special Project in Applied Linguistics
Linguistics
UOC8 HPW2

A major project (8,000 words) involving the design of a language course, or some other form of applied linguistic research (eg application of translation theory, language acquisition study, text or discourse analysis, LOTE-related project, devising a CALL program, contrastive language study, sociolinguistic study).

Note: Not advised for those in their first semester of study. Normally requires a Distinction average.

LING5001
Second Language Acquisition
Linguistics
UOC8 HPW2

Current research and theory in second language acquisition and their implications for language teaching.

LING5002
Language Teaching Methodology
Linguistics
UOC8 HPW2

Overview of the range of methodological approaches to the teaching of spoken and written language skills in relation to historical and sociocultural contexts and to theoretical considerations with a special focus on TESOL. Analyses and reflects on aspects of classroom practice, including teacher and learner roles, the use of teaching materials and language teaching technology. Draws on the collective knowledge and experience of the class.

LING5003
Testing and Evaluation
Linguistics
UOC8 HPW2

The principles and practice of language testing and assessment and of language teaching program evaluation with a special focus on TESOL. Includes practical work in the construction of tests and other assessment instruments and in the design of evaluation tools.

LING5004
Curriculum Design
Linguistics
UOC8 HPW2

Critical survey of different approaches to the language teaching curriculum with a special focus on TESOL. Themes: the difference between methodology, syllabus, and curriculum; the relationship between views of language and principles of curriculum design, the cultural, social and institutional context of the curriculum; the role of needs analysis; content specification and organisation, managing curricular innovation; and evaluation of the curriculum.

LING5005
The Structure of English
Linguistics
UOC8 HPW2
Excluded: ENGL5502, LING2604, LING2800

A step-by-step account of English grammar covering the most important and central constructions and categories. Reference is made to both the latest theoretical advances in linguistics and to significant departures that are made from traditional grammar. Samples from present-day English are analysed and discussed.

LING5007
Translation: Theory and Practice
Linguistics
UOC8 HPW2
Excluded: MODL5106

Considers the impact of modern linguistics on the theoretical and practical aspects of interlingual translation and/or interpretation. Issues and debates will be discussed, along with the theoretical frameworks behind some major programs.

LING5011
Functional Grammar
Linguistics
UOC8 HPW2
Excluded: ENGL2503, LING2400

An introduction to Systemic Functional Grammar. Provides a model of grammar which analyses authentic texts in their social context, and which has had a significant impact on education in mother tongue and second/foreign language situations. We develop a set of tools which focus on the lexical and grammatical patterns of a variety of texts from different genres and registers.

LING5012
Language and Mind
Linguistics
UOC8 HPW2
Excluded: ENGL2552

An introduction to issues in current linguistic theory, with particular attention to generative models, their historical development, methodology and philosophical and psychological implications.

LING5015
Functional Discourse Analysis
Linguistics
UOC8 HPW2

Develops tools for analysing discourse, examining patterns in text which contribute to cohesion and coherence, develop a system of knowledge, create an identity, and achieve social purposes. Systemic-functional descriptions and critical discourse perspectives will be central. A wide variety of texts will be examined, focussing in particular on written genres, but spoken genres and multi-modal texts will also be considered.

LING5020
Adult Language Learning and Teaching
Linguistics
UOC8 HPW2

Focuses on the pedagogical strategies of teaching adults English as a second and/or foreign language. Examines language use and discourse in the classroom, models of language, teaching methodology, development of curricula, syllabus design and use of teaching resources and technology. Includes a practicum in a classroom environment with hands-on experience, putting theory into practice.

LING5021
Language for Specific Purposes
Linguistics
UOC8 HPW2

Covers the origins of LSP and its relationship to foreign and second language teaching; the branches of LSP including Language for Business, Science and Technology, Academic, and Vocational Purposes; curriculum issues such as linguistic description and language needs, needs analysis and situation analysis, and teacher and learner characteristics; methodology, materials; assessment and evaluation. Uses case studies and research studies of LSP courses.

LING5023
Analysing Spoken Discourse
Linguistics
UOC8 HPW2

Explores conversation and other forms of talk-in-interaction, with a focus on the structures and organisation of the discourse, and further, on how participants interactively construct meanings and activities through the talk. Special focus is on the ways speakers distribute their turns at talk, how turns are sequenced into series of actions, and ways of dealing with disagreement and with misunderstandings and breakdowns. Students are required to transcribe and analyse a short conversation, and analyse some conversational data.

LING5050
Special Project in TESOL
Linguistics
UOC8 HPW2

A major project (8,000 words) involving the design of an ESL/EFL language course, a project in testing/evaluation or in classroom practices in TESOL, a CALL program in TESOL or another TESOL-related topic.

Note: Not advised for those in their first semester of study. Normally requires a Distinction average.

MANF8340
Factory Automation
School of Mechanical and Manufacturing Engineering
UOC6
Excluded: MANF9340

Elements of factory automation such as Flexible Manufacturing Cells and Systems, material handling and warehousing, assembly systems, automated quality control systems, sensors and data acquisition. Cellular manufacturing techniques and layout planning. Simulation and intelligence in manufacturing. Communication networks in a factory environment. Strategies for factory automation.

MANF8420
Managing Manufacturing Operations
School of Mechanical and Manufacturing Engineering
UOC6
Excluded: MANF9420

Managing manufacturing operations as a competitive weapon, strategic linkage of operations through quality, value added management, strategic quality management approach, International Human Resource Management, Technology Transfer, Strategic Management of Technology, Variation and its Causes, improvement strategies, productivity and its measurement, Taguchi techniques.

MANF8471
Manufacturing Strategy
School of Mechanical and Manufacturing Engineering
UOC6
Excluded: MANF9471.

Relation of manufacturing strategy to business strategy, financial strategy and marketing strategy. Technology and process choice; process positioning. Capacity and location decisions: long term capacity strategies, international capacity planning; planning facilities with a region. Global manufacturing and the virtual corporation. Focused manufacturing; continuous improvement and the experience curve. Strategic management of human resources; strategy implementation and change management; linking operational performance to manufacturing strategy.

MANF8472
Production Planning and Control
School of Mechanical and Manufacturing Engineering
UOC6
Excluded: MANF9472

Industry dynamics; Porters Model; bases for competition and implications for Production Planning and Control. Dynamics of materials flow; role of inventory; effect of bottlenecks and process variability on materials flow. Planning levels and timescales; forecasting; aggregate planning; the Master Production Schedule. Manufacturing Resources planning and its limitations. Optimised Production Technology and synchronised manufacturing; Just in Time production; Kan Ban systems; mixed model production; evolution towards JIT. Maintenance management; preventive and predictive maintenance; Total Productive Maintenance. Role of Information Technology in Production Planning and Control; decision support and expert systems as applied to planning and scheduling.

MANF8544
Concurrent Product and Process Design
School of Mechanical and Manufacturing Engineering
UOC6
Excluded: MANF9544

Concurrent Engineering approach to the design of products, processes and manufacturing systems. The product development process and the Concurrent Engineering team. Customer focussed design and Quality Function Deployment. Design for Manufacture, Design and Planning for Assembly, Rapid Prototyping. Implementation, organisation and management of Concurrent Engineering.

(only available for distance learning)

MANF8560
Computer Integrated Manufacture
School of Mechanical and Manufacturing Engineering
UOC6
Excluded: MANF9560

Systems analysis, design and implementation of Computer Integrated Manufacturing (CIM). Components of CIM including Production Planning and Control, CAD in CIM, Computer-Aided Process Planning, integrated maintenance, material handling. Shared CIM and AI in CIM will also be discussed.

MANF9010
Project Manufacturing Engineering and Management
School of Mechanical and Manufacturing Engineering
UOC12

Note: The project must be completed in no more than two sessions. A seminar presentation on the project topic is compulsory.

MANF9340
Factory Automation
School of Mechanical and Manufacturing Engineering
UOC6 HPW3
Excluded: MANF8340

Elements of factory automation such as Flexible Manufacturing Cells and Systems, material handling and warehousing, assembly systems, automated quality control systems, sensors and data acquisition. Cellular manufacturing techniques and layout planning. Simulation and intelligent manufacturing. Communication networks in a factory environment. Strategies for factory automation.

MANF9400
Industrial Management
School of Mechanical and Manufacturing Engineering
UOC6 HPW3

Evolution of management thought, the planning process; nature of managerial decision making, organisational structures; managing organisational change, motivation, performance, satisfaction, interpersonal and organisational communication, use of management information systems.

MANF9410
Total Quality Management
School of Mechanical and Manufacturing Engineering
UOC6 HPW3

Quality control systems, quality assurance, planning for quality, total quality management (TQM) philosophy, implementation of TQM in service and manufacturing industries, national and international standards.

MANF9420
Managing Manufacturing Operations
School of Mechanical and Manufacturing Engineering
UOC6 HPW3
Excluded: MANF8420

Managing manufacturing operations as a competitive weapon, strategic linkage of operations through quality, value added management, strategic quality management approach, International Human Resource Management, Technology Transfer, Strategic Management of Technology, Variation and its Causes, improvement strategies, productivity and its measurement, Taguchi techniques.

MANF9471
Manufacturing Strategy
School of Mechanical and Manufacturing Engineering
UOC6 HPW3
Excluded: MANF8471

Relation of manufacturing strategy to business strategy, financial strategy and marketing strategy. Technology and process choice; process positioning. Capacity and location decisions: long term capacity strategies, international capacity planning; planning facilities with a region. Global manufacturing and the virtual corporation. Focused manufacturing; continuous improvement and the experience curve. Strategic management of human resources; strategy implementation and change management; linking operational performance to manufacturing strategy.

MANF9472
Production Planning and Control
School of Mechanical and Manufacturing Engineering
UOC6 HPW3
Excluded: MANF8472

Industry dynamics; Porters Model; bases for competition and implications for Production Planning and Control. Dynamics of materials flow; role of inventory; effect of bottlenecks and process variability on materials flow. Planning levels and timescales; forecasting; aggregate planning; the Master Production Schedule. Manufacturing Resources planning and its limitations. Optimized Production Technology and synchronized manufacturing; Just in Time production; Kan Ban systems; mixed model production; evolution towards JIT. Maintenance management; preventive and predictive maintenance; Total Productive Maintenance. Role of Information Technology in Production Planning and Control; decision support and expert systems as applied to planning and scheduling.

MANF9491
Special Topic in Manufacturing Engineering
School of Mechanical and Manufacturing Engineering
UOC6 HPW3

MANF9492
Advanced Topic in Manufacturing Engineering
School of Mechanical and Manufacturing Engineering
UOC6 HPW3

MANF9543
Computer Aided Design/Computer Aided Manufacture
School of Mechanical and Manufacturing Engineering
UOC6 HPW3
Excluded: AERO9543

Topics to be covered include: manufacturing systems; elements of CAM; computer process monitoring and control; production systems at the plant and operation levels; principles underlying the intergration between a CAD/CAM package such as CATIA and a Manufacturing Management System such as Fourth Shift; applications to design and engineering processes.

Note: Enrolments are limited due to computer availability. Preference will be given to CIM Program Students. Students must contact the Lecturer one week after enrolment to confirm enrolment.

MANF9544
Concurrent Product and Process Design
School of Mechanical and Manufacturing Engineering
UOC6 HPW3
Excluded: MANF8544

Concurrent Engineering approach to the design of products, processes and manufacturing systems. The product development process and the Concurrent Engineering team. Customer focussed design and Quality Function Deployment. Design for Manufacture, Design and Planning for Assembly, Rapid Prototyping. Implementation, organisation and management of Concurrent Engineering.

MANF9560
Computer Integrated Manufacturing
School of Mechanical and Manufacturing Engineering
UOC6 HPW3
Prerequisite: MANF9543 Excluded: MANF8560

Systems analysis and design of computer integrated manufacturing, including flexible manufacturing systems and automated factories. Communication protocols.

MANF9601
Economic Decisions in Industrial Management
School of Mechanical and Manufacturing Engineering
UOC6 HPW3

Concept of economic analyses. Cost concepts; interest and interest formulae. Methods for economy studies; present worth, annual worth, payback period and rate of return; comparing alternative investments; depreciation methods, effect of income taxes, inflation; replacement analysis; capital budgeting; break-even and sensitivity analyses; economic decision making under risk and uncertainty; evaluation of projects in public sector.

MARK5800
Customer and Market Analysis
School of Marketing
UOC6 HPW3
Prerequisite or Corequisite: COMM5002 or enrolment in program 8415.

To make viable marketing decisions an organization needs to understand its customers and potential customers and the markets in which it currently operates or might enter. Market analysis assesses product demand, characteristics of current and prospective buyers and users, the behaviour and profitability of market segments, as well as the competitive, social, and technological environment. Students who complete this course will have a good understanding of how and why consumers and business buyers purchase products and the forces that can affect the performance of market offerings. They will also have a good understanding of key concepts and procedures for the planning and management of customer audits and market analysis. This course should be completed towards the beginning of the program.

Exclusions: MARK5930, MARK5942

MARK5801
Marketing Management
School of Marketing
UOC6 HPW3
Prerequisite or Corequisite: COMM5002 or enrolment in program 8415.

This course covers integrated marketing mix planning and control in the context of marketing strategy formulation. The course considers marketing strategy as a link between corporate strategy, business unit strategy, and marketing mix management. It does so by developing and assessing thematic marketing strategies as sources of sales from the standpoints of growth, share, and profitability. The course considers customer-oriented and alternative approaches to market definition, target market selection, positioning, and segmentation decisions using a range of conceptual, formal modelling, and case analysis methods. This course should be completed towards the end of the program and after MARK5800 Customer and Market Analysis.

Exclusion: MARK5950

MARK5810
Marketing Communication & Promotion
School of Marketing
UOC6 HPW3
Prerequisite or Corequisite: MARK5800 or MARK5801

This course introduces participants to the process of developing and managing effective marketing communications. Organizations need to interact with consumers, stakeholders and other organizations. A company can tell the marketplace about itself and its products in many ways. It is important to understand the nature and dynamics of the various means of communication so that they can be managed efficiently and effectively. This course examines the tools available to marketing communication planners and provides guidelines as to their application. It builds on core marketing subjects by extending the issues relating to communication. It takes an integrated approach to communication management and covers the full spectrum of marketing communication, including advertising, direct marketing, promotion, personal selling, public relations, sponsorship, and internet communication.

Exclusion: MARK5946

MARK5811
Applied Marketing Research
School of Marketing
UOC6 HPW3
Prerequisite or Corequisite: MARK5800 or MARK5801

This course offers an overview of the varied forms of marketing research that are used by practicing marketing managers to make informed decisions. Topics include: problem definition and research design, questionnaire design, sampling, interviewing, data analysis, interpretation, and reporting. The course considers quantitative and qualitative tools and techniques as well as mixed methods. It reviews research data in the context of applied marketing problems by including, for example, studies of market segmentation, price and promotion response, market attractiveness and entry, and media selection.

Exclusion: MARK5932

MARK5812
Distribution, Retail Channels & Logistics
School of Marketing
UOC6 HPW3
Prerequisite or Corequisite: MARK5800 or MARK5801

This course presents an integrated approach to distribution strategy, retail channel management, and related aspects of logistics. Distribution involves the creation of product and service availability through marketing channels, retailing involves the management and marketing of assortments of merchandise for direct sale to the consumer, and logistics involves the creation of targeted levels of customer service through the distribution system. Students will examine a) distribution activities involved in getting consumer and business goods and services to market, b) the unique characteristics associated with retail marketing of merchandise assortments, and c) the strategic aspects of logistics as a marketing tool. In marketing management, quality products and good promotion efforts are not enough. Product and service assortments and availability levels must competitively match the wants of target market customers. Logistics decisions in marketing concern setting and managing appropriate levels and allocations of stock, levels of delivery service, and levels of associated physical distribution services to achieve marketing and distribution objectives.

MARK5813
New Product & Service Development
School of Marketing
UOC6 HPW3
Prerequisite or Corequisite: MARK5800 or MARK5801

The lifeblood of most market-driven organisations is the development and commercialisation of new products and services. However, many of these developments fail. The purpose of this course is to minimise the chances of failure by having a better understanding of the development process. The course covers all issues involved in developing and bringing to market new products and services: opportunity identification, idea generation, design, consumer research, forecasting, market testing, branding and communications, launch and post-launch monitoring, as well as project management and appraisal. The latest techniques and analysis procedures are used within a practical managerial framework.

MARK5814
e-Marketing
School of Marketing
UOC6 HPW3
Prerequisite or Corequisite: MARK5800 or MARK5801

Marketers make considerable use of interactive electronic technologies: the Internet, interactive TV, SMS communications, electronic kiosks, etc. They do so to achieve a variety of goals: information provision, advertising and promotion, building customer profiles, direct and interactive communications, placing goods with customers through virtual stores, and working with customers to develop innovative new products and services. These activities present management with exciting opportunities, reveal new sources of competition, and also demand a re-evaluation of core competencies. Topics include: integrating e-marketing with traditional forms of marketing (such as the use of the Internet alongside radio, magazine and television media), customer service and fulfilment challenges, global connectivity, adaptive and accountable marketing planning, and specific implications for intermediaries and business-to-business marketers.

Exclusion: MARK5947

MARK5815
International Marketing in Asia
School of Marketing
UOC6 HPW3
Prerequisite or Corequisite: MARK5800 or MARK5801

As markets globalise firms are increasingly looking beyond their domestic market for growth opportunities. This course highlights the conceptual, descriptive and strategic issues involved in identifying and capturing international marketing opportunities. This includes the various environments that have an impact on international marketing (economic, technological, socio-cultural, political-legal and corporate), and the implications these have on marketing strategy. The regional focus of this course is Asia, with attention given to such issues as market entry strategies, product adaptation, business-to-business negotiations and the influence of culture on consumer behaviour in the region. Guest lecturers and case studies are used to highlight key points.

Exclusion: MARK5945

MARK5816
Services Marketing
School of Marketing
UOC6 HPW3
Prerequisite or Corequisite: MARK5800 or MARK5801

This course focuses on the distinctive characteristics and problems of marketing in service organizations and for any organization developing and marketing services as part of its business portfolio. It demonstrates why and how services require a distinctive approach to marketing strategy-both in its development and in its execution. This course examines cases from commercial and not-for-profit organizations including banking, transportation, hotels, tourism, hospitals, education and professional services such as accountancy, engineering, and management consultancy. Anyone working in a service industry or for an organization with a strong commitment to customer service will find this course relevant.

Exclusion: MARK5941

MARK5817
Contemporary Issues in Marketing
School of Marketing
UOC6 HPW3
Prerequisite or Corequisite: MARK5800 or MARK5801

Marketing as a discipline and practice is always in transition. Although knowledge, skills and practices of the past are still relevant, technical, environmental and social change affect them. The key features of this course are a critical examination of the theoretical basis of marketing and recent developments in marketing theory and practice and their relevance to contemporary business. On completion of the course, students should have identified and examined a range of emerging, topical and contentious issues within marketing and be able to articulate a range of views about the nature of marketing thought. They should also understand the different social, cultural and ideological perspectives and norms that underpin current marketing theory and practice. This course is best studied towards the end of the program.

MARK5991
Introduction to the Media Sales Environment
School of Marketing
UOC6 HPW3
Prerequisite:Admission to Media Sales Program

Media Sales executives are employed by Australia's media companies (News Ltd, PBL, Austereo) to write the $4bn in annual advertising revenue that finances the industry. Media Sales executives must therefore have an understanding of the industry and the regulatory environment in which their employers operate and compete. This course will cover the structure, organisations, revenue base and regulatory environment of Australian media.

MARK5992
Media Audience Research
School of Marketing
UOC6 HPW3
Prerequisite: Admission to Media Sales Program

This course will cover the purpose, methodology, application and management by media companies and advertising/media agencies of audience research for the selling and buying of media space and time for television, radio, newspapers, magazines and other media. Substantial class time will be dedicated to both the theory (statistical sampling, data collection and analysis methodology) and practice (use of syndicated and proprietary software programs) of media research.

MARK5993
Principles of Media Planning, Buying and Selling
School of Marketing
UOC6 HPW3
Prerequisite: Admission to Media Sales Program

This course will cover the progression of a communication strategy into a media strategy and then implementation through the media planning and buying process to post campaign delivery evaluation. It will examine the role and practices of all the stakeholders in the media buying and selling process: clients, advertising and media agencies, media sales companies, media companies. Impacts on the media buying decision such as media planning theories and direct client experiences will be addressed. It will examine current industry selling practices through bulk media agency deals, clients deals, cross media deals and the structure and application of media rate cards.

MARK5994
Media Customer Relationships
School of Marketing
UOC6 HPW3
Prerequisite: Admission to Media Sales Program

This course will provide a background on the theory of business to business sales techniques and customer relationship building and management within a sales environment. It will then demonstrate how this is applied in the Media Sales industry by a range of different companies. It will look at a range of presentation methods and tools for persuasive and effective selling and how these are currently utilised. And it will cover the techniques required for negotiations within multiple and long term client relationship sales environments. Students will be given the opportunity to practice these skills within a learning environment that is objective and focussed toward skills development

MARK6000
Contemporary Perspectives in Marketing
School of Marketing
UOC6 HPW3
Prerequisite: must be enrolled in program 8414

This course prepares students for the Master of Marketing program by providing knowledge of marketing in contemporary business organizations. The marketing concept is explored and what it means to be a truly customer-focused and market-led organisation. Building on recent research, theory and practice, the course addresses such issues as: What is meant by market orientation? How can an organisation become customer-focused? What is the role of marketing in the modern organisation and what is its relationship with other business activities? How can relationship marketing and service management be used effectively? The objective of this course is to go beyond traditional views of marketing. Students are exposed to a variety of different perspectives and encouraged to think critically about these perspectives. Views vary depending on whether the focus is exchange, relationships, alliances or networks, and depending on the level of analysis (extending from value creation for individual customers through to societal and macro-marketing themes and issues of sustainability). The course will make use of a combination of teaching methods, including lectures, cases, exercises and projects.

Exclusions: MARK5900, MARK5981

MARK6001
Business Skills for Marketers
School of Marketing
UOC6 HPW3
Prerequisite: must be enrolled in program 8414

Participants are equipped with the business skills and techniques necessary to operate in marketing. There are three modules to the course: (a) Market opportunity analysis. Considered are basic types of quantitative and qualitative data for assisting in marketing analysis, environmental scanning, opportunity analysis, forecasting and decision-making. (b) Marketing due diligence. Dealt with in this module are brand assets, trademarks, intangibles, intellectual property, trade practices, compliance and ethics. (c) Marketing performance analysis. Themes include: customer costs and profitability analysis, measuring marketing assets (brand equity, customer satisfaction), measuring ROI of marketing programs (eg "real time" metrics for mid-program corrections versus detailed "report cards" at the end of the program), measuring promotion and advertising effectiveness. For managers to assess and demonstrate the impact of investments in marketing, they need accurate measurement tools and systems that link non-financial measures (such as customer satisfaction, brand equity, market orientation, and market share) to the financial measures used by CEOs and CFOs.

Exclusion: MARK5932

MARK6002
Creativity, Innovation & Change in Marketing
School of Marketing
UOC6 HPW3
Prerequisite: must be enrolled in program 8414

A synthesis is presented of analytical approaches to strategy development and marketing decision-making. In addition to reviewing the traditional areas of marketing strategy, planning, implementation and control, this course will also focus on the marketing aspects of strategic innovation and change. Specifically, it will cover areas such as leveraging technological innovation and new product development (NPD), organising and managing a marketing organization, working across functional boundaries (such as sales and marketing), working with external partners (suppliers, agents, co-branders), operating in competitive and dynamic environments, thinking creatively about new products, new services and marketing communications, and engaging in creative destruction and lateral marketing. In so doing students will be required to consider the future direction of marketing. The course will make use of cases and exercises.

MARK6003
Practicum in Marketing
School of Marketing
UOC6 HPW3
Prerequisite: must be enrolled in program 8414

This course is designed as a company/industry-based consulting project, giving students an opportunity to examine specific themes from the program in a company/industry context. Students are expected to address specific marketing issues and problems that are of practical relevance to individual companies/industries, and that explicitly elaborate on themes from the core courses and electives. Students are required to examine themes in the context of the problems and challenges facing the company/industry, undertake thorough analysis of appropriate data, and then suggest solutions or options that might assist the company/industry in moving forward. In the process academic and business best practices are examined. This is an intensive, supervised exercise that will be evaluated entirely on the basis of continual assessment and a final management report.

Exclusion: MARK5960

MARK6004
Business-to-Business Marketing
School of Marketing
UOC3 HPW1.5
Prerequisite: must be enrolled in program 8414

Considerable marketing effort is devoted to reaching and servicing business markets, either because of their own inherent value or as a route through to mass consumer markets. Business marketing management is the process of understanding, creating, and delivering value to targeted business-to-business markets and customers. Presented in this course are the specific elements of marketing knowledge and planning that relate to business, industrial and technology markets. These include assessing market opportunities and examining the business environment (to generate primary demand, selective demand and product range options), and managing the functional aspects of marketing in an organisational setting (integrated and independent market systems, e-marketplaces and e-procurement, sales forces and sales branches, channel structures, agents and wholesalers, dedicated EDI-systems). Participants gain an understanding of organisational buying behaviour and develop decision-making capabilities in the field of business-to-business marketing, including negotiation skills in a group decision-making process.

Exclusion: MARK5957

MARK6006
Customer Relationship Management
School of Marketing
UOC3 HPW1.5
Prerequisite: must be enrolled in program 8414

Customer relationship management is an enterprise-wide customer-centric approach to maximising customer value. It is aimed at creating long-lasting and profitable relationships with individual customers - in both B2B and B2C contexts. To be effective it requires the creation and maintenance of a direct link between the organisation and its customers. Developments in technology have allowed organizations to look at their customers as individuals and to gather, store and analyse customer-based information. An outcome is an increase in the use of direct marketing techniques such as those for designing and managing consumer databases and customer service centres. Topics include: creating a conducive organisational structure, creating and using databases, managing loyalty programs, the strategic use of consumer data, managing direct distribution and direct communication (electronic and surface mail), consumer databases and privacy, ethics and regulation. Participants will be exposed to a range of relationship-building strategies and techniques, as well as software and eCRM technologies.

Exclusion: MARK5985

MARK6007
Managing Marketing Relationships, Alliances & Networks
School of Marketing
UOC3 HPW1.5
Prerequisite: must be enrolled in program 8414

Developing and managing relations between marketing and other functions within the firm and with external organizations such as suppliers, distributors, government and business customers plays an important role in the identification, creation and delivery of value to customers. These networks of relations are the means by which key resources and competences are accessed and developed. The increased importance of relationship management is reflected in the growth of relationship marketing concepts and in the development of interaction and network approaches in business and international marketing. This course examines the nature and role of internal and external relations in developing and implementing marketing strategy, their impact on a firm's marketing performance and how they are managed. It includes consideration of issues such as relationship management and evaluation, relationship portfolios, economic and behavioural theories of relations, internal management upwards to CEOs and CFOs and sideways to production and sales, collaboration and partnering/alliance strategies, interaction and network approaches to marketing and their application to specific types of relationship and network contexts such as those involving suppliers, distributors, business customers, key accounts, technology partners and cross-functional relations.

Exclusion: MARK5956

MARK6013
Advances in Consumer Analysis
School of Marketing
UOC3 HPW1.5
Prerequisite: must be enrolled in program 8414

The basics of consumer behaviour are reviewed. This is followed by an advanced-level treatment of the subject, with themes such as: the historical antecedents of consumer behaviour, the culture of consumption, the social psychology of consumption, and the ecology of learning and perception. Also considered is the impact of these influences on marketing strategy, such as the development and proliferation of product formulations and the uses and limitations of mass communications. Students are exposed to research methods, especially sociological, qualitative, ethnographic and interpretive approaches.

Exclusion: MARK5955

MARK6018
Decision-Support Models for Marketers
School of Marketing
UOC3 HPW1.5
Prerequisite: must be enrolled in program 8414

The challenge for every customer-oriented organization consists of identifying potential customers This innovative course provides an understanding of the role that analytical techniques and models can play to enhance marketing decision-making. Though designed for students with some background in quantitative methods, the course is non-mathematical. The focus is on computer-based models, and emphasis is on application. The most popular and useful techniques found in marketing today are studied, including: choice models for customer targeting, conjoint analysis for product design, cluster/discriminant analysis for market segmentation, portfolio models for project selection/prioritisation, perceptual mapping for product positioning, new product forecasting for better product planning, and resource allocation for better ways to develop and defend marketing budgets. These are illustrated with cases based on real situations in which organizations must make tough practical decisions. Students who complete this course will be conversant with modern methods of analysis and decision-support, understand and be able to use the computer tools in the Marketing Engineering toolkit in a variety of business decision situations, and be in a position to make better use of existing data when making business decisions. Students are expected to have access to a computer.

Exclusion: MARK5983

MARK6019
Data-Mining & Information Systems for Marketing Decisions
School of Marketing
UOC3 HPW1.5
Prerequisite: must be enrolled in program 8414

Technological advancements over recent years have led to voluminous quantities of data being collected in virtually all areas of business, and particularly in marketing (e.g., sales data, customer records, membership records). Sorting the data into information has always been a challenging

task for analysts. Data-mining tools, involving automatic or semi-automatic exploratory analyses, have become popular in helping to transform data into information. This course introduces basic concepts of data mining, discusses major data mining techniques, looks at data integration, presents applications and discusses some commercial data mining tools. Specific applications are considered using innovative case-study material, including the use of data-mining and geographic information systems for market segmentation, customer relationship management, and retail network planning and demand modelling. By participating on this course students are expected to gain new insight into their own databases.

MARK6020
Product & Brand Management
School of Marketing
UOC3 HPW1.5
Prerequisite: must be enrolled in program 8414

This course is designed to give participants a good working knowledge of the many aspects of product and brand management across consumer and industrial markets. The separation of product from the brand, changes to trademark and brand registration laws and the focus on building and maintaining brand equity has created a need for marketers to understand the complex relationship between products and brands and to develop brand strategies. The material covered in the course includes: the relationship between products and brands; the history of brands; product audits and brand architecture decisions; brand selection, registration, naming and design; legal requirements; brand performance measurement; creating, maintaining and measuring brand equity.

Exclusion: MARK5984

MARK6021
Integrated Marketing Communication
School of Marketing
UOC3 HPW1.5
Prerequisite: must be enrolled in program 8414

Integrated Marketing Communications introduces course participants to the process of effective marketing communication planning. Organisations need to interact with a variety of audiences, including consumers, stakeholders, policy-makers and other organisations. There are many ways in which a company can inform the marketplace about itself and its products. It is important to understand the nature and dynamics of the tools available so that they can be applied efficiently and effectively. This course examines the tools currently available to marketing communication planners and provides guidelines as to their application. An overview of currently available communication tools such as advertising, promotion, direct marketing, digital media, personal selling, public relations, one-to-one communications, direct selling, sponsorship and internet based communication is presented.

MARK6022
Advertising & Sales Promotion Implementation
School of Marketing
UOC3 HPW1.5
Prerequisite: must be enrolled in program 8414

Advertising and Sales Promotion Implementation gives participants practical skills in developing and managing advertising and sales promotions programs, media planning, and client-agency relations. Topics include: advertising and sales promotion, planning and strategy; selection of media, media delivery planning, understanding the consumption of media; developing messages for different media, including television, radio, print and websites; design and management aspects; the selection of trade and consumer promotions; monitoring and evaluating programs. Commercial partnerships and ROI issues are considered in the context of managing client-agency relations, with use being made of cases, role-play exercises and research studies.

MATH5009
Computational Coursework Thesis FT
School of Mathematics
UOC12

MATH5010
Computational Coursework Thesis PT
School of Mathematics
UOC6

MATH5165
Optimization
School of Mathematics
UOC6 HPW3

Analysis, solution and application of optimization problems where the variables change continuously. Topics selected from: nonlinear programming, convex optimization, nonsmooth analysis and optimization, variational inequalities and complementarity problems, infinite dimensional optimization, stochastic optimization, and numerical optimization.

Note: Course not offered every year - contact School for more information.

MATH5175
Special Topics in Applied Mathematics A
School of Mathematics
UOC6 HPW3

A selection of topics from: differential equation models, systems of differential equations and HIV modelling.

Note: Course not offered every year - contact School for more information.

MATH5185
Special Topics in Applied Mathematics B
School of Mathematics
UOC6 HPW3

A selection of topics from optimization, optimal control and numerical analysis.

Note: Course not offered every year - contact School for more information.

MATH5215
Special Topics in Applied Mathematics C
School of Mathematics
UOC6 HPW3

A selection of topics from: bifurcation theory, Hamiltonian systems, perturbation methods, the theory of solitons and chaotic systems.

Note: Course not offered every year - contact School for more information.

MATH5285
Fluids, Oceans and Climate
School of Mathematics
UOC6 HPW3

Analytical and numerical modelling of ocean dynamics, and their interpretation. The course examines aspects of modelling of oceanic circulation using analytical and numerical modeling techniques. Theoretical analyses of the primitive equations is used to identify individual physical processes such as surface Ekman layers, stratified flow over topography and wind-forced coastal currents under idealised conditions. A general numerical ocean model is used to illustrate these results by comparison with the idealised analytical work, and by extension to more complex cases. Theoretical and practical aspects of model implementation are considered, including numerical stability, open boundary conditions, surface and convective mixed layer algorithms, as well as interpretation in the light of observations.

Note: Course not offered every year - contact School for more information.

MATH5295
Special Topics in Applied Mathematics D
School of Mathematics
UOC6 HPW3

Atmospheric dynamics and their simulation using numerical models. This course combines atmospheric dynamics and numerical modelling. It covers the following topics: derivation and interpretation of the equations governing the motion of the earth s atmosphere from the surface to just above the stratopause, the important types of wave motions supported by the governing equations, the use of scaling analysis to develop several distinct kinds of atmospheric models and the application of a range of numerical techniques to solving the equations governing these models.

The last section forms the major part of the course, and examines the various numerical algorithms in terms of accuracy, stability, consistency and efficiency. The choice of lateral boundary conditions is also discussed in detail. During the course, computer laboratory sessions are held and course participants put together a working numerical model of their choice, from one of those introduced in the course. This model will be realistic in the sense that it will produce 24 hour predictions of the state of the atmosphere using real (observed) data as initial and boundary conditions.

Note: Course not offered every year - contact School for more information.

MATH5305
Computational Mathematics
School of Mathematics
UOC6 HPW3

MATH5335
Computational Methods for Finance
School of Mathematics
UOC6 HPW3

In the end finance is concerned with making definite numerical recommendations that frequently can only be obtained 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.

It includes a review of MATLAB, floating point numbers, rounding error and computational complexity, and a selection of topics from: approximation and parameter estimation, Fourier series and the FFT, finite difference approximations, partial differential equations (Black-Scholes PDE), sparse linear systems, nonlinear algebraic equations, trees, Monte Carlo methods and simulation, random numbers and variance reduction, numerical integration.

MATH5515
Special Topics in Pure Mathematics A
School of Mathematics
UOC6 HPW3

Note: Course not offered every year - contact School for more information.

MATH5615
Banach and Operator Algebras
School of Mathematics
UOC6 HPW2

Note: Course not offered every year - contact School for more information.

MATH5645
Number Theory
School of Mathematics
UOC6 HPW2

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: Course not offered every year - contact School for more information. Excluded: MATH3740.

MATH5665
Algebraic Topology
School of Mathematics
UOC6 HPW2

Topics from: functors and natural transformations, homotopy of maps, homotopy groups, covering spaces, simplicial and singular homology and cohomology, homological algebra.

Note: Course not offered every year - contact School for more information.

MATH5685
Complex Analysis
School of Mathematics
UOC6 HPW2

Topics in advanced complex function theory chosen from the following: conformal mappings, analytic continuation, entire and meromorphic functions, elliptic functions, asymptotic methods, integral formulae, harmonic functions, Riemann surfaces.

Note: Course not offered every year - contact School for more information. Excluded: MATH3680.

MATH5705
Analysis
School of Mathematics
UOC6 HPW3

Topics from: Fourier series and integrals for Tn and Rn, locally compact abelian groups, Pontrjagin duality, Plancherel Theory.

Note: Course not offered every year - contact School for more information.

MATH5735
Modules and Representation Theory
School of Mathematics
UOC6 HPW2

Note: Course not offered every year - contact School for more information.

MATH5806
Applied Regression Analysis
School of Mathematics
UOC6 HPW2

Generalised linear models. Ridge regression. Analysis of residuals. Nonlinear regression.

Note: Course not offered every year - contact School for more information.

MATH5816
Continuous Time Financial Modelling
School of Mathematics
UOC6 HPW3

More advanced applications of stochastic calculus to security markets.

MATH5825
Measure, Probability and Convergence
School of Mathematics
UOC6 HPW2

Measurable spaces, measures and probability measures, product spaces, random variables and their distributions, absolutely continuous and singular distributions, expected values as abstract Lebesgue integrals, modes of convergence of random variables, Borel-Cantelli Lemma and the Strong Law of Large Numbers, uniform integrability, some important inequalities, multivariate and conditional distributions, conditional expectations, characteristic functions, Central Limit Theorem.

MATH5835
Stochastic Processes
School of Mathematics
UOC6 HPW2

Random Walk and Exponential Random Walk: interpretation in Mathematical Finance, martingales. Wiener Processs: calculation of functionals and distributions related to the Wiener process, reflection principle and barrier problem. Stochastic integration: Ito formula, calculations based on the Ito formula. Linear and bilinear stochastic differential equations: interpretation in Mathematical Finance, connections with partial differential equations, pricing of simple options. The Girsanov Theorem: linear barrier problem, examples of exotic options.

MATH5836
Data Mining and its Business Applications
School of Mathematics
UOC6 HPW2

Increasingly, organisations need to analyse enormous data sets to determine useful structure in them. In response to this, a range of statistical methods and tools have been developed in recent times to allow accurate and quick analysis of these sets.

Topics include: choosing the right data mining tool for your data, linear methods (logistic regression and generalized linear models) and data mining, clustering methods, decision trees, multivariate adaptive regression splines, wavelet smoothing, hybrid models, neural networks, support vector machines, bagging and boosting methods. Case studies of industry-based data mining projects feature prominently. The most recent data mining software is used to illustrate the methods.

MATH5846
Introduction to Probability and Stochastic Processes
School of Mathematics
UOC6 HPW2

Probabilistic concepts are necessary to study various complex phenomena arising in Engineering, Biology, Medicine and Economics. The aim of this course is to introduce basic concepts which are needed to analyze such phenomena. In particular we discuss the concepts of random event,

random variable, structures of dependence, computation of probabilities using the Central Limit Theorem, simple Markov chains and a Poisson process.

MATH5855
Multivariate Analysis
School of Mathematics
UOC6 HPW2

Likelihood ratio tests for means, variances and structure. Discriminant, principal component, canonical and factor analysis. Computing will feature prominently.

Note: Course not offered every year - contact School for more information.

MATH5856
Introduction to Statistics and Statistical Computations
School of Mathematics
UOC6 HPW2
Corequisite: MATH5846

The aim of this course is to learn about the basic principles of statistical reasoning and the most important methods to estimate unknown parameters of the observed system, to take decisions without complete information and to use statistical packages. In particular, we discuss methods to visualise the data, to simulate some random phenomena using random numbers generators, to estimate parameters using Maximum Likelihood and Least Squares Estimators and to test hypotheses. The general linear models are studied in more detail using SAS and SPLUS.

MATH5905
Statistical Inference
School of Mathematics
UOC6 HPW2

Topics include decision theory; general theory of estimation and hypothesis testing; robustness of the statistical procedures; introduction to the bootstrap.

MATH5915
Medical Statistics
School of Mathematics
UOC6 HPW2

Bioassay, generalised linear models, analysis of multivariate discrete data including loglinear model analysis of contingency tables, survival analysis, competing risks, hazard models for point processes.

Note: Course not offered every year - contact School for more information.

MATH5925
Project
School of Mathematics
UOC12

A thorough study of a set of statistical papers or some workplace problem of the student s choice.

MATH5935
Statistical Consultancy
School of Mathematics
UOC6

This is a practical course which introduces students to the general framework of statistical consulting and gives students experience in solving statistical problems arising in practice.

MATH5960
Bayesian Inference and Computation
School of Mathematics
UOC6 HPW2

MATH5965
Discrete Time Financial Modelling
School of Mathematics
UOC6 HPW3

Topics include derivative securities, forward and futures contracts, swaps; option pricing using Black Scholes and binomial approaches; stochastic models for asset dynamics, term structure of volatilities and interest rates; introduction to Ito calculus, diffusion processes and stochastic differential equations.

MATH5975
Introduction to Stochastic Analysis
School of Mathematics
UOC6 HPW2

MATH5985
Term Structure Modelling
School of Mathematics
UOC6 HPW3

1. Fixed-income securities: zero-coupon bonds, yield-to-maturity, yield curve, forward rates, LIBOR and caps, swaps and swaptions.

2. Interest rates: short-term interest rate, spot and forward martingale measure, Merton's model, Vasicek model, CIR model, affine term structure models, HJM methodology, Gaussian HJM model, lognormal model of LIBORs, Jamshidian model of forward swap rates.

3. Valuation and hedging of interest rate derivatives: bond options, options on futures, caps, swaptions.

MATS6605
Professional Communication and Presentation
School of Materials Science and Engineering
UOC3 HPW2
Corequisite: MATS6695

Presentation skills: public speaking, presentation techniques and problems, visual aids, library usage; Re MATS6695 Materials Project (corequisite): guidelines for project preparation and two oral presentations; Job search skills: curriculum vitae and resume preparation, cover letters, interview skills, nonverbal communication, questionnaires and examinations.

MATS6615
Materials Design
School of Materials Science and Engineering
UOC6 HPW4

Selected topics in ceramics, composites, metals, and/or polymers involving the inter-relationships between materials properties, design, production, and performance. Materials selection, specifications, and standards.

MATS6625
Materials Processing
School of Materials Science and Engineering
UOC6 HPW4

Selected topics in ceramics, composites, metals, and/or polymers involving the processing of raw materials to their finished condition as precursors, stock shapes, or specific components. Mass and energy balances, engineering calculations, and unit operations.

MATS6635
Materials Properties & Behaviour
School of Materials Science and Engineering
UOC6 HPW4

Selected topics in ceramics, composites, metals, and/or polymers involving the principal properties of materials: physical, chemical, thermal, mechanical, thermomechanical, electrical, magnetic and optical.

MATS6645
Materials Characterisation
School of Materials Science and Engineering
UOC6 HPW4

Selected topics in ceramics, composites, metals, and/or polymers involving the structural, microstructural, and chemical analyses of materials: X-ray diffraction (XRD), scanning electron microscopy (SEM), transmission electron microscopy (TEM), energy dispersive spectroscopy (EDS), electron probe microanalysis (EPMA), atomic force microscopy (AFM).

MATS6655
Advanced Materials Characterisation
School of Materials Science and Engineering
UOC6 HPW4

Selected topics in ceramics, composites, metals, and/or polymers involving the structural, microstructural, and chemical analyses of materials: secondary ion mass spectroscopy (SIMS), X-ray photoelectron spectroscopy (XPS), Auger electron spectroscopy (AES), and laser Raman microscopy.

MATS6665
Materials Applications & Performance
School of Materials Science and Engineering
UOC6 HPW4

Selected topics in ceramics, composites, metals, and/or polymers involving the inter-relationships between the structure and microstructure of materials, their resultant properties, expected and actual performance, and current and potential applications.

MATS6675
Materials Modelling
School of Materials Science and Engineering
UOC6 HPW4

Selected topics in ceramics, composites, metals, and/or polymers involving numerical and analytical techniques, such as finite element modelling (FEM), applied to materials and processes in terms of design and performance, particularly thermal and mechanical stress analyses. Software packages and design of computer programs.

MATS6685
Management
School of Materials Science and Engineering
UOC6 HPW4

Selected topics in management involving basic economic principles, cost-benefit analyses, basic accounting, legal and contractual issues, products and services liability, human resources, industrial relations and conflict, leadership, decision-making, operations and project management, quality assurance and management, organisational design and development, market research and strategy, marketing and sales.

MATS6695
Materials Project
School of Materials Science and Engineering
UOC6 HPW8
Corequisite: MATS6605

A project report on ceramics, composites, metals, and/or polymers in the form of a thesis, including literature review; experimental, theoretical, or design investigation; and discussion of the results. Serves as the basis for the oral presentations in MATS6605 Professional Communication and Presentation.

MECH8310
Advanced Vibration Analysis
School of Mechanical and Manufacturing Engineering
UOC6
Excluded: MECH9310

Introduction to experimental vibration analysis using Fast Fourier Transform (FFT) techniques. Typical sources of vibration in machines. Analysis of continuous systems via classical and finite element techniques. Experimental modal analysis. Torsional vibrations, including gearedshaft systems.

MECH8311
Fundamentals of Vibration
School of Mechanical and Manufacturing Engineering
UOC6
Excluded: 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.

MECH8312
Fundamentals of Noise and Vibration Measurment
School of Mechanical and Manufacturing Engineering
UOC6
Excluded: MECH9312

Fourier coefficients of periodic signals. Power spectral density. Time windows and spectral analysis. Simple sound pressure measurements. Measurement of special descriptors of sound. Measurement of reverberation time and calculation of absorption coefficients. Measurements of the sound power level of a sound source by the direct and the comparison method. Measurements of the sound power levels of a sound source by the intensity method. Tape recording of noise and vibration signals. Using accelerometers.

MECH8323
Environmental Noise
School of Mechanical and Manufacturing Engineering
UOC6

Prediction of source strengths of transport and construction noise. Noise propagation models including atmospheric and topological effects. Propagation in urban and rural areas. Attenuation by barriers. Strategies for controlling environmental noise. Prediction models. Environmental noise exposure concepts.

MECH8324
Building Acoustics
School of Mechanical and Manufacturing Engineering
UOC6

Room acoustics viewed from modal and energy aspects. Absorption and transmission performance of building elements such as carpets, windows and walls. Relationship between laboratory and field performance measurements. Noise problems associated with building services.

MECH8325
Fundamentals of Noise
School of Mechanical and Manufacturing Engineering
UOC6
Excluded: MECH9325

Development of the acoustic plane wave equation, introduction of concepts of acoustic impedance, characteristic impedance, acoustic energy density, acoustic intensity and acoustic power. Measurement of sound pressure. Decibel scales. Standing waves. The effect of noise on people. Wave propagation in porous media. Transmission phenomena including transmission of plane waves between different media, through walls and along pipes. The analysis of expansion chamber mufflers and pipe side-branches. Basic energy approach to room acoustics.

MECH8326
Advanced Noise
School of Mechanical and Manufacturing Engineering
UOC6
Prerequisite: MECH8325 or MECH9325 Excluded: MECH9326

The Helmholtz resonator. Transmission line formulae for one dimensional plane wave calculations. Development of the three dimensional acoustic wave equation. Applications of the three dimensional form of the acoustic wave equation in rectangular coordinates, including transmission of plane waves at oblique incidence between media, waves in rectangular ducts, standing waves in enclosures. Applications of the three dimensional wave equation in cylindrical and spherical coordinates. Basic structural-acoustic interaction.

MECH8620
Computational Fluid Dynamics
School of Mechanical and Manufacturing Engineering
UOC6 HPW3

Incompressible flow: primitive equations, stream function, vorticity equations. The conservative property. Stability analysis. Explicit, implicit methods. Upwind differences. SOR methods. Fourier series methods. Pressure, temperature solutions. Solving the primitive equations.

MECH8751
Refrigeration and Air Conditioning 1
School of Mechanical and Manufacturing Engineering
UOC6 HPW3
Excluded: MECH4751, MECH8751

Review of thermodynamic principles; evaluation of thermodynamic properties of real fluids. Refrigerants, their properties and applications. Gas cycle refrigeration. Steam-jet refrigeration. Vapour compression refrigeration; analysis and performance characteristics of the complete cycle; analysis and performance of multipressure systems. Analysis of the performance of compressors, condensers, evaporators and expansion devices. Thermo-electric refrigeration.

MECH8752
Refrigeration and Air Conditioning 2
School of Mechanical and Manufacturing Engineering
UOC6 HPW3
Prerequisite: MECH8751 or MECH9751

Psychrometrics; application to air conditioning design. Direct contact heat and mass transfer; application to the design of cooling towers and air washers. Cooling and dehumidifying coils. Properties of homogeneous binary solutions; steady flow processes with binary mixtures. Rectification of a binary mixture. Analysis of absorption systems. Production of low temperatures. Liquefaction and rectification of gases. Magnetic cooling.

MECH9010
Project Mechanical Engineering
School of Mechanical and Manufacturing Engineering
UOC12

Note: The project must be completed in no more than two sessions.

MECH9142
Land Transport Vehicle Engineering
School of Mechanical and Manufacturing Engineering
UOC6 HPW3

This course outlines the context of the task for land transport vehicles, develops its technical mechanical engineering aspects and enables students to explore in depth an area of their choice (decided in consultation with the lecturer in charge). Topics covered include: The land transport task; local/global. Modes of land transportation; guided/non-guided, passenger/freight, private/public, practical/fun. Analysis of land transport systems covering; infrastructure, types of vehicles, power systems, structure, vehicle dynamics, manufacture, reliability, economics, safety, sustainability. Recreational land vehicles.

MECH9310
Advanced Vibration Analysis
School of Mechanical and Manufacturing Engineering
UOC6 HPW3
Excluded: MECH4310, MECH8310

Introduction to experimental vibration analysis using Fast Fourier Transform (FFT) techniques. Typical sources of vibration in machines. Analysis of continuous systems via classical and finite element techniques. Experimental modal analysis. Torsional vibrations, including geared shaft systems.

MECH9311
Fundamentals of Vibration
School of Mechanical and Manufacturing Engineering
UOC6 HPW3
Excluded: MECH3310, MECH3330, MECH8311

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.

MECH9325
Fundamentals of Noise
School of Mechanical and Manufacturing Engineering
UOC6 HPW3
Excluded: MECH4321, MECH8325

Development of the acoustic plane wave equation, introduction of concepts of acoustic impedance, characteristic impedance, acoustic energy density, acoustic intensity and acoustic power. Measurement of sound pressure. Decibel scales. Standing waves. The effect of noise on people. Wave propagation in porous media. Transmission phenomena including transmission of plane waves between different media, through walls and along pipes. The analysis of expansion chamber mufflers and pipe side-branches. Basic energy approach to room acoustics.

MECH9361
Lubrication Theory and Design
School of Mechanical and Manufacturing Engineering
UOC6 HPW3
Excluded: MECH4361

Types of hydrodynamic bearings and bearing operation; properties of lubricants; theory of steady state hydrodynamic lubrication; hydrostatic and squeeze film lubrication applied to slider and journal bearings; bearing design with side leakage; thermal balance. Journal bearing dynamics; instability analysis. Elastohydrodynamic lubrication. Bearing materials; friction and wear. Grease lubrication.

MECH9400
Mechanics of Fracture and Fatigue
School of Mechanical and Manufacturing Engineering
UOC6 HPW3
Excluded: MECH4400

Theories of fracture; failure modes. Ductile, brittle fracture. Mechanics of crack propagation, arrest. Measurement of static fracture properties. Fatigue crack initiation, propagation. Engineering aspects of fatigue.

MECH9410
Finite Element Applications
School of Mechanical and Manufacturing Engineering
UOC6 HPW3
Excluded: AERO4401, AERO9415, MECH4410, NAVL4401

Introduction to finite element and associated graphics packages. Principles of mesh design and validation. Specification of boundary conditions including use of symmetry. Estimation of the cost of solution. Interpretation of results. Assessment of the accuracy of the results. Convergence to the exact solution. Selection of applications from linear and non-linear elasticity: three dimensional solids, plates and shells, plasticity, buckling and post-buckling behaviour, thermal stresses, dynamics including natural and forced vibration.

MECH9620
Computational Fluid Dynamics
School of Mechanical and Manufacturing Engineering
UOC6 HPW3
Prerequisite: MECH2612, MECH2712

Incompressible flow: primitive equations, stream function, vorticity equations. The conservative property. Stability analysis. Explicit, implicit methods. Upwind differences. SOR methods. Fourier series methods. Pressure, temperature solutions. Solving the primitive equations.

MECH9720
Solar Thermal Energy Design
School of Mechanical and Manufacturing Engineering
UOC6 HPW3
Prerequisite: MECH2612, MECH2712

Characteristics of solar radiation and solar collectors. Collector efficiency evaluation and prediction of long term performance. System modelling, energy storage; computer simulation and modelling of performance and economic worth.

MECH9730
Two Phase Flow and Heat Transfer
School of Mechanical and Manufacturing Engineering
UOC6 HPW3
Excluded: MECH4730

Nature of multiphase flow. Flow regime maps. Two-phase flow in vertical, horizontal and inclined pipes. Modelling of two-phase flow: homogenous model; drift flux model; drift velocity model; separated model. Annular and stratified flows. Flow in adiabatic pipes. Flow in heated pipes. The critical flow of a two-phase mixture. Pressure drop and heat transfer correlations in pipes. Subcooled, nucleate, pool and film boiling. Critical heat fluxes in boiling. Mechanisms of heat transfer in boiling. Nucleation, bubble dynamics and bubble parameters. Film and dropwise condensation on flat plates. Condensation on horizontal tubes and tube banks. Condensation inside tubes. Two-phase heat exchangers. Laboratory experiments.

MECH9740
Power Plant Engineering
School of Mechanical and Manufacturing Engineering
UOC6 HPW3
Excluded: MECH4740

Energy sources, power plant thermodynamics. Fuel, combustion processes and equipment. Boilers, turbines and condensers. Heat exchangers, pumps, water supply and treatment systems. Air circulating and heating systems. Station operation and performance. Economics of electrical power production. Environmental impacts of power plants. Alternate sources of energy. Power station field trip.

MECH9751
Refrigeration and Air Conditioning 1
School of Mechanical and Manufacturing Engineering
UOC6 HPW3
Excluded: MECH4751, MECH8751

Review of thermodynamic principles; evaluation of thermodynamic properties of real fluids. Refrigerants, their properties and applications. Gas cycle refrigeration. Steam-jet refrigeration. Vapour compression refrigeration; analysis and performance characteristics of the complete cycle; analysis and performance of multipressure systems. Analysis of the performance of compressors, condensers, evaporators and expansion devices. Thermo-electric refrigeration.

MECH9758
Air Conditioning Design
School of Mechanical and Manufacturing Engineering
UOC6 HPW3
Prerequisite: MECH2612, MECH2712

Pipe and duct design, air conditioning systems, plant room design, cooling towers and evaporative condensers, heat and mass transfer equipment, load calculations, building thermal simulation, life cycle cost minimisation.

MECH9761
Internal Combustion Engines 1
School of Mechanical and Manufacturing Engineering
UOC6 HPW3
Excluded: MECH4700

Thermodynamic cycles. Combustion, reaction kinetics. Real engine cycles. Chart, computer analysis. Spark ignition engines. Flame physics. Combustion chamber design. Charging, discharging; heat transfer; friction. Emissions, fuels, computer modelling: efficiency, performance, emissions. Testing. Laboratory.

MECH9790
Special Thermodynamics Elective
School of Mechanical and Manufacturing Engineering
UOC6 HPW3

This course is variable in content in order to allow the presentation of material of particular interest and merit by a visiting expert in a field not otherwise covered.

MEFT5100
Teaching Media: Word and Image
School of Media, Film and Theatre
UOC8 HPW2
Prerequisite: Enrolment in plan MEFTES8225 or MEFTES5225

Introduces functional semiotics as a means of analysing a variety of audio-visual 'texts' and 'genres' (including display and TV advertisments). Considers issues of representation of gender, class and race, 'stereotyping' and the construction of social 'knowledge' in the popular media, focussing on examples such as those considered in the current secondary and primary school curricula.

MEFT5103
Computer Media and Education
School of Media, Film and Theatre
UOC8 HPW3
Prerequisite: Enrolment in plan MEFTES8225 or MEFTES5225

Develops practical skills in designing multimedia applications for the classroom and in teaching using these media forms, including the internet. Students research and design a web-site or other digital media work for use in an educational context. Current multimedia educational resources are surveyed and their use in the classroom considered.

MEFT5202
Video Production in Education
School of Media, Film and Theatre
UOC8 HPW4
Prerequisite: Enrolment in plan MEFTES8225 or MEFTES5225

Teaches elementary skills in script construction, videography and editing in the context of their utilisation in the classroom. Knowledge of current video pre- and post-production. Emphasises that relatively low levels of technology can provide rich classroom resources if used creatively by the teacher.

MEFT5203
Teaching Cinema: History and Aesthetics
School of Media, Film and Theatre
UOC8 HPW4
Prerequisite: Enrolment in plan MEFTES8225 or MEFTES5225

Studies popular film, including action genres and animation in relation to students' experience of 'movies' as entertainment. Examines approaches to analysing and interpreting films by focussing on questions of fantasy and 'realism'. Considers the visual and aural qualities of the cinema, while literary models of film 'appreciation' are also evaluated.

Note: A screening program of twenty historically important narrative films is part of the course. Includes many films in the current HSC syllabus.

MEFT5300
Teaching Drama: Forms, Conventions, Styles and Contexts
School of Media, Film and Theatre
UOC8 HPW2
Prerequisite: Enrolment in plan MEFTES8225 or MEFTES5225

Studies ideas of form, convention, style and context in theatre and performance. Explores different dramaturgical and theatrical approaches to form. Investigates the ways in which established theatrical conventions influence and/or are challenged by the individually innovative and culturally determined styles and working techniques of selected writers, directors and performance makers, and the social, political, historical and philosophical contexts in which they work.

MEFT5302
Making Performance
School of Media, Film and Theatre
UOC8 HPW2
Prerequisite: Enrolment in plan MEFTES8225 or MEFTES5225

Explores experientially techniques for the making of solo and/or group performances in the context of current critical and theoretical debates. Explores performer/artist-generated work and the making of performances that neither derive from a traditional dramatic script nor have the creation of a play as their end product.

MEFT5400
Approaches to Teaching Dance
School of Media, Film and Theatre
UOC8 HPW2
Prerequisite: Enrolment in plan MEFTES8225 or MEFTES5225

Focuses on teaching dance as an art form, encompassing historical and contemporary practices in teaching dance. Examines the philosophical rationale for dance in education and recent revisions to curriculum content. Investigates varying approaches to dance teaching, within the context of most recent knowledge and theory about pedagogy and assessment.

MEFT5401
Dance Performance: Genres in Context
School of Media, Film and Theatre
UOC8 HPW2
Prerequisite: MEFT5400

Examines the practice of performing in relation to the NSW dance syllabuses. Studies the value of teaching particular dance genres and styles within historical and theoretical contexts, which includes applied anatomy and kinesiology.

MFIN6201
Empirical Techniques & Applications in Finance
School of Banking and Finance
UOC6 HPW3
Prerequisite: enrolment in program 8406

Reviews probability and statistical techniques commonly used in quantitative finance. Topics include common univariate and multivariate continuous distributions, parametric and non-parametric estimation techniques. Advanced topics include: unobserved components and their applications to non-Markov processes, estimation techniques based on Expectation Maximising Algorithm. Applications of these tools include rational stochastic asset price bubble and the measurement of financial market risk premia. Introduced to appropriate software for such exercises.

MFIN6205
Financial Risk Management for Financial Institutions
School of Banking and Finance
UOC6 HPW3
Prerequisite: enrolment in program 8406

This course is an advanced course in the management of financial service firms and the development of risk management systems. It will deal with advanced methods of measuring financial risk within financial institutions including risk measures, value at risk and CreditMetrics. Methodologies for dealing with these risks will also be investigated, including regulatory controls, capital management, risk rating of loans, securitisation and methods of dealing with credit products.

MFIN6210
Empirical Studies in Finance
School of Banking and Finance
UOC6 HPW3
Prerequisite: enrolment in program 8406

Aims to provide an accessible introduction to empirical studies in financial economics including initial public offers, seasoned equity issues, dividends, capital structure, corporate takeovers, and other forms of corporate restructuring and governance. Special attention will be given to anomalies. It provides a concise synthesis of the recent available literature on empirical studies in corporate finance within a logical, analytical structure.

MFIN6211
Structured Finance Law
School of Business Law and Tax
UOC6 HPW3
Prerequisite: enrolment in program 8406

This course examines the legal environment of banking and finance with particular emphasis on a legal risk management approach to financial transactions. The general legal framework governing finance law is discussed. Topics include the law relating to lending transactions including syndicated lending, project finance and infrastructure, securitization, guarantees, and letters of comfort. Insolvency issues in banking and finance and directors' duties to creditors are highlighted. An important feature of this course is the extensive use of case studies, designed to identify complex legal issues and assist financiers and borrowers in understanding the legal basis for selected structured finance transactions.

MFIN6212
Taxation of Financial Arrangements
School of Business Law and Tax
UOC6 HPW3
Prerequisite: enrolment in program 8406

Deals with the tax treatment of financial arrangements. Examines the current classification of financial instruments for tax purposes and the tax consequences of those classifications. Discussion of general tax framework governing inbound and outbound direct and portfolio investment. Fundamental principals are then applied in the context of case studies. Specialised tax rules relevant to case study topics are highlighted. Case study topics: initial public offers; foreign exchange gains and losses; innovative financial products; structured finance for infrastructure and privatisations; securitisation; lease financing; funds management; venture capital; capital restructuring; takeovers, mergers and demergers. Effects of the proposed changes in the taxation of financial arrangements on the tax results in the case studies are noted.

MFIN6213
Research Project
School of Banking and Finance
UOC6 HPW3
Prerequisite: enrolment in program 8406

The purpose of this course is to ensure that students are able to apply finance theories to real financial issues and gain practical financial experience. Students, in consultation with their supervisor, should choose a topic for research in finance which may well be related to their work environment with a focus on areas such as the following: Banking, Corporate Finance, Funds Management, Investments, International Finance, Risk and Insurance and Quantitative Finance. The project should demonstrate the student's ability to analyse and grasp the implications of the research in the context of the national and international financial markets.

MFIN6214
Financial Theory and Policy
School of Banking and Finance
UOC6 HPW3
Prerequisite: enrolment in program 8406

Gives an advanced treatment of the main theoretical foundations of finance, including investment decision making, utility theory, portfolio theory, asset pricing and option pricing theory, real options, capital market efficiency, agency theory, cost of capital and capital structure, dividend policy and corporate governance. Special treatment is given to unsolved problems or anomalies in finance. Provides a treatment of the main developments in finance theory over the past 40 years, and provides the theoretical foundations for subsequent finance study within the Master of Finance degree.

MGMT5601
Global Business and Multinational Enterprise
School of Organisation and Management
UOC6 HPW3

The globalisation of business and the challenge of dynamic political, economic, social and technological environments. The impact of cultural differences on international business transactions and international management. The evolution and development of the multinational enterprise and alternative contractual modes including exporting, licensing, franchising and manufacturing, international acquisitions, joint ventures and strategic alliances. Theories of the internationalisation process and foreign direct investment by multinational enterprises. The relationship of multinationals with governments and issues of political risk.

MGMT5602
Cross-Cultural Management
School of Organisation and Management
UOC6 HPW3

Understanding cultural differences, and effectively managing these differences are critical to working, communicating and transferring knowledge in multi-cultural and international business environments. The aims of this course are to provide conceptual and theoretical frameworks for developing an understanding of the ways in which cultures differ, how these cultural differences impact on organisations and how they constrain communication and knowledge transfer. The course also considers strategies for managing and valuing the diversity within organisations. Topics include the nature and dimensions of culture, challenges in managing cultural differences, issues relating to cross-cultural problem solving, the dynamics of multi-cultural teams, leadership across cultures, cross-cultural perspectives to motivation and decision making, the nature and management of knowledge within different cultures and across cultures, and global approaches to managing conflict and conducting business negotiations. 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 the challenges of managing global careers.

MGMT5603
Global Business Strategy and Management
School of Organisation and Management
UOC6 HPW3
Prerequisite or Corequisite: IBUS5601 or MGMT 5601

Formulation of global business strategies including objective setting processes and internationalisation of decision-making. Country location decisions. International market entry mode decisions. Exporting and importing decisions. Investment evaluation of foreign projects. International joint venture and alliance strategies. International acquisition strategies. Managing international business negotiations. Organising operations and managing human resources across borders. Measuring and evaluating international business performance. The study of international business cases is a special feature of this course.

MGMT5604
Asia-Pacific Business and Management
School of Organisation and Management
UOC6 HPW3
Prerequisite or Corequisite: IBUS5601 or MGMT 5601

This course provides an in-depth analysis of business development of Asian enterprises in a dynamic institutional context. It considers the business activities of multinational enterprises in the Asia Pacific Region including those from Japan, Korea, China, India, Taiwan, hong Kong and Singapore. Topics include: the policy context of competitive advantage, dynamic learning and innovation in Asian businesses; state guided capitalism; the role of networks, market and non-market institutions; foreign direct investment and export promotion; comparative analysis of business and management systems in East, South East and South Asia.

MGMT5606
Chinese Business and Management
School of Organisation and Management
UOC6 HPW3

A business and management perspective on the People's Republic of China. The macroeconomic, legal and operational environment of Chinese business enterprises; analysis of business procedures and management in China, and an overview of Australian-Chinese business relations. Topics include enterprise reform, enterprise finance and stock markets, accounting and taxation, foreign trade and internationalisation, enterprise management and Australian trade and investment links with China. Special attention will be given to problems of enterprise reform, the continuing role of the state, Chinese business practices, including "guangxi" and business negotiations, and the management of foreign investment enterprises in China.

MGMT5607
International Entrepreneurship and New Venture Management
School of Organisation and Management
UOC6 HPW3
Prerequisite: IBUS5601 or MGMT5601; Corequisite: IBUS5603 or MGMT5603; Excluded: MARK5958.

This course explores entrepreneurship (and intrapreneurship) in both large and small firms, recognising the increasing crucial role of the international dimension. Key questions addressed include: What is an entrepreneur? What opportunities and challenges do entrepreneurs face (or create) in the international arena? How can these opportunities and challenges be managed creatively and effectively? These questions

are addressed from both economic and behavioural perspectives. An emphasis is placed on: the processes of innovation and entrepreneurship; identifying opportunities; planning for and managing a growing venture in the international marketplace from a variety of functional perspectives; and developing an entrepreneurial mindset. Central to this course is the integration of theory and oractice, building on previous courses, Student participation through case analyses, experiential exercises and workshops, project work, symposiums with industry practitioners, and reflective learning underpins the course.

MGMT5608
Corporate Strategy in East Asia
School of Organisation and Management
UOC6 HPW3

An indepth analysis of comparative business systems and corporate strategy in Japan, Korea, and China. Topics include: comparative analysis of business systems and government-business relations in Japanese Keiretsu, Korean Chaebol and Chinese family business and State enterprises in China; corporate governance and human resource management practices; globalisation of firms, headquarter-subsidiary relations and foreign direct investment; impact of culture on management style and decision making; comparative analysis of competition strategy; organisational structures including sub-contracting and buyer-supplier networks, just-in-time management and quality control.

MGMT5609
Geopolitical Risk Management
School of Organisation and Management
UOC6 HPW3

This course introduces students to the mechanisms by which firms are challenged to account for the social, as well as economic, consequences of their activities. In complex international environments, firms must manage conflicting stakeholder interests. The course sets out theoretical and conceptual frameworks for analysing the choices confronting firms, including issues of corruption, diversity management and the environment.

MGMT5700
Management Work and Organisation
School of Organisation and Management
UOC6 HPW3

Provides a multi-disciplinary introduction to the concepts, processes, practices, issues and debates associated with the management of people in paid employment and the organisation, institutional and market place contexts within which employment relations are played out. Topics covered include the changing nature of work and work organisations, the development of labour management theory and practice, the meaning and purpose of the Human Resource Management approach, current trends and debates in management thinking and methods, the industrial relations context, the role of the state, unions and management strategy, workplace conflict, the nature of managerial work, leadership, gender and work, organisational culture, and employee motivation, remuneration and performance management.

MGMT5701
Employment and Industrial Relations
School of Organisation and Management
UOC6 HPW3

Concepts and issues in Australian industrial relations at the macro or systems level, with overseas comparisons where appropriate. Labour movements and the evolution of employee-employer relations in the context of industrialisation and change; origins and operations of industrial tribunals at the national and state levels; their instrumentalities; nature of industrial conflict and procedures for conflict resolution such as arbitration and bargaining; national wage policy.

MGMT5711
Employment and Industrial Law
School of Organisation and Management
UOC6 HPW3
Prerequisite or corequisite: IROB5700 or MGMT5700

Nature and purposes of the legal system and industrial law, the law concerning the contract of employment. Trade union law. Industrial law powers of governments. The Commonwealth and New South Wales conciliation and arbitration systems. Awards. Penal sanctions for industrial law. Industrial torts. Topics and issues of importance in the employment and industrial law field.

MGMT5712
Negotiation Skills
School of Organisation and Management
UOC6 HPW3

This course provides a set of generic concepts and skills for negotiation and resolving interpersonal and inter-group conflicts. Students gain the opportunity to work with theory, skills and processes of negotiation relevant to a wide range of contexts: commercial; organisational; community; political and public policy; legal; and industrial relations. This course will provide an analytical understanding of negotiations, including negotiation planning, strategy and tactics, as well as the development of the practical skills necessary for implementation of this knowledge. Students will gain these practical skills through participation in negotiation seminars. The seminar programme is made up of negotiation role play exercises which develop in complexity as the course progresses.

MGMT5800
Technology, Management and Innovation
School of Organisation and Management
UOC6 HPW3

This course examines the interaction between the development of innovative capabilities (i.e. technology sourcing, corporate innovation, corporate entrepreneurship, and internal corporate venturing) and the enactment of technology strategy (i.e. new product development, learning cycles, design-build-test cycles), particularly from the manager's perspective. Integrates the roles of innovation strategy and technology strategy into a strategic management perspective. The subject is organised around five (5) major themes: 1) integrating technology and strategy; 2) design and evolution of technology strategy; 3) developing the firm's innovative capacities; 4) creating and implementing a development strategy; and 5) innovation challenges in established firms.

MGMT5801
Strategic Management of Technology and Innovation
School of Organisation and Management
UOC6 HPW3
Prerequisite: IROB5800 or MGMT5800

This course aims to provide an understanding of the strategic role that effective management of technological innovation plays in the success of the organisation or autonomous business unit. Because mission-critical technology is a key resource for each organisation, it must be strategically managed for comparative advantage. To do so necessitates first an understanding of the fundamentals of strategic management, then an understanding of how the technology strategy of the firm is aligned with the overall strategy of the firm. To that end, the concepts, techniques, tools, and processes of strategic management are explored, with an emphasis on linking the development of innovative capabilities and technological innovations with strategic outcomes. Topics covered include integrating technology and strategy, assessing technological capabilities, technological evolution and forecasting, technological entrepreneurship, designing and managing systems for corporate innovation, creating and implementing a development strategy, and management through systems, style and shared values. Special emphasis will be placed on the integration of technology practices with other functional practices (i.e. finance, marketing, operations management, human resource management, etc.). These topics are investigated through a critical examination of relevant literature, documented case studies and contemporary business practices.

MGMT5901
Organisational Behaviour
School of Organisation and Management
UOC6 HPW3

This subject seeks to explain human behaviour within organisations. It draws predominantly from the behavioural science disciplines of psychology and social psychology. Its foci are the individual, the group, and the behavioural processes involved in organisation integration, change and development. Topics covered include personality, attitudes and values, motivation and learning, interpersonal behaviour, group dynamics, leadership and teamwork, decision-making, power and control.

MGMT5904
Organisational Transformations at the Speed of E
School of Organisation and Management
UOC6 HPW3

This course examines the human implications of change and transformation in New Economy companies. Topics include: types of organisational change vs. velocity of change; organisational change systems and

methodologies; individual and organisational renewal; learning at the speed of E; the organisational psychology of the E culture. Emphasis will be placed on organisational behaviour processes, e.g. learning, innovation, leading, communication, as well as on human resource programs and practices that will need to be transformed in order to more effectively support ongoing organisational processes.

MGMT5908
Strategic Human Resource Management
School of Organisation and Management
UOC6 HPW3
Prerequisite or Corequisite: IROB5700 or MGMT5700, or IROB5901 or MGMT5901, or IROB5800 or MGMT5800

This course deals with the ways in which strategic thinking can be applied to Human Resource Management in organisations. It aims to provide students with opportunities to synthesise managerial strategy issues with HRM processes, in a considered and reflective manner. Strategic Human Resource Management considers questions such as: What does it mean to be a HR professional? How can we integrate HR concerns into organisational decisions and strategies? How can strategic thinking underpin HRM activities?

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, and aims to introduce strategic human resource management as a new way of thinking about organisations and their stakeholders. Students are given the opportunity to enhance their skills in organisational analysis, issue selling and strategic thinking - through fieldwork, case studies and seminars.

MGMT5910
Towards Corporate Sustainability: Effective Human Resources and Organisations
School of Organisation and Management
UOC6 HPW3
Prerequisite or corequisite: COMM5001, COMM5002 and MGMT5700

This course aims to examine the ways in which organisational change can be sustained within the complexity of changing human and organisational systems. It examines the effects of environmental change on organisations and organisational systems. Emphasis is placed on sustaining change by building organisational capability involving human resource and organisational practices and processes which have the potential to sustain the organisation's ability to achieve continuous adaptation. The course will also emphasize a number of emerging corporate competencies required to sustain change and how these can be embedded in every organisation, in every group and every individual by learning, adapting innovating, and interacting with other systems and the environment. A key concern is an on-going organisational response to demands for structural and operational flexibility and change. The course also examines tools of analysis, design, implementation and maintenance of system sustainability, integration, and coordination. Topics include, strategic interventions, approaches to systems, system analysis and design, implementation techniques, monitoring, complementary human assets, contextual relations and linkages. Specific examples are drawn from industry experience and models.

MGMT5920
Managing Equity, Diversity and Disability
School of Organisation and Management
UOC6 HPW3

This subject presents a multi-disciplinary overview of the issues and problems raised by the increasing diversity of the workforce and it evaluates organizational challenges and opportunities created by the need to attract, develop, and retain employees and managers from a diverse range of backgrounds and/or abilities. It introduces students to concepts and theoretical constructs that enhance understanding of difference and diversity, such as gender, identity, ethnicity and disability. It examines strategies required to more effectively deal with prejudice, stereotyping, discrimination, inter-group conflict, cultural clash, structural integration and organizational change. In this way the course relates the management of equity and diversity to changes in work organization, human resource management and industrial relations, as these involve issues of power and politics, legislative intervention and regulation, labour market segmentation, organisational power and politics, Equal Employment Opportunities, the merit principle, and organisational culture.

MGMT5947
Remuneration and Performance Management
School of Organisation and Management
UOC6 HPW3
Prerequisite or corequisite: IROB5700 or MGMT5700

Examines theories, practices and debates in contemporary remuneration and performance management, with special reference to the trend away from traditional pay-for-position to performance-related remuneration at individual, work group and organisational level. Themes covered include: the concept of the New Pay , theories of employee motivation, competing perspectives on procedural and distributive justice, the ethics and effectiveness of performance-related pay, job-based pay and job evaluation, broadbanding, developing assessing and rewarding individual merit, recognition awards, gainsharing and team-based pay, profit-sharing and employee ownership plane, executive pay, and the development of comprehensive pay and performance management systems. Adopts a critical and multi-disciplinary perspective embracing Human Resource Management, Organisational Studies, Industrial Relations, Sociology, Labour Economics, Psychology and Ethics.

MGMT5948
Human Resource Recruitment, Selection and Development
School of Organisation and Management
UOC6 HPW3
Prerequisite or corequisite: IROB5700 or MGMT5700

Examines the recruitment, selection, training and development of people in organisations. Issues addressed include: staff recruitment procedures, selection practices and procedures, human resource planning, the analysis of skill, competency and training needs, learning systems, training program development, internal and external training policy, career planning and internal labour market and management development.

MGMT5949
International Human Resource Management
School of Organisation and Management
UOC6 HPW3
Prerequisite or corequisite: IROB5700 or MGMT5700, or IBUS5601 or MGMT5601

Examines the impact of culture on the process of managing the human resources in multinational or global corporations. Topics examined include: the conceptual and methodological challenges in international HRM research; the role of culture in shaping managerial perceptions and actions; HRM systems as cultural artefacts; conflict between indigenous HRM frameworks; and the problems of transferring HRM systems across cultural boundaries. Issues such as expatriation versus local management, selecting and preparing for international assignments, intercultural competence, cultural adaptations at the individual and system level, the management of host country nationals and joint venture partnerships, and the influence of globalisation on future HRM practices are also examined. The course also examines the global uniformity/differentiation policy debate and its implications for global organisations.

MGMT5980
Managing the Human Side of Technological Innovation
School of Organisation and Management
UOC6 HPW3
Prerequisite: must be enrolled in program 8407

This course examines the management of human resources within the process of technological change and innovation. The course draws from the behavioural science disciplines of psychology and social psychology, and focuses on the individual, the group, and the behavioural processes involved in organisation integration, change and development. Topics covered include personality, attitudes and values, motivation and learning, interpersonal behaviour, group dynamics, leadership and teamwork, decision-making, power and control. Strategies for the successful management of people within new technology implementation are also highlighted.

MICR5033
Graduate Diploma (Microbiology)
School of Biotechnology and Biomolecular Science
UOC18

The structure of the program is decided after discussions with students, taking into account their particular background, interests and career goals. Usually students attend one or more of the advanced third year courses in either microbial genetics, microbial physiology, environmental microbiology, immunology, medical bacteriology or virology. The rest of

the year is spent carrying out a research project supervised by a member of academic staff.

MINE5010
Fundamentals of rock behaviour for underground mining
School of Mining Engineering
UOC6 HPW3

Introduction to mining rock mechanics and the rock mechanics context within new and operating underground mines. Basic physical principles applied to rock mechanics and geotechnical engineering in an underground mining environment. Elasticity and stress; rock properties and methods of determination; rock response to load; failure modes; time-dependency; stiffness; energy release; rock mass characterisation; geological environment and structure; stress environment and methods of determination; hydro-geological environment; soft rock/soil mechanics considerations.

MINE5020
Geotechnical assessment for underground mining
School of Mining Engineering
UOC6 HPW3

Geotechnical components of exploration programs - requirements, technologies, integration, management. Geotechnical assessment and logging; geophysical methods for geotechnical determinations, in both exploration and operating mine environments; integration of geotechnical data; rock mass characterisation; geotechnical hazard/ condition mapping.

MINE5030
Mining excavations in rock
School of Mining Engineering
UOC6 HPW3

Stress in rock and the effect of depth on pre-mining stress state; other factors influencing stress in rock; mining-induced stress and the rock mass response to excavation process; stress distributions around different excavation shapes and sizes - elastic and inelastic rock materials; excavation stability and potential failure modes; interaction between different excavations (horizontal and vertical interaction); regional stability considerations; effect of time on rock behaviour around excavations.

MINE5040
Coal mining methods, mine planning and applied geomechanics
School of Mining Engineering
UOC6 HPW3

Range of mining methods used in underground coal mining and the core geotechnical parameters and criteria that effect the choice or application of the methods. Mine entry systems (drifts, shafts etc); pillar mechanics and design procedures; geomechanics of longwall mining; caving mechanics, periodic weighting, windblasts; outbursts and rock bursts/bumps; pillar extraction; highwall mining; mine subsidence mechanics and design; geotechnical equipment considerations; mine planning considerations; geotechnical design methodologies (methods, excavations, pillars etc). A range of case studies will supplement this course content.

MINE5050
Ground control principles and practice in underground coal mining
School of Mining Engineering
UOC6 HPW3

Principles of rock reinforcement; active/passive support; support requirements for different excavation types and mining methods; ground reaction curves; load and displacement controlled support response; types of ground support/reinforcement hardware and related systems; design of support systems; interaction of mining method, layout and reinforcement systems; ground support installation and quality assurance; time effects on ground support systems and remedial options.

MINE5060
Operational geotechnical management (underground coal mining)
School of Mining Engineering
UOC6 HPW3

Risk assessment methodologies and core geotechnical risks in underground coal mining; geotechnical risk management strategies; preparation of strata control management plans; geotechnical hazard mapping; geotechnical instrumentation; role and design of geotechnical measurement and monitoring systems; underground data collection; rock fall recovery techniques; geotechnical audits, quality assurance; geotechnical variability and dealing with non-compliance; geotechnical training; safe operating procedures; use of specialist consultants; geotechnical reporting and management interaction; professional responsibilities and accountabilities.

MINE8110
Mining Processes and Systems
School of Mining Engineering
UOC6

All generic mining methods will be reviewed and analysed to identify the fundamental drivers which influence the performance of a mining operation based on each method. Mining operations are made up of a complex and inter-related number of key processes and systems. Appropriate and efficient mine design, planning and operations is dependent on understanding and optimising these processes and systems. Components of a generic mining operation to be considered will include: rock breakage, materials transport, grade/quality control and economic sensitivity, ground stability, mine environment and environmental impact. In each component, process and/or system, the critical economic sensitivities will be identified, together with the safety implications and management strategies.

MINE8120
Hazard Identification, Risk and Safety Management in Mining
School of Mining Engineering
UOC6

The course includes the following: safety management; hazard and risk analyses, safety hazard identification, management techniques, safety audits; statistics; HAZOP management and maintenance of change risk analysis; cost benefit analysis; attitudes to safety in mining; effective training; accident and injury report/recovery; ergonomics and safety engineering; prevention of traumatic injury; work stress; environmental factors; monitoring and protection; personal protective equipment; safety policies and programs; action plans. A generic approach to loss control within mining operations will be reviewed together with identification of management strategies to deal with such losses. This will extend from simple hazard control management to full catastrophic management planning. The course will draw on experience and techniques applied in non-mining industries in addition to a practical focus on mining risk management taught by specialist safety management personnel.

MINE8130
Technology Management in Mining
School of Mining Engineering
UOC6

The course addresses the role of technology in the mining process. Sensitivity of the mine profitability and performance is addressed with respect to different levels of technology in each stage of the mining operation. Appropriate specification of technology; capital justification and cost benefit analyses; performance monitoring; technology audits; training requirements and effectiveness; occupational health and safety implications of technology changes relative to skill levels.

MINE8140
Mining Geomechanics
School of Mining Engineering
UOC6

The course will provide an introduction to the full range of potential geomechanics issues which form part of, or impact on a mining operation, from resource evaluation, mine design to daily operations. This will cover both coal and metalliferous operations. The course content will include the following components: site investigation, rock mass classification, rock fragmentation, caving prediction and control, slope stability, diggability and rippability, role and application of reinforcement systems, geotechnical instrumentation, stress analysis and stability evaluation around complex excavations, ground control management and environmental geomechanics.

MINE8210
Management Systems - Projects, Processes, Contracts, Contractors
School of Mining Engineering
UOC6

Different aspects of mining operations require different management approaches. This course provides applied management theory and practices in each area of project, process, contracts and contractor management. In each case, examples and case studies are linked to mining operations. The course works through a typical mining system to identify the embedded sub-projects and processes which are inherent to

the mining system and demonstrates the role and benefits of applying different management techniques. Managing contracts, including on-going contractor management both at the construction and ongoing operational stage of a mine is addressed in the course.

MINE8220
Mine Feasibility, Planning and Project Evaluation
School of Mining Engineering
UOC6

This course addresses the process of mine feasibility planning and project evaluation commencing from the resource assessment stage. It includes a brief introduction to in situ resource estimation methods, the use of geostatistical techniques in grade interpretation, ore body block modelling and reserves estimation. The implications of the Australasian Code for Reporting of Mineral Resources and Ore Reserves for quality control of these processes will be discussed. Other topics include the feasibility study process, mine planning methodologies and scheduling techniques, mine cost structures and cost estimation. The project evaluation component includes financial theory in relation to project evaluation, evaluation techniques, project financing, cost of capital, revenue assumptions, cost assumptions, risk and sensitivity analysis, institutional and corporate perspectives on project evaluation, introduction to financial modelling, practical exercises in financial modelling, intra-project evaluation, and financial modelling case studies.

MINE8230
Mine Sampling, Grade Control and Reserves Definition
School of Mining Engineering
UOC6

This course will provide a full coverage of the theory and practice of sampling solid and particulate materials, based on Pierre Gy's theoretical research as modified by Francis Pitard and Francois Bongarcon. It will cover subsampling and sample preparation for laboratory analysis, as well as the need for and means of establishing and monitoring a quality assurance/quality control program for laboratory analytical techniques. The geostatistics coverage will include variography, grade interpolation and average grade determination and will lead into cut-off grade determination, reserves definition and ore body modelling. The interaction of mining method and reserves definition will be reviewed. Case histories will illustrate grade control and reserves definition problems and practices. Management topics will include maintaining the integrity of the database and involving and motivating the workforce.

MINE8710
Mine Slope Stability
School of Mining Engineering
UOC6

This course will deal with the major topics of engineering geology and groundwater controls on surface mining slope stability in the form of discontinuities, variable materials and pore pressures; effect of excavation method and scheduling in pit stability; the fundamental basis of stability analysis; advantages and disadvantages of a range of mathematical models; remedial measures that can be taken to stabilise slopes; pit slope design in the context of overall mine planning. In addition to dealing with the underlying principles, the course may involve workshops and field inspections so that the participants gain hands-on experience of practical cases.

MINE8720
Advanced Rock Mechanics
School of Mining Engineering
UOC6

This subject will expand on components of the MINE8140 Mining Geomechanics subject to providing a more comprehensive and theoretical understanding of the engineering principles involved, together with practical mining industry application. Specific areas covered in this course include: stress analysis, advanced computational methods, rock mass behaviour and failure criteria, time-dependent rock characteristics under load, ground support - rock mass interaction, support systems, foundation engineering and geotechnical instrumentation.

MINE8730
Mechanised Excavation Engineering
School of Mining Engineering
UOC6

The course will address a range of rock cutting and mechanised rock excavation techniques applied in the mining industry. Fundamental engineering excavation mechanics will include: principles of coal and rock cutting mechanics; the performance of picks and free rolling cutters; cutting tool interaction; the design of cutting arrays for machine mining and tunnelling; impact breakage of rock; drill bit design and breakage mechanics; cutting tool materials and the effects of wear; methods of assessing rock cuttability; water jet cutting and water jet assisted drilling and cutting. Applications including full face and partial mining machines, drilling technologies and tunnel boring machines will be reviewed.

MINE8740
Blasting and Rock Fragmentation
School of Mining Engineering
UOC6

The course will address the mechanics and practical applications and current technologies in rock fragmentation; theories of rock breakage and fragmentation; rock mass properties; structure and discontinuities and their impact on blast behaviour. Blasting theories and types of explosives and blast initiation procedures; blast designs for both underground and surface mining applications; blast hazard management; blast vibration and impact on structures and mining excavations; state-of-the-art blasting practices and technologies; and alternatives to conventional blasting for rock fragmentation.

MINE8750
Advanced Soil Mechanics and Mine Fill Technology
School of Mining Engineering
UOC6

Geotechnical properties of soil and unconsolidated materials and weak rocks for mining applications. Issues covered include: assessment of the stability, design and stabilisation of soil slopes and the influence of geology and groundwater, use of soils and weak materials for mine pavements, foundation design, soil dynamics and design for dynamic loading, consolidation, laboratory and site investigation techniques and soil liquefaction. Mine fill technology as an integral part of mining methods - fill properties, use of cemented and rock fill, paste fill technology, rock-fill interaction, fill transport and placement, fill economics, post-mining underground stowage.

MINE8760
Mine Geology and Geophysics for Mining Operations
School of Mining Engineering
UOC6

This course addresses the essential interaction between the disciplines of geology and mining engineering in the geotechnical field, embracing engineering geology, structural geology and applied geophysics. The impact of engineering geological rock mass properties and structural features on mining operations is evaluated, together with likely variability of these parameters and the degree and confidence with which they can be predicted and projected ahead of the mining process. Modern geophysical techniques including 2D and 3D seismic, microseismics, tomography, electromagnetic imaging techniques, radar and down-hole survey methods are reviewed in the context of their ability to provide reliable information to assist with mine planning and operational decision-making. Effective communication systems for the geologist - engineering interface are also addressed, together with the integral role of such geological information in the planning and operations of a modern efficient mining operation.

MINE8770
Mining Law
School of Mining Engineering
UOC6

This course will explore all aspects of modern mining legislation and its impacts on the mining industry and its stakeholders both in Australia and the Asia-Pacific region. Topics to be covered include in broad terms mine health and safety, mining and the environment, exploration and mining, and miscellaneous issues. Concepts to be covered include duty of care, enabling legislation, safety management systems, the role of risk management, the role of the regulator, mining laws in developing countries, industrial law and other issues. The course is designed for mining industry personnel and/or those involved with the industry who need to be updated in this rapidly changing discipline. An emphasis will be on case studies. The course will be delivered by experienced practitioners from government, legal firms and UNSW.

MINE8780
Environmental Management for the Mining Industry
School of Mining Engineering
UOC6

Participants should gain an appreciation of:

- Global treaties, international environmental law and the role of the UN and World Bank - the big picture
- Sustainability
- Corporate responsibility
- Environmental management tools including EIA and EMS
- Best practice
- The most significant environmental management issues on mine sites
- Management of these issues.

Topics addressed are: International Perspective, Sustainable Development, Corporate Responsibility, Legislation & Regulatory Framework, Risk Management, Environmental Impact Assessment, Environmental Management Systems & ISO 14001, EMS Case Study, Company Initiatives - corporate reporting/code for environmental management/case studies, Environmental Auditing, Mine Planning/Feasibility Studies/Documentation to Avoid Environmental Impact, Best Practice Environmental Management - an introduction, Environmental issues in mining, Management of Mine Wastes, Mine Tailings Disposal and Storage, Environmental issues in tailings management, Tailings dam incidents, Cyanide Management, Water pollution/Acid Mine Drainage and its remediation, Environmental Monitoring and sampling, Air Quality, Mineral Exploration, Quarries/ extractives/industrial minerals, Small scale & placer mining, Uranium mining, Mining in developing countries - a case study, Social impact, Rehabilitation and closure.

MINE8790
Advanced Mineral Economics and Commodity Marketing
School of Mining Engineering
UOC6

Review of general mineral economics theory and more detailed review of mining industry economics, leading to commercial evaluation of the market opportunities and problems of mining projects. Commodities: supply and demand; business cycles; exchange rates; metal and coal markets and hedging; long-term contracts and the spot market; commodity pricing and mine revenue calculation. Sources and types of market-related information; particular international market characteristics; trade barriers; cartels, regional and sub-regional economic groups; factors related to particular mineral commodities. The recognition of export opportunities; stages in the development of a market strategy; value added mineral products and export marketing. Case histories; in-course evaluation of market impact on a specific mining project.

MINE9901
Ventilation and Mine Services
School of Mining Engineering
UOC6

This course module covers laws and relationships required to describe the behavious of mine or ducted ventilation systems. These relate to fluid flow, friction losses, fans and network analysis. Use of ventilation surveys to provide design parameters or reconciliation with predictive models is also covered.

MINE9902
Environmental Contaminants
School of Mining Engineering
UOC6

This course module deals with the occurrence, effects and control of atmospheric contaminants in underground mine environments. These include toxic and or flammable gasses and dusts originating from strata, mine equipment or the mining process. The causes, effects and control of mine fires is also considered.

MINE9903
Heat in Underground Mines
School of Mining Engineering
UOC6

This course module deals with the issues of heat in underground mines. The module topics are psychrometry, heat transfer, sources of heat and heat stress management. The module provides the means to analyse a mine's ventilation circuit to determine the magnitude of heat management controls required, such as refrigeration. The topic of refrigeration is taken further in module MINE9907.

MINE9904
Ventilation System Management
School of Mining Engineering
UOC6

This course module covers the risk management approach to control of hazards and development of safety management plans pertinent to mine ventilation. In addition, the issue of project economics relating to capital and operating costs in ventilation systems is covered.

MINE9905
Coal Mine Hazards and Control
School of Mining Engineering
UOC6

This course module describes hazards and controls specific to underground coal mines, such as seam gas emission, outbursts and spontaneous combustion. The module includes methods of quantifying or predicting management requirements based on properties of the working section and adjacent seam gas reservoirs.

MINE9906
Coal Mine Ventilation
School of Mining Engineering
UOC6

This course module covers legislative requirements, pertinent to mine ventilation systems, in underground Australian coal mines, together with current industry practice.

MINE9907
Metalliferous Mine Hazards and Control
School of Mining Engineering
UOC6

This course module describes two issues encountered mainly in Australia metaliferous mines, namely refrigeration practice and the occurrence of ionising radiation. Although this module is taken as a metalliferous elective, the underpinning knowledge and design principles may also be applied to coal mines if required.

MINE9908
Metalliferous Mine Ventilation
School of Mining Engineering
UOC6

This course module covers legislative requirements, pertinent to mine ventilation systems, in underground metalliferous mines together with current industry practice.

MINE9910
Mine Ventilation
School of Mining Engineering
UOC6

This course will provide an understanding of the basic principles of mine ventilation and environmental control. The emphasis will be on the practical aspects of ventilation and involve both classroom and underground sessions. Course participants should be able to apply their knowledge to solve their practical problems at their individual mine sites. Individual access to a mine site is a requirement of this course.

This course will be held on an Australian minesite. Additional travel/ accommodation costs to be incurred by student.

MNNG5010
Fundamentals of rock behaviour for underground mining
School of Mining Engineering
UOC6 HPW3

Introduction to mining rock mechanics and the rock mechanics context within new and operating underground mines. Basic physical principles applied to rock mechanics and geotechnical engineering in an underground mining environment. Elasticity and stress; rock properties and methods of determination; rock response to load; failure modes; time-dependency; stiffness; energy release; rock mass characterisation; geological environment and structure; stress environment and methods of determination; hydro-geological environment; soft rock/soil mechanics considerations.

MNNG5020
Geotechnical assessment for underground mining
School of Mining Engineering
UOC6 HPW3

Geotechnical components of exploration programs - requirements, technologies, integration, management. Geotechnical assessment and logging; geophysical methods for geotechnical determinations, in both exploration and operating mine environments; integration of geotechnical data; rock mass characterisation; geotechnical hazard/ condition mapping.

MNNG5030
Mining excavations in rock
School of Mining Engineering
UOC6 HPW3

Stress in rock and the effect of depth on pre-mining stress state; other factors influencing stress in rock; mining-induced stress and the rock mass response to excavation process; stress distributions around different excavation shapes and sizes - elastic and inelastic rock materials; excavation stability and potential failure modes; interaction between different excavations (horizontal and vertical interaction); regional stability considerations; effect of time on rock behaviour around excavations.

MNNG5040
Coal mining methods, mine planning and applied geomechanics
School of Mining Engineering
UOC6 HPW3

Range of mining methods used in underground coal mining and the core geotechnical parameters and criteria that effect the choice or application of the methods. Mine entry systems (drifts, shafts etc); pillar mechanics and design procedures; geomechanics of longwall mining; caving mechanics, periodic weighting, windblasts; outbursts and rock bursts/bumps; pillar extraction; highwall mining; mine subsidence mechanics and design; geotechnical equipment considerations; mine planning considerations; geotechnical design methodologies (methods, excavations, pillars etc). A range of case studies will supplement this course content.

MNNG5050
Ground control principles and practice in underground coal mining
School of Mining Engineering
UOC6 HPW3

Principles of rock reinforcement; active/passive support; support requirements for different excavation types and mining methods; ground reaction curves; load and displacement controlled support response; types of ground support/reinforcement hardware and related systems; design of support systems; interaction of mining method, layout and reinforcement systems; ground support installation and quality assurance; time effects on ground support systems and remedial options.

MNNG5060
Operational geotechnical management (underground coal mining)
School of Mining Engineering
UOC6 HPW3

Risk assessment methodologies and core geotechnical risks in underground coal mining; geotechnical risk management strategies; preparation of strata control management plans; geotechnical hazard mapping; geotechnical instrumentation; role and design of geotechnical measurement and monitoring systems; underground data collection; rock fall recovery techniques; geotechnical audits, quality assurance; geotechnical variability and dealing with non-compliance; geotechnical training; safe operating procedures; use of specialist consultants; geotechnical reporting and management interaction; professional responsibilities and accountabilities.

MNNG9901
Ventilation and Mine Services
School of Mining Engineering
UOC6

This course module covers laws and relationships required to describe the behavious of mine or ducted ventilation systems. These relate to fluid flow, friction losses, fans and network analysis. Use of ventilation surveys to provide design parameters or reconciliation with predictive models is also covered.

MNNG9902
Environmental Contaminants
School of Mining Engineering
UOC6

This course module deals with the occurrence, effects and control of atmospheric contaminants in underground mine environments. These include toxic and or flammable gasses and dusts originating from strata, mine equipment or the mining process. The causes, effects and control of mine fires is also considered.

MNNG9904
Ventilation System Management
School of Mining Engineering
UOC6

This course module covers the risk management approach to control of hazards and development of safety management plans pertinent to mine ventilation. In addition, the issue of project economics relating to capital and operating costs in ventilation systems is covered.

MNNG9905
Coal Mine Hazards and Control
School of Mining Engineering
UOC6

This course module describes hazards and controls specific to underground coal mines, such as seam gas emission, outbursts and spontaneous combustion. The module includes methods of quantifying or predicting management requirements based on properties of the working section and adjacent seam gas reservoirs.

MNNG9906
Coal Mine Ventilation
School of Mining Engineering
UOC6

This course module covers legislative requirements, pertinent to mine ventilation systems, in underground Australian coal mines, together with current industry practice.

MNNG9907
Metalliferous Mine Hazards and Control
School of Mining Engineering
UOC6

This course module describes two issues encountered mainly in Australia metaliferous mines, namely refrigeration practice and the occurrence of ionising radiation. Although this module is taken as a metalliferous elective, the underpinning knowledge and design principles may also be applied to coal mines if required.

MNNG9908
Metalliferous Mine Ventilation
School of Mining Engineering
UOC6

This course module covers legislative requirements, pertinent to mine ventilation systems, in underground metalliferous mines together with current industry practice.

MODL5100
Foundations and Principles of Translation & Interpreting
School of Modern Language Studies
UOC8 HPW2

Provides theoretical foundations for the translation/interpreting studies and professional practice. Focuses on techniques and skills necessary for translation/interpreting practice, includes selected aspects of translation theory, cross-cultural linguistics and cross-cultural communication relevant to translation/interpreting, interpreters' and translators' professional ethics and code of conduct and the history of the profession.

MODL5101
Translation 1
School of Modern Language Studies
UOC8 HPW2

Aims to develop and consolidate students' translation skills and familiarity with topics relevant to the Australian and international translation market. Topics include non-specialist economics and finance, hospitality and tourism, social welfare and housing, scientific, medical and legal. Students will practice analytical skills, including comprehension and pre-translation analysis, develop translation techniques, learn to research translation topics, consult reference materials and create thematic glossaries.

MODL5102
Consecutive Interpreting 1
School of Modern Language Studies
UOC8 HPW2

Aims to develop and consolidate interpreting skills. Students will practice short-term memory exercises, short consecutive (dialogue interpreting) interpretation, sight translation and consecutive interpreting of longer passages with note-taking. Topics include community interpreting areas, such as hospitality, social welfare, education, medical and legal. Pre-translation analysis includes active listening/comprehension, rephrasing and reformulation of the text, discussion of text type and genres, communication patterns. Students learn to research areas relevant to their interpreting topics, use reference materials, build thematic glossaries and discuss interpreters' professional ethics.

MODL5103
Translation 2
School of Modern Language Studies
UOC8 HPW2

Involves English-LOTE two-directional translation practice in French, German, Indonesian, Japanese, Korean, Russian and Spanish in the following areas: non-specialist economics and finance, hospitality and tourism, social welfare and housing, scientific, medical and legal. Topics may be determined by the demand in the respective language areas and, wherever possible, the demand in the country of the given language. Students will work on individual projects on selected topics of preference.

Note: Recommended in conjunction with MODL5101 for MAITS students.

MODL5104
Consecutive Interpreting 2
School of Modern Language Studies
UOC8 HPW2

Interpreting practice involving bilingual interpreting of dialogues and passages with note taking in the following languages: French, German, Indonesian, Japanese, Korean, Russian and Spanish. Includes the development of bilingual proficiency in the relevant areas, such as public speaking; work on language-specific glossaries. Students implement research and use reference materials relevant to their interpreting topic.

Note: Recommended in conjunction with MODL5102 for MAITS students.

MODL5105
Conference Interpreting
School of Modern Language Studies
UOC8 HPW2
Corequisite: MODL5102

An introduction to the practice of simultaneous interpreting in both conference setting with the use of electronic equipment (conference interpreting) and without (eg. chuchotage, or 'whispering technique' used during round-table negotiations and in court). Techniques of simultaneous interpreting, such as reformulation, condensation, anticipation etc., will be taught. Topics include those common in international conferences and international organisations. Students will interpret into their A language (mother tongue).

MODL5106
Research Project
School of Modern Language Studies
UOC8 HPW2
Excluded: LING5007

A 10,000 word research project on an agreed subject.

Note: This project may only be undertaken with the permission of the Program Coordinator.

MODL5107
Professional Practice in Interpreting and Translating
School of Modern Language Studies
UOC8 HPW2

Prepares students for professional interpreting and translating practice in the community, conference and other professional settings. Explores linguistic and extra-linguistic aspects of the profession, professional ethics and professional conduct. During the practicum students will observe professional practice of other interpreters and translators and/or be placed in government and non-government professional agencies.

MSCI5004
Oceanographic Processes
School of Mathematics
UOC6 HPW4

Studies the physical, biological and geological processes of the marine environment; the dynamics of ocean currents including surface waves, geostrophy, tides, upwelling subduction, basin scale gyres, El Nino: biological processes including primary formation of particulate matter, secondary production, biological cycles; geological processes.

MSCI5005
Topics in Marine Science
School of Biological, Earth and Environmental Sciences
UOC6 HPW8

Session1

Examines marine pelagic and estuarine habitats and the practical application of theory to the ocean environment and its effect on the life of marine organisms. Emphasis is placed on the biology of phytoplankton, zooplankton and fish, together with the study of fisheries. Also looks at management, marine technology, computer simulations, conservation, other marine vertebrates, aquaculture and environmental concerns, and technical skills, taxonomy and sampling design.

Note: A field trip may be held during the mid-session break and personal costs may be incurred.

Session 2

Studies the ecology of marine and freshwater systems, emphasising benthic communities; population and community dynamics of these systems; evolution of life histories in the light of the constraints of aquatic systems. Emphasis is on experimental approaches to aquatic ecology. Special topics considered include chemical ecology, plant/herbivore ecology, and applied aspects of the topic such as mariculture, and there is a section on the biology and taxonomy of marine algae (seaweeds).

Note: Fieldwork is an important component of the course and personal costs may be incurred.

MTRN8223
Machine Condition Monitoring
School of Mechanical and Manufacturing Engineering
UOC6
Excluded: MECH4223, MTRN9223

Sensors and transducer interfacing to computers. Vibration signatures of faults in rotating and reciprocating machines; detection and diagnosis of faults; characterisation of signatures; prediction of service life and maintenance procedures. Project on measuring a parameter indicating possible failure.

MTRN9010
Project Mechatronic Engineering
School of Mechanical and Manufacturing Engineering
UOC12

Note: The project must be completed in no more than two sessions.

MTRN9201
Digital Logic Fundamentals for Mechanical Engineers
School of Mechanical and Manufacturing Engineering
UOC6 HPW3
Excluded: MECH9201, MTRN3201

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.

MTRN9202
Microprocessor Fundamentals for Mechanical Engineers
School of Mechanical and Manufacturing Engineering
UOC6 HPW3
Prerequisite: MECH9201 or MTRN9201 Excluded: COMP9221, ELEC4432, ELEC9406, ELEC4351, MECH3202, MTRN3202

Introduction to microprocessor programming. Machine code programming. Instruction sets. Program branching and condition codes. Addressing modes. Interrupts. Address decoding and memory interface. Input/Output interfacing techniques. Programmable peripheral devices. Serial and parallel interfaces. Microprocessor control of electromechanical devices. Laboratory complement to lectures.

MTRN9211
Modelling and Control of Mechatronic Systems 1
School of Mechanical and Manufacturing Engineering
UOC6 HPW3
Excluded: MECH9211

Development of modelling technique and design of controllers using digital computers, with special emphasis on digital control systems for motion control. Typical examples of mechatronic systems.

MTRN9221
Industrial Robotics
School of Mechanical and Manufacturing Engineering
UOC6 HPW3
Excluded: MECH4221, MECH9221, MTRN4221

Applications survey. System structure, hardware, software, handling. Linkage kinematic structure; power transmission. Linkage structural design. Actuator choice. Interface hardware. Feedback. Function programming philosophies. Control algorithms. Problem specification; solution preparation. Writing, storage, implementation of computer algorithms.

MTRN9222
Artificially Intelligent Machines
School of Mechanical and Manufacturing Engineering
UOC6 HPW3
Excluded: MECH4222, MECH9222

The principles of operation of machines into which limited powers of decision making have been delegated. The grouping of intelligent machines. Cognition; sensor technology; parsing; information representation; convolutions; software and hardware environments.

MTRN9223
Machine Condition Monitoring
School of Mechanical and Manufacturing Engineering
UOC6 HPW3
Excluded: MECH4223, MTRN8223

Sensors and transducer interfacing to computers. Vibration signatures of faults in rotating and reciprocating machines; detection and diagnosis of faults; characterisation of signatures; prediction of service life and maintenance procedures. Project on measuring a parameter indicating possible failure.

MTRN9224
Robot Design
School of Mechanical and Manufacturing Engineering
UOC6 HPW3
Prerequisite: MTRN3212

The course is aimed at developing skills on how to design and build a robot from scratch. The course primarily contains the following contents: Introduction to robot design. Mechanisms and dynamics of animals. Mechanical design of wheeled, legged and manipulator robots. Calculation of torques and selection of motors. Environment and selection of sensors. Integration of mechatronic systems. Motion planning and control. Design of a robot using CAD. Simulation of a robot using MATLAB/C/C++.

MUSC5120
Psychology of Music Teaching and Learning
School of Music and Music Education
UOC8 HPW2

Reviews research in music psychology over the last fifteen years and examines current conflicts, controversies and issues in order to develop informed approaches to music instruction, administration, supervision and evaluation.

MUSC5122
Research in Music Education
School of Music and Music Education
UOC8 HPW2

Covers the main approaches and methodologies for undertaking research in music education. Includes conceptual framework for undertaking research as well as research modes and techniques. Introduces qualitative, philosophical, historical, descriptive and experimental methodologies and includes critical evaluation and interpretation of prominent research studies in music education.

MUSC5132
Musical Beliefs: Contemporary and Ancient
School of Music and Music Education
UOC8 HPW2

Examines Western Music as a cultural invention and its long history which has traditionally been linked to science and human perception of the natural world. Contemporary research shows how western beliefs about music have shaped our attitudes to music and to music education, often blinding us to their essential cultural foundation and to the worth of music in other cultures. From Pythagoras and Boethius to J-P Rameau and Helmholtz, various composers have argued for and against the premise that musical activity in the West has been held up as part of the natural order of things. Finally, the 20th century marks the end of the domination of Pythagoras and Plato on western musical sensibilities. The various ramifications of all this for contemporary music education are examined.

MUSC5135
J.S. Bach and the Baroque: Context and Performance
School of Music and Music Education
UOC8 HPW2

Provides in depth study of Bach's compositions in their socio-historical context. Besides exploring Bach's cultural milieu and its impact on his style and output, the course focuses on how such knowledge have been used in performance. Through this the characteristics of 300 years of Bach-reception are also investigated.

MUSC5136
Music, Musicology and the Imperial Encounter
School of Music and Music Education
UOC8 HPW2

Examines the parallel documentation and imagining of non-Western music cultures both in works of European concert music and in the discipline of musicology (particularly in its sub-discipline of ethnomusicology). Looks at the rise of exoticism in European music and its grounding in the imperial encounter. Links the nineteenth and early twentieth century fascination with the exotic to the developing discipline of ethnomusicology, examining early accounts, both journalistic and academic, of traditional musics. Examines the 'presence' of Australian Aboriginal music and of Asian music in the work of some contemporary Australian composers.

MUSC5137
Western Art Musics and Popular Musics
School of Music and Music Education
UOC8 HPW2

Examines the ways in which Western art music and popular music, including jazz, have interacted throughout the twentieth century. Explores various twentieth century compositional procedures and how these have been adopted or adapted by some musicians working in the area of popular music. Similarly, the effects of popular music styles on the compositional procedures of various twentieth century art music composers will also be studied.

OPTM7103
Behavioural Optometry 1
School of Optometry and Vision Science
UOC6 HPW4
Restricted to students enrolled in the following programs 8760, 5665 and 7435

Behavioural Optometry is one of the fastest developing clinical areas in optometry. It embodies a broad clinical approach to the practice of optometry by considering vision in the context of other sensory motor systems. This course covers the scientific and theoretical background to behavioural optometry, the neuroscience of visual function, developmental vision, the development of myopia, the clinical recognition and evaluation of efficient visual function, strabismus & amblyopia, and the optometric management of learning disabilities. Assignments require the clinical application of behavioural concepts to simple and complex cases, so all participants must have access to a variety of optometric patients, including children. Overseas students must arrange this with the course controller prior to enrolment. Together with OPTM7203 Behavioural Optometry 2, this course forms the foundation program for candidates for a Fellowship of the Australian College of Behavioural Optometrists.

OPTM7104
Advanced Contact Lens Studies 1
School of Optometry and Vision Science
UOC6 HPW4
Restricted to students enrolled in the following programs 8760, 5665 and 7435

This course provides lectures, seminars and practical workshops on topics underlying an advanced knowledge of contact lens practice and research. Topics covered in the course may include: research concepts and opportunities in private clinical practice; accessing the contact lens literature and other relevant databases; use of clinical grading scales; update on corneal physiology and biochemistry; tear film assessment; advanced clinical and research instrumentation; visual considerations with different contact lens designs and modalities; corneal topographic analysis; advanced rigid contact lens design and fitting; rigid and soft toric lens fitting; rigid lens parameter measurement and lens modification; contact lens material properties. The course is conducted over 4 weekend sessions. The specific topics covered in the course will vary from year to year depending on the availability of expert lecturers.

OPTM7106
Occupational Optometry 1
School of Optometry and Vision Science
UOC6 HPW4
Restricted to students enrolled in the following programs 8760, 5665 and 7435

The course covers visual and general ergonomics; illuminating engineering; human factors engineering; anthropometry; task analysis; physical and chemical hazards; radiation effects and hazard analysis; risk engineering; workplace design and modification; ocular and visual factors on specific tasks; visual fitness; vision screening; legal aspects; issues in common visually based activities.

The course matter is considered at a higher level than in the undergraduate course, in seminar format.

OPTM7108
Small Research Project
School of Optometry and Vision Science
UOC6
Excluded: OPTM7308 and restricted to students in programs 8760, 5665 and 7435

A research investigation into a topic in Optometry or Visual Science. May be carried out either on campus or within the student's professional practice with supervision from the University. Involving less time commitment than OPTM7308 Research Project

OPTM7110
Public Health Optometry
School of Optometry and Vision Science
UOC6
Restricted to students enrolled in the following programs 8760, 5665 and 7435

This course provides an understanding of the issues of public health as they relate to Optometry at an advanced level. Topics covered include: structure of the Australian health care system; comparative study of health care systems; Optometry in a multi-disciplinary health care system; quality assurance in health care; demography and epidemiology of occupational eye disease and injuries; social issues and optometric involvement; occupational eye disease management; law and ethics.

Note: Distance Education mode

OPTM7111
Pathophysiology of Ocular Disease 1
School of Optometry and Vision Science
UOC3
Restricted to students enrolled in the following programs 8760, 5665 and 7435

This course gives students a background in basic sciences and increases their understanding of the pathology of ocular disease. This knowledge is necessary in understanding the processes involved in the pathophysiology of commonly encountered ocular diseases seen in optometric practice.

Topics covered include cell and molecular biology, biochemistry, immunology, and inflammation.

Note: Distance Education mode

OPTM7112
Pathophysiology of Ocular Disease 2
School of Optometry and Vision Science
UOC3
Corequisite: OPTM7111 and restricted to programs 8760, 5665 and 7435

Increasingly Optometry is playing a role as the primary provider in eyecare diagnosis, and referral for secondary and tertiary care. Concomitant with this is the duty to enhance our knowledge of the pathophysiological processes associated with ocular disease.

This short course covers three types of eye disease commonly encountered in optometric practice: diabetes, glaucoma and dry eye disease. The course discusses the underlying pathophysiology of each disease, allowing the student to better understand and manage these conditions.

Note: Distance Education mode

OPTM7113
Human Visual Development
School of Optometry and Vision Science
UOC6 HPW4
Restricted to students enrolled in the following programs 8760, 5665 and 7435

This course aims to increase the student's understanding of visual sensitivity to colour, motion and form in human infants and young children. Specifically, topics will include: methods of infant visual function assessment; limitations of currently available techniques, including visual evoked potentials, forced-choice preferential looking and optokinetic nystagmus; anatomical and functional development of the human visual system: differential neural pathway development; visual development under normal and abnormal conditions: the effects of oculo-visual abnormality on development of different visual functions.

Note: Distance Education mode

OPTM7114
Rehabilitation of the Partially Sighted
School of Optometry and Vision Science
UOC6
Restricted to students enrolled in the following programs 8760, 5665 and 7435

This course will survey issues involved in the visual rehabilitation of the partially sighted person. Topics covered include epidemiology of visual impairment, pathophysiology of the major ocular disease processes, models of adaptation to loss, assessment of visual impairment, provision of optical and non-optical visual aids, new developments in adaptive technology, professional interactions and referrals and support structures.

OPTM7115
Visual Neuroscience
School of Optometry and Vision Science
UOC6
Restricted to students enrolled in the following programs 8760, 5665 and 7435

This course provides understanding of the issues of visual functioning which will also be related to clinical assessment issues. Topics covered include: processing of visual information in mammals, repair in the nervous system of vertebrates, objective assessment of visual pathway, review of brainstem and brainstem anatomy, review of amino acid chemistry related to brain neurochemistry, glutamate and neurotoxicity in glaucoma, visual attention and arousal systems, brainstem mechanisms in the control of eye movements, visually directed activities - reading, parietal factors in vision, frontal factors in vision, after effects and inter-ovular transfers.

Note: Distance learning

OPTM7203
Behavioural Optometry 2
School of Optometry and Vision Science
UOC6 HPW4
Prerequisite: OPTM7103. Program enrolment in 8760, 5665, or 7435

This course utilises the principles of behavioural optometry introduced in OPTM7103 Behavioural Optometry 1, with an emphasis on treatment options, vision training, and practice management issues. Consideration is also given to the assessment and management of special needs patients including those with genetic conditions, developmental disabilities and traumatic brain injury. Assignments require the clinical application of behavioural concepts to simple and complex cases, so all participants must have access to a variety of optometric patients, including children. Overseas students must arrange this with the course controller prior to enrolment. Together with OPTM7103 Behavioural Optometry 1, this course forms the foundation program for candidates for a Fellowship of the Australian College of Behavioural Optometrists.

OPTM7204
Advanced Contact Lens Studies 2
School of Optometry and Vision Science
UOC6 HPW4
Restricted to students enrolled in the following programs 8760, 5665 and 7435

This course provides lectures, seminars and practical workshops on topics underlying an advanced knowledge of contact lens practice and research, and builds on topics covered in OPTM7104 Advanced Contact Lens Studies 1. Topics covered in the course may include: contact lenses for keratoconus, PMMA and RGP haptic contact lenses; fitting contact lenses after corneal refractive surgery and keratoplasty; contact lenses for children and teenagers; therapeutic contact lenses; research and clinical aspects of orthokeratology; contact lenses for colour vision deficiency; contact

lens-related ocular microbiology and immunology; future directions in the contact lens field; contact lens education; current market issues. The course is conducted over 4 weekend sessions. The specific topics covered in the course will vary from year to year depending on the availability of expert lecturers.

OPTM7211
Pathophysiology of Ocular Disease 3
School of Optometry and Vision Science
UOC3
Prerequisite: OPTM7111

Increasingly Optometry is playing a role as the primary provider in eyecare diagnosing and referring for secondary and tertiary care/ surgery. Concomitant with this is the duty to enhance our knowledge of the processes associated with ocular disease and the techniques/effects of surgery popular in modern day eyecare. The course discusses the underlying pathophysiology of anterior eye disease along with techniques/ outcomes of various surgical techniques used in corneal refractive surgery and the treatment of cataract.

Note: Distance learning

OPTM7212
Pathophysiology of Ocular Disease 4
School of Optometry and Vision Science
UOC3
Prerequisite: OPTM7111

Posterior eye disease, especially age related maculopathy, is becoming more prevalent with our aging population. In this course we will discuss the pathophysiology of commonly encountered posterior eye diseases of the optic nerve, vitreous, retina and the visual pathway.

Note: Distance learning

OPTM7301
Advanced Clinical Optometry
School of Optometry and Vision Science
UOC12
Prerequisite OPTM7309,must be enrolled in Program 8760, or 5665 or 7435

This course comprises clinical work on selected patients with special emphasis on advanced techniques and new developments. Optometric examination procedures include: gonioscopy, slit lamp fundoscopy, binocular indirect ophthalmoscopy and scleral depression; ultrasonography; corneal topography; ocular photography; computerised visual field analysis; visual functions; low vision; optometric co-management; evaluation of binocular functions; geriatric and paediatric optometry; the clinical application of electrophysiological techniques. Assessments of new instruments, methods and treatments.

The course is offered as an overseas posting at the LV Prasad Eye Institute in Hyderabad, India subject to the ability of the location to host the candidate in the time requested. This posting is for a 4-week period, with travel and accommodation costs to be met by the candidate.

Note: Short course format - overseas posting.

Candidates must have successfully completed the Ocular Therapy component to be eligible for the posting. Candidates who have not completed this course can lodge an application at the School Office. Each application will then be reviewed and assessed on merit.

OPTM7307
Clinical Imaging
School of Optometry and Vision Science
UOC6 HPW4
Restricted to students enrolled in the following programs 8760, 5665 and 7435

This course will provide candidates with a broad view of the scope of clinical imaging and working knowledge of clinical photography of the ocular adnexa, anterior eye and posterior eye using both film and digitally-based still and video photography. Topics will include: ethical and legal issues relating to clinical imaging and electronic archiving of clinical records, the unique lighting requirements for ocular photography, interfacing ophthalmic instruments with image capture devices, image database applications, image analysis versus image processing, video editing using tape and digitised facilities, comparison of the relative advantages of the various clinical imaging modalities, use of clinical imaging in patient management, patient education and communication with other practitioners.

OPTM7308
Research Project
School of Optometry and Vision Science
UOC12
Excluded: OPTM7108 and restriscted to programs 8760, 5665 and 7435

A research investigation into a topic in Optometry or Visual Science with a duration of one year. May be carried out either on campus or within the student's professional practice with supervision from the University.

OPTM7309
Ocular Therapy
School of Optometry and Vision Science
UOC12
Restricted to students enrolled in the following programs 8760, 5665 and 7435

This course provides an introduction to the basic and clinical sciences related to the use of therapeutic substances in primary care optometry. The focus is on the practical clinical needs of the student. In the basic sciences, there is a review of biochemistry with emphasis on topical issues related to common systemci drugs which affect cellular communication. This is reinforced with a review of common cardiovascular, respiratory and immunological disease, AIDS and hepatitis, and their implications for practice hygiene. The epidemiology of systemic drug use in Australia is reviewed, along with the ocular and visual side-effects associated with common systemic therapies. Anterior eye microbiology is reviewed with a strong emphasis on contact-lens-related infection and inflammation. A pharmacist explains drug law in Australia, pharmaceutics with special reference to the eye, and relevant professional relationships with pharmacy. Topics of direct relevance to ocular therapeutics and their use in primary care optometry include - Diagnosis, management and therapy of anterior ocular surface disease (infection and inflammation of the conjunctiva, cornea, eyelids), inflammatory disease of the anterior uvea, diseases of the lacrimal system, congenital and acquired retinal disease, diabetic rettinopathy, age-related maculopathy and glaucoma. The topic of co-management with an opthalmologist is covered in relation to glaucoma and surgery for cataract and refractive errors. Other topics include ocular emergencies, ocular trauma, and neuro-ophthalmic disorders.

PAED8104
The Effect of Social Adversity in Childhood
School of Women's and Children's Health
UOC4 HPW2

Family structure and dynamics, poverty, single parent, drug addicted parents, housing and sanitation, homeless children, teenage parents, migrant families, Aboriginal health, working mothers and childcare.

PAED8203
Infant Feeding and Nutrition 1
School of Women's and Children's Health
UOC4 HPW2

Lactation, breast feeding. Nutritional requirements. Feeding of infants and children. Infant formulas.

PAED8204
Infant Feeding and Nutrition 2
School of Women's and Children's Health
UOC4 HPW2
Prerequisite: PAED8203

Nutritional disorders in children. Childhood origin of adult diseases. Health and organic foods. Developing nutritional guidelines for children in care. The effect of social, cultural and food advertising on children's nutrition.

PAED9111
General Paediatrics and Child Health 1
School of Women's and Children's Health
UOC6

Growth and development. Systemic diseases in childhood. Prevention and early detection. Community services available for the care of children with various disorders. Exmphasis is placed on the understanding of principles especially physiological principles. Prenatal development and prenatal experiences, which affect the growing foetus and infant. Necessary professional supervised experience is obtained by clinical attachment to appropriate hospitals. Candidates are given increasing professional responsibility. There are lectures, seminars, discussion groups and demonstrations on manikins. Family dynamics and family interactions

in the causation of developmental, behavioural and emotional problems in children. Students without adequate clinical experience have a clinical attachment in paediatric psychiatry during the first two years of training. There are lectures, seminars, case conferences and assignments.

PAED9112
General Paediatrics and Child Health 2
School of Women's and Children's Health
UOC6

Growth and development. Systemic diseases in childhood. Prevention and early detection. Community services available for the care of children with various disorders. Exmphasis is placed on the understanding of principles especially physiological principles. Prenatal development and prenatal experiences, which affect the growing foetus and infant. Necessary professional supervised experience is obtained by clinical attachment to appropriate hospitals. Candidates are given increasing professional responsibility. There are lectures, seminars, discussion groups and demonstrations on manikins. Family dynamics and family interactions in the causation of developmental, behavioural and emotional problems in children. Students without adequate clinical experience have a clinical attachment in paediatric psychiatry during the first two years of training. There are lectures, seminars, case conferences and assignments.

PAED9116
Clinical and Technical Skills 1
School of Women's and Children's Health
UOC3

Students will refine history taking, physical examination, communication and procedural skills in clinical settings.

PAED9117
Clinical and Technical Skills 2
School of Women's and Children's Health
UOC3

Students will refine history taking, physical examination, communication and procedural skills in clinical settings.

PAED9118
Clinical Paediatric Experience 1
School of Women's and Children's Health
UOC3

It is a requirement of the course that 12 months clinical experience is gained before sitting for the diploma exam.

PAED9119
Clinical Paediatric Experience 2
School of Women's and Children's Health
UOC3

It is a requirement of the course that 12 months clinical experience is gained before sitting for the diploma exam.

PHCM9010
Community Development
School of Public Health and Community Medicine
UOC4

This course explores the meaning and conceptual frameworks of community development as an approach to improving the health of individuals and the broader community. It also facilitates exploration of the fundamental components of community development, such as needs assessment, empowerment, and evaluation. Case examples are extensively used to explore theories and models in practice and to highlight and reflect on the issues and dilemmas faced in community development work. This Course is useful for community workers, researchers, policy officers/managers, health service administrators/managers, educators or clinicians. For those with field experience, this course will provide a strong theoretical basis and will hopefully introduce some new practice tools. For those with little or no field experience, it provides a good mix of theories, models, practical examples and tools to introduce this exciting approach to improving health.

Note: Normally, this course is offered in either distance mode or in workshop mode. Please see timetables for attendance details and any online components: http://sphcm.med.unsw.edu.au/sphcm.nsf/website/forstudents.timetables.hmph

PHCM9011
Statistics and Epidemiology
School of Public Health and Community Medicine
UOC6 HPW3

Collection, collation and analysis of data and the interpretation of statistical information for the purposes of health services management. The use of computers for these purposes. Measurement of disease rates and interpretation and identification of health status. These statistical methods and measures will assist in planning, operation and evaluation of interventions in health service management.

Note: This course is only available for students enrolled in the Graduate Certificate in Health Services Management (Hospital Epidemiology)

PHCM9012
Health Promotion
School of Public Health and Community Medicine
UOC4 HPW2

Explores the meaning of health promotion and its role in the field of public health, and provides a forum for discussion on preventive approaches in health care. Students study a variety of approaches to promoting health and consider the benefits and disadvantages of each of these within an integrated framework.

Note: Normally, this course is offered in either distance mode or internally with weekly classes. Please see timetables for attendance details or any online components.

PHCM9015
Health Services Development and Implementation
School of Public Health and Community Medicine
UOC6 HPW3

This course addresses institutional strengthening and capacity building in health services. The focus is on development and change. Particular attention is given to organisational culture and learning within the organisation, leadership, change management and communication. The complexities of cross cultural communication in health services in different international settings is explored.

Note: Normally, this course is offered internally with weekly classes for students studying at Kensington campus. This course is offered as a distance course with a workshop for students enrolled in the Hong Kong Program. Please see timetables for attendance details and any online components: http://sphcm.med.unsw.edu.au/sphcm.nsf/website/forstudents.timetables.hmph

PHCM9041
Health Care Systems
School of Public Health and Community Medicine
UOC6 HPW2

The first part of this course is concerned with the principles and practice of health system analysis and comparison, the sources and utilization of information relating to the development, organisation and operation of health services, and frameworks for assessing their performance. This leads to a close examination of the Australian health care system - its organisation and management, Australian health law, the range of personal, community and environmental health service activities, their outputs and outcomes, financial, personnel and other inputs and the health information system. The strengths and weaknesses of this system are reviewed and proposals for its adjustment considered. Some comparisons are drawn between the features of the Australian health care system and those operating in other affluent countries.

Note: Normally, this course is offered in either distance mode or internally with weekly classes. Please see timetables for attendance details or any online components.

PHCM9071
Health Care Financial Management 1
School of Public Health and Community Medicine
UOC6 HPW2

This course introduces students to the three main accounting statements - the balance sheet, profit and loss statement and cash flow statement. The emphasis is on how to analyse and interpret these statements rather than

being able to construct them. The difference between accrual and cash based accounting systems is explained and students will be shown how to develop and use budgets. Capital budgeting, analysis of budgets and costing products and services are also discussed.

Note: Normally, this course is offered in either distance mode or internally with weekly classes. Please see timetables for attendance details or any online components.

PHCM9081
Health Care Financial Management 2
School of Public Health and Community Medicine
UOC4
Prerequisite: PHCM9071 or HEAL9071

The aim of this course is to construct a "business plan" that relates to some aspect of the health care industry. A business plan outlines the financial implications of either starting up a new business or expanding or contracting an existing service. This is not a theoretical course - you are required to write your business plan. Most students develop their plan from their own work experience. Offered both in Hong Kong and externally in Australia. A workshop is conducted for external students during residential week.

Note: Normally, this course is offered in distance mode. Please see timetables for attendance details or any online components.

PHCM9100
Academic Skills
School of Public Health and Community Medicine
UOC4 HPW2

These are student based workshops designed to provide support in academic skills needed to successfully complete the assignments in postgraduate studies in the School. Students will be expected to bring reading and writing material that pertain to their studies in other courses.

Each week, skills topics will be presented and they will be linked with the materials that students deal with in their other courses. Participants will engage in critical activities on materials used in their studies ie reviewing articles, assignments etc. There will be opportunity to discuss issues and field questions from colleagues to develop skills in defending a particular viewpoint or position.

Note: This course is offered internally with weekly classes. Please see timetables for attendance details.

PHCM9102
Independent Study (4uoc)
School of Public Health and Community Medicine
UOC4

Independent studies are designed to provide opportunities for candidates to pursue interests and areas of study not addressed in existing courses. They are recommended particularly for candidates who wish to explore specific health or education related problems within their own discipline or area. Students wishing to take an independent study must obtain approval from their program coordinator and the unit of credit value can vary between 2 to 8 uoc depending on the size of the Independent Study. The correct course code will be advised on enrolment.

PHCM9108
Program Evaluation and Planned Change
School of Public Health and Community Medicine
UOC4 HPW2

This course focuses on the design of evaluation of health programs and services. The role of evaluation in decision making, development and innovation is explored with due attention to organisational and political sensitivities and constraints. A step-by-step approach is introduced and applied. The role of internal and external evaluators in clarifying the need for evaluation, in determining the issues that should be addressed, and the methods of obtaining and interpreting information, is considered in some detail.

Note: Normally, this course is offered in either distance mode or internally with weekly classes for students studying at Kensington campus. This course is offered as a distance course with a workshop for students enrolled in the Hong Kong Program. Please see timetables for attendance details and any online components: http://sphcm.med.unsw.edu.au/sphcm.nsf/website/forstudents.timetables.hmph

PHCM9111
Quality and Clinical Practice Improvement
School of Public Health and Community Medicine
UOC4

This course aims to empower and equip frontline health care professionals to lead and achieve real improvements in the delivery and outcomes of clinical care. This is a practical course that is supported by a robust academic background which will allow participants to develop a practical understanding of quality in health care and to harness both individual and teams skills to achieve sustainable learning.

Note: Normally, this course is offered in distance mode with a workshop. Please see timetables for attendance details and any online components: http://sphcm.med.unsw.edu.au/sphcm.nsf/website/forstudents.timetables.hmph

PHCM9120
Qualitative Research Methods
School of Public Health and Community Medicine
UOC4 HPW2

Explores a range of qualitative research methods and techniques, including participant observation, in-depth interviews and focus groups and their application to public health and health promotion. The course aims to provide students with skills for documenting and understanding how people interpret health and illness and the contexts in which they occur. Recommended for students wishing to undertake their projects using qualitative methods.

Note: Normally, this course is offered in either workshop mode or internally with weekly classes. Please see timetables for attendance details and any online components: http://sphcm.med.unsw.edu.au/sphcm.nsf/website/forstudents.timetables.hmph

PHCM9121
Measurement of Quality of Life and Patient Satisfaction
School of Public Health and Community Medicine
UOC4 HPW2

Quality of Life, Functional Health Status, and Patient Satisfaction, are primary measures of outcome for health programs, becoming routine in the assessment of the effects of disease and health care interventions. These patient-centred global measures aim to comprehensively assess an individual's health state or health-related experience, and characteristically investigate a broad range of aspects of perceived importance to the individual. Health outcomes research and evaluation is increasingly centred on the application of such measures to improve healthcare services.

The course introduces the skills needed for patient-centred health outcomes measurement, where health state as perceived by the patient is assessed as well as physiological or clinician-based measures (ie. the Harvard School of Public Health sense of the term). The course aims to equip participants with the ability to evaluate and select tests for use in their own workplace.

Note: Normally, this course is offered in workshop mode. Please see timetables for attendance details and any online components: http://sphcm.med.unsw.edu.au/sphcm.nsf/website/forstudents.timetables.hmph

PHCM9122
Primary Health Care: Policies, Programs & Perspectives
School of Public Health and Community Medicine
UOC4 HPW2

The course examines the determinants of health, and how these relate to the application of health care services, particularly in the underdeveloped world. It focuses on the development of the primary health care model and examines the implementation of primary health care programs in different settings. It looks at the strengths and weaknesses of this model of health care and whether it still has relevance in the world today.

Note: Normally, this course is offered in internally with weekly classes. Please see timetables for attendance details and any online components: http://sphcm.med.unsw.edu.au/sphcm.nsf/website/forstudents.timetables.hmph

PHCM9125
Designing Short Courses and Workshops
School of Public Health and Community Medicine
UOC4

This course is designed to provide the knowledge and skills needed to design and run a (really good) short course or workshop. This includes evaluating a number of course design and learning models, applying principles of planning, conducting needs assessment of learners, thinking about structure and content, writing learning outcomes, designing learning activities, preparing learning resources and evaluating a short course or workshop. It is very practical in focus and you work on your own short course or workshop as you progress through the course. The assessment involves participating in an on-campus workshop, contributing to an online discussion area and submitting a plan for your own short course or workshop.

Note: Normally, this course is offered in workshop mode with an online component. Please see timetables for attendance details.

PHCM9131
Research Skills for Public Health
School of Public Health and Community Medicine
UOC4 HPW2
Prerequisite: PHCM9503, PHCM9502 or CMED9502 , PHCM9499, PHCM9500 or CMED9500

This course aims to explore concepts and develop skills related to conducting research in public health. Emphasis will be given to identifying and refining research questions, developing conceptual and critical analytic skills, developing library and database search skills, undertaking literature analyses, planning project aims, identifying practical administrative and ethical issues and limits, developing writing skills and contributing to current debates in public health research.

Note: Normally, this course is offered in either distance mode or internally with weekly classes. Please see timetables for attendance details and any online components: http://sphcm.med.unsw.edu.au/sphcm.nsf/website/forstudents.timetables.hmph

PHCM9133
Learning, Teaching and Assessment
School of Public Health and Community Medicine
UOC4

This course explores contemporary ideas about learning in the health professions and the requirements these imply for teaching and assessment. The course emphasises formal learning at university but also covers non-formal learning in the workplace and through continuing education. The course applies ideas about education generally to situations that are relevant specifically to health professionals. The course is offered externally and requires regular participation in on-line discussion groups. There is no pre-session workshop.

Note: Normally, this course is offered in distance mode with an online component. Please see timetables for attendance details and any online components: http://sphcm.med.unsw.edu.au/sphcm.nsf/website/forstudents.timetables.hmph

PHCM9147
Major Project (8 uoc)
School of Public Health and Community Medicine
UOC8

The project comprises in-depth study of a contemporary public health issue or topic. Candidates are expected to demonstrate their ability to apply knowledge and skills gained in the course, through: identifying and defining a significant issue; systematically collecting relevant, up-to date information about the issue; analysing, interpreting and discussing the information; drawing conclusions; making recommendations; and writing a report in a manner consistent with academic standards at Master's level. The project may be in the form of a small-scale research study, a case study, a program evaluation or a report on field placement. Although candidates are advised to start planning project early in their program, it is normally undertaken after completion of all core and elective courses.

Appropriate course code will be advised on enrolment.

PHCM9302
Learning in Small Groups
School of Public Health and Community Medicine
UOC4

This course explores how people operate as members and leaders of learning groups and the conditions, which make for effective group work in both education and the work place. The emphasis is on experiential learning, observation of group process, improving skills in facilitating group learning and designing appropriate learning activities. To complete the two assignments you need to observe and analyse group dynamics in a learning group and then to plan and lead a small group learning session. However these activities need not take place in a formal educational setting - you are welcome to use professional development activities, patient education groups or other kinds of community learning groups as the basis of the assignments.

Note: Normally, this course is offered in distance mode with an optional workshop. Please see timetables for attendance details and any online components: http://sphcm.med.unsw.edu.au/sphcm.nsf/website/forstudents.timetables.hmph

PHCM9304
Learning Clinical Reasoning
School of Public Health and Community Medicine
UOC6

This course covers teaching of the steps in the clinical process, inductive and deductive strategies, data collection and its flaws, the reliability of clinical evidence, intuition and clinical memory. The candidate will explore investigation and sufficiency of evidence, strength of clinical and investigational evidence, interpretation and misinterpretation, logical processes in clinical inference and plausibility of diagnosis. The course will introduce the utility of expert systems and computer-aided diagnosis. Assignments include the study of clinical reasoning in the candidate's setting and the design for teaching about these processes.

Note: Normally, this course is offered in distance mode. Please see timetables for further details about the course and any online components.

PHCM9306
Clinical Supervision
School of Public Health and Community Medicine
UOC4

This course aims to help students develop a reflective and critical approach to the operational and educational supervision of staff and students that is effective, and that is based on relevant theory and on ethically defensible practice. It draws on models of supervision and facilitation taken from the management, adult education and clinical supervision literatures. The assignments focus both on the educational and operational supervision of individuals working on specific tasks, and on the planning and supervision of blocks of clinical experience for individuals or groups.

As the assignments in this course ask students to reflect on their experiences as supervisors, students enrolling in this course should have, or should have recently had, a formal or informal supervisory role in relation to staff, trainees or students, in a clinical setting.

Note: Normally, this course is offered in distance mode with an optional workshop. Please see timetables for attendance details and any online components: http://sphcm.med.unsw.edu.au/sphcm.nsf/website/forstudents.timetables.hmph

PHCM9307
Exploring and Managing Ethical and Moral Dilemmas
School of Public Health and Community Medicine
UOC4

This course guides the learner through the major ethical principles affecting clinical choices using a large array of contemporary clinical issues. The course is based on posing questions and search for answers. Ethicists differ in the way they search for answers. Not all believe that there is one truth to find. Many believe that the 'truth' depends on the context, or situation, or on the relative importance of opposing values. This course attempts to hear 'many voices' not only from ethicists and clinicians but from law, religion, administration and lay media. Ethicists themselves range across a spectrum from "You should...." (duty based deontologists) to "It depends...." (situationists). The courses aims to bring out that range. Assignments rely on students' consultations and clinical education experiences to explore ethical principles and their implications in the clinical setting.

Note: External Course.

Note: Normally, this course is offered in distance mode. Please see timetables for further details about the course and any online components.

PHCM9308
Learning Clinical Decision Making
School of Public Health and Community Medicine
UOC4

This course deals with quantitative and qualitative aspects of decision making, management options, ambiguity and sufficiency of evidence at the test-treatment threshold, identification of possible outcomes, calculation of probabilities and utilities for each outcome. It introduces structuring with decision analysis, elicitation of patients' preferences, configuration of trade-offs and sensitivity analysis, influences operating in the context and in the personal psychology of doctor and patient. The notions of defensibility of decisions, and judgement in making choices under uncertainty are also explored. Assignments include the analysis of a number of decision processes in the candidate's setting.

Note: Normally, this course is offered in distance mode. Please see timetables for further details about the course and any online components.

PHCM9309
Assessment of Clinical Performance
School of Public Health and Community Medicine
UOC4

This course covers the purposes, location, criteria, methods, timing, frequency, scoring methods and formats, and training of examiners to achieve consistency. The course includes development of assessments undertaken by self, peers, other health workers and patients. The course also addresses issues of judgment of others, and of innovation in developing accurate estimates of practical ability. Assignments include the study of performance assessment, and development of approaches to formative assessment.

Note: Normally, this course is offered in distance mode with an optional workshop. Please see timetables for attendance details and any online components: http://sphcm.med.unsw.edu.au/sphcm.nsf/website/forstudents.timetables.hmph

PHCM9312
Research Into Clinical Education
School of Public Health and Community Medicine
UOC6

This course introduces clinical educators to the research methods appropriate for understanding and studying complex, multifactorial, interactive, dynamic situations in which few variables can be controlled. Critical analysis as consumers of clinical research papers and the use of basic statistical concepts (parametric and non-parametric) and methods will be included. Candidates will plan a research project into clinical education as their principal assignment.

Note: External Course.

Note: Normally, this course is offered in distance mode. Please see timetables for further details about the course and any online components.

PHCM9315
Clinical Teaching
School of Public Health and Community Medicine
UOC6

The course includes the planning and conduct of clinical teaching programs, preparation of the learners including assessment of the learner's readiness, briefing before patient encounter, demonstration of skills, perceptual skills in data collection, debriefing and reflection on the clinical encounter, explication of the clinical experience, in terms of available theory. The candidate is challenged to translate professional knowledge into working knowledge, and forward planning of reading and further practice. The course also deals with the micro-skills of listening, questioning, probing and challenging, demonstrating, and involving the patient and other staff. The activities and assignments require the candidate to have access to clinical students in a teaching role for part of the coursework. Assignments include the study of the candidate s clinical teaching and the study and practice of clinical micro-skills.

Note: Normally, this course is offered either in distance mode only or distance mode with an optional workshop. Please see timetables for attendance details and any online components: http://sphcm.med.unsw.edu.au/sphcm.nsf/website/forstudents.timetables.hmph

PHCM9316
Learning Consulting Skills
School of Public Health and Community Medicine
UOC6

In this course, the medical stream deals with the identification, learning and teaching of consulting skills in communicating with patients, families and colleagues in clarifying illness problems, in acquiring accurate information, interpreting evidence and diagnosing disease, in handling ambiguity and uncertainty, in referral to others and in negotiating trade-offs among management options. Differences between generalist and specialist tasks and contexts will be explored. Consulting skills in the nursing stream parallel these, but with differing responsibilities in assessment and patient care. Lessons will be drawn from these settings to other clinical healthprofessional _ patient communication settings. Assignments include study in the candidates own setting. The workshop explores ways for improving the effectiveness of communicating with patients, and includes many opportunities for practicing new skills. Note: External Course / Workshop candidates should be working in a clinical setting with access to potential or actual students/trainees.

Note: Normally, this course is offered either in distance mode only or distance mode with an optional workshop. Please see timetables for attendance details and any online components: http://sphcm.med.unsw.edu.au/sphcm.nsf/website/forstudents.timetables.hmph

PHCM9331
Ethics & Law: Public Health & Administration
School of Public Health and Community Medicine
UOC4

The aim of this course is to consider ethics and law in public health and in the management of health care institutions. Ethics is considered with a focus on public health and health care management rather than ethics as an individual issue (as it is usually conceptualised). Law is approached as an important element in defining public health and as an instrument to achieve goals in public health and health care management. The course includes an introduction to ethics and law and provides an opportunity to apply these understandings to particular issues in public health and health care management according to students interests.

Note: Normally, this course is offered in distance mode with a workshop. Please see timetables for attendance details and any online components: http://sphcm.med.unsw.edu.au/sphcm.nsf/website/forstudents.timetables.hmph

PHCM9351
Health Economics
School of Public Health and Community Medicine
UOC6 HPW3

Economic analysis as applied to resource allocation, planning and evaluation in health services. Topics: basic concepts and methods of economic analysis, economics of the public and private sector, decision making, supply and demand, pricing and nonpricing methods of allocation, welfare analysis, ethics of resource allocation, economic planning of health services, cost benefit evaluation, cost effectiveness analysis, economics of hospitals and economic impact of health insurance.

Note: Normally, this course is offered in either distance mode or internally with weekly classes. Please see timetables for attendance details or any online components.

PHCM9360
Major Project (Clinical Education)
School of Public Health and Community Medicine
UOC12

The final project is an important component of the MClinEd. Its purpose is to ensure that the knowledge and experience you gain from the program are transferable to seeking the solutions of clinical education in your own clinical setting. For this reason it is important that your project proposal should include information which will help you clarify and define the topic you wish to pursue and which will help you and your supervisor to proceed systematically with the exploration and planning of your project.

Note: External Course

PHCM9371
Research and Evaluation Methods
School of Public Health and Community Medicine
UOC4

Skills in research design, evaluation methods and literature review will be developed using applied learning methods. Skills will be developed in the formulation of a research question, questionnaire or evaluation methodology. Students will choose an area or areas of interest to develop during the session and the development of this research will be presented for weekly peer review. Peer review is aimed at providing students with a critique and a forum for students to learn, to appraise a variety of research problems.

Note: This course is offered only in Hong Kong.

PHCM9381
Policy Studies
School of Public Health and Community Medicine
UOC4

This course focuses on the policy process - understanding agenda setting, policy formulation, implementation and evaluation. Particular emphasis is placed on the concept of evidence-informed policy. Attention is also devoted to enhancing the links between research, other forms of evidence, and policy and practice. Participants will be invited to describe and examine their own roles in policy-making processes. The concept of policy significance and policy accountability will be explored. The assignments will be structured around preparing a paper on a policy topic, which can be submitted to a journal for publication. Participants will develop skills in policy analysis and will develop tools to help them

navigate policy environments in which they operate. The course is suitable for both Australian and international students.

Note: Normally, this course is offered in either distance mode with a workshop or internally with weekly classes. Please see timetables for attendance details or any online components.

PHCM9401
Introduction to University Learning and Teaching
School of Public Health and Community Medicine
UOC4

This course introduces participants to a range of topics and issues in learning and teaching that impact on the teaching roles of academic staff in universities. The course builds on the introductory workshop series Foundations of University Learning and Teaching offered at UNSW as a staff development activity. Topics such as student and adult learning, reflective practice, planning for classes, large group teaching, small group teaching, online teaching, and assessment are addressed. The workshop sessions are designed to be highly interactive and encourage participants to draw from their own experience as a learner and a teacher, to introduce participants to the research literature in each topic area and to model good teaching practice. Participants also have the opportunity of designing and facilitating a short teaching session. Assessment in the course involves the selection of one area of teaching or learning for special study. Participants then describe their own practice and conduct a literature review in the area, and consider the relevance of the literature to their own practice, possible changes they might make and the issues that these changes would raise.

PHCM9402
Student Learning in Higher Education
School of Public Health and Community Medicine
UOC4

Student Learning in Higher Education considers the nature of student learning, the factors that impact on the way students approach their learning tasks, and the learning arrangements that support effective student learning in higher education settings. Student learning is considered from a number of different frameworks and research orientations, including adult learning, student approaches to learning, learning from experience, and reflective practice. In addition to considering accounts of student learning in the relevant literatures, students in this course investigate aspects of student learning in the courses that they teach using one or more of the frameworks considered. This course builds on the brief introductions to student learning presented in the course Introduction to University Learning and Teaching and together these courses form the core components of the Graduate Certificate of University Learning and Teaching. The face to face component of the course is two one day workshops which are run mid semester in Session 2.

PHCM9403
Teaching Strategies for Effective Learning
School of Public Health and Community Medicine
UOC4
Prerequisite: PHCM9401 or MEED9401, PHCM9402 or MEED9402

This course provides a degree of flexibility for academics who wish to focus on teaching strategies most appropriate to the contexts in which they teach. Participants choose two from a series of teaching contexts which include Teaching Small Groups, Teaching Large Groups, Teaching in the Studio, Teaching in the Laboratory, Teaching On-Line and Fieldwork. The course is taught through workshops which are practical and experiential, allowing participants to observe or participate in many of the strategies under discussion. Project work for assessment requires participants to experiment with the some of the strategies in their own teaching and to evaluate the results.

PHCM9404
Course Planning and Assessment
School of Public Health and Community Medicine
UOC4
Prerequisite: PHCM9401 or MEED9401, PHCM9402 or MEED9402

The course is organised according to an instructional design framework to guide participants in planning their teaching and assessment activities for a university course or similar unit of study. It expands on the concepts introduced in the Course Introduction to University Learning and Teaching, and gives participants the opportunity to apply the planning concepts to their own teaching. They will learn to analyse the learning needs of their students, set learning goals and objectives, consider a range of sequencing principles for their course content, select the best teaching strategies for their goals, and plan appropriate assessment strategies for both formative and summative assessment of learning. The face to face component of the course is a two day workshop

PHCM9405
Innovations in Education
School of Public Health and Community Medicine
UOC4
Prerequisite: PHCM9401 or MEED9401, PHCM9402 or MEED9402

This course enables participants to further investigate the pedagogy covered in the other Graduate Certificate courses by exploring an innovation that relates to their teaching context. The topic may relate to a trend, issue, policy or teaching/learning practice. Participants will review the literature in their discipline and within education more generally that relates to the chosen focus. They will share their findings, challenges and concept of â œinnovationâ in regular workshops throughout the semester. Several examples of innovation in higher education will also be explored and participants will be encouraged to work closely with a practitioner who is able to share their expertise on the topic and/or underlying pedagogy. Assessment will be based on the completion of tasks for each of the workshops and a final assignment that reflects on the impact of the investigation in terms of the possibility for innovation. Where the period of one semester may not be sufficient time in which to implement the innovation, the course encourages an important first step through the establishment of a strong pedagogical foundation. For those who have already collected data or would like to investigate changes that they have already implemented, this course will provide the framework for further development.

PHCM9406
Educational Technology in Learning and Teaching
School of Public Health and Community Medicine
UOC4
Prerequisite: PHCM9401 or MEED9401, PHCM9402 or MEED9402

There is currently a strong interest in the potential for online technologies to support and enhance learning and teaching at all tertiary levels. There are many ways to make use of online technologies. The most effective ways are likely to involve considering approaches to learning and teaching so that methods that make the most effective use of the technologies, or are most effectively enhanced by the technologies, can be adopted. This course considers the rationale for using online technologies in learning and teaching, and a range of approaches to educational design using techniques such as developing learning activities, online discussion and collaboration, and formative evaluation in project development. Participants will have the opportunity to consider theoretical issues in online learning, and a range of practical applications that have a basis in appropriate theoretical issues. Assessment will be based on a project that the participant will develop for use in a teaching program.

PHCM9411
Hospital Epidemiology
School of Public Health and Community Medicine
UOC6

This course is a core for students undertaking the Graduate Certificate in Hospital Epidemiology with responsible for their hospital's infection control program or nurses and doctors with an interest in infection control. The course will introduce students to the disciplines of epidemiology and statistics using the key areas of responsibility for infection control - surveillance and outbreak investigations. Important statistical techniques covered include correct interpretation of statistical results, calculation of common statistics required for infection control such as infection rates, 95% confidence interval, attack rates, and tests for comparisons between rates and against threshold rate (your past rates, the Centres for Disease Control and Prevention). You will learn the theory of outbreak investigation and to plot and interpret an epidemic curve for outbreak investigation and identify significant associations between exposures and infection. Important epidemiological tools such as study designs, biases, validity and reliability will be learnt so that students may design sound studies associated with infection control and critically appraise the medical literature.

PHCM9421
Public Health, Statistics and Epidemiology
School of Public Health and Community Medicine
UOC6

Distribution patterns and determinants of disease and disability with particular reference to diseases of major Australian concern and the impact on health service provision. Students will discuss possible interventions

to reduce this impact and will be introduced to the use of epidemiology in the planning, operation and evaluation of health services.

Note: Normally, this course is offered in distance mode. Please see timetables for attendance details and any online components: http://sphcm.med.unsw.edu.au/sphcm.nsf/website/forstudents.timetables.hmph

PHCM9422
Population Health, Epidemiology and Statistics
School of Public Health and Community Medicine
UOC6 HPW3

Population health is primarily concerned with the health status of populations and communities as distinct from clinical health or medicine which is primarily concerned with the health of individuals and families. The objectives for this course include: an examination of the determinants and causes of disease and injury in populations and communities and the impact on health service provision; the collection and bio-statistical analysis of data to create information about disease and injury patterns in populations and communities (the epidemiological approach); and the use of information about disease and injury in populations and communities in order to manage, plan and provide hospitals, health services and prevention strategies.

Note: Normally, this course is offered internally with weekly classes for students studying at Kensington campus. This course is offered as a distance course with a workshop for students enrolled in the Hong Kong Program. Please see timetables for attendance details and any online components: http://sphcm.med.unsw.edu.au/sphcm.nsf/website/forstudents.timetables.hmph

PHCM9431
Interpersonal Communications in Organisations
School of Public Health and Community Medicine
UOC4

A theoretical and practical course which aims to increase students understanding of, and capacity to deal with, communication problems in organisations. Teaches students to improve their own communication skills by a series of communications exercises, role plays, simulations and games. Students are able to chart their progress with a checklist developed for the course.

Note: Normally, this course is offered in workshop mode for students studying on Kensington campus. This course is offered as a distance course with a workshop for students enrolled in the Hong Kong Program. Please see timetables for attendance details and any online components: http://sphcm.med.unsw.edu.au/sphcm.nsf/website/forstudents.timetables.hmph

PHCM9441
Healthcare Economics and Financial Management
School of Public Health and Community Medicine
UOC6 HPW2

This course combines health economics and healthcare financial management. It analyses how economic concepts can be applied to the healthcare industry. There is an introduction to double entry accounting to provide a working knowledge of cash and accrual accounting, plus an analysis of balance sheets, profit and loss statements and cash flow statements. How to construct a budget in a healthcare environment is a core skill in this course.

Note: Normally, this course is offered internally with weekly classes for students studying at Kensington campus. This course is offered as a distance course with a workshop for students enrolled in the Hong Kong Program. Please see timetables for attendance details and any online components: http://sphcm.med.unsw.edu.au/sphcm.nsf/website/forstudents.timetables.hmph

PHCM9442
Health Resources Planning and Development
School of Public Health and Community Medicine
UOC6 HPW2

This course is intended for students dealing with resource planning of lesser developed countries. A case study approach is used and reflects circumstances likely to be experienced in developing countries. In Hong Kong, the Hong Kong health system is examined. Topics cover the basic concepts in services planning including environmental scanning, applying emerging trends in health service delivery and addressing issues of resource allocation. Also included is the examination of ways to effectively engage communities in the development of their health services and the planning and procurement of health resources including facilities, workforce and service programs in the light of qualitative and quantitative analysis.

Note: Normally, this course is offered internally with weekly classes for students studying at Kensington campus. This course is offered as a distance course with a workshop for students enrolled in the Hong Kong Program. Please see timetables for attendance details and any online components: http://sphcm.med.unsw.edu.au/sphcm.nsf/website/forstudents.timetables.hmph

PHCM9471
Comparative Health Care Systems
School of Public Health and Community Medicine
UOC6 HPW2

The first part of this course is concerned with the principles and practice of health system analysis and comparison, the sources and utilization of information relating to the development, organisation and operation of health services, and frameworks for assessing their performance. Then, drawing on material for a wide range of affluent and developing countries we examine the constitutional, legal, economic, social, epidemiological and political environments within which health care systems operate. We review patterns of health service organisation and management,: health policy development and planning; characteristics of personal, community and environmental health services and their activities; health service financing arrangements including health insurance systems; the health workforce; other health service inputs and health information systems. The impact of some recent attempts at health system reform is assessed and proposals for future re-structuring are critically reviewed.

Note: Normally, this course is offered internally with weekly classes for students studying at Kensington campus. This course is offered as a distance course with a workshop for students enrolled in the Hong Kong Program. Please see timetables for attendance details and any online components: http://sphcm.med.unsw.edu.au/sphcm.nsf/website/forstudents.timetables.hmph

PHCM9499
Epidemiology for Public Health
School of Public Health and Community Medicine
UOC4 HPW3
Prerequisite: PHCM9503, PHCM9502 or CMED9502

This course provides students with an understanding of the role of epidemiology as the quantitative science underpinning much of public health and clinical practice. Students will learn the basic methods of epidemiology, such as the measurement of disease frequency, epidemiological study designs, and how they are applied in a variety of clinical and public health contexts. The course equips students with the skills to critically review the epidemiological literature and interpret epidemiological studies. Skills for measuring frequency of disease and testing for evidence of association between risk factors and disease in this course will build on statistics learnt in PHCM9503 Statistics for Public Health. This course will cover topics pertaining to study design and interpretation of results.

Note: Normally, this course is offered in either distance mode or internally with weekly classes. Please see timetables for attendance details or any online components.

PHCM9501
Computing Techniques for Health Services Management
School of Public Health and Community Medicine
UOC4

This course considers the impact of Information and Communication Technologies (ICT) in the health care sector. The rationale for the course is that ongoing and rapid developments and innovations in ICT continue to have an impact on the delivery and management of health services. Keeping up with these changes is an important and challenging responsibility for the health professional whose duties may include working with, proposing and/or implementing ICT solutions. Further, the use of computing hardware, software and communication networks has become an integral part of the work life of health professionals. This course seeks to assist you in learning about and applying ICT project management knowledge and skills. Developing such skills will enable you to be more effective at managing the use of ICT in an organisation. This course is primarily project-based. It requires you to investigate current developments in ICT and to consider how these could be implemented in your own organisational settings. This course uses WebCT as part of its online learning environment.

Note: Normally, this course is offered in either distance mode. Please see timetables for attendance details or any online components.

PHCM9503
Statistics for Public Health
School of Public Health and Community Medicine
UOC4 HPW3

This is a core course for Master of Public Health Students. Provides an introduction to research methods and statistical techniques applicable to public health data. Statistical techniques will focus on data analysis of a single variable or linear relationships between two variables. In addition, students will learn to use SPSS for Windows to conduct statistical analyses on a set of data relevant to public health.

Note: Normally, this course is offered in either distance mode or internally with weekly classes. Please see timetables for attendance details or any online components.

PHCM9516
Introduction to Public Health
School of Public Health and Community Medicine
UOC4 HPW2

This course will introduce students to the discipline of public health. Topics covered include: the core functions of public health; measurement of population health; an introduction to the Australian health care system; principles of communicable and non-communicable disease control; social determinants of health; indigenous health; public health advocacy and evidence based public health.

Note: Normally, this course is offered in either distance mode or internally with weekly classes. Please see timetables for attendance details or any online components.

PHCM9517
Advanced Biostatistics and statistical computing
School of Public Health and Community Medicine
UOC4
Prerequisite: PHCM9503, PHCM9502 or CMED9502

Statistical design, analysis and reporting: a selection of topics from clinical trials and other controlled studies, non-experimental studies, rates and proportions, multi-way tables, analysis of covariance and repeated measures, multiple regression and other multivariate analysis, life tables and survival analysis; use of statistical software. Thorough individual instruction in the use of computers will be given in the laboratory.

Note: Normally, this course is offered in workshop mode. Please see timetables for attendance details or any online components.

PHCM9518
Case Studies in Epidemiology
School of Public Health and Community Medicine
UOC4 HPW2
Prerequisite: PHCM9499, PHCM9500 or CMED9500

This course explores advanced epidemiological techniques and will build upon and extend the epidemiological skills taught in PHCM9499 Epidemiology for Public Health. The course achieves its aims through case studies in four areas in which epidemiology has made a substantial contribution to public health and clinical policy and practice. These are cancer, cardiovascular disease, hepatitis and screening for disease. The course reviews important epidemiological studies that have contributed to development of knowledge and in public health and clinical application in these areas. The emphasis of the course will be on the importance of epidemiological methods, and will give students a deeper understanding of study designs and biases in epidemiology.

Note: Normally, this course is offered internally with weekly classes. Please see timetables for attendance details or any online components.

PHCM9531
Field Placement
School of Public Health and Community Medicine
UOC4

The field placement will be arranged in consultation with the relevant Plan Convenor, and provide students with the opportunity to gain insight into practice in the field. Students are required to submit a report of their experience, demonstrating application of the relevant coursework and implications of the placement for their own professional practice.

PHCM9605
Health in Developing Countries
School of Public Health and Community Medicine
UOC4 HPW2

An overview of of the major health problems and their causes in developing countries, and the strategies and approaches used by health services and international assistance in addressing these problems.

The course emphasises understanding and interpretation of commonly used health data and indicators, and encourages students to share their experience and knowledge of health conditions and services in their home countries. Topics covered include: health and development, health status and health services, underlying issues; women's health; child health; communicable diseases; environmental health; non-communicable disease; health of at risk groups; and international development assistance.

Note: Normally, this course is offered internally with weekly classes. Please see timetables for attendance details and any online components: http://sphcm.med.unsw.edu.au/sphcm.nsf/website/forstudents.timetables.hmph

PHCM9608
Rural Health Studies 1
School of Public Health and Community Medicine
UOC4

The subject covers the following issues: The health of rural populations and their determinants including locational disadvantage; sources of information for a rura; health needs assessment; data collection and analysis for needs assessments; developing plans and strategies to address local health needs identified in the needs assessment including primary, secondary and tertiary prevention, service development, workforce development.

Note: Normally, this course is offered in distance mode. Please see timetables for attendance details and any online components: http://sphcm.med.unsw.edu.au/sphcm.nsf/website/forstudents.timetables.hmph

PHCM9610
Food & Nutrition Policy Studies
School of Public Health and Community Medicine
UOC4

A systems approach to analyzing the food and nutrition system will be used in identifying strategies to improve the health of vulnerable populations in both developed and developing countries. Reference will be made to internationally recognised indicators of nutritional risk and global nutrition priorities. Critical factors in policy development, implementation and evaluation of food and nutrition policies will be considered. Students will work through a case study and demonstrate their understanding by preparing, presenting and defending a proposed food policy for a specified population or community group.

Note: Normally, this course is offered in distance mode with an online component. Please see timetables for attendance details and any online components: http://sphcm.med.unsw.edu.au/sphcm.nsf/website/forstudents.timetables.hmph

PHCM9611
Health of the Elderly
School of Public Health and Community Medicine
UOC4 HPW2

This course provides an introduction to a range of issues that influence health of the elderly. The course commences with a historical overview leading into a series of lectures by experts in their field. The topics covered include: Biology of Ageing; Important Medical Conditions in Old Age; Psychiatry of Old Age, including the impact of dementia on the health and welfare system of Australia and risk factors for depression in the elderly; Osteoporosis; Diabetes and other Endocrine Disorders; Falls; Stroke; Rehabilitation and Delivery of Support Services; Geriatric Rehabilitation; Continence & Incontinence; Palliative Care; Ageing Across Cultures; Promoting Wellbeing.

Note: Normally, this course is offered internally with weekly classes. Please see timetables for attendance details and any online components: http://sphcm.med.unsw.edu.au/sphcm.nsf/website/forstudents.timetables.hmph

PHCM9612
Environmental Health
School of Public Health and Community Medicine
UOC4

This course will take a broad look at current concepts in environmental health in Australia and overseas. Using the tools of toxicology, epidemiology and social science and case studies we will examine

pollution in different media (air, water and soil etc), chemicals and pesticides, epidemics and food borne illness, the impact of climate change, the creation and interpretation of 'risk', environmental health risk assessment and health impact assessment, equity in environmental health, environmental politics and health and environmental sustainability and health. The course will be suitable for students who wish to gain a basic grounding in environmental health, with the option of more detailed investigation of specific concepts.

Note: Normally, this course is offered in distance mode. Please see timetables for attendance details and any online components: http://sphcm.med.unsw.edu.au/sphcm.nsf/website/forstudents.timetables.hmph

PHCM9614
Researching Marginalised Groups
School of Public Health and Community Medicine
UOC4

This course focuses on researching marginalised groups. Hard to access groups such as the mentally ill, prisoners, homeless people, and injecting drug users are either excluded from community surveys or, due to chaotic lifestyles, are unlikely to participate. Issues affecting these groups are often sensitive (eg. drug use, criminal behaviour and sexual experiences) and require a different approach to research. The course is designed to provide participants with the knowledge and practical skills to research these groups and understand the issues affecting them. This will be a stimulating course with experts in a range of disciplines invited to share their knowledge and experiences with participants. The course is suitable for graduate students in epidemiology and public health including medical/health practitioners, mental health professionals, community health workers, researchers, and policy makers.

Note: Normally, this course is offered in alternate years in workshop mode. Please see timetables for attendance details and any online components: http://sphcm.med.unsw.edu.au/sphcm.nsf/website/forstudents.timetables.hmph

PHCM9615
Delivery of Primary Health Services in the Community
School of Public Health and Community Medicine
UOC4 HPW2

The subject aims to develop an understanding of how primary health care can address the needs of individuals, population groups and communities in Australia and overseas. It provides an understand of the objectives, functions and organisation of primary health care services in Australia and countries with similar health care systems and how care is integrated between providers in the community including between acute and community based care. Students critically review initiatives for integrated primary health care for patients with complex and chronic disease and evaluate the process, impact and outcomes of primary care in the community and how the benefits and costs are distributed between those involved.

Note: Normally, this course is offered internally with weekly classes or in workshop mode. Please see timetables for attendance details and any online components: http://sphcm.med.unsw.edu.au/sphcm.nsf/website/forstudents.timetables.hmph

PHCM9621
HIV/AIDS: Australian and International Responses
School of Public Health and Community Medicine
UOC4 HPW2

This course provides an introduction to biological, clinical and epidemiological aspects of HIV infection, and considers the impact of HIV/AIDS on a number of areas of the health care system and society, both now and in the future. The course is taught by internationally recognised experts in the field, and will have a particular focus on HIV/AIDS in Australia and the Asia/Pacific region.

Note: Normally, this course is offered internally with weekly classes. Please see timetables for attendance details and any online components: http://sphcm.med.unsw.edu.au/sphcm.nsf/website/forstudents.timetables.hmph

PHCM9626
Inequalities and Health
School of Public Health and Community Medicine
UOC4

This course aims to provide students with a comprehensive overview of the patterns of, explanations for and actions to address health inequality in western industrialised countries.

Note: Normally, this course is offered in workshop mode. Please see timetables for attendance details and any online components: http://sphcm.med.unsw.edu.au/sphcm.nsf/website/forstudents.timetables.hmph

PHCM9630
Indigenous Health in Australia
School of Public Health and Community Medicine
UOC4 HPW2

This course aims to broaden your knowledge of Aboriginal and Torres Strait Islander health and will focus on four broad themes: Investigating successive government policy and its instrumental role in exacerbating and maintaining the ongoing and inequitable burden of suffering experienced by Indigenous Australians; health promotion and primary health care, exploring Indigenous perceptions of wellbeing as well as health approaches that are informed by more comprehensive and holistic views of health care; investigating research into Indigenous health issues in a range of contexts, and; examining advocacy and activism and their critical contribution to the development of more appropriate health services for Indigenous families and communities.

Note: Normally, this course is offered in workshop mode. Please see timetables for attendance details and any online components: http://sphcm.med.unsw.edu.au/sphcm.nsf/website/forstudents.timetables.hmph

PHCM9633
International Tobacco Control
School of Public Health and Community Medicine
UOC4 HPW2

The worldwide toll of death and disability related to tobacco use is enormous. In this course we examine programs in countries that have made efforts to limit availability of tobacco and reduce its use, and the effectiveness of those efforts. This course examines the issues of tobacco control: what does it involve; how best can it be achieve; and how can it be evaluated. This course is useful for doctors, nurses and other health practitioners, public health specialists, policy-makers and others in the public and private sectors of developed and developing countries. At the end of this course, students will understand the patterns of tobacco use and health effects of smoking, and will have learnt about nicotine dependence. Students will learn about the range of public health approaches available to reduce tobacco prevalence including the range of harm reduction strategies. Students will develop skills of brief interventions to use with smokers and will appreciate the issues associated with relapse. This course provides students with important knowledge and skills that will enable them to plan and evaluate an effective tobacco control program.

Note: Normally, this course is offered every second year internally with weekly classes. Please see timetables for attendance details and any online components: http://sphcm.med.unsw.edu.au/sphcm.nsf/website/forstudents.timetables.hmph

PHCM9661
Current Issues in Health
School of Public Health and Community Medicine
UOC4

This interactive subject critically examines controversial issues involving those working in the health sector. Topics addressed include: changing trends in the delivery of health care towards shorter stays and day-surgery, the impact this has on the community and primary care services, the impact on the work of health professionals in the acute and community care sectors, the use of accident and emergency services and ambulance diversions, implications for the future training of health professionals.

Note: This course is offered only in Hong Kong.

PHCM9701
Managing Human Resources in Health
School of Public Health and Community Medicine
UOC6 HPW3

This subject identifies the context and various factors which may influence the organisation of both work and workers. It aims to develop knowledge and skills in critically evaluating techniques and methods which have been recommended for organising work and managing responses of workers. In particular, features of health workplaces and the highly professionalised workforce are considered. Topics addressed include: assessing and improving worker performance, motivating professionals, workplace conflict, designing work, introducing technology, ethical and managerial aspects of employment law such as unfair dismissal and "whistle-blowing."

Note: Normally, this course is offered in either distance mode with a workshop. Please see timetables for attendance details and any online components: http://sphcm.med.unsw.edu.au/sphcm.nsf/website/forstudents.timetables.hmph

PHCM9711
Management of Organisations
School of Public Health and Community Medicine
UOC6

Examines current theories of organisation and management, and evaluates their applicability to management work in health care settings. Examines the relationship between theory and practice in managing organisations; fosters an appreciation of the dynamics of managerial behaviour and extends understanding of what is entailed in accomplishing organisational change and in constituting management control.

Note: Normally, this course is offered either internally with weekly classes or in distance mode with a workshop. This course is also offered as a distance course with a workshop for students enrolled in the Hong Kong Program. Please see timetables for attendance details and any online components: http://sphcm.med.unsw.edu.au/sphcm.nsf/website/forstudents.timetables.hmph

PHCM9731
SARS & Crisis Management Investigation
School of Public Health and Community Medicine
UOC6

Students enrolled in this course will be required to demonstrate their knowledge of Infection Control and their understanding of surveillance and outbreak investigation by completion of a project.

Note: This course is only available for students enrolled in the Graduate Certificate in Health Services Management (Hospital Epidemiology)

PHCM9732
Clinical Practice in Infection Control
School of Public Health and Community Medicine
UOC6

A series of lectures will be provided on topical areas of infection control where theory or practice have advanced or changed.

Note: This course is only available for students enrolled in the Graduate Certificate in Health Services Management (Hospital Epidemiology)

PHCM9741
Management of Change
School of Public Health and Community Medicine
UOC4 HPW2

In this course we examine theories, evidence and approaches centred on managing change. We explore contemporary management issues and challenges facing those who are responsible, now or in the future, for the managerial performance of health service organisations. We attempt in this course to bridge the theory - practice divide. A key concern is to examine various change management tools, techniques and ideas and assess their usefulness. Specific topics examined include: some psychological aspects of management; organisational aspects of change; cultural change; systems change; networks; restructuring; communication; continuous improvement; and managing change effectively. Part of the course is devoted to providing insights into students' own managerial style. A major theme is to develop the ability to generate improved solutions to managerial problems and to manage change more strategically.

Note: Normally, this course is offered every second year in distance mode. Please see timetables for attendance details and any online components: http://sphcm.med.unsw.edu.au/sphcm.nsf/website/forstudents.timetables.hmph

PHCM9748
Clinical Governance
School of Public Health and Community Medicine
UOC6

This course develops an appreciation of the way that the role of clinicians in health care delivery is being affected by changes in the social, legal, economic, organisational, informational and political contexts of health service organisation. At its completion, students will understand the principles of clinical governance and of the range of issues and problems that it is meant to address. The course requires students to appraise different approaches to improving clinical effectiveness, quality, service integration and the use of external value for money consideration in service design and delivery. Students carry out an extended case study and a range of problem-based exercises. This will provide students an opportunity to examine what their changed role implies for their personal skills development.They are provided also with opportunities to acquire and practice skills they require to analyse and address issues arising from efforts to extend clinical accountability.

Note: Normally, this course is offered in distance mode with a workshop. Please see timetables for attendance details and any online components: http://sphcm.med.unsw.edu.au/sphcm.nsf/website/forstudents.timetables.hmph

PHCM9750
Clinical Governance for Clinician Managers
School of Public Health and Community Medicine
UOC4

Students will gain an understanding of the principles and application of clinical governance. The course develops in the student an appreciation of the role of clinician-managers in health care delivery systems within the social, legal, economic, organisational, informational and political contexts. The course will be taught within the broad imperative of social and economic accountability. The teaching methodology will be that of case study analysis and problem-solving. The aim of the methodology is to create student critical analysis and problem-solving that will develop clinician-management skills. On successful completion of the course students will be equipped to exercise managerial autonomy within cooperative structures and processes.

Note: This course is only offered in Hong Kong.

PHCM9751
Management for Public Health
School of Public Health and Community Medicine
UOC4 HPW2

This is a core course for Master of Public Health students that extends students' understanding of the broad range of factors that can affect public health policy development and implementation and which can influence how public health services are organised and managed. The course enhances students' understanding of different approaches to organising and managing at different levels in a healthcare organisation and provides some tools to approach management problems.

Note: Normally, this course is offered in either distance mode or internally with a workshop. Please see timetables for attendance details or any online components: http://sphcm.med.unsw.edu.au/sphcm.nsf/website/forstudents.timetables.hmph

PHCM9761
Public Mental Health in Australia
School of Public Health and Community Medicine
UOC4 HPW2

This course provides an alternative approach to the range of available clinical courses that deal with mental illness and mental disorders. It is designed to give students the skills to analyse the social determinants of mental health, the significance of these on the formation of policy, and the ability to design programs that could prevent the onset of mental illness and promote mental health presenting. Discovery learning is used to direct students to the theories and practices about the social determinants of mental health, and the significance of public policy. There is a major project throughout the course, which will allow students to either design a program that could reduce the onset of mental illness in an identified community of their choice, or would promote the mental health of members of that community.

Note: Normally, this course is offered internally with weekly classes. Please see timetables for attendance details or any online components: http://sphcm.med.unsw.edu.au/sphcm.nsf/website/forstudents.timetables.hmph

PHCM9901
Health Systems Simulation
School of Public Health and Community Medicine
UOC6 HPW3

An introductory course in applying systems simulation to health problems, taught by experienced health systems simulation practitioners, which demonstrates a range of multi-level, multi-method simulation approaches, including agent based, system dynamics and discrete event. The learning approach takes the form of structured walkthroughs of practical examples of classical and real simulation case studies, including patient flows through care systems, chronic disease management, epidemic models and diffusion of technology, funding and workforce problems, population

ageing impacts, medicines use and system performance improvement. Each week practical applications will be interspersed with theory and methods, including systems, system dynamics, agent based methods, group model building, simulation project methods, and using ithink and anylogic software. The course is targeted to a broad range of student participants, including health services managers and planners, clinical management and practice improvement specialists, process and systems improvement facilitators and IT and technical experts interested in health simulation.

Note: Normally, this course is offered internally with weekly classes. Please see timetables for attendance details or any online components: http://sphcm.med.unsw.edu.au/sphcm.nsf/website/forstudents.timetables.hmph

PHCM9911
Health Informatics Principles
School of Public Health and Community Medicine
UOC6 HPW2

This course provides an introduction to the area of health informatics with a broad overview of the field. It covers the basic theoretical concepts needed to understand informatics principles starting with the notion of what one means by information, what constitutes a model, what defines a system. The building blocks allow students to understand information and communication systems from first principles as well as to understand the different roles that communication and information systems play in health care. The course introduces various forms of computer-based health information systems and covers issues such as data privacy, security and confidentiality.

Note: Normally, this course is offered in either distance mode with a workshop. Please see timetables for attendance details or any online components.

PHCM9922
Decision Support Systems
School of Public Health and Community Medicine
UOC4 HPW2

This course enables participants to become familiar with the goals and different forms of decision support in health care, and gain knowledge of the practical issues of implementation. The course examines systems based on statistical and logical approaches to decision making that include statistical prediction, rule-based systems, case-based reasoning, neural networks, fuzzy logic etc. It gives an overview of the various computerized clinical decision support techniques together with a detailed assessment of successful and unsuccessful applications developed. The actual and potential impact of the technology together with the challenges associated with this kind of application will be examined.

Note: Normally, this course is offered in distance mode with a workshop. Please see timetables for attendance details or any online components.

PHIL5002
Themes in the History of Philosophy
School of Philosophy
UOC8 HPW2

Explores philosophical themes from the history of modern philosophy. Themes will be selected from a range of topics including: substance, mind and bodies, freedom, being, the ideal and the real, reason and judgement, and the social contract. Philosophical texts to be examined will be chosen from the work of influential thinkers from the 17th to the 19th centuries including: Descartes, Locke, Leibniz, Hume, Kant, Hegel, Nietzsche and Mill. No more than two themes will be selected for study in the work of no more than two theorists, depending on student requirements.

PHIL5004
Contemporary Epistemology and Metaphysics
School of Philosophy
UOC8 HPW2
Excluded: PHIL2208, PHIL2109

Examines some of the central issues in recent analytic epistemology such as those relating to theories of truth, evidence, scepticism, fallibilism, contextualism, relativism and the possibility of non-absolute knowledge. Depending on student requirements, the course also examines central issues in contemporary metaphysics such as the nature of natural and social reality, the existence of god, minds, free will, death and moral responsibility.

PHIL5005
Directions in European Philosophy
School of Philosophy
UOC8 HPW2

The main themes in 20th Century French and German philosophy, such as the structure of human existence, subjectivity and intersubjectivity, the production of meaning, and the nature of temporality, will be traced from the phenomenology of Husserl and Heidegger to developments through French philosophers such as Merleau-Ponty, Levinas, and Derrida.

PHIL5006
Developments in Moral Philosophy
School of Philosophy
UOC8 HPW2
Excluded: PHIL2508

Examines the emergence of the main branches of moral philosophy (eg utilitarianism, emotivism, and deontological ethics) from their historical roots in the philosophy of thinkers such as Mill, Hume, and Kant to recent developments in the late 20th Century. Also examines some new applications for these moral theories in fields such as environmental ethics and bioethics.

PHIL5007
Issues in Philosophy of Mind
School of Philosophy
UOC8 HPW2
Excluded: PHIL2206

Examines the main developments in philosophy of mind in the late 20th Century. Issues explored include the nature of thinking, perception, and feeling, and different theories about the composition and structure of the mind. These developments in philosophy of mind will be applied to one of the following issues/fields, depending on students' requirements: personal identity, psychology, or artificial intelligence.

PHIL5008
Themes in Social and Political Philosophy
School of Philosophy
UOC8 HPW2
Excluded: ARTS5001, ARTS5026

Explores different philosophical approaches to the concepts of equality, freedom, justice, rights, and community. These approaches are drawn from liberalism, Marxism, communitarianism and post-structuralism.

PHIL5009
Advanced Study Project
School of Philosophy
UOC8 HPW2

Students can undertake close examination of either a philosophical theme or the work of one philosopher. The project is undertaken under the supervision of a member of staff who has expertise in the field and must have the approval of the Head of School.

PHIL5010
Cosmopolitanism, Citizenship and Sovereignty
School of Philosophy
UOC8 HPW2

Aims to familiarise students with the principal theoretical responses to current changes in the international political order and the implications this has for domestic political theory. Examines current varieties of cosmopolitan political thought as responses to the deficiencies in theories of justice and citizenship which overtly or implicitly assume the nation state as the basis of political order. Addresses debates over the concepts of sovereignty, citizenship and cosmopolitan political order, as well as the complex relations between these concepts. Examines some sources of contemporary cosmopolitan thought in the philosophy of the Enlightenment. Compares and contrasts different approaches to these issues as an exercise in the methodology of political philosophy.

PHIL5011
Themes in Chinese Philosophy
School of Philosophy
UOC8 HPW2

Examines ethics, politics and the question of value in a number of Chinese philosophies. Issues discussed include Confucian ethics and its implications, Chinese conceptions of harmony, and theories of government in Confucian and Daoist (Taoist) philosophies. No previous knowledge of Chinese or Chinese philosophy is assumed.

PHIL5206
Artificial Intelligence and Computer Science
School of Philosophy
UOC8 HPW2

An introduction to the methods, role and history of computation and artificial intelligence in cognitive science.

PHIL5400
Moral Theory and Moral Reasoning
School of Philosophy
UOC8 HPW2

Introduces students to basic concepts and theories of moral philosophy, as well as to the characteristics of systematic moral reasoning. Makes particular reference to practical application, drawing examples from the professional context.

PHIL5401
The Professions and Society
School of Philosophy
UOC8 HPW2

Covers the history, philosophy, and sociology of the professions in relating them to the social contexts which make them not only skilled occupations but ones with special social identities and responsibilities. Examines the history of modern professions, the sociological criteria applied to distinguish professions from other occupations, and the formation of professional identities with norms and procedures of practice.

PHIL5402
Ethical Issues in Business and the Professions
School of Philosophy
UOC8 HPW2

Deals with the ethical requirements of the professions and professionals. Offers the opportunity to investigate issues arising in professional practice and in practicing professionally in a business environment. Investigates the application of moral reasoning to professions and professionals, including the structure and content of codes of ethics, relationships with clients, third parties, employers and colleagues, and society.

PHIL5403
Ethics in Organisations
School of Philosophy
UOC8 HPW2

Provides practical experience in developing ethics within organisations. Offers the opportunity to develop one or more detailed case-studies which have particular application to each student's particular interests or vocations. Functioning as a seminar as well as a supervised project, the course brings together various interests, approaches, and strategies for implementation of responses to ethical issues in the professional context. Requires completion of individual projects by all students, and each student's active input into all projects being undertaken within the course.

PHIL5404
Supervised Readings in Professional and Applied Ethics
School of Philosophy
UOC8 HPW2

A supervised reading program which extends aspects of applied ethics, particular to individual students' needs.

PHIL5405
Applied Ethics Project
School of Philosophy
UOC8 HPW2
Excluded: PHIL5406

The development of an extended case study concerned with systematic organisational provision for ethical practice. Students develop a topic appropriate to their particular organisation or profession.

PHIL5406
Research Project in Applied Ethics
School of Philosophy
UOC8 HPW2
Excluded: PHIL5405

Research-oriented investigation of the possibility of systematically providing for ethical practice within a particular organisation or within a facet of an organisation's activities. Differs from PHIL5405 in that this course is more research-oriented, requiring critical inquiry into an area in professional ethics, involving engagement with academic literature.

PHIL5501
Issues in Environmental Ethics
School of Philosophy
UOC8 HPW2
Excluded: PHIL2420

Introduces students to fundamental debates in environmental philosophy. Focuses both on the application of moral theory to environmental issues, as well as the ethical implications of these issues in national and international contexts. Encourages student to appreciate the complex and interdisciplinary nature of environmental negotiation and conflict.

PHIL5502
Contemporary Bioethics
School of Philosophy
UOC8 HPW2
Excluded: PHIL2418

Examines current issues in the field of bioethics by considering a number of developments in biomedical technology. Introduces the main streams of ethical theory used in contemporary bioethical debates, primarily utilitarianism, deontology, virtue ethics, and ethics of care, as a platform for philosophical discussion of a number of controversial bioethical issues. Addresses such issues as the doctrine of the sanctity of life and the concept of the person, brain death, organ transplant market, abortion, reproductive technologies, genetic enhancement and screening, cloning and euthanasia.

PHIL5503
Organisational Ethics: Public and Private
School of Philosophy
UOC8 HPW2

Identifies and considers probity requirements and a number of ethical issues present in private and public sector organisations. Identifies and analyses ethical failure in areas such as corporate crime, professional malpractice, and public accountability. Considers systematic measures aimed at regulating conduct and preventing corruption: codes of conduct, ethics committees, ethics educations, watchdogs and regulators, and whistleblower programs.

PHIL5504
Ethics and Biotechnology
School of Philosophy
UOC8 HPW2
Excluded: PHIL2422 and PHIL2424

Examines the key concepts used in applied ethics, and particularly bioethics, and the ways in which new biotechnological developments challenge these assumptions. Focuses on conceptions of human nature, ethical responsibility and the relation of the human and technological, or natural and cultural, and the ways in which these operate within key ethical theories. Issues to be discussed may include reproductive and genetic technologies, genetic modification and bio-risk, and nanotechnology. Philosophical texts used may include works by philosophers such as Kant, Hume, Nietzsche, Foucault, Habermas, Derrida, and others.

PHPH5401
Sports Injuries 1
School of Medical Sciences
UOC6
Must be enrolled in Program 9055, or 5503, or 7378

Sports injuries 1 describes dermatomes and myotomes and the implications for sports injuries. The anatomy of the shoulder, elbow, wrist and hand is described which provides the basis for describing sporting injuries to the shoulder, elbow, wrist and hand. The anatomy of the head and neck is described in order to deal with sporting injuries to the head, neck, eye, ear, nose and face. The anatomy of the trunk is described in order to deal with sports injuries to the chest, abdomen, back. Finally, on-field management of sports injuries is described.

PHPH5411
Sports Injuries 2
School of Medical Sciences
UOC6
Must be enrolled in Program 9055, or 5503, or 7378

Sports Injuries 2 deals with normal soft tissues and injuries to these in relation to muscles, tendons, ligaments and cartilage. Bone structure and function are described to understand injuries to bone. Anatomy of the pelvis, hip and thigh precedes consideration of injuries and their management in the groin, hip and thigh. Functional anatomy of the knee lays the basis for understanding acute and chronic injuries to the knee. Anatomy of the leg, ankle and foot is considered in relation to injuries to these regions.

PHPH5420
Sports Psychology
School of Medical Sciences
UOC3
Must be enrolled in Program 9055, or 5503, or 7378

The beneficial effects of exercise are considered in relation to a number of psychological states; anxiety and arousal in competition; team cohesion and group dynamics; motivation and compliance in regard to exercise; psychological aspects of injury in the athlete; behavioural problems of exercise-addiction, body weight problems. Stress and the immune system.

PHPH5421
Sports Injuries 3
School of Medical Sciences
UOC6
Must be enrolled in Program 9055, or 5503, or 7378

Compulsory for Graduate Diploma and Masters students. This course deals with musculoskeletal injuries affecting the thigh, knee, lower leg, foot and ankle. Functional and surface anatomy of these areas will be covered followed by a consideration of injuries and their management. Principles of imaging of the lower limbs will also be covered and a discussion regarding which imaging modality is most useful for a number of suspected pathologies. A practical discussion regarding rehabilitation of acute and chronic lower limb injuries is included.

PHPH5431
Medical Applications of Exercise 1
School of Medical Sciences
UOC6
Must be enrolled in Program 9055, or 5503, or 7378

Medical Applications of Exercise 1 surveys the physiology of the cardiovascular system in its control and reflex responses as well as the electrophysiology of the heart and the ECG. The effects of exercise on the cardiovascular system are discussed. Investigations of cardiovascular functions are illustrated, including stress testing. Primary, secondary and tertiary use of exercise in cardiac rehabilitation are considered. Cardiovascular aspects of special groups are described, in pregnant women, in hypertensive and diabetic patients.

PHPH5440
Clinical Skills Training 1
School of Medical Sciences
UOC3 HPW2
Must be enrolled in Program 9055, or 5503, or 7378

Clinical Skills Training I and II give students practical experience in the examination of joints and other 'hands-on' procedures such as taping techniques, injecting techniques, on-field management of acute trauma and interpretation of imaging. In each clinical skills training course, students are taught how to use on-line medical databases and practical aspects of using WebCT.

Clinical Skills Training 1 focuses on practical aspects of examination and management of injuries to the upper limb and cervical spine.

Topics covered include; cervical spine examination and imaging; management of concussion, dental issues, the wrist and hand, the elbow and shoulder including physiotherapeutic assessment and treatment of shoulder instability and impingement. Students will undertake practice examinations of the shoulder, elbow, wrist and hand; make hand and wrist splints and mouthguards, and be involved in practical demonstrations of sporting techniques during this course.

PHPH5441
Medical Applications of Exercise 2
School of Medical Sciences
UOC6
Must be enrolled in Program 9055, or 5503, or 7378

Temperature regulation is considered as a basis for understanding hyperthermia in the athlete. Physiological and medical considerations are described in relation to the female athlete and in relation to children. Respiratory physiology and respiratory medicine provide the basis for understanding exercise-induced asthma, diving and altitude problems for the athlete.

PHPH5450
Clinical Skills Training 2
School of Medical Sciences
UOC3 HPW2
Must be enrolled in Program 9055, or 5503, or 7378

Clinical Skills Training I and II give students practical experience in the examination of joints and other 'hands-on' procedures such as taping techniques, injecting techniques, on-field management of acute trauma and interpretation of imaging. In each clinical skills training course, students are taught how to use on-line medical databases and practical aspects of using Web CT.

Clinical Skills Training 2 focuses on practical aspects of examination and management of injuries to the lower limbs and back. Topics covered include lower limb examination, physiotherapy and imaging; thoracolumbar spine examination and rehabilitation, lower limb pain, evaluation of foot and ankle pathology and office podiatry. Students will undertake practice examinations of the knee, hip, pelvis, foot, ankle and back during this course.

PHPH5451
Sports Science
School of Medical Sciences
UOC6
Must be enrolled in Program 9055, or 5503, or 7378

The biochemistry is described for intermediary metabolism and specifically aerobic and anaerobic metabolism in muscle and the hormonal control. Energy expenditure is considered in the resting and exercising person. Muscle physiology deals with the contractile process and features of tensile force in relation to the different fibre types. The motor unit is described as are the sensory inputs to the central nervous system and its control of motor function. Biomechanical principles include a consideration of subjective, objective and predictive analysis. Gastrointestinal physiology surveys the motility and digestive and absorptive activities of the gut.

PHPH5453
Major Project and Report
School of Medical Sciences
UOC12
Must be enrolled in Program 9055, or 5503, or 7378

Compulsory for masters students. A research project related to sports medicine, planned in the subject Research Methods, is undertaken and completed in 14 weeks. The project, conducted over six-months part-time, will involve research into an area of sports medicine at a clinical or basic level which contributes new knowledge to the field. The Project is to be presented as a scientific report of 8000-10000 words.

PHPH5470
Sports Nutrition
School of Medical Sciences
UOC3
Must be enrolled in Program 9055, or 5503, or 7378

Caloric and fluid needs of the active person and the specialised needs of the athlete, ie vitamins, minerals and ergogenic aids. Food composition, dietary intake for both the active and the sedentary. Protein, carbohydrates, fats, dietary fibre, fluid intake, minerals and vitamins. Nutrition for special groups such as children, adolescents, pregnant and lactating women, the elderly and different ethnic groups is considered. Performance-related activities, training diet and requirements for metabolic fuels, dietary compounds, mineral and trace elements, fluid, amino acid and vitamin supplements. Primary, secondary and tertiary prevention of problems in obesity, coronary health disease, diabetes and eating disorders.

PHPH5491
Pharmacology Project
School of Medical Sciences
UOC6

A small laboratory or industry based project or an extensive literature review or extensive data analysis in the area of drug development.

PHPH5510
Sports Pharmacology
School of Medical Sciences
UOC3
Must be enrolled in Program 9055, or 5503, or 7378

Basic pharmacology. Factors affecting pharmocokinetics in relation to routes of administration, plasma levels, volumes of distribution, catabolism and elimination. Effect of exercise on drugs in vivo, effects of thermal regulation, interactions of medically prescribed drugs on the physically active person. Banned performance-enhancing drugs, screening and identification procedures. Drug educations and prevention of drug abuse.

PHPH5530
Clinical Biomechanics
School of Medical Sciences
UOC3
Must be enrolled in Program 9055, or 5503, or 7378

Application of biomechanics to joints in relation to sporting activities and overuse problems. Gait analysis, repetitive movements resulting in micro and macro-trauma.

PHPH5571
Research Methods
School of Medical Sciences
UOC6
Must be enrolled in Program 9055, or 5503, or 7378

Biostatistics and epidemiological principles. Construction of a research study and preparation for a major project. In this course the student develops an approved research project to be undertaken in PHPH5453. SPSS software supplied.

PHPH5591
Paediatric Sports Medicine
School of Medical Sciences
UOC6 HPW3
Must be enrolled in Program 9055, or 5503, or 7378

Paediatric Sports Medicine involves the studying of the child athlete for prevention and management of injury and illness. The subject commences with consideration of normal physiology of growth and development and expected responses to training. Management of acute and overuse injuries is studied, followed by the effects of intense training and exercise and early profiling / specialisation. Exercise in chronic illness states is covered, including its use as an adjunct to therapy. Subsequent modules include the issues surrounding drugs in sport and ADHD, management of childhood obesity, consideration of the benefits and risks of children's sport and finally, important medicolegal issues.

PHPH5611
Applied Sports Medicine
School of Medical Sciences
UOC6
Must be enrolled in Program 9055, or 5503, or 7378

This subject brings together the strands dealt with in preceding subjects on sports injuries and medical applications of exercise. Weekly topics include: the prevention of injury, including the screening of athletes pre-season; imaging in sports medicine, considering the use of X-Rays, CT and MRI, ultrasound, nuclear medicine; principles of rehabilitation in relation to types of stretching and strengthening, physical methods of soft tissue treatment, manipulation and mobilisation, proprioceptive re-training, taping; the use of non-steroidal anti-inflammatory drugs and corticosteroid injections; the management of rheumatological conditions in relation to physical activity; medical coverage of fun runs and other community events; the role of the team physician; legal and ethical aspects of sports medicine. Genetic determinants of sporting performance are also discussed and the potential uses and abuses of gene therapy.

PHPH5621
Military Sports Medicine 1
School of Medical Sciences
UOC6 HPW3
Must be enrolled in Program 9055, or 5503, or 7378

Military Sports Medicine 1 covers important musculoskeletal injuries commonly seen in a military environment. All major joints, and their relevant injury patterns are considered. The shoulder, lower back, knee, and shin are given special attention, given their relative contribution to presentations in a military setting. Each week, students are introduced to key principles of sports medicine, relevant to pathology discussed within that module, and elsewhere in the course. Directed examinations for regional conditions are presented weekly by experts in that field, to aid diagnosis and management.

PHPH5631
Military Sports Medicine 2
School of Medical Sciences
UOC6 HPW3
Must be enrolled in Program 9055, or 5503, or 7378

Military Sports Medicine 2 covers a variety of issues important in the practical management of military personnel. Individual weeks are devoted to the study of: prevention and screening; biomechanics; rehabilitation; sports nutrition; weight and fitness consultancy; sports medicine in special environments; causes for reduced performance; cardiovascular conditions and exercise-induced asthma; and radiology.

PHPH9100
Discovery and Pre-clinical Development of New Medicines
School of Medical Sciences
UOC6

Development of new medicines: history and philosophy of development of new medicines. Process of discovery: screening/molecular modeling resulting in identification of lead compounds. Refinement of lead compounds, biological testing in laboratory animals, tissues or tissue components. Choice of chemical entity for further development and identification of back-up compounds. Preclinical studies of selected compound: the value and limitations of animal models in predicting clinical efficacy and potential adverse effects: mechanism of action, screening for total biological effects, toxicology. Factors involved in choosing compounds for clinical development: scientific merit, medical utility, uniqueness, commercial value, compatibility with company strategies, facilities available for development. Selection of back-up compound. Project management: identification of commercial/medical objectives, pre-clinical issues, clinical development strategies. Company strategies: decision path analyses, resources, and time-lines. Clinical trial programme: phases 1, 2, 3 and 4. Clinical research plan: time-lines, study designs, dose-ranging, choice of test populations, indications, trial locations, and data treatment. Go/No Go criteria.

Note: The course is compulsory for programmes 7370, 5504, and 9060.

PHPH9101
Principles of Drug Action
School of Medical Sciences
UOC6

This course provides a general overview of pharmacodynamics and pharmacokinetics including the following topics. The dose-response relationship as a function of pharmacokinetic and pharmacodynamic properties. Qualitative discussion of factors involved in determining pharmacokinetic properties: routes of administration, formulation, absorption, distribution, elimination (metabolism and excretion). Qualitative investigation of pharmacokinetics variables (bioavailability, volume of distribution, clearance, half-lives, etc.). The use of pharmocokinetic variables in dosage optimization. Qualitative discussion of pharmacodynamic mechanisms: specific and non-specific mechanisms. Receptors and signal transduction. Agonists, partial agonists and antagonists. Quantitative investigation of drug-receptor interactions. The influence of non-drug factors (disease states, age, genetics, etc.) on pharmacokinetic and pharmacodynamic parameters, and hence on the dose-response relationship. A major feature of this course is the emphasis placed on instruction in using on-line library resources. These skills are used in all subsequent courses.

Note: The course is compulsory for programmes 7370, 5504, and 9060.

PHPH9102
Pharmaceutical Development of New Medicines
School of Medical Sciences
UOC6

The course begins with an introduction to dosage forms, and describes their design, development and manufacture using tablets as an example. The relevance of the properties of active ingredients to product development is discussed. Concepts of sterility and sterilisation are introduced. The chapter on product quality outlines concepts of quality, quality assurance and quality control, discusses the significance of pharmacopoeial monographs, and gives reasons for the various tests of quality for raw materials and finished products. The fundamental relationship between ongoing quality and Good Manufacturing Practice is discussed, together with examples of validation of later changes or variations to products. Particular attention is given to methods of testing for impurity content, the significance of different types of impurity, disintegration and dissolution testing, and the design and interpretation of stability studies. The final chapter outlines the design, conduct and reporting of bioavailability and bioequivalence studies, and describes formulation strategies for drugs which have limited bioavailability.

Note: The course is compulsory for programmes 5504, and 9060.

PHPH9104
Law, Ethics and the Regulation of Medicines
School of Medical Sciences
UOC6

This course provides a general overview of the ethical issues and laws relevant to the development and marketing of medicines. It includes the following topics. State and Commonwealth Constitutional powers. Common law, statutory law, accountability, natural justice. Laws relating to the development and sale of medicines; patents, intellectual property, trade practices. Ethical issues in drug development and marketing.

Preparation and submission of marketing applications, approval and appeal processes. Principles of Good Clinical Research Practice (GCRP). The ethical review process, consent procedures in biomedical research. The philosophy of regulation of drug use: input of industry, Government, consumer. The regulatory principles regarding the use of developmental drugs in human subjects and the practical consequences of these on the design and conduct of clinical investigations. The organization of the regulatory processes in Australia: The Therapeutic Goods Administration and advisory bodies (ADEC, ADRAC, etc.) The Pharmaceutical Benefits Advisory Committee. Submissions regarding cost effectiveness. Preparation and submission of an application for approval to test or marker a drug and the relevant appeal process. Integration of regulatory affairs into the pre- and post-marketing planning and review of product development strategies. Input from international bodies and national agencies.

Note: The course is compulsory for programmes 7370, 5504, and 9060.

PHPH9107
Therapeutics and the Molecular Basis of Disease 1
School of Medical Sciences
UOC6

This course provides a basis for understanding the mechanisms involved in the disordering physiology that underlies common disease states. The object is to provide an understanding of those disorders that are amenable to correction or amelioration with drug therapy. It thus provides a rationale for drug design and utilization. The subject consists of five main sections. Section 1 is a review of relevant features of general biology with emphasis on (a) modern systems of taxonomy (natural products are still a major source of lead compounds for developing new therapeutic agents) and (b) biochemistry with emphasis on those aspects relevant to molecular biology and biochemical pharmacology (the other two main areas involved in new drug development). Section 2 deals with cellular injury and death and covers causes of cell injury, general mechanism of cell injury an necrosis, apoptosis, stress proteins and cell injury, subcellular alterations in cell injury, intracellular accumulations, pathologic calcification, hyaline change cellular aging. Section 3 covers cellular growth and differentiation including control of cell growth, extracellular matrix and cell-matrix interactions, and cellular adaptions of growth and differentiation. Section 4 deals with inflamation and repair and covers acute inflammation, chemical mediators of inflammation, chronic inflammation, morphologic pattern in acute and chronic inflammation, systemic effects of inflammation, wound healing. Section 5 covers oedema, hyperaemia and congestion, haemorrhage, haemostasis and thrombosis, embolism and shock.

Note: The course is elective for programmes 5504, and 9060.

PHPH9108
Therapeutic Basis of Drug Use and Development 1
School of Medical Sciences
UOC6
Prerequisite: PHPH9107

This course aims to provide an understanding of the medical problems and treatments that need to be understood in developing new therapeutic agents and optimizing their use. Emphasis will be on highlighting the strengths and weaknesses of present therapies and identification of current research aimed at developing new therapeutic agents. The course begins with a review of drug safety including mechanism of adverse drug reactions and drug interactions, together with the influence of age, race and disease states on the tendency to develop adverse responses to medication. The course provides and integrated description of relevant physiology, pathophysiology, disease states: (a) infectious disease: bacterial, fungal, viral and parasitic infections: (b) immunological disorders: immunodefiency, hypersensitivity, transplantation: (c) haemotology: anaemias, haemorrhagic disorders, disorders of white blood cells, leukaemias, lymphomas; (d) cardiovascular disorders: cardiac arrhythmia, ischaemic heart disease, heart failure, hypertension, vascular disorders; (e) respiratory tract disorders: upper respiratory tract disorders, asthma, chronic obstructive pulmonary disease, acute bronchitis, bronchiectasis, cystic fibrosis, pneumonia; (f) renal tract disorders: renal failure, disorders of renal tubule function, obstructive uropathies, myoneurogenic disorders, incontinence, neoplasms: (g)) gastrointestinal disorders: oesophageal disorders, gastritis, peptic ulcer, diarrhoea and constipation, gastroenteritis, malabsorption syndromes, chronic inflammation of the bowel, gastrointestinal neoplasms; (h) hepatic and biliary disorders: jaundice, ascites, fibrosis, cirrhosis, hepatitis, neoplasms.

Note: The course is elective for programmes 5504, and 9060.

PHPH9109
Therapeutic Basis of Drug Use and Development 2
School of Medical Sciences
UOC6
Prerequisite: PHPH9107

The objectives of this course are the same as describe for course PHPH 9108. The course will provide and intergrated description of relevant physiology, pathophysiology, disease state manifestations and clinical pharmacology with respect to the following disease: (a) nutritional and metabolic disorders: nutrition, nutritional deficiencies, obesity, water/ electrolyte/acid-base metabolism; (b) endocrine disorders: disorders of the pituitary, thyroid, adrenal glands; disorders of carbohydrate metabolism; (c) gynaecological disorders: common problems, amenorrhoea and abnormal bleeding, endometriosis, breast disorders, neoplasms; (d) neurologic disorders: seizure disorders, sleep disorders, cerebrovascular disease, CNS infection and neoplasms, demyelinating diseases, disorders of movement, spinal cord disorders peripheral nervous system disorders: (e) psychiatric disorders: personality disorders, drug dependence, neuroses, mood disorders, schizophrenic disorders, delusional disorders: (f) musculoskeletal and connective tissue disorders: reheumatoid arthritis and other diffuse connective tissue disease, arthritis associated with spondylitis, osteoarthritis, infections and neoplasms of the bones, crystal-induced conditions, bone and cartilage disorders, nonarticulare rheumatism; (g) ophthalmological disorders: disorders of the eyelids, conjunctiva, and cornea, cataract, uveal tract disorders, retinal disorders, glaucoma, disorders of the optic nerve; (h) dermatological disorders: dermatitis, scaling disorders, disorders of the hair folicles and sebaceous glands, skin infections - bacterial, viral, parasitic, fungal, drug eruptions and similar inflammatory disorders of skin, disorders of cornification, tumours. .

Note: The course is elective for programmes 5504, and 9060.

PHPH9111
Advanced Pharmaceutical Development of Medicines
School of Medical Sciences
UOC6

This subject extends the principles covered in Pharmaceutical Development of Medicines and includes detailed treatment of the formulation and in vitro/in vivo assessment of oral controlled-release products and novel dosage forms such as transdermal therapeutic systems and osmotic pumps. There is an extensive chapter on the formulation and testing of inhalation products, including metered dose inhalers, dry powder inhalers and nebulisers. Regulatory aspects of the quality of all of these products are discussed. Students will have the opportunity to conduct an evaluation of a bioavailability study 'in the shoes of' a regulator, with emphasis on European requirements. The chapter on formulation of protein pharmaceuticals explains the particular problems associated with this group of products including stability and compatibility, and describes how the challenges are addressed. Case studies illustrate application of the principles that have been introduced. (An alternative to the topic of protein formulation will be provided for students who are also taking Biopharmaceuticals electives).

PHPH9112
Advanced Pharmacokinetics
School of Medical Sciences
UOC6

This course greatly extends the introduction to pharmacokinetics given in the core module Principles of Drug Action, with particular emphasis being given to new aspects of pharmacokinetics. Topics covered include methods used in drug development to investigate the pharmacokinetic characteristics of new chemical entities in the pre-clinical and clinical phase. The role of pharmacokinetics in drug selection is highlighted and emphasis is placed on critical appraisal of the pharmacokinetic literature. Other topics include investigating drug interactions and population pharmacokinetics as a tool to inform drug development and the clinical utility of medicines. Students electing to take this unit will also have a chance to pursue a short assignment in an area of interest to their work place related to the area of pharmacokinetics and pharmacdynamics.

PHPH9113
Advanced Regulatory Affairs
School of Medical Sciences
UOC6

This course will extend the core module Law, Ethics and the Regulation of the Development and Use of Medicines, for example, by providing a comprehensive examination of the role of the international regulatory agencies such as those of the European Union and the United States and

their influence on the Australian regulatory processes examined. Other aspects of the regulatory process mentioned briefly in the core module, such as issues relating to pharmaceutical chemistry, will be considered in more detail. However, the major emphasis of the module will be on case study and critical appraisal. Students will review registration dossiers, write evaluation reports and prepare Pre-ADEC responses. The focus of this work will be the optimization of the regulatory process. Students will also participate in a mock Australian Drug Evaluation Committee (ADEC) meeting to gain an understanding of that Committee's procedures and decision-making processes.

PHPH9114
Pharmacoeconomics
School of Medical Sciences
UOC6

As limits are placed on health care budgets, from the national to the individual level, the relative value of competing uses of scarce resources is becoming a significant part of decision making. Pharmacoeconomics assists the decision-maker by determining the comparative value of a product, and whether this value is worth the loss of benefits that could have been obtained by using the money in a different way.

In the Australian environment, pharmacoeconomic analyses are considered by the Pharmaceutical Benefits Advisory Committee who advises the Minister on whether the product should be reimbursed on the Pharmaceutical Benefits Scheme. They are also used in hospital formulary submissions within the public hospital setting, and in support material and publications for doctors. Another role for pharmacoeconomics occurs early in the drug development process. Pharmacoeconomic models can help to assess the potential value of a product and they can also identify threshold levels of efficacy that must be met for the product to be commercially viable.

This module focuses on the principles of pharmacoeconomics, the process of obtaining reimbursement of a product on the Pharmaceutical Benefits Scheme, and issues in applying pharmacoeconomic theory to the real world. The module also covers economic concepts, efficiency, equity and ethics of decision making in the health care field and provides an overview of pharmacoeconomics internationally. Specific areas covered include the different types of economic analysis, sources of data, randomized trials versus naturalistic or pragmatic trials, quality of life and assessment of utility, and league tables.

The module will be of benefit to those wanting to work in the area of pharmacoeconomics and also to those wanting to broaden their knowledge base about this important area

PHPH9116
Advanced Clinical Trials Management
School of Medical Sciences
UOC6
Prerequisite: PHPH9100

The focus of the advanced module will be the practical application of the underlying principles encountered in the core course on clinical trials management. Students will prepare a complete data package for the research ethics committee (REC) for a study submitted as part of the clinical trials notification (CTN) scheme as the major focus and assessment task for this module. The trial will be multi-centred and early phase, that is Phase II to III. There will be potential serious toxicities and a data safety monitoring committee will need to be established. Students will develop the clinical trials protocol, the draft patient consent form, and case report form (CRF). The application package will be assessed by a mock REC and the student will be asked to respond to questions and criticisms raised by the REC.

PHPH9118
Therapeutics and the Molecular Basis of Disease 2
School of Medical Sciences
UOC6

This course is a continuation of the material covered in PHPH9107 and, like the previous course, aims to provide a basis for understanding the mechanisms involved in disordered physiology that underlies common disease states. The objective is to provide an understanding of those disorders that are amenable to correction or amelioration with drug therapy. It thus provides a rationale for drug design and utilization. The course consists of four main sections: immunology and diseases of immunity; infection, genetic disorders; and neoplasia. Immunology and diseases of immunity includes a review of normal immune system mechanisms (cells of the immune system, cytokines, histocompatibility antigens, and hypersensitivity reactions); mechanisms of autoimmune diseases, immunologic deficiency syndromes, other actual or suspected immune system diseases (e.g. amyloidosis). Infection includes a brief introduction to mircobiology, general principles of microbial pathogenesis, discussion of selected human infectious diseases. Genetic disorders includes a brief section on the new genetics , mutation, mendelian disorders, disorders with multifactorial inheritance, normal karyotype cytogenetic disorders, single-gene disorders with nonclassic inheritance, molecular diagnosis. Neoplasia includes definitions and nomenclature, characteristics of benign and malignant neoplasms, epidemiology, molecular basis of cancer, biology of tumour growth, carcinogenic agents and their cellular interactions, host defence mechanisms, clinical features of tumours. Aspect of molecular biology relevant to the preceding topics (e.g. gene therapy) will be discussed.

Note: The course is elective for programmes 5504, and 9060.

PHPH9119
Providing Independent Drug Information for General Practice
School of Medical Sciences
UOC6

A minimum of 3 students is required to allow delivery and a maximum of 6 students are allowed to enrol.

Provision of drug information to General Practitioners has been largely undertaken by the pharmaceutical industry. The most practised and effective methods of providing independent drug information to GPs will be explored in this course. Whilst focussing largely on educational visiting / academic detailing, this course will also explore other ways of transmitting independent information to doctors, including Web-based programs. This course will be of interest to health professionals and organisations associated with providing drug information to General Practitioners. GPs participate actively in the teaching program. Facilitation is provided by experienced educational visitors.

This course is usually offered in two modes:

(1) a three-day residential workshop with pre-workshop preparation and a post-workshop task, followed by two assignments. (Minimum 3 students for this option to be available.)

(2) a distance learning package including two teleconferences, with pre-teleconference preparation and post-teleconference tasks and two assignments. (Minimum 5 students.)

The course aims to: provide communication and interaction skills training in the techniques of educational visiting/academic detailing; provide a knowledge base on rational prescribing and policy developments with respect to quality use of medicines (QUM); provide students with critical appraisal skills training for the provision of independent drug information. You can expect to: identify the strategies that are effective in promoting changes in clinical behaviour; Implement these strategies effectively in a variety of ways; identify where gains can be made for doctors and patients in quality use of medicine and cost effective prescribing; Iientify effective ways of using data about the prescribing pattern of individual doctors.

PHPH9120
Clinical Development of Medicines
School of Medical Sciences
UOC6

This course provides an introduction to clinical epidemiology, statistics, clinical trial management and data management. A brief introduction to the principles of clinical epidemiology is provided as a basis for measurement of drug effects in humans, including sources of error, types of research studies, and study design. Introduction to statistics includes methods for descriptive statistics, normal distributions and methods for expressing probability distribution parameters including t, chi-square and F. Inferential statistics covers application of distribution parameters to decision making, hypothesis testing, choosing an inferential test, comparison of two means, the two-sample t test, analysis of variance, chi-square test, correlation, non-parametric tests, and calculation of confidence intervals.

Clinical trials management reviews all stages involved in conducting a clinical trial. The stages covered include the initial project proposal; development of the protocol and other trial related documentation required to gain ethical and regulatory approval for a clinical trial; planning of all trial related materials required to commence the study; conduct of the trial during patient recruitment and treatment; data management and analysis of the data generated from the study; reporting of the data and finally close out of the trial. Responsibilities of the sponsor in trial planning, approval, investigator selection, monitoring and auditing are discussed. The International Conference on Harmonization (ICH) code of Good Clinical Practice (GCP) is emphasized throughout the module. The course is compulsory for program 7370, 5504, and 9060.

PHPH9121
Postmarketing Development of Medicines
School of Medical Sciences
UOC6

This Module consists of two volumes which focus on safety in the use of medicines in the postmarketing period. Volume 1 looks at Pharmacovigilance which has been described as 'All methods of assessment and prevention of adverse drug reactions' (Begaud 1993), and will incorporate systems set up to collect, assess and monitor adverse reactions to medicinal products. The course will discuss the history of major adverse events that has lead to the current monitoring programmes as well recent approaches to improving methods for detecting potential adverse drug reactions. The responsibilities of the pharmaceutical companies is covered; the aims of the collection of ADR/ADE information and the data bases used in this process are addressed. Information from the impact of international harmonization of procedures to the local operating company procedures is covered. Also covered are causality assessment, categories of causal relationship, the incidence of adverse reactions and their assessment, and risk/benefit issues. A major chapter on the classification and mechanisms of adverse drug reactions provides pharmacological understanding of the types of ADRs, long-term effects and effects on the embryo, foetus and neonate. The classification and mechanisms of drug interactions often associated with ADRs are covered. Volume 2 of this Module will address Pharmaceutical Information. The course will discuss the information resources and information services required to bring together and utilize all the information about a drug product which has been generated during its development and marketing. It provides an introduction to and an understanding of the restrictions under which pharmaceutical companies operate in terms of the provision of information, promotion and advertising. Core to this will be an understanding of the requirements and the writing of the Product Information and Consumer Medicine Information documents. The advertising and promotion of therapeutic goods as controlled by government and industry regulations are discussed.

Note: This course is a compulsory programmes 5504, 9060.

PHYS9060
Advanced Optics
School of Physics
UOC6 HPW3

Review of geometrical optics, matrix methods; physical optics; Fresnel and Fraunhofer diffraction, transfer functions, coherence, auto and cross correlations, applications of modern optics, holography, lasers. Additional research on topics of current interest, literature search, seminar.

Note: This course may also be offered via distance education.

PHYS9310
Physics of Solid State Devices
School of Physics
UOC6 HPW3

Review of electronic structure of semiconductors; pn junctions, bipolar and field effect transistors including formation, characterisitics and electrical breakdown. Optical devices includign light emitting diodes, junction lasers. Integrated circuit structures. Additional readings on chosen topics.

Note: This course may also be offered via distance education.

PHYS9710
Lasers and Applications
School of Physics
UOC6 HPW3

Theory of lasers, interaction between light and matter, optical amplifiers, oscillators, laser-cavity design, modes, Q switching, model locking, ultra-short pulse generation, specific lasers, including gas, solid state, dye lasers, semiconductor diode lasers, applications of lasers in medicine, spectroscopy, communications, consumer electronics. Additional research on topics of current interest, literature search, seminar.

Note: This course may also be offered via distance education.

PHYS9720
Optoelectronics
School of Physics
UOC6 HPW3

Optical Communications: introduction, definitions, waveguides, step and graded index fibers, polarization, maintaining fibers, dispersion, attenuations, fibre amplifiers, modulation schemes, communication systems. Fibre Optic Sensors: active and passive sensors, fibre optic interferometers, specific examples. Semiconductor Optics: physics of semiconductors: band theory, electrons/holes, effective mass, direct/indirect band gaps, Si, GaAS; recombinant processes, optoelectronic materials and growth, MOCVD, MBE: semiconductor junctions: pn junctions, p-I-n junction, heterojunction; quantum wells. Optoelectronic Devices: (a) emitters: light emiting diodes, physics of lasers, laser diodes, heterostructure lasers, types of diode lasers including gain guiding, index guiding, stripe geometry lasers, quantum well lasers, distributed feedback lasers, VCSEL's. (b) detectors: definitions, noise, figures of merit, thermal detectors, photon detectors: photoconductors, PMT, photodiodes, p-i-n diodes, avalanche photodiodes, CCD's. QWIP's. Additional research on topics of current interest, literature search, seminar.

Note: This course may also be offered via distance education.

PHYS9761
Optoelectronics Laboratory I
School of Physics
UOC6 HPW5

Methods and techniques employed in fibre optics and optical spectroscopy, includign measurement of attenuation in fibres, NA of single and multi-mode fibres, construction of an OTDR system, principles of WDM, spectroscopy of various light sources and detector characteristics, spectroscopy of quantum wells.

PHYS9762
Optoelectronics Laboratory 2
School of Physics
UOC6 HPW5

Methods and techniques employed in laser technology and spectroscopy, including laser safety procedures, measurement of laser characteristics, high resolution speed of lasers, study of laser modes and laser intensity, construction of diode pumped Nd:YAG laser; reflection and transmission holography, Fourier transform spectroscopy.

POLS5100
Issues in Australian Public Policy: Internship Program
School of Politics and International Relations
UOC8 HPW2

Involves a two day per week research internship attachment where the student undertakes research for a selected organisation such as the Asia-Australia Institute, Amnesty International, The Refugee Council, The International Women's Development Agency, Paul Keating's Office, the US Information Agency and others. Students will meet weekly for debriefings on their internships and to discuss policy-related issues. These meetings may include lectures where appropriate and/or visitors of interest.

Note: Students are expected to undertake a research project or project as required by the organisation with which they are placed.

POLS5102
Australia in the World
School of Politics and International Relations
UOC8 HPW2

A study of Australia's place in the world. Strategic, diplomatic, economic, historical and legal approaches.

POLS5103
Law, War and Justice
School of Politics and International Relations
UOC8 HPW2

A study of classical and modern theories of war and peace with a specific focus on ethical and legal issues.

POLS5113
Research Project
School of Politics and International Relations
UOC8 HPW2

A 10,000 word research project on an agreed subject. Students should arrange contact times with supervisor.

Note: This project may only be undertaken with the permission of the MA Coordinator and is available only to students enrolled in a full MA program who have achieved distinction level over three completed courses and demonstrated research capacity. Application forms to undertake this course are available from the School office and must be lodged for consideration by the end of the teaching period of the session preceding the one in which the research project will be taken.

POLS5120
The International System
School of Politics and International Relations
UOC8 HPW2

Examines the international system in a theoretical and historical perspective. Explores the contribution of the main approaches in International Relations to an understanding of the contemporary world. Analyses the economic and political organisation of world politics with specific attention to the evolution of the international system since the end of the Second World War. Explores the roles of the major actors in international relations.

POLS5122
The International Political Economy
School of Politics and International Relations
UOC8 HPW2

Analyses the nature and dynamics of the international political economy. Provides a critical introduction to the evolution of a global economy and considers the implications of the globalisation of economic activity for states and other international actors. Investigates the relationship between the growth of international economic activity and the domestic economic and social policy objectives of states. Contributes to an enhanced understanding of the relationship between politics and economics.

POLS5125
The Politics of International Law
School of Politics and International Relations
UOC8 HPW2

International law plays an integral role in the system of international politics. This course challenges students to analyse that role and the major interpretations of that role. The content covered includes topics such as: the core principles and concepts of international law; distinguishing a political from a legal interpretation of a multilateral treaty, consent and verification; the operation of the International Court of Justice and the relationship between foreign policy formulation and international law. No prior knowledge of international law is required.

POLS5126
Nationalism and Ethnicity in International Relations
School of Politics and International Relations
UOC8 HPW2

Investigates the resurgence of ethnicity and nationalism in the international arena. The post cold-war international order sustains the expansion of a market oriented global culture that transcends nation-states' boundaries, but the resurgence of ethnic and nationalist movements appears to contradict this globalising trend. Aims to examine the resurgence of ethnicity and nationalism in the contemporary world and evaluate the challenge that this resurgence imposes to a world of nation-states and to the post-cold war international order. The central question is to what extent is the nation state a viable and effective political unit in a world of global markets, inter-state organisations and political movements for ethnic resurgence. A number of case studies will be discussed.

POLS5127
China and Asia-Pacific Security
School of Politics and International Relations
UOC8 HPW2

An examination of China's relations with the outside world in the post-Cold War era. Topics include: the theoretical foundation on which China formulates its foreign policy, China's security perceptions; its current relations with major powers; its arms build-up and the regional response. Through identifying China's common interests with the international community and its problems with Western powers, efforts are made to evaluate China's place in the world. The course is issue-oriented, although theoretical analysis will not be ignored.

POLS5158
Theories of the Global Free Market and their Critics
School of Politics and International Relations
UOC8 HPW2
Excluded: POLS3047

Neo-liberal or 'economic rationalist' arguments for the desirability of a global free market. Formal characteristics of 'free' market relations in economic theory. Free markets in theory v free markets in practice. Maximalist and minimalist arguments for free markets. Neo-liberalism and the critique of state economic intervention. The 'Asian Tigers' and neo-liberal theory. Critiques of maximalism and critiques of minimalism. State intervention and global economic competitiveness. Economic theory and global economic stability and instability.

POLS5159
The Israeli Palestinian Conflict
School of Politics and International Relations
UOC8 HPW2

Addresses the most salient features of the Israeli Palestinian Conflict and its impact in the international arena. Discusses the emergence of Zionism in Europe, the process of colonial settlement in Mandatorial Palestine, emergence of distinct Israeli and Palestinian societies, the impact of superpowers on the conflict, the various proposals for resolving the conflict and the role of the United Nations and other international organisations in the elusive search for a conflict resolution.

POLY5000
Polymer Science
School of Chemical Eng and Industrial Chemistry
UOC19 HPW6

Polymer Processes: Classification of polymers, methods of polymerisation; bulk, solution, emulsion, suspension, high pressure; processes; step growth, chain growth; the chemistry and applications of polymer systems including polyesters, polyamides, phenolic condensation resins, vinyl polymers, synthetic elastomers. Natural polymers. Mechanism and Kinetics: Step growth polymerisation, kinetics, structure effects; chain growth polymerisation. Free radical polymerisation, chemistry and properties of free radicals and initiators; kinetics of propagation and termination reactions; co-polymerisation; monomer radical structure and reactivity. Cationic and anionic polymerisation; stereoregular polymers. Polymer Characterisation: Molecular weight; averages and distributions; thermodynamics of polymer solutions; theta temperature; fractionation methods; measurement of number-average molecular weight and weight-average molecular weight. Polymer Physics: Principles of operation of conventional polymer processing equipment; safety procedures; polymer compound design; stress strain behaviour of polymers in tension, compression, shear and flexure; elementary rheological behaviour of polymers; rubber elasticity; thermal characteristics of polymers.

PSYC7000
Research and Evaluation Methods
School of Psychology
UOC6 HPW2

An examination of threats to the validity of casual inferences from randomised experiments, quasi-experiments and passive observational studies, with particular reference to field studies and program evaluations. Statistical power analysis, the analysis of data from nonequivalent control group designs, interrupted time series analysis, and structural modelling.

PSYC7001
Psychological Assessment 1
School of Psychology
UOC6 HPW3

A theoretical basis, background information and practical skills in methods of assessment typically used in clinical, forensic, and organisational psychology. Topics will include: the assessment of intelligence in adults and children, assessment of adult abilities, vocational interests, and personality, use of behavioural/structured interviewing, computerised test administration and expert scoring systems, assessment centres, special purpose testing, preparation of assessment reports, the provision of feedback to clients and subjects, and ethical, legal and professional issues. Emphasis will be on the development of practical skills in the administration, scoring and interpretation of standardised psychological instruments.

PSYC7002
Psychological Assessment 2
School of Psychology
UOC6 HPW2

The psychometric foundations of psychological assessment. Classical and modern test theory. Item analysis and item response theory. Differential change measurement. Single case profile analysis, with applications to the WAIS-R and WISC-3. Applications of exploratory and confirmatory factor analysis to test construction and evaluation. Clinical and statistical prediction. Decision theoretic approaches to testing and assessment. The use of intraclass correlations to evaluate the reliability of ratings and other assessment methods.

PSYC7100
Psychology of Organisations 1
School of Psychology
UOC6 HPW2

General framework for understanding organisational settings and how social structures and procedures affect work motivation, job satisfaction, performance and health. Emphasis placed on the particular contribution which psychologists can make to such areas as job analysis and design, selection, and performance appraisal, interpersonal and intergroup relations, social influence, leadership style, job enrichment, and communication patterns.

PSYC7101
Psychology of Organisations 2
School of Psychology
UOC6 HPW2

An advanced examination of some topics covered in PSYC7100 Psychology of Organisations 1 with a particular emphasis on the application of sound measurement and research principles to selection, job evaluation, work motivation and occupational health and stress. Special attention given to the application of social psychological principles to the work setting.

PSYC7102
Learning , Training and Development
School of Psychology
UOC6 HPW2

An introduction to the latest theory and research in learning, memory and cognition relevant to designing and implementing programs of instruction and behavioural intervention . Aspects of the training cycle including needs analysis for training , setting learning objectives , and evaluating the effectiveness of any instructional program .

PSYC7115
Career Choice and Development
School of Psychology
UOC6 HPW2

The theory and practice of career choice and development, and approaches to career decision making and work adjustment throughout life. The role of occupational information and psychological tests, and the impact of work, leisure, retirement and unemployment on these areas will be considered. The specific problems of minority groups in these areas will be highlighted.

PSYC7117
Advanced Topics in Organisational Psychology
School of Psychology
UOC6 HPW2

Advanced treatment of established and emerging areas in organisational psychology.

PSYC7122
Professional and Ethical Practice (Organisational) 1
School of Psychology
UOC6

Attendance at professional practice meetings (including reviews of professional ethical issues) and career development workshops (including a thorough understanding of ethical principles and practices within professional settings) and the completion of placements to a total of 250 hours.

PSYC7123
Professional and Ethical Practice (Organisational) 2
School of Psychology
UOC6

Attendance at professional practice meetings (including reviews of professional ethical issues) and career development workshops (including a thorough understanding of ethical principles and practices within professional settings) and the completion of placements to a total of 250 hours.

PSYC7124
Professional and Ethical Practice (Organisational) 3
School of Psychology
UOC6
Prerequisite: PSYC7122, PSYC7123

Attendance at professional practice meetings (including reviews of professional ethical issues) and career development workshops (including a thorough understanding of ethical principles and practices within professional settings) and the completion of placements to a total of 250 hours.

PSYC7125
Professional and Ethical Practice (Organisational) 4
School of Psychology
UOC6
Prerequisite: PSYC7122, PSYC7123

Attendance at professional practice meetings (including reviews of professional ethical issues) and career development workshops (including a thorough understanding of ethical principles and practices within professional settings) and the completion of placements to a total of 250 hours.

PSYC7126
Research Thesis (Organisational) 1
School of Psychology
UOC12

Research thesis involving an investigation into some aspect of organisational psychology.

PSYC7127
Research Thesis (Organisational) 2
School of Psychology
UOC12
Prerequisite: PSYC7126

A continuation of the research thesis begun in PSYC7126.

PSYC7204
Child Clinical Psychology
School of Psychology
UOC6 HPW3

An examination of the developmental psychopathology, assessment, and treatment of the major childhood disorders. Emphasis is given to empirically-supported approaches, with a particular focus on cognitive and behavioural family systems assessment and interventions.

PSYC7210
Human Neuropsychology
School of Psychology
UOC6 HPW3

An overview of cognitive, emotional and behavioural disorders arising from damage to the brain with an emphasis on the assesment of brain-behaviour relationships, assesment and rehabilitation.

PSYC7212
Experimental Clinical Psychology 1
School of Psychology
UOC6 HPW3
Excluded: PSYC7400

An introduction to clinical practice and covers the major anxiety and mood disorders. This course reviews the major models and research strategies for understanding psychopathology and clinical interventions. Specific psychological disorders are analysed in detail to illustrate the interplay of biological, cognitive, and behavioural models of psychological dysfunction. Each disorder is also described in terms of practical assessment and treatment procedures.

PSYC7220
Psychology of Health and Illness
School of Psychology
UOC6 HPW2

Applications of psychological principles, derived from human and animal research, to human health, including health promotion, risk factor reduction, and the psychological assessment and management of medical illnesses, with a special focus on chronic illnesses.

PSYC7221
Experimental Clinical Psychology 2
School of Psychology
UOC6 HPW4

A continuation of the problem oriented approach begun in the PSYC7212, this course examines the theoritical basis of models of psycopathology, assesment and intervention, and related professional issues. It deals with a range of psychological problems including insomnia, psychosis, personality disorders, eating disorders, and relationship disorders.

PSYC7222
Experimental Clinical Psychology 3
School of Psychology
UOC6 HPW2

The assessment and management of a range of disorders including bereavement, drug and alcohol problems, dissociative disorders, and psychogeriatrics.

PSYC7223
Professional and Ethical Practice (Clinical) 1
School of Psychology
UOC6

This course focuses on practical training of clinical skills and thorough understanding of ethical principles and practices within professional settings. Attendance at one-day workshops and once-weekly meetings is required. Skills training includes interviewing, cognitive therapy, providing expert testimony, and interviewing children. There will be a strong focus on the code of professional conduct and ethical issues that arise in the context of working with individuals, cultural groups, organisations, other professionals and the public at large.

PSYC7224
Professional and Ethical Practice (Clinical) 2
School of Psychology
UOC6
Prerequisite: PSYC7223

This course continues with the training of psychological skills and ethical practices required in the professional context. Attendance at one-day workshops and once-weekly meetings is required. Skills training includes interviewing families, group processes, professional supervision, and report writing. Weekly meetings will also deal with the conduct of professional psychologists, with a strong focus on the maintenance of ethical practices.

PSYC7225
Professional and Ethical Practice (Clinical) 3
School of Psychology
UOC6
Prerequisite: PSYC7224

Across PSYC7225 and PSYC7226 students must complete three field placements, totalling 800 hours. These will normally comprise one adult mental health setting, one child setting, and one specialised setting. In addition, students will complete supervised clinical work in the Psychology Clinic. Students will also attend once-weekly meetings that will continue reviews of professional and ethical issues.

PSYC7226
Professional and Ethical Practice (Clinical) 4
School of Psychology
UOC6
Prerequisite: PSYC7224

In addition to field placements, students will also attend once-weekly meetings that will continue reviews of professional and ethical issues.

Note: See under PSYC7225.

PSYC7227
Research Thesis (Clinical) 1
School of Psychology
UOC12

Research thesis involving an investigation into some aspect of clinical psychology.

PSYC7228
Research Thesis (Clinical) 2
School of Psychology
UOC12
Prerequisite: PSYC7227

A continuation of the research thesis begun in PSYC7227.

PSYC7400
Interventions in Forensic Psychology 1
School of Psychology
UOC6 HPW3
Excluded: PSYC7212

An introduction to clinical practice and covers the major anxiety and mood disorders. This course reviews the major models and research strategies for understanding psychopathology and clinical interventions. Specific psychological disorders are analysed in detail to illustrate the interplay of biological, cognitive, and behavioural models of psychological dysfunction. Each disorder is also described in terms of practical assessment and treatment procedures.

PSYC7401
Interventions in Forensic Psychology 2
School of Psychology
UOC6 HPW2

An examination of the approaches to intervention employed by psychologists in various forensic settings. It will focus specifically on the theory and practice of interviewing and counselling forensic clients. Areas to be covered will include: the assessment, treatment and prevention of child maltreatment; interviewing child witnesses; specific issues in interventions with crime victims; dealing with spousal violence; counselling and mediation in the Family Court; the prevention of juvenile offending; and the interventions involving violent offenders.

PSYC7402
Applications of Forensic Psychology
School of Psychology
UOC6 HPW2

The relationship between work and the legal system. It includes issues relating to work and work organisation, such as equal employment opportunity, unfair dismissal, stress in the workplace, and issues relating to workers compensation such as the assessment of the effects of harmful workplace exposures on performance, the effects of work injury on work performance and the effects of the compensation system itself. It also includes issues relating to testimony for cases in coronial, compensation and other criminal courts.

PSYC7403
Experimental Psychology and Law
School of Psychology
UOC6 HPW2

Examination of contributions to the application of forensic psychology in different settings that come from theory and research in social and experimental psychology and allied fields. Topics may include eyewitness identification, jury selection, lie detection, use of hypnosis, trial advocacy tactics, individual and jury decision making, laypersons' perceptions of insanity, judges instructions, the effects of the media, to name a few.

PSYC7409
Professional and Ethical Practice (Forensic) 1
School of Psychology
UOC6

Across PSYC7409, PSYC7410, PSYC7411 and PSYC7412 students must complete 1000 hours of professional practice, including professional seminars, workshops, and external placements. Students must complete a minimum of three different field placements, of approximately 35 days in length, in settings that may include the courts, police, prisons, or other related forensic settings.

This course provides an introduction to skills training in a variety of tasks undertaken by forensic psychologists. It focuses on practical training of forensic skills and a thorough understanding of ethical principles and practices within professional settings. Attendance at one-day workshops and once-monthly meetings is required. Skills training includes interviewing, cognitive techniques, providing expert testimony, and interviewing children. There is a strong focus on the code of professional conduct, and ethical issues that arise in the context of working with individuals, cultural groups, organisations, other professionals and the public at large.

PSYC7410
Professional and Ethical Practice (Forensic) 2
School of Psychology
UOC6
Prerequisite: PSYC7409.

In addition to field placements, this course continues with the training of psychological skills and ethical practices required in the professional context. Attendance at one-day workshops and once-monthly meetings is required.

Skills training includes interviewing families, group and jury processes, professional supervision, and mediation counselling. Weekly meetings will also deal with the conduct of professional psychologists, with a strong focus on the maintenance of ethical practices.

PSYC7411
Professional and Ethical Practice (Forensic) 3
School of Psychology
UOC6
Prerequisite: PSYC7410

In addition to field placements, students attend regular meetings that continue reviews of professional and ethical issues. Assessment is conducted by audio and videotaped practice, case presentations, and formal reports.

PSYC7412
Professional and Ethical Practice (Forensic) 4
School of Psychology
UOC6
Prerequisite: PSYC7410

In addition to field placements, students will attend regular meetings that will continue reviews of professional and ethical issues. Assessment will be conducted by audio and videotaped practice, case presentations, and formal reports.

Note/s: See under PSYC7409

PSYC7413
Research Thesis (Forensic) 1
School of Psychology
UOC12

Research thesis involving an investigation into some aspect of forensic psychology.

PSYC7414
Research Thesis (Forensic) 2
School of Psychology
UOC12
Prerequisite: PSYC7413

A continuation of the research thesis begun in PSYC7413.

PTRL5001
Fluid Dynamics in Porous Media
School of Petroleum Engineering
UOC6 HPW3

Capillary-gravity equilibrium and initial fluid distribution. Relative permeability, capillary pressure, rock microstructure and multi-phase flow. Review of oil-gas phase behaviour and fluid PVT properties. Material balance equations. Calculation of water influx from material balance. Special Project (Ref: PTRL2014)

PTRL5003
Well Pressure Testing
School of Petroleum Engineering
UOC6 HPW3

Theory of transient well testing. Practical aspects of design and performance of field test instrumentation. Pressure drawdown tests. Fall-off tests. Multi-rate tests. Gas well testing. Flow-after-flow. Isochronal and isochronal modified. Interference testing. Pulse testing. Drillstem tests. Fractured reservoir tests. Analysis of multiphase flow tests. Special Project (Ref: PTRL3023)

PTRL5004
Numerical Reservoir Simulation
School of Petroleum Engineering
UOC6 HPW3

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. Special Project (Ref: PTRL4015)

PTRL5005
Design Project for Petroleum Engineers
School of Petroleum Engineering
UOC6 HPW3

This course covers front-end engineering design of new production facilities for a potentially viable oil/gas field. Common offshore and onshore field development modes are first reviewed. Various oil/gas processing systems are studied, including gas dehydration, condensate handling, acid gas removal, LPG extraction, and crude oil stabilisation. Design tasks studied include process simulation, preparation of process flow diagrams/piping & instrument diagrams, HAZOP studies, and project management arrangements. Students will make extensive use of a commercial process simulation software package during tutorials. Each student shall carry out an example facilities scoping study and submit this as their final design report. Special Project. (Ref: PTRL3021)

PTRL5006
Field Development Geology for Petroleum Engineers
School of Petroleum Engineering
UOC6 HPW3

Introduction to 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 characterisation 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 characterisation. New oil from old fields. Data planning during field development. Role of synergy in oil and gas field development. Case histories. Special Project. (PTRL 3016)

PTRL5007
Reservoir Engineering
School of Petroleum Engineering
UOC6 HPW3

Recovery factors, mobilisation, displacement and sweep efficiencies. Fractional flow analysis and displacement efficiency. Heterogeneity and gravity segregation and their effect on recovery. Water and gas coning. Unsteady-state field water influx calculations. Determination of aquifer parameters from history matching. Pseudo relative permeability and vertical equilibrium. Decline curve analysis. Special Project (Ref: PTRL3008)

PTRL5008
Petroleum Production Economics
School of Petroleum Engineering
UOC6 HPW6

Unit A-Petroleum Project Evaluation: 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). (Ref: PTRL3025)

PTRL5009
Well Drilling Equipment and Operations
School of Petroleum Engineering
UOC6 HPW3

Introduction to physical processes involved in drilling oil and gas wells. Rotary drilling rigs for both land and offshore operation. Drilling equipment including rig 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. Special Project (Ref: PTRL2015)

PTRL5010
Natural Gas Engineering
School of Petroleum Engineering
UOC6 HPW3

Properties of Natural Gases: typical compositions. Equations of state: general cubic equations, specific high accuracy equations. Use of equations of state to find residual energy properties. Gas Compression: positive displacement and centrifugal compressors; fans. Calculation of power requirements. Compressible Flow in Pipes: fundamental equations of flow: continuity, momentum, energy equations. Isothermal flow in pipes: the Weymouth equation. Static and flowing bottom-hole pressures in wells. Fundamentals of Gas Flow in Porous Media:

Steady-state flow equations. Definition of pseudo-pressure function. Gas Flow in Cylindrical Reservoirs: general equation for radial flow of gases in symmetrical homogeneous reservoirs. Non-dimensional forms of the equation; derivation of coefficients relating dimensionless to real variables. Infinite reservoir solution; pseudo-steady-state solution. Gas Well Deliverability Tests: Flow-after-flow tests: prediction of IPR curve and AOF for the well. Isochronal tests. Drawdown tests: need for data at two flow rates. Special Project. (Ref: PTRL4016)

PTRL5011
Petroleum Production Engineering
School of Petroleum Engineering
UOC6 HPW3

Component of the petroleum production systems. Well productivity engineering. Production from under saturated 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. Artificial lift systems. Horizontal well production. System analysis. Production Chemistry Basics (wax, scale, corrosion, emulsions). Special Project. (PTRL 4018)

PTRL5012
Drilling Mud - Formulation, Selection & Maintenance
School of Petroleum Engineering
UOC6 HPW3

Students in this course will be given a thorough understanding in the classification of mud systems and the roles of different mud additives, their chemistry and interactions. Students will then learn how to implement this knowledge to aid in the design, maintenance, and development of an efficient mud system for a given drilling scenario by varying mud composition (to achieve optimum rheological and physical mud properties).

Course covers: Basics of water- and oil-based drilling and completion fluids. API mud properties & testing procedures and chemical analysis. Clay and polymer chemistry and their applications to drilling fluid formulations. Classification and structure of clays. Hydration mechanism of clays. Cation exchange capacity of clays and influence on clay properties. Rheology of clay suspensions, yield of clay. Structure and properties of polymers used in drilling fluids. Fluid-loss additives. Viscosifying agents. Surface active agents used in drilling fluids. Drilling fluid filtration - bridging mechanism, filtration-control materials and techniques, prevention of formation damage, filtration effect on drilling rate. API mud properties. Mud systems and treatments for hole conditions - torque and drag, stuck pipe, lost circulation and borehole instability. Prevention of corrosion. Mud program design - Mud weight, weighting materials, and mud weight calculations.

PTRL5015
Overview of the Petroleum Industry
School of Petroleum Engineering
UOC6 HPW3

Unit 1: Worldwide distribution of oil and gas reserves. Subsurface data sampling and data interpretation. Measurement scaling. Core, log and test data. Unit 2: Rock/fluid systems. Rock and fluid parameters used in the petroleum industry. Inter-relations between these parameters. Coring and core analysis. Well logging and log interpretation. Well testing and test analysis. Unit 3: Drilling of oil and gas wells. Classification of wells. Drilling operating systems. Drilling fluids. Well completions. Gun perforating. 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. Participation of Industry speakers. Special Project. (Ref: PTRL1010)

PTRL5016
Well Completions and Stimulation
School of Petroleum Engineering
UOC6 HPW3

Students enrolled in this course will learn how to develop cost-effective completion designs. Completion design and optimization is taught from a practical, technical, and economic point of view, with consideration of future workover and stimulation options. Students will also learn how to use the latest tools to design and optimize completion scenarios.

Course covers: Interval selection and productivity considerations, effect of producing mechanisms, influence of reservoir heterogeneity, required producing rate, inflow performance relationship, summation of pressure drops, matching completion and reservoir performance, and artificial lift requirements. Inflow performance and multiple tubing performance analyses using the latest optimization tools, well stimulation and workover planning, tubing packer movement and forces calculations. 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, hydraulic fracturing.

PTRL5021
Reservoir Characterisation
School of Petroleum Engineering
UOC6 HPW3

Overview of reservoir characterisation and modelling problems. Reservoir mapping. 3D modelling. Univariate, bivariate and multivariate statistics for geological data analysis. Pattern recognition techniques. Petrophysical predictions from well logs. Introduction to petroleum geostatitsics. Variograms. Kriging. Uncertainty quantification. Stochastic reservoir modelling. Sequential simulation. Gaussian simulation. Indicator simulation. Integrating seismic attributes, well tests and production data. Constraining reservoir models with various sources of information. Reservoir upgridding and upscaling. Special Project (Ref: PTRL3013)

PTRL5022
Drilling Systems Design & Optimisation
School of Petroleum Engineering
UOC6 HPW3

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.

PTRL5107
Formation Evaluation
School of Petroleum Engineering
UOC6 HPW3

Reservoir petrophysics. Basic parameters and relationships. Data control, acquisition and interpretation from cores, well logs and well tests. Integration of these data for the evaluation of hydrocarbon reservoirs.

General purpose well logs. Fluid and formation resistivities. Porosity measurements from cores and well logs. Wellsite log interpretation. Lithology, saturation and permeability studies. Hydrocarbon mobility determination. Shaly sand analysis. Complex reservoir interpretation. Practical work with core, log and well test data for reservoir quality evaluation and quantitative reservoir studies. Special Project (Ref: PTRL3023)

PTRL6001
Reservoir Engineering 1
School of Petroleum Engineering
UOC6

Basic concepts of origin, accumulation and recovery of hydrocarbon fluids. Fluid properties, PVT behaviour and classification of hydrocarbon reservoirs. Material balance equations for gas cap, solution gas, depletion and water drive reservoirs, and gas reservoirs. Reservoir rock properties and core analysis procedures, porosity-permeability relationships. Darcy's law for linear and radial flow, steady-state and pseudo steady-state flow. Wellbore damage, skin-factor and well productivity. Horizontal wells. Wettability, capillary pressure and vertical distribution of reservoir fluids.

PTRL6003
Well Pressure Testing
School of Petroleum Engineering
UOC6

Theory of transient well testing. Practical aspects of design and performance of field test instrumentation. Pressure drawdown tests. Fall-off tests. Multi-rate tests. Gas well testing. Flow-after-flow. Isochronal and isochronal modified. Interference testing. Pulse testing. Drillstem tests. Fractured reservoir tests. Analysis of multiphase flow tests.

PTRL6004
Numerical Reservoir Simulation
School of Petroleum Engineering
UOC6

Formulation of reservoir simulation equations. Explicit and implicit solution procedures. Cartesianand radial geometry. Single dimension, two-phase flow. Commercial reservoir simulation software. Planning and execution of reservoir simulation projects. Use of reservoir simulation as a management and development tool.

Reservoir simulation workshop - a series of real-world reservoir simulation problems including water and gas coning and water flood project.

PTRL6007
Reservoir Engineering II
School of Petroleum Engineering
UOC6

Pore-scale description of fluid distribution and displacement. Relative permeability and extension of Darcy's law to multi-phase flow. Fractional flow theory and displacement efficiency. Heterogeneity and sweep efficiency. Estimation of field recovery factors. Gravity stabilized displacements. Water and gas coning for vertical and horizontal wells. Decline curve analysis. Natural water influx and aquifer history matching. Pseudo-relative permeability and capillary pressure, calculation of dynamic and vertical equilibrium pseudos. Use of pseudo functions in reservoir simulation.

PTRL6008
Petroleum Production Economics
School of Petroleum Engineering
UOC6

Cash Flow Analysis - definitions, cash flow and profit, cash flow and taxation, cash flow and production sharing contracts, incorporating inflation, fiscal drag, real and nominal cash flows. Economic Indicators - net present value, internal rate of return, pay back, capital productivity index. Incremental investment analysis (accelerating production, lease/buy economics). Risk Analysis - expected value, decision trees, value of information, sensitivity analysis, probability analysis, Monte Carlo simulation, risk and selection of discount rate. Fiscal Analysis - structure of petroleum fiscal regimes, severity and efficiency, incremental fiscal effects. Australian Crude Oil Levy and Resource Rent Tax Fiscal Regimes - structure, detailed cash flow modelling, severity, efficiency, incremental effects, effect on exploration and development in Australia. Indonesian Production Sharing Contract Regime - structure, detailed cash flow modelling, severity, efficiency, incremental effects, effect on exploration and development in Indonesia.

PTRL6009
Well Drilling Equipment and Operations
School of Petroleum Engineering
UOC6

This course is taught from a practical view with the aim that students will learn how to streamline and optimize rig operations and gain the technical skills to provide cost-effective solutions to common rig problems associated with day-to-day operations. Students enrolled in this course will be given an in-depth view of the physical processes involved in drilling oil and gas wells, both on-shore and off-shore. Moreover, students will learn the functions and roles of key rig equipment and apparatus.

Course covers: Powering and transmission system. Hoisting system. Rotary systems - including top-drive. Rotary drilling bit classification and selection. Circulating systems - including pump selection and design. Derrick design and selection. Offshore drilling technology - including anchoring systems, surface motion. compensation systems, marine risers, riser tensioning systems. Blow-out preventers - including selection and stack design, accumulator systems, mud monitoring systems.

PTRL6016
Well Completions and Stimulation
School of Petroleum Engineering
UOC6

Students enrolled in this course will learn how to develop cost-effective completion designs. Completion design and optimization is taught from a practical, technical, and economic point of view, with consideration of future workover and stimulation options. Students will also learn how to use the latest tools to design and optimize completion scenarios.

Course covers: Interval selection and productivity considerations, effect of producing mechanisms, influence of reservoir heterogeneity, required producing rate, inflow performance relationship, summation of pressure drops, matching completion and reservoir performance, and artificial lift requirements. Inflow performance and multiple tubing performance analyses using the latest optimization tools, well stimulation and workover planning, tubing packer movement and forces calculations. 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, hydraulic fracturing.

PTRL6021
Reservoir Characterisation
School of Petroleum Engineering
UOC6

Reservoir characterisation and modelling problems. Basic univariate, bivariate and multivariate statistics for geological data analysis. Petrophysical predictions from well logs. Introduction to petroleum geostatistics. Variogram and covariance models. Kriging and cokriging. Stochastic simulation. Sequential simulation. Gaussian and indicator simulation. Uncertainty quantification. Integrating secondary data. Integrating dynamic data. Reservoir upscaling.

PTRL6025
Well Control & Blowout Prevention
School of Petroleum Engineering
UOC6

As you progress through this course you will be exposed to:

7 Basic concepts and procedures in well control;

7 Advanced theory and mathematical applications;

7 Preliminary equipment designs;

7 Advanced equipment designs and applications;

7 Onshore and offshore scenarios for advanced well design.

The objective of this course is to expose engineers to advanced well control concepts and apply those skills to individual projects.

Course content includes: Causes of Kicks, Kick Detection, Pressure Concepts and Calculations, Procedures, Gas Characteristics and Behaviour, Fluids, Constant Bottom Hole Pressure Well Control Methods, Equipment, Government & Industry and Company Rules & Orders and Policies, Sub-sea Well Control, Special Situations.

PTRL6027
Casing Design & Cementing
School of Petroleum Engineering
UOC6

Casing Design - API properties of casing and casing couplings. Performance properties of casing under load conditions - Tension, burst pressure, collapse pressure,biaxial loading and buckling. Principles of casing design for vertical, deviated and horizontal wells - Setting depth design procedures, casing string sizes,and selection of casing weight, grade & couplings. Preparation of casing programs for different well types. Optimisation of casing program.

Cementing - Basics of cement - Manufacture, composition and standardisation. Measuring and controlling cement properties. Cement additives. Slurry design - Wellbore temperatures, retardation, density, filtration control, strength stability, viscosity/suspension, gas migration theory and control, cement job simulation, 'wait-on-cement' time. Cementing calculations - Primary cementing, plug balancing, and squeeze cementing. Rheology and types of flow - Rheological models, types of flow, and flow in pipes & annuli. Mechanism of mud removal by cement - Well preparation, mud conditioning, running casing, mud displacement. Cementing equipment. Planning, conducting and monitoring primary and secondary cementing jobs. Post-job considerations and evaluation. secondary cementing jobs. Post-job considerations and evaluation.

PTRL6028
Practical Aspects of Well Planning and Drilling Cost Estimates
School of Petroleum Engineering
UOC6

Students will learn a technical and analytic approach to cost-effective well planning from site selection to casing landing and cementing with an emphasis on trajectory analysis based on borehole stability, torque and drag of tubulars, and hole cleaning. This course binds together key concepts from mud design, cementing and casing design, and directional and ERD well design. Students will learn how to use these concepts to

plan and optimize well trajectories in a systematic and practical manner. The course objectives are reinforced by practical examples and a case study.

Course covers: Data acquisition, pore pressure prediction, fracture gradient prediction, in-situ stress determination, stress analysis, trajectory analysis and optimization, wellbore stability analysis, mud weight selection and optimization, casing program design, BHA selection and design, torque and drag analysis, determination of cuttings transport efficiency.

PTRL6029
Directional Horizontal and Multilateral Drilling
School of Petroleum Engineering
UOC6

Students in this course will learn about the application of deviated and multilateral wells, well planning and surveying, and methods and equipment used to monitor and maintain directional control. In doing so, students will gain a thorough understanding of the economic benefits and technical challenges associated with implementation of directional well technology.

Course covers: Applications of directional, horizontal and multilateral wells. Planning and executing the drilling of directional, horizontal and multilateral wells. Planning of well trajectory. Graphical and analytical representations of Build & Hold and Build, Hold & Drop. Planning of well paths with single and multiple targets. Surveying methods, tools and calculations (tangential method, balanced tangential method, average-angle method, radius of curvature method, minimum curvature method, and Akgun/Kuru method). Drilling tools and methods. Selection of appropriate bottom-hole assembly and optimisation - slick BHA, single- and multi-stabiliser BHAs. Steerable Rotary Systems Downhole mud motors. Drilling and drill string considerations.

PTRL6107
Formation Evaluation
School of Petroleum Engineering
UOC6

Reservoir petrophysics. Basic parameters and relationships. Data control, acquisition and interpretation from cores, well logs and well tests. Integration of these data for the evaluation of hydrocarbon reservoirs.

General purpose well logs. Fluid and formation resistivities. Porosity measurements from cores and well logs. Wellsite log interpretation. Lithology, saturation and permeability studies. Hydrocarbon mobility determination. Shaly sand analysis. Complex reservoir interpretation. Practical work with core, log and well test data for reservoir quality evaluation and quantitative reservoir studies.

REST0001
Property Investment
Building Construction Management Program
UOC6 HPW3

A systematic analysis of the principles and methods of contemporary property investment is offered in this course including modern portfolio theory. Property is viewed as one among several asset classes in financial markets.

REST0004
Property Finance
Building Construction Management Program
UOC6 HPW3

Accepting the premise that real estate encompasses land, property and infrastructure, this course considers how the development, operation and investment of real estate are financed. It places contemporary financial practice within a context of theory and recent history of change in the financial sector of national and global economies. This course is broader in approach than REST0001 and is complementary in the approaches to common topics.

REST0005
Valuation 1
Building Construction Management Program
UOC6 HPW3

This course provides a graduate level introduction to valuation theory and practice. Topics include the concept of value in economics, valuation and related fields; the meaning of valuation as defined by statute and case law; property rights and land tenure; principles and methods of valuation; and the practice of valuation.

REST0006
Property Development
Building Construction Management Program
UOC6 HPW3

This course examines the process of property development, in the context of pluralistic market economics and underpins the analysis with economic theory. It covers all aspects of the development process from evaluation, through preparation, implementation, to disposal, and uses projects and cases to give students skills in organising and solving feasibility analysis problems.

REST0007
Asset and Facilities Management
Building Construction Management Program
UOC6 HPW3

This course introduces the key issues in facilities management and how it relates to organisational strategies within the context of corporate infrastructure resourcing. Topics include facility planning, financial forecasting, real estate strategies, property management, maintenance and operation and performance measurement as enablers of business.

REST0008
Corporate Real Estate
Building Construction Management Program
UOC6 HPW3

This course provides an overview of two important issues relevant to the needs of real estate/property professionals, corporate managers, and companies with international activities. There are; (i) the role of real estate in corporate settings, and (ii) the relationship between corporate and real estate objectives. Globalisation of real estate markets and the increasing importance of international business is emphasised. General characteristics of various countries are examined, and students are required to develop in-depth knowledge of the real estate market of a country of their choice.

REST0010
Modern Property
Building Construction Management Program
UOC6 HPW3

The real estate industry is rapidly moving from essentially responding to client requirements for structures towards providing business solutions and sustainable communities. And the infrastructure that forms the strategic framework for economic and social development draws upon the same skills and resources that are used to develop land and construct buildings for the purposes of residence, commerce, recreation hospitality and social services. Real estate now covers these fields and is thus a key sector of the economy. Starting from this premise the course explores how real estate needs to be understood and traverses the core areas of this diverse field including facility management.

REST0015
Statutory Valuation
Building Construction Management Program
UOC6

Valuers are often called upon to perform valuations of special use properties and for statutory purposes and to represent those valuations as an expert witness. The content of the course includes: valuations for tax and taxation of capital gains; statutory rating purposes under relevant legislation including computer assisted mass appraisal; appeals procedure; compulsory acquisition. Assessment of compensation resulting from acquisition, resumption and damage. Evidence: the expert witness and professional liability; moot court and an introduction to the valuation of special purpose properties and businesses as a going concern.

REST0016
Specialist Valuation
Building Construction Management Program
UOC6

The content of this course included the development of knowledge and skills developed in Valuation 1 and applying them to the process of valuing special purpose properties and going concerns. It also includes applications of the profits method of valuation, valuation of business assets; tangible, intangible and technical plant and machinery valuation; valuation of licensed premises' hotels and resorts. Valuation of regional shopping areas; heritage valuations and valuation of transferable development rights. Valuation of terminable interests. Public sector and institutional investment valuation.

REST0017
Urban Economics
Building Construction Management Program
UOC6

The course exposes students to economic theory and applies that knowledge to assist the student's appreciation of the economic imperatives, which drive and shape urban development. Topics covered will include: economic processes in spatial and land use development; urban growth theory; competing land use; supply and demand in the pricing of urban property; the concept of the 'rent bid curve' business location theory; the impact of land based communication corridors on price; technology and footloose location theory; planning and government control on free market pricing; environmental and heritage issues; and local government regulation and by-laws.

SAED9001
Education Studies
School of Art Education
UOC6 HPW3

This course aims to explore and analyse the history, philosophy and psychology of education in Australia and overseas for the purposes of the art teacher, the art administrator, and the art educator in a whole school environment. Course content will include - analysis of the distinctions between models of explanation, models and methodologies (e.g. anthropological, analytic); overview of the theories and methods involved in studying the history, philosophy, psychology, sociology, and politics of education. Issues for examination are drawn from whole school change; disadvantaged education; accountability in the school - financial, social, educational; community involvement.

SAED9002
Practices of Research in Art, Design and Education
School of Art Education
UOC6 HPW3

Research is broadly conceived in this course 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 their instrumental and political significance it is nevertheless the goal of this course 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.

SAED9003
Issues in Design Education
School of Art Education
UOC6 HPW3

Issues in Design Education comprises a critical investigation of the principal discourses shaping and influencing design in the curriculum. Design is problematised as an issue within the curriculum as it has become invested with the competing histories of the Technological and Applied Studies KLA, the aspirations of technology and the discourses of the individual and the creative process.

SAED9004
Curriculum in Art, Design and Education
School of Art Education
UOC6 HPW3

This course provides students with modernist and post structural theoretical frameworks of curriculum evaluation and critique. Curriculum as an educational construct is problematised. Curricula investigations aim to reveal and interpret the force, agency and power in curriculum policy and practice. Particular reference will be made to the critical methodologies as appropriate to an interpretation of the visual arts in education.

SAED9005
Theory of Knowing in Art, Design and Education
School of Art Education
UOC6 HPW3

This course aims to further students understanding of the cognitive foundations of the visual arts. It provides a general introduction to epistemology including concepts such as belief, truth, perception, and representation. Reference will be drawn to recent concepts in metaphysics including, theory of mind, ontology, and the self. The subject goes on to reposition these concepts within the assumptions of a variety of philosophical perspectives. Students will be required to examine a range of these concepts and perspectives for their relevance to the teaching of art.

SAED9006
Theoretical Frameworks in Art, Design and Education
School of Art Education
UOC6 HPW3

This course aims to introduce students to the theoretical frameworks which form the basis for the conception of visual arts education as a distinctive field. Theoretical frameworks in art education will be explained as a largely discontinuous collection of histories. These histories are united by ruling paradigms many originating outside of the field in the human sciences, and in the practices of the visual arts. Examples include, psychoanalytical approaches to creativity, anthropological and socio-cultural studies, and cognitive theories.

SAED9008
Introduction to Art Therapy
School of Art Education
UOC6 HPW3

This course aims to explore the integration of art and therapy in theory and practice. Subject matter will include theories of personality and self development; theoretical approaches to psychotherapy including - psychodynamic - Jungian humanistic - existential - gestalt - transactional - cognitive/behavioural - systematic - implosive/flooding - rational. The history of art therapy - the difference and relationships between art teaching and art therapy. The use of metaphor - images and symbols in conscious and unconscious messages. Perceptual processes and their implications for the art therapist. An examination of mythical and archetypal in art. The notions of primary events as causal antecendents in behaviour. Overview of possible applications and appropriate settings for the use of art therapy by the art educator.

SAED9009
Applying the Conceptual Framework in the Art Museum
School of Art Education
UOC6 HPW3

This course is organised around five museum concepts (sites, objects, contexts, display and publics). These are engaged with the Visual Arts Stage 6 Syllabus Conceptual Framework (artwork, artist, audience, world) to generate strategies promoting effective use of the museum environment with senior visual arts students. Museums are conceived of educationally as places to enact visual arts critical and historical practices.

SAED9010
Dialogues, Communities and Cultural Development
School of Art Education
UOC6 HPW3

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 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.

SAED9018
Research Project in Elective Studies 1
School of Art Education
UOC6 HPW1.5

This course aims to enable students to prepare a proposal for art educational research into a chosen specialisation in art education. Course content will include a review of major factors entailed in - historical, descriptive, experimental, and philosophical methods; literature reviews including - computer-assisted searches and descriptors, annotations, abstracts; instrumentation and data collection, qualitative and quantitative methods, the pilot study, sampling, research evaluation; introduction to descriptive, analytical, and interpretative approaches to the

statistical measures of central tendency, variability, correlation, probability, frequency; qualitative measures of conceptual and structural analysis, auditing, triangulation; proposal writing, framing a question, setting the limitations of the study.

SAED9019
Research Project in Elective Studies 2
School of Art Education
UOC6 HPW1.5

This course aims to enable students to design and evaluate a curriculum project for a chosen specialisation in visual arts education. Course content will include descriptive methods, the survey, handling large data collections; literature review and annotated references; establishing the objectives and activities of a limited curriculum project in a specialised orientation of visual arts education; qualitative and quantitative evaluation methods.

SAED9020
Art and Design History in Art Education
School of Art Education
UOC6 HPW3

The course introduces a range of contemporary theories of art and design history. Students will examine and evaluate art-historical methodologies and apply them to educational settings within the context of general education. The textual, interpretive and revisionist character of the historical act are experienced, analysed and understood as a set of interpretive and explanatory practices which enable identification and revision of historical narratives.

SAED9021
Introduction to Frameworks of Research in Art& Design Education
School of Art Education
UOC6 HPW3
Prerequisite/s: SAED 2401, SAED 2406, SAED 3491, SAED 3402, SAED 3404, SAED 3407

This course will further investigate theoretical frameworks which have been adopted by art education in the twentieth century. It is an elective orientation to research in the professional field. Frameworks include neokantianism and the experience of language; cognitive psychology, the influence of new stage theory and the notion of visual thought; behaviourism and the dictate of evaluation; psychoanalytic theories of art education; pragmatism, aesthetics and the central role of experience; theories of creativity; neo-realism in child art.

SAED9022
Research Seminar in Art Education
School of Art Education
UOC6 HPW3
Prerequisite: SAED9021

The aim of this course is to focus on a theoretical framework of current significance to the field of art education and engage it in critical analysis. This course will enable students to see explanatory frameworks in art education as histories of belief which govern the notion of practice and truth in art education.

SAED9024
Art and Design Criticism in Art Education
School of Art Education
UOC6 HPW3

This course introduces a range of contemporary theories or art and design criticism. Students will examine and evaluate art-critical methodologies and apply them to educational settings within the context of general education. The textual, evaluative and revisionist character of the critical act are experienced, analysed and understood as a set of analytical and evaluative practices which enable judgement and revision of critical explanations.

SAED9025
Qualitative Research in Art, Design and Education
School of Art Education
UOC6 HPW3

This course investigates and applies qualitative research methods to student-designed research projects in art, design and art education. Data collection techniques covered include interviews, observations and other field-based strategies, as well as non-reactive sources such as document retrieval and analysis. The use of computer-assisted qualitative data analysis (CAQDA) to assist with the design, management and analysis of qualitative information will be introduced through workshops and seminars. As well as designing and applying conceptual and empirical models of qualitative research, strategies for reporting qualitative research projects will be reviewed and applied.

SAED9026
Contextual Studies in Teaching Art and Design
School of Art Education
UOC6 HPW3

This course provides opportunities for teachers to develop skills in the practice of classroom research and experiment with ways to study, interpret and apply contemporary visual arts teaching theories and methodologies within the practical context of their school, as appropriate to individual teaching responsibilities. Utilising clinical supervision and action research methods, individual projects focus on models of effective teaching and documentation, supervision, professional development and evaluation.

SAED9029
Bodies of Work and the Practice of Art Making
School of Art Education
UOC6 HPW3

Bodies of Work and the Practice of Art Making investigates the background developments, contexts and need for this innovation in visual arts assessment and curriculum. This course comprises a combination of theoretical discussions and workshops investigating bodies of work. Bodies of work are considered in contrast to portfolios and diaries; as related to artistic ability; in the functional relation between the teacher and the student; along with the epistemic and psychological properties of the body of work.

SAHT9111
Management and Organisation: Systems, Services and Survival
School of Art History and Theory
UOC6 HPW3

This course examines the management and administrative skills and knowledge required from individuals to take up positions as directors and managers of arts and related organisations. It covers aspects of management and organisational structures in existing institutions both large and small, public and commercial. It includes the establishment of new organisations and the planning and development of systems designed to ensure the delivery of services and the long term survival of arts organisations and institutions, their human and material resources and the ideas and ideals which drive them.

Note: Core course MArtAdmin.

SAHT9112
Writing for Different Cultures and Audiences
School of Art History and Theory
UOC6 HPW3

This course is about the kinds of writing that those working in art institutions most commonly undertake: writing from the perspective of the institution. It recognises that writing may have many different functions and writers must learn to adapt their style, vocabulary and technique, according to who will read the product. Questions to be considered include the current debate on captions, writing for children and non-specialist publics, research techniques including oral history, press kits and media management, and different types of catalogues. The method of study is very much hands on. It involves, among other things, the editing and layout of an edition of Artwrite, a magazine of student writing.

SAHT9113
Cultural Property, Ethics and the Law
School of Art History and Theory
UOC6 HPW3

This course examines the ethical and legal implications of the interactions generated between artists, exhibiting spaces and the viewing/purchasing public in contemporary society. It enables the development of a broader critical perspective on the cultural, legal, political and moral contexts of gallery and museum management. Issues discussed include contracts, copyright, acquisitions and disposal of works, moral rights and censorship, conflict of interest, the responsibilities of trustees.

SAHT9114
Exhibition Management and Curatorial Studies
School of Art History and Theory
UOC6 HPW3

This course examines the theoretical and practical aspects of exhibition management. It develops a knowledge of curatorial procedures with particular reference to the initiation, presentation, interpretation and planning of art works in exhibition settings. Specific attention is paid to the administrative skills necessary to mount exhibitions, the production of visual and written documentation and the methods of critical engagement with images and objects. Visits to exhibitions as well as participation in the planning and implementation of an exhibition form an essential part of this subject. Students undertaking this course must first complete at least three of the following core courses: SAHT9111, SAHT9112, SAHT9113 and SAHT9126.

SAHT9115
Internship
School of Art History and Theory
UOC6 HPW0

Students undertake a project-based industry placement internship consisting of a minimum of 240 hours. This may involve more than one host institution. Internships enable students to gain practical, supervised experience of gallery management, curatorial practice, public programs, art writing and other work areas related to the course. The internship is ungraded but successful completion requires the submission of reports both by the host institution and the student. Students are also required to participate in an on-line discussion during their internship and their final report is posted on the WebCt site. Internships have been hosted locally, interstate and overseas by many arts organisations including: the National Gallery of Australia, Metropolitan Museum of Art (New York), The Getty (Los Angeles), The Guggenheim (New York and Venice), Art Institute of Chicago, Museum of Modern Art, Chicago, Art Gallery of New South Wales, regional and commercial galleries in New South Wales, Sotheby's Australia Pty Ltd, Australian Centre for Photography, State Library of New South Wales, Visual Arts/Craft Board of the Australia Council, Powerhouse Museum, and the Ministry for the Arts, New South Wales. Students undertaking this course must first complete at least three of the following core courses: SAHT9111, SAHT9112, SAHT9113 and SAHT9126. They should also have completed at least three core options as outlined in the program structure.

SAHT9116
Research Paper
School of Art History and Theory
UOC6 HPW3

This project allows for the focusing of investigative, analytical and theoretical skills. Topics must relate to the broad area of the internship and are chosen in consultation with a supervisor who will guide and direct the project. The 10,000 word study may include the use of film, video and audio tape or photographic documentation where relevant. While it may draw directly on experiences gained during the internship, the research paper must be treated as an independent project. Students undertaking this course must first complete at least three of the following core courses: SAHT9111, SAHT9112, SAHT9113 and SAHT9126. They should also have completed at least three core options as outlined in the program structure.

SAHT9121
Exhibition and Gallery Design Development
School of Art History and Theory
UOC6 HPW3

This course considers two areas of design development. These are the theoretical and practical aspects of exhibition design and display techniques and the specific design demands of a gallery space. The ways in which the objectives of an exhibition may be identified are discussed, and all aspects related to project initiation and completion examined. These include planning and design management, budget formulation and controls, production and installation management, spatial requirements and evaluation, light and lighting.

SAHT9122
Education and Public Programs
School of Art History and Theory
UOC6 HPW3

This course covers issues surrounding public programs and education in the context of art galleries, museums and related institutions. It addresses questions to do with the identification and definition of audiences, examines the needs of non-specialist communities as well as educational institutions, and takes account of the practicalities of budgeting and planning. The development of programs using volunteer guides (and their training), floor talks, lectures, seminars and conferences is presented as a subject for practical purposes as well as critical consideration. Also included is a consideration of exhibitions for purely educational purposes.

SAHT9123
Marketing and Promotion
School of Art History and Theory
UOC6 HPW3

This course focuses on issues in marketing for those working in arts and related fields. Topics covered include methods of audience research and ways of undertaking group surveys and their implementation. How to define the unique qualities of a target institution and create a public image around this separateness are issues explored, together with detailed studies of promotional and fundraising strategies.

SAHT9124
Arts and Cultural Policy
School of Art History and Theory
UOC6 HPW3

This course reviews the development of arts and cultural policy and policy implementation in Australia. Particular attention is paid to the role of the Australia Council and the development of national and regional infrastructure, and factors determining the level and allocation of public funding. Comparisons are drawn with other nations, particularly the United Kingdom, Canada and the United States of America.

SAHT9125
The Australian Art Market
School of Art History and Theory
UOC6 HPW3

This course investigates the art market as a process of bringing art works to sale. It offers an historical overview from the Renaissance artists workshops and guilds and a detailed study of contemporary Australian art. The subject explores the development of patronage, taste and collecting, and the impact of these phenomena on the subsequent rise of the international art market. Key elements in the Australian art market under investigation in this course include the fragmentation of the art market, Australian Movable Cultural Heritage, and artistic reputation. The subject assists students to understand commodification in the art world and the processes by which artworks are brought to sale.

SAHT9126
Organisational Psychology: Managing People in the Workplace
School of Art History and Theory
UOC6 HPW3

This course provides individuals working in an arts based organisation with competencies relevant to the inter-personal and inter-group skills demanded in the efficient and effective management of organisations. It aims to fulfil the needs of individuals interested in the principles of planning, organisation, communication and evaluation of personnel within an organisation and, as well, the needs of directors and supervisors who wish to develop expertise in essential personnel management aspects of their job within an appropriate theoretical framework.

SAHT9127
Conservation and Collections Management
School of Art History and Theory
UOC6 HPW3

This course introduces the principles of conservation and illustrates its role as an integrated component of collections management. It examines the physical nature of works of art and the interactions with their environment. The range of responses of conservation to collections is discussed as well as conservation's relationship with an institution's custodial responsibilities and public programs. Conservators and registrars at selected Sydney institutions are visited in order to facilitate a comparative overview of conservation practice.

SAHT9128
History of Exhibitions of Australian Art
School of Art History and Theory
UOC6 HPW3

This course introduces issues in Australian art by a detailed examination of those art exhibitions that have attempted to define either Australian art or crucial moments in Australian art. The course examines both the curatorial rationales behind the exhibitions and the art that was perceived by different generations as significant. Major exhibitions, both here and overseas, will be considered in the context of a broad cultural history.

SAHT9129
The Development of Art Criticism in Australia
School of Art History and Theory
UOC6 HPW3

This course examines the history of art criticism and writing about art in an Australian context and considers how these practices reflect, diagnose and affect the nature of the visual arts. There is a constant evaluation of recent art criticism from a variety of sources and a questioning of what actually constitutes criticism. At the same time, the subject goes back to the start of writing about art in Australia and looks at the practice from the beginning of European settlement to recent times in an historical context.

SAHT9130
Art Galleries and Collections in Australia
School of Art History and Theory
UOC6 HPW3

This course balances the historical and theoretical aspects of collections (public, private and corporate) with the practical issues involved. How and why collections are formed; the aesthetic and political assumptions behind collecting policies; how well various collections serve their constituencies are some of the issues that are explored, together with aspects of conservation, storage, documentation and access as they relate to the practical aspects of collection management. Visits are made to various public institutions including state and regional galleries and, where possible, selected private and corporate collections.

SAHT9131
Visual and Museum Cultures of the Asia-Pacific Region
School of Art History and Theory
UOC6 HPW3

This course introduces a comparative study of contemporary visual art and museum cultures in the Asia-Pacific region. As arts professionals - curators, administrators, writers, etc - develop relationships with colleagues through the region, an understanding, not only of the visual arts but also of the museum sector, is becoming essential. Case studies of international exhibitions, and related arts programs, will be examined.

SAHT9132
Festivals and Biennales
School of Art History and Theory
UOC6 HPW3

This course covers the history, conception and implementation of arts festivals and recurrent national and international exhibitions. Particular attention is paid to events in Australia such as the Biennale of Sydney, the Australian Sculpture Triennial and the Adelaide Festival (including Artist's Week). Overseas events include the history of the Biennale commencing in Venice in 1895 to Sao Paulo and Paris, as well as major expositions such as the Indian Triennial, Documenta and the Carnegie International. The history of these complex programs is discussed, in particular, the administrative skills, conceptual insights and artistic resources essential to their successful realisation.

SAHT9133
Pornography, Art and Politics
School of Art History and Theory
UOC6 HPW3

This course will explore the boundary between art and pornography and the social function of that boundary in western society. It will look at the ways in which bodies are eroticised and/or designated as pornographic or perverse. Concepts such as fetishization, voyeurism, sadism and masochism will be discussed in relation to art history and contemporary art practice. The politics of pornography will be debated in relation to such issues as gender/feminism, child sexuality, censorship and AIDS.

SAHT9134
Memory and Self
School of Art History and Theory
UOC6 HPW2

This course traces contemporary ideas of body and subjectivity through the work of a range of artists and writers. Its major focus is on the experience of memory and self-understanding. It addresses the questions of how memory is constituted and how it is crucial to our sense of self; 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'.

SAHT9136
The Art and Culture of Everyday Life
School of Art History and Theory
UOC6 HPW3

This course looks critically at the different formulations of art in relation to mass culture. It gives an overview of the social and technological development of mass culture including the advent of photography, film, television, advertising and the popular press. Special attention is paid to the ways in which the relationship between art and mass culture has been conceptualised by such seminal thinkers as Michael de Certeau, Fernand Braudel, Paul Virilo and Jean Baudrillard.

SAHT9137
Art and Cultural Difference
School of Art History and Theory
UOC6 HPW2

The conceptualisation and evaluation of cultural difference has occupied a central position in western art and culture, particularly since the period of colonisation began. This subject sees cultural difference as a series of narratives and counter-narratives. Topics covered include the ways in which cultural difference has been addressed in art and literature by colonised subjects, the place of art in anti-colonial liberation movements of the twentieth century and French constructions of the Orient in scultpture and painting. Particular attention is paid to the writings of, among others, Walter Benjamin, Theodor Adorno, Luce Irigaray and Franz Fanon.

SAHT9138
Art After Postmodernism
School of Art History and Theory
UOC6 HPW3

This course will re-examine a number of theoretical approaches to the understanding of images and objects that have been addressed during the undergraduate course. These approaches will be brought to bear on a range of artworks produced in Australia and internationally over the last decade. It will offer an overview of many of the contemporary developments, themes and issues that have concerned artists in the period after postmodernism, that is, during the late eighties and nineties. Issues to be considered will include how objects and images come to have meaning and how stable this meaning is, the ways in which artworks differ from other objects, the relations between language and visual images, the ways in which 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 the visual, tactile and kinaesthetic and the significance of artworks in relation to the politics of information dissemination, gender, postcolonialism, class and ethnicity.

SAHT9139
Art, Technology and New Media
School of Art History and Theory
UOC6 HPW3

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 subject incorporates a certain amount of hands-on experience and also demonstrations of artists' work.

SAHT9141
Current Issues in Art
School of Art History and Theory
UOC6 HPW2

This course explores current issues in art, placing these issues in the contexts of current cultural concerns and theoretical frameworks. Drawing on recent work by Australian and international artists, the course facilitates an attitude of self-reflectivity in student's own practice

SAHT9143
Design History and Theory 1
School of Art History and Theory
UOC6 HPW2

This course will provide candidates with the opportunity for advanced study in the history/theory of design. Attention will be paid to a critical analysis of design history as cultural signifier for a range of cultures including European, American, Asian and Australian examples: a detailed discussion of the cross-cultural connections international design history represents: a comparative analysis of the influence of design philosophers and practitioners on the history of design styles and practice both, nationally and internationally: analysis and application of historical research methodologies to the further elaboration of pre-20th Century design history. Specific attention will be paid to the impact on design of the philosophy of aesthetics with critical analysis and application (to design) of the aesthetic theories of a range or theorists including Hegel and Kant. The import for design of an in-depth sociological analysis of a range of design cultures, including Europe, America, Asia and Australia; the critical analysis of research in the sciences and technologies and their impact on design theory and methodologies.

SAHT9144
Design History and Theory 2
School of Art History and Theory
UOC6 HPW2

This course will provide candidates with the opportunity for further investigation of the history/theory of design. Attention will be paid to a critical analysis of design history as cultural signifier for a range of cultures including European, American, Asian and Australian examples: a detailed discussion of the cross-cultural connections international design history represents: a comparative analysis of the influence of design philosophers and practitioners on the history of design styles and practice both, nationally and internationally: analysis and application of historical research methodologies to the further elaboration of pre-20th Century design history. Specific attention will be paid to the impact on design of the philosophy of aesthetics with critical analysis and application (to design) of the aesthetic theories of a range or theorists including Benjamin, Foucault and Derrida. The import for design of an in depth sociological analysis of a range of design cultures, including Europe, America, Asia and Australia; the critical analysis of research in the sciences and technologies and their impact on design theory and methodologies.

SAHT9145
Design History and Theory Project
School of Art History and Theory
UOC6 HPW2

This course/module will provide candidates with the opportunity to undertake research projects resulting in a body of data from which considerations and applications of selected philosophical, aesthetic, historical, sociological and psychological positions can be made towards the development of design theory. Candidates may investigate the role of design theory in the development of a range of design cultures with specific reference to the Australian context. Comparative analysis of design theory models, toward the articulation of more complex systems for design analysis will be considered.

SAHT9201
Registration and Handling of Works of Art and Material Culture
School of Art History and Theory
UOC6 HPW3

Registration and Handling of Works of Art and Material Culture gives students the essential theoretical tools and hands-on experience in recording and handling works of art and material culture. As well as examining the recording of collections and exhibitions, students will study the undertaking of condition reports, issues of safe handling of a range of works, the special issues surrounding Indigenous works and other items of cultural sensitivity. Because this course includes the installation and packing of actual exhibitions, students are advised that on occasion they will need to allocate whole days for completing assessable tasks.

SAHT9202
Eurocentred Visions: Grand Narratives in Western Art
School of Art History and Theory
UOC6 HPW3
Excluded: SAHT2211.

To tell progressive stories about Western art, 'grand narratives' were constructed. In these 'grand narratives', as this course reveals, Eurocentric and ethnocentric historical material was ordered into stories about Western nations becoming more and more civilised as signified by the development of perspective, the 'Classical' canon, landscape and cityscape, portraiture and the nude from Ancient Greece to Modernism. Positioned as peripheral to this evolution or merely a sub-text to these grand narratives, Non-Western art, particularly that of Islam, was either excluded or misrepresented as uncivilized, regressive and barbaric. Issues of cultural difference capable of disrupting the seamless flow of Western arts evolution, such as gender relations, sexualities, ethnicities, nationhood, diaspora, work, patronage and money, criminality and disease, were disavowed. To deconstruct these 'grand narratives', this course will use these exclusions and denials as its tools. Drawing upon interdisciplinary models for reconstructing history provided by Michel Foucault, Edward Said, Jonathan Crary and Abigail Solomon-Godeau, amongst others, it will explore how to rewrite histories of art in relation to non-western art, homoeroticism, manhood and the 'heterosexual imperative', prostitution and 'the venereal peril', health, disability and hysteria, the alienated and displaced, the 'orientalised other', the nuclear family and 'docile bodies'. As a postgraduate course, it will also explore the impact of such new narratives on curating exhibitions, collecting art, critical writing and art publishing.

SAHT9203
Mapping the Modern
School of Art History and Theory
UOC6 HPW3
Excluded: SAHT1101.

Commencing in the nineteenth-century and concluding with World War Two, this course examines seminal art and design movements and tendencies within changing social, political and cultural contexts. The material covered includes Realism, Impressionism, Expressionism, Art Nouveau, the Bauhaus, and early avant-gardes such as Futurism, Dada and Surrealism. These are considered against the backdrop of industrialisation, technological transformations, colonisation, international conflicts and totalitarian regimes. This course is designed for students with no prior academic knowledge in art.

SAHT9204
Mapping the Postmodern
School of Art History and Theory
UOC6 HPW3
Excluded: SAHT1102.

This course examines major transformations in art and design practice and theory from the late 1940s to the present, and locates these within changing social, political and economic contexts. Issues relating to Formalism, Pop, image and text, the de-materialisation of art, and performance are addressed, as well as Feminist theories and practice, post-colonial culture, and new technologies. This course is designed for students with no prior academic knowledge in art.

SAHT9205
Modern Aesthetics: From the Enlightenment to the 21st Century
School of Art History and Theory
UOC6 HPW3
Excluded: SAHT2641.

This course addresses key critical philosophies of modern aesthetics from the 18th Century to the present. It examines the relevance of aesthetic theory since the Enlightenment to developments in modern and contemporary art practice. Areas studied include the aesthetic theories of Kant, Hegel, the German Romantics, and Nietzsche, as well as approaches to aesthetics developed within poststructuralist, psychoanalytic and Marxist discourses. Themes investigated include debates between formalist and historicist aesthetic theories; the revival of aesthetic theory in the visual arts in recent decades; responses to the image culture of postmodernity; and the relationship between aesthetics and ethics. The course investigates how key currents of modern aesthetic theory might be applied and revised in light of broad social and cultural shifts, as well as developments in modern and contemporary art.

SAHT9206
Art and Biogenetics: Breeding the Body Beautiful
School of Art History and Theory
UOC6 HPW3
Excluded: SAHT2224.

When Eugenic Sterilisation became law in the Third Reich, American, Australian, European and British Eugenic Societies immediately congratulated Hitler. He, in turn, commended their eugenic policies and acknowledged them as his precedent. Far from being an isolatable phenomenon, this course will then reveal why Nazi eugenics may be

perceived as the extreme realisation of a biogenetic culture that flourished worldwide. By examining images and exhibitions of the body beautiful, alongside those of degeneracy, it will explore different ways in which art propelled the quest for genetic perfection. Through an investigation of the artwork of such critical Modernists as Marcel Duchamp and Picabia, it will expose ways in which art was also able to parody this quest. As a postgraduate course, it will also investigate the relationship of eugenics to the Human Genome Project today and the art projects that have pursued its ramifications upon bioethics and aesthetics.

SAHT9207
Modern Art and French Imperialism
School of Art History and Theory
UOC6 HPW3
Excluded: SAHT2223.

When Paris was invaded by Nazi troops, the art writer Harold Rosenberg reminisced how it had once been 'the Holy Place of our time. The only one.' Until then, a Modern Art market had flourished in Paris, unsurpassed in scale and complexity by any other nation, and actively supported by the French Third Republic. Whilst encouraging artists worldwide to come to Paris, it also encouraged international collectors to acquire Modern Art made in France. At the same time, the Republic also bought artwork for transmission to French provinces and colonies in its ethnocentric conviction that those at the 'peripheries' would become 'civilized' by this 'mission'. This course will explore how Paris evolved as a unique field of cultural production through the network of institutional interrelationships forged between the French State, Paris Salons, art dealers and patrons. It will examine the huge number and national diversity of artists from Rupert Bunny and Marie Vassiliev to Pablo Picasso, who flocked from cities as geographically diverse as Sydney, St. Petersburg and Barcelona to this Modern Art Centre. As a Postgraduate course, it will also examine the politico-cultural identities of Salons and Dealer-Galleries, the rivalries between them for State funding and market dominance and the coteries that formed between particular artists, art writers, art dealers and art politicians. By charting the dissemination of acquisitions, it will reveal how cultural imperialist strategies deployed by America during the Cold War, were alive and well in twentieth-century France.

SAHT9208
Digital Theory and Aesthetics
School of Art History and Theory
UOC6 HPW3
Excluded: SAHT3613.

This course identifies four major themes in current practice and thinking about digital aesthetics and theory; systems; mediation; emergence; networks. The course will trace the cultural and aesthetic histories of these four themes, examining how they have developed through conceptual debate in electronic and new media theory, and through technical and artistic practices in the 20th and 21st centuries. It will also focus upon the current state of debate and practice within these four areas. This course makes extensive reference to alternative aesthetic strategies and practices in new media aesthetics, and students will be encouraged to undertake research into innovative and experimental uses of, and ideas about, digital technologies.

SAHT9209
Screen Culture
School of Art History and Theory
UOC6 HPW3
Excluded: SAHT3614.

Information and screen culture are 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 course include the history of the digital screen, virtual communities, utopianism, cyberculture, gaming, interactivity and future cinema. Social responsibility and ethical action in digital media practice are explored through a critical understanding of the significance and impact of screen culture.

SAHT9690
Special Project
School of Art History and Theory
UOC6 HPW0

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. This course is intended to facilitate the College in developing its educational program for postgraduate students by incorporating such opportunities into the academic program. Specific s 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.

SAHT9693
Museum Development- fundraising and philanthropy
School of Art History and Theory
UOC6 HPW3

This subject considers the issues surrounding the development of alternative funding streams for arts organizations, in particular the extra funding needs of museums. It discusses strategies for encouraging philanthropy, and examines the law governing bequests and wills. Students study corporate sponsorship merchadising, catering, and personal support under the cultural gifts program. Issues surrounding support in kind - including the "friends"of the institution and volunteers.

SART9701
Painting 1
School of Art
UOC6 HPW3

To develop practical and conceptual abilities at a professional level appropriate to a contemporary painting practice. Students will be encouraged to critically analyse their work within a supportive environment, develop investigative skills, and examine their own individual creative processes.

SART9702
Painting 2
School of Art
UOC6 HPW3
Prerequisite: SART9701 or SART9705.

This studio based course will assist students in consolidating their practical and conceptual skills into a resolved body of work. Students will be encouraged in the development of their critical, analytical and investigative skills and the ability to assess their practice within the context of contemporary painting practice.

SART9703
Painting 3
School of Art
UOC6 HPW3

To develop practical and conceptual abilities at a professional level appropriate to a contemporary painting practice. Students will be encouraged to critically analyse their work within a supportive environment, develop investigative skills, and examine their own individual creative processes.

SART9704
Painting 4
School of Art
UOC6 HPW3

To develop practical and conceptual abilities at a professional level appropriate to a contemporary painting practice. Students will be encouraged to critically analyse their work within a supportive environment, develop investigative skills, and examine their own individual creative processes.

SART9705
Drawing 1
School of Art
UOC6 HPW3

To develop practical and conceptual abilities at a professional level appropriate to a contemporary drawing practice. Students will be encouraged to critically analyse their work within a supportive environment, develop investigative skills, and examine their own individual creative processes.

SART9706
Drawing 2
School of Art
UOC6 HPW3
Prerequisite: SART9701 or SART9705.

This studio based course will assist students in consolidating their practical and conceptual skills into a resolved body of work. Students will be encouraged in the development of their critical, analytical and investigative skills and the ability to assess their practice within the context of contemporary drawing practice.

SART9707
Drawing 3
School of Art
UOC6 HPW3

To develop practical and conceptual abilities at a professional level appropriate to a contemporary drawing practice. Students will be encouraged to critically analyse their work within a supportive environment, develop investigative skills, and examine their own individual creative processes.

SART9708
Drawing 4
School of Art
UOC6 HPW3

To develop practical and conceptual abilities at a professional level appropriate to a contemporary drawing practice. Students will be encouraged to critically analyse their work within a supportive environment, develop investigative skills, and examine their own individual creative processes.

SART9709
Printmaking 1
School of Art
UOC6 HPW3

To pursue in-depth investigation into conceptual and technical aspects of the subject, and to further the development of skills and aesthetic considerations within areas of specialisation in the medium.

SART9710
Printmaking 2
School of Art
UOC6 HPW3
Prerequisite: SART9709.

This studio based course will assist students in consolidating their practical and conceptual skills into a resolved body of work evidencing their focus within a potentially broad field. Students will be encouraged in the development of their critical, analytical and investigative skills and the ability to assess their practice within the context of contemporary printmaking practice.

SART9711
Printmaking 3
School of Art
UOC6 HPW3

To pursue in-depth investigation into conceptual and technical aspects of the subject, and to further the development of skills and aesthetic considerations within areas of specialisation in the medium.

SART9712
Printmaking 4
School of Art
UOC6 HPW3

To pursue in-depth investigation into conceptual and technical aspects of the subject, and to further the development of skills and aesthetic considerations within areas of specialisation in the medium.

SART9721
Sculpture, Performance and Installation 1
School of Art
UOC6 HPW3

Self-initiated programs of creative experiment appropriate to an informed and contemporary sculpture practice will be developed through critiques and tutorials. Within this area students are encouraged to critically analyse the conceptual basis of their work in the contexts of studio and history/theory. A cross-disciplinary attitude within the studies area of sculpture is encouraged.

SART9722
Sculpture, Performance and Installation 2
School of Art
UOC6 HPW3
Prerequisite: SART9721.

This studio based course will assist students in consolidating their practical and conceptual skills into a resolved body of work evidencing their focus within a broad interdisciplinary field. Students will be encouraged in the development of their critical, analytical and investigative skills and the ability to assess their practice within the context of contemporary sculptural practice.

SART9723
Sculpture, Performance and Installation 3
School of Art
UOC6 HPW3

Self-initiated programs of creative experiment appropriate to an informed and contemporary sculpture practice will be developed through critiques and tutorials. Within this area students are encouraged to critically analyse the conceptual basis of their work in the contexts of studio and history/theory. A cross-disciplinary attitude within the studies area of Sculpture is encouraged.

SART9724
Sculpture, Performance and Installation 4
School of Art
UOC6 HPW0

Self-initiated programs of creative experiment appropriate to an informed and contemporary sculpture practice will be developed through critiques and tutorials. Within this area students are encouraged to critically analyse the conceptual basis of their work in the contexts of studio and history/theory. A cross-disciplinary attitude within the studies area of Sculpture is encouraged.

SART9727
Drawing
School of Art
UOC6 HPW3

This course will provide the opportunity for students at any level of drawing experience to investigate many aspects of drawing. Students will explore a range of visual images and ideas supported by an examination of historical and contemporary drawing practice. Through interpreting and translating two and three dimensions students will develop observational skills and begin to build a personal graphic language.

SART9728
Painting
School of Art
UOC6 HPW3

This subject will introduce students to basic skills in painting and encourage them to understand both the inter-relationship of form and content and the creative possibilities of various media and techniques. Students will explore aspects of contemporary art practice and develop an understanding of the historical development of painting. This course will use a series of projects and workshops to extend the student's personal creative interests.

SART9729
Etching
School of Art
UOC6 HPW3

This subject will introduce students to basic procedures and attitudes in the contemporary art practice of etching. Through lectures, demonstrations and projects, students will gain understanding and skills in the use of traditional and contemporary techniques in etching as a means of creating unique and original works of art. After gaining understanding and proficiency in established approaches, students will be introduced to current developments in photo-etching and solar plate etching.

SART9732
Sculpture
School of Art
UOC6 HPW3

This studio based course will introduce students to sculptural practice within a contemporary context, through a series of projects and technology based workshops. The projects extend the student's personal creative enquiries, foster an awareness and recognition of historical precedents and sculptural theory, and with an interdisciplinary focus, capitalise on the student's existing capabilities. The course is intended to provide a challenging catalyst for the production of sculptural works within a supportive program to further the student's art practice.

SART9733
Life Drawing
School of Art
UOC6 HPW3

This course will enable students to explore the drawing of the human figure. Students will develop an understanding of the structure and form of the human body. They will also expand their knowledge of anatomy. Emphasis will be placed on direct observations and their interpretation in various graphic media.

SART9734
Painting From Life
School of Art
UOC6 HPW3

The aim of this course is to enable students to explore their command of life painting as a visual arts discipline whilst consolidating and extending previously acquired painting skills. Students will be encouraged to explore both the inter-relationship of form and content as it relates to the human form, and the creative possibilities of various media and techniques from a contemporary perspective. Students will explore aspects of contemporary art practice and further develop an understanding of the historical development of painting.

SART9735
Advanced Etching
School of Art
UOC6 HPW3
Pre-requisites:SART9729

This course will introduce students to advanced concepts and procedures in contemporary etching practice. Through lectures, demonstrations and projects, students will gain understanding and skills in the use of contemporary techniques in etching as a means of creating unique and original works of art. Students will be encouraged to be cognisant of current developments in contemporary art and to relate their etching activities to these developments.

SART9738
Advanced Sculpture
School of Art
UOC6 HPW3
Pre-requisites SART9732

This studio based course will extend students' knowledge and understanding of sculptural practice within a contemporary context, through a series of projects and workshops. The projects will extend the students' personal creative enquiries, foster an awareness and recognition of historical precedents and sculptural theory, and with an interdisciplinary focus, further the students' art practice. The course is intended to provide a challenging catalyst for students to develop a poetic, imaginative and exploratory approach to sculptural language, ideas and processes and to facilitate the production of sculptural works with an understanding of the work's position in relation to art history and theory and contemporary practice.

SART9740
Anatomy for Artists
School of Art
UOC6 HPW3

This course will provide a study of the human form through the investigation of comparative anatomy, skeletal structure and musculature and a perspective on the history and philosophy of anatomical images as reference to contemporary practice. A practical examination of the structure, form and function of the body will develop an understanding of the human figure. The course will also include the study of canons of proportion and cultural perceptions of the body. Emphasis will be placed on direct observations of the nude and anatomical specimens. Students will draw from the skeleton, casts and prepared specimens. A range of approaches will be covered that will encourage students to understand basic anatomical constructs. This course is designed to be relevant to a broad range of student interests from a variety of disciplines.

SART9741
Composition and Design
School of Art
UOC6 HPW3

This course will allow students to investigate the theory and application two-dimensional composition as it relates to the disciplines of painting and drawing. They will examine terminology, proportion and format, elements and principles of design and colour theory. The students will research the application of theories of composition, colour interaction and visual measurement as they refer to contemporary practice.

SART9742
Colour
School of Art
UOC6 HPW3

This course will investigate the history, theory and practice of colour as it applies to a variety of disciplines particularly painting. Emphasis will be on students' investigations into the manipulation of various elements such as space and emotion through the use of colour.

SART9743
Digital Imaging and Painting
School of Art
UOC6 HPW3

The aim of this course is to investigate the possibilities of digital media for the painter. The course will concentrate on how the contemporary painter is able to integrate digital technology into their art practice. As part of the session will be devoted to the outputting of imagery and subsequent work in the studio, the session will be divided between the computer lab and the painting studio. Previous experience in digital imaging is necessary as the student needs to concentrate on the introduction of appropriate software. This must be undertaken prior to enrolling in this course so that sufficient time can be spent on the studio work.

SART9744
Drawing/Painting Field Studies
School of Art
UOC6 HPW3

This course is designed to enable students with a particular interest in the outback environment to devote an extended and concentrated time in the field to researching a remote location through drawing and painting. By direct encounter and observations, students will deal with the natural world as an invaluable resource of ideas and inspiration particularly relevant to the focus of their major studies in drawing and painting. Students will be encouraged to investigate, identify and document new material that they can gather in the field that they feel will be most relevant to their developing work in the studio. In preparation of the field experience, students will investigate the work of contemporary artists working in similar genre.

SART9745
Custom Printing
School of Art
UOC6 HPW3

This course will provide students with a valuable professional practice opportunity of engaging with a number of visiting artists in the operating of a print editioning workshop. Students will refine their technical and production skills and be exposed to professional methodology of the editioning process. Students will work with the artists and also realize a body of their own work from concept to final production. Previous printmaking skills are essential to undertake this course.

SART9746
Advanced Custom Printing
School of Art
UOC6 HPW3
Prerequisite: SART9745.

This course will require engagement by the students at a high professional level to further their professional practice by engaging with a number of visiting artists in the operating of a print editioning studio. Students will perfect their technical and production skills and work within the professional methodology of the editioning process. Students will liase and work with the artists as well as realise a body of their own work from concept to final production to the highest professional standards.

SART9747
Artist's Books
School of Art
UOC6 HPW3

This course will enable students from a variety of backgrounds to acquire skills in the production of artists' books, folios and other limited edition publications. Examples of the different kinds of historical and contemporary artists' publications will be examined. A variety of materials, skills and techniques, both traditional and contemporary and alternative,

which are involved in book and folio production will be researched and demonstrated. Students will have the opportunity to produce an artists book which could have a relationship to their core studies.

SART9748
Screen Printing
School of Art
UOC6 HPW3

Students will be introduced to the technology and conceptual considerations related to the discipline of screen printing as a vehicle for contemporary practice. Through discussion, investigation and production, students will develop an understanding of the qualities of the original print. Students will investigate the historical precedents of these processes in the context of art practices. This course will deal with skills and techniques, experimental approaches, the relationship between the technical and aesthetic properties of prints and the ability to assess the results of one's own work.

SART9749
Printmaking
School of Art
UOC6 HPW3

This subject will provide the opportunity for students with a variety of experience to investigate many aspects of expression 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. By application of theory and developed skills, the course is intended to provide a challenging catalyst for students to develop a poetic, imaginative and exploratory approach to print-based works in both two and three dimensions. The student will undertake a number of studio based and theoretical projects, either as separate entities or combined in installed pieces, aimed at encouraging an individual, creative and professional approach to printmaking.

SART9750
Installation
School of Art
UOC6 HPW3

This course encourages students to investigate the various forms and disciplines three-dimensional activity can take in contemporary art practice. This course is designed to allow flexibility for interdisciplinary and multimedia experimentation and specialisation in the exploration of construction, installation and space as an expressive vehicle in the context of contemporary practice. This course is studio based with an emphasis on the critical analysis of research, experiential learning and conceptual development. This discussion is centred around a rigorous studio theory program, conducted on the studio floor and in tutorials.

SART9751
Electronic Technologies
School of Art
UOC6 HPW3

This is a workshop based course which aims to provide the student with investigative and practical skills in the application of low voltage electricity to contemporary sculptural practice. 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 and an understanding of the incorporation of such specific technologies into practice. Emphasis will be placed on direct observations of the nude and anatomical specimens. Students will draw from the skeleton, casts and prepared specimens. A range of approaches will be covered that will encourage students to understand basic anatomical constructs. This course is designed to be relevant to a broad range of student interests from a variety of disciplines.

SART9752
Paper Technology
School of Art
UOC6 HPW3

In this course, students will undertake a comprehensive investigation of the characteristics and properties of paper in the broadest context, with emphasis on the wide variety of papers used by 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 the conservation of paper, handmade and casting paper processes and appropriate choice of paper for various media.

SART9753
Advanced Electronics
School of Art
UOC6 HPW3
Prerequisite: SART9751.

This advanced workshop is designed to extend students' existing skills and understanding of artistic practice at the intersection of sculpture, installation and performance with electronic technologies and digital media. The acquisition of skills and research methods in technical areas are fuelled by the students' advanced, self initiated project work. Reportage of research is required as a skill sharing strategy. A diversity of practices will be explored, ranging from movement and light sensing to digital input and imaging, to site specificity and presentation methodologies. Students will be encouraged to liaise with both industrial and research organisations to achieve goals and meet deadlines. In this course students are expected to resolve the focus of their inquiry towards a coherent body of work which incorporates investigations into theories and concepts.

SART9754
Metal Casting
School of Art
UOC6 HPW3

This workshop based course is for those students seeking to resolve investigations into theories and concepts by means of bronze casting and mould making. Through lectures, demonstrations and projects, students will investigate mouldmaking processes 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 within the context of contemporary practice.

SART9756
Ceramic Shell Casting
School of Art
UOC6 HPW3

This workshop based course is an advanced studio workshop devised to extend the student's understanding, investigative skills and practical expertise in traditional and alternative metal casting technologies. Research and practice using a variety of casting techniques can be undertaken but the primary focus of this course is on ceramic shell casting. The conception and processing of the student's self initiated project work will be developed in the context of contemporary art theory and practice.

SART9757
Sculpture Field Studies
School of Art
UOC6 HPW3

This course is designed to enable students with a particular interest in the outback environment to devote an extended and concentrated time in the field to researching a remote location through drawing and a variety of sculptural practices such as performance and earth works. By experience and observation, students will deal with the natural world as an invaluable resource of ideas and inspiration particularly relevant to the focus of their major studies in sculpture/performance/installation. Students will be encouraged to investigate, identify and document new material that they can gather in the field that they feel will be most relevant to their developing work in the studio. In preparation of the field experience, students will investigate the work of contemporary artists working in similar genre.

SART9758
Special Projects - Studio
School of Art
UOC6 HPW3

Often one-off opportunities arise for the School to offer special programs of study for credit. For example, supervised international experiences (such as study tours, exhibition participation or attendance) or special projects such as professional practice in the context of such events as national or international Biennales. This course is intended to facilitate the School of Art in enriching its educational program for postgraduate students by incorporating such opportunities into the academic program. Specific s will be distributed detailing the academic content, objectives, assessment tasks and criteria, modes of teaching and learning, expectations and requirements of student participation appropriate to the event/proposal.

SART9759
Abstraction for Drawing and Painting
School of Art
UOC6 HPW3

This course will assist students to develop and extend their awareness of concepts of abstraction. Through a series of studio based projects students will gain a knowledge of historic and contemporary models of abstraction as well as an understanding of formal developments as they apply to drawing and painting.

SDES9201
Design Seminar 1
School of Design Studies
UOC6 HPW2

This course will provide a forum for discussion and debate about relevant and current issues in design. It aims to develop candidates' understanding of the range and depth of issues derived from the interaction of design with industry and culture. Guest lecturers and candidates will combine in the critical analysis of the impact that current aesthetic, philosophical, cultural, social, economic, environmental and technological issues have on the responsible solution of design projects. Guest lecturers will include industry representatives, academic researchers and distinguished practising designers.

SDES9202
Design Seminar 2
School of Design Studies
UOC6 HPW2

This course will provide a forum for further discussion and debate about relevant and current issues in design. It is aimed at further extending candidates' understanding of the range and depth of issues derived from the interaction of design with industry and culture. Guest lecturers and candidates will combine in the critical analysis of the impact that current aesthetic, philosophical, cultural, social, economic, environmental and technological issues have on the responsible solution of design projects. Guest lecturers will include industry representatives, academic researchers and distinguished practising designers.

SDES9203
Design Seminar 3
School of Design Studies
UOC6 HPW2

This course will provide a forum for further discussion and debate about relevant and current issues in design. It is aimed at further extending candidates' understanding of the range and depth of issues derived from the interaction of design practice with industry and culture. Guest lecturers and candidates will combine in the critical analysis of the impact that current aesthetic, philosophical, cultural, social, economic, environmental and technological issues have on the responsible solution of design projects. Guest lecturers will include industry representatives, academic researchers and distinguished practising designers.

SDES9204
Design Process Workshop 1
School of Design Studies
UOC6 HPW2

This course will provide candidates with an opportunity to further develop their understanding of a range of design processes such as; design approaches to problem solving, concept representation and communication techniques, specification techniques and design interface with manufacturing processes. It is aimed at extending the candidate's capacity to manipulate materials, techniques and processes towards the resolution of design projects.

SDES9206
Design Studio: Graphics/Media 1
School of Design Studies
UOC6 HPW2

This course aims to provide candidates with the opportunity to investigate advanced theoretical and practical aspects of graphics/media design. It is aimed at extending the candidate's level of understanding about new research and developments in the materials, techniques and concepts of the print, photographic and multimedia areas of graphic design. Specific attention will be paid to the application of computer imaging in the creative development of innovative concepts in graphic design.

SDES9207
Design Studio: Graphics/Media 2
School of Design Studies
UOC6 HPW2

This course aims to provide candidates with further opportunities to investigate advanced theoretical and practical aspects of graphics/media design. It will further extend the candidate's level of understanding about new research and developments in the materials, techniques and concepts of the print, photographic and multimedia areas of graphic design. Specific attention will be paid to the application of computer imaging in the creative development of innovative concepts in graphic design.

SDES9208
Design Studio: Environments 1
School of Design Studies
UOC6 HPW2

This course will involve candidates in a critical study of theoretical and practical aspects of environments design. It is aimed at developing the candidate's capacity to discern current environments design issues and to apply these understandings in sophisticated and comprehensive solutions to a range of design projects. Specific attention will be paid to the application of experimental materials and structures as well as innovative applications of traditional materials and structures; application of critical analysis to the design of modes of interaction between environmental systems both built and natural; application of CAD and other computer programs as effective tools in the research, design and development of environments projects.

SDES9209
Design Studio: Environments 2
School of Design Studies
UOC6 HPW2

This course will involve candidates in further investigation of theoretical and practical issues in environments design. It is aimed at further developing the candidate's capacity to discern current environments design issues and to apply these understandings in sophisticated and comprehensive solutions to a range of design projects. Further attention will be paid to the application of experimental materials and structures as well as innovative applications of traditional materials and structures; application of critical analysis to the design of modes of interaction between environmental systems both built and natural; application of CAD and other computer programs as effective tools in the research, design and development of environments projects.

SDES9210
Design Studio: Integrated Design Studies 1
School of Design Studies
UOC6 HPW2

This course will provide candidates with the opportunity for advanced study in the multidisciplinary nature of integrated design. It is aimed at extending the candidate's level of understanding about the way in which concepts and processes in graphics, object and environments design may be integrated to contribute to the development of complex and appropriate design solutions. Specific attention will be paid to study of the cross-disciplinary opportunities in the adaptation, development and management of materials, techniques and personnel from two or more areas of design. Specific attention will also be paid to the advanced study of computer imaging (both 2D and 3D programs) in the creative development of integrated design.

SDES9211
Design Studio: Integrated Design Studies 2
School of Design Studies
UOC6 HPW2

This course will provide candidates with the opportunity for further study in the multidisciplinary nature of design integration. It will further extend the candidate's level of understanding about the way in which concepts and processes in graphics, object and environments design may be integrated to contribute to the development of complex and appropriate design solutions. Specific attention will be paid to study of the cross-disciplinary opportunities in the adaptation, development and management of materials, techniques and personnel from two or more areas of design. Specific attention will also be paid to the advanced study of computer imaging (both 2D and 3D programs) in the creative development of integrated design.

SDES9212
Design Studio Project
School of Design Studies
UOC6 HPW2

This course will provide candidates with the opportunity to develop an individual design project that applies selected studio practices to an approved problem.

SDES9216
Design Management and Practice 1
School of Design Studies
UOC6 HPW2

This course will provide candidates with the opportunity to study the nature and role of design management in the development of a design culture. Attention will be paid to the analysis and application of design management processes to the notion of design cultures as a management goal in both commercial and institutional environments; study of the management of new technologies, materials and services; management of research and development, planning models and techniques, predictive models; research into the role of design management principles in the development of a design consciousness as an integral part of responsible design and manufacture in the Australian context. Additionally attention will be paid to a critical analysis of design practice in both consultant and design department situations; comparative analysis of design management concepts and economic and business concepts in research and design development; analysis and application of psycho/social concepts in the development of design project co-ordination models.

SDES9217
Design Management and Practice 2
School of Design Studies
UOC6 HPW2

This course will provide candidates with the opportunity to further investigate models of design management in conjunction with the development of a design culture. Attention will be paid to the analysis and application of design management processes to the notion of design cultures as a management goal in both commercial and institutional environments; study of the management of new technologies, materials and services; management of research and development, planning models, predictive models and techniques; research into the role of design management principles in the development of a design consciousness as an integral part of responsible design and manufacture in the Australian context. Additionally attention will be paid to a critical analysis of design practice in both consultant and design department situations; comparative analysis of design management concepts and economic and business concepts in research and design development; analysis and application of psycho/social concepts in the development of design project co-ordination models.

SDES9218
Design Management Project
School of Design Studies
UOC6 HPW2

This course will provide candidates with the opportunity to undertake a research project resulting in a body of data that reflects the application of various design practice and management models to individually selected design problems. Specific attention will be given to aspects of design management and practice such as information and communication design; consideration of design management in the context of a range of commerical and institutional environments including those not traditionally viewed as design locations.

SDES9740
Design Studio: Ceramics 1
School of Design Studies
UOC6 HPW2

This course focuses on the materials, techniques, processes and contexts that inform the design and production of ceramic objects. The studio program ranges across traditional, contemporary and new technologies and supports diverse outcomes from 'one-off' objects to architectural and industrial applications and small-scale studio production. Practical work is contextualised by consideration of the material, cultural, theoretical and historical issues/debates that frame contemporary ceramic practice.

SDES9741
Design Studio: Ceramics 2
School of Design Studies
UOC6 HPW2

This course provides a setting in which candidates extend and advance practical and theoretical knowledge as applied to ceramic design and studio practice. It highlights interdisciplinary contexts for ceramic design/production and (within a framework of research, critical analysis and reflection) encourages exploratory, speculative and innovative solutions to studio enquiry.

SDES9742
Design Studio: Jewellery 1
School of Design Studies
UOC6 HPW2

This course focuses on the materials, techniques, processes and contexts that inform the design and production of jewellery pieces. The studio program ranges across traditional, contemporary and new technologies and supports diverse outcomes -- from 'one-off' objects to small-scale studio production. Practical work is contextualised by consideration of the material, cultural, theoretical and historical issues/debates that frame contemporary jewellery practice.

SDES9743
Design Studio: Jewellery 2
School of Design Studies
UOC6 HPW2

This course provides a setting in which candidates extend and advance practical and theoretical knowledge as applied to jewellery design and studio practice. It highlights interdisciplinary contexts for jewellery design/production and (within a framework of research, critical analysis and reflection) encourages exploratory, speculative and innovative solutions to studio enquiry.

SDES9744
Design Studio: Textiles 1
School of Design Studies
UOC6 HPW2

This course involves the study of theoretical and practical aspects of contemporary textiles for art and design practice. The course develops the candidate's understanding of historical and contemporary textile practice, current textile design issues, textiles processes and new technologies. The studio provides a framework for facilitating learning in the candidate's elected area, to question the conditions of making, ways of interpreting, designing and informing individual practice.

SDES9745
Design Studio: Textiles 2
School of Design Studies
UOC6 HPW2

This course allows for the extended study and investigation of theoretical and practical aspects of contemporary textile for art and design practice. The course further develops the candidate's understanding of contemporary textiles practice, current textile design issues, textiles processes and new technologies. Individual studio projects provide a framework for the innovative application of materials, structures and designs, and to question the conditions of making, ways of interpreting and informing individual practice.

SDES9750
Contemporary Typography
School of Design Studies
UOC6 HPW3

Traditional divisions between reading and looking have been challenged by recent developments in typeface design and typographic layout in publication design. This course presents the opportunity for students to explore contemporary practices in the reworking of legibility and readability in typographic design through projects that interpret historical practices in typography, illustrative typography, pattern design and a self-directed project.

SDES9751
Propaganda in Graphic Design
School of Design Studies
UOC6 HPW3

Propaganda, the use of deceptive or distorted information to convince, often in a political setting, has been seen as quite different from the ideals of design, which is often discussed in terms of communication and efficiency. This course proposes that designed artefacts express specific and commercially motivated points of view which overlap with the more political forms of propaganda and persuasion. Students explore the relationships between graphic design and commercial persuasion to develop both reflective and practical understandings of the ways in which design operates to persuade. The implications of this understanding of design is considered through studio projects.

SDES9752
Experimental Design
School of Design Studies
UOC6 HPW3

Experimental design explores how practitioners in design rework the status quo of discrete disciplines of art and design. Through the development of works for exhibition contexts, students challenge boundaries of practice and reflect on the place of design in relation to other fields. The course provides students with the opportunity to consider their personal and professional experiences in design, and to consider alternative models for design practice. Students examine design approaches which question and extend current parameters of practice in the design field. Students explore experimental graphic, furniture and wearable design related in scale to the human body throughout the course.

SDES9753
Design Critique Through Practice
School of Design Studies
UOC6 HPW3

This course provides students with opportunities to explore how designers critique design orthodoxies through practice. Students analyse design criticism and design manifestos to identify world views implied by the texts. The lecture series introduces key concepts of design critique through practice, and develops studio discussions around a series of projects and course readings. The course explores the use of analogy in design including: 'design as rescue' (sustainability); 'design as science' (the design methods movement); 'design as social work' in the recent debates around 'design as care'; and 'design as good taste' evident in much popular commentary. Students explore the possibilities of practical critique in design through engagement with the conceptual underpinings of design practice and a focus on the roles of various players.

SESC6010
Descriptive Statistics
School of Safety Science
UOC3 HPW3

Introduction to the theory of statistics and to statistical techniques for describing data. Topics include measures of central tendency and dispersion, probability and probability distribution and statistical inference.

Notes: May not be taken as part of a 48UOC Masters program.

SESC6110
Physical Principles of Safety 1
School of Safety Science
UOC3 HPW3

This course introduces the principles of statics and dynamics as it applies to safety and ergonomic issues. Topics include materials handling, equilibrium and balance, biomechanics, and linear motion.

Notes: May not be taken as part of a 48UOC Masters program.

SESC6800
Fundamentals of Toxicology
School of Safety Science
UOC3 HPW3

This course provides a background to the underlying principles of toxicology. It provides an introduction to chemical, biochemical and cellular principles. This course is aimed at students who have not previously studied chemistry or biology.

Note: May not be taken as part of a 48UOC Masters program. Also offered in off-campus mode in S1 and S2.

SESC9010
Research Methods
School of Safety Science
UOC3 HPW3

This course covers issues in research methodology including research problem formulation, null and alternative hypotheses, qualitative and quantitative research designs, data analysis, presenting research data and applying research to practice. Students will be expected to be able to recognise and avoid common methodological problems in research and critically review the literature. The course does not provide a detailed coverage of statistical theory but an understanding of statistics is required.

Assumed knowledge: SESC6010

SESC9020
Occupational Health and Safety Law 1
School of Safety Science
UOC3 HPW2

This course outlines the legal regime for the regulation of occupational health and safety in Australia. It deals with occupational health and safety legislation; relevant case law; duty of care of employers, controllers of premises and suppliers and manufacturers; risk management obligations; and duty of employees. The course also deals with public policy issues regarding legal reforms of occupational health and safety.

SESC9030
Occupational Health and Safety Law 2
School of Safety Science
UOC3 HPW2

This course extends concepts of law introduced in SESC9020, and covers other workplace legislation and procedures, such as consultation obligations, reporting obligations, incident response and investigation, workers compensation, and rehabilitation obligations.

Assumed knowledge: SESC9020

SESC9060
Principles of Safety, Health and Environmental Auditing
School of Safety Science
UOC3 HPW3
Corequisite SESC9340

An introduction to planning and conducting safety, health and environmental management systems audits. ISO 19011 Guidelines for Quality and/or Environmental Management Systems Auditing. Audit frameworks, the audit process, collecting evidence, audit skills, audit reporting. Assessment for the course includes continuous assessment, role play and planning and carrying out an audit of a SHE topic.

Assumed knowledge: SESC9201, SESC9300

Note/s: Short Course mode only in combination with SESC9340 (compulsory 5 day workshop and assessable tasks completed subsequently)

SESC9091
Safety, Health and Environmental Practice
School of Safety Science
UOC6 HPW6

A workplace assessment-based course. Students are required to report on safety, health or environmental issues following visits to a number of diverse industrial sites.

Assumed knowledge: SESC9201, SESC9600

SESC9121
Fire and Explosion
School of Safety Science
UOC6

This course introduces students to the principles of combustion in fire and explosion processes. The first section deals with the control of industrial fires (liquids and gases), the second section with the control of building fires, and the third section with explosion prevention and control.

Assumed knowledge: SESC9201

Note: Short Course mode (compulsory 3-day workshop plus assessable tasks completed subsequently)

SESC9130
Noise Management
School of Safety Science
UOC3

Physical, perceptual and legislative aspects of noise; AS1269; Descriptive properties, propagation, loudness and frequency, types of noise; Measurement, decibels, hertz, octaves, time and frequency, weighting, spectral analysis; Perception, loudness, annoyance, phons, dB(A) Leq. Lbgt.; Anatomy and function of the ear, and noise injury; Audiometry exercise in measuring hearing levels; Management of noise.

Assumed knowledge: SESC9201, SESC9600

Note: Short Course mode only (compulsory 3 day workshop plus assessable tasks completed subsequently). This course may not run every year.

SESC9150
Electrical Safety
School of Safety Science
UOC3

Regulations and codes of safe practice relating to electricity; identification assessment and control of electrical hazards including electrocution,

electrical fires, static electricity, electrical wiring in hazardous areas, the effect of electric and magnetic fields; safety-related systems.

Assumed knowledge: SESC9201

Note: Off-campus mode only.

SESC9160
Safety, Health and Environment in the Construction Industry
School of Safety Science
UOC3

Examines current issues and problems in ensuring the occupational safety and health of workers in building, construction and manufacturing industry.

Topics include OHS act; legal responsibilities; implications of changes in legislation to building and construction safety; contractual relationship with sub-contractors; risk assessment and control strategies; positive performance indicators; safeguarding of plant; systems safety management; audit reviews; hazards in building and construction work; human behaviour and occupational safety and incident investigation; best practice initiatives in the construction sector.

Assumed knowledge: SESC9201

Note: Short Course mode only (compulsory 3-day and 2-day workshops plus assessable tasks completed subsequently)

SESC9201
Safety Risk Management
School of Safety Science
UOC6 HPW3
Excluded: SESC9100 and SESC9200.

Looks at principles of OHS risk management and its legal context; methods of risk identification assessment and control applied to physical hazards including, mechanical equipment, noise, vibration, ionising and non ionising radiation, electricity, materials failure, fire and explosion and construction related hazards.

Assumed Knowledge: SESC6110

Note: Also offered in Off-campus mode in Session 2, and Short Course mode in Session 1 (compulsory 5 day workshop plus assessable tasks completed subsequently)

SESC9211
Risk Management
School of Safety Science
UOC6 HPW3

Provides an overview of Risk Management following the format of the Australian Standard in Risk Management (AS/NZS4360). 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 all types of risk in all types of organisations. This course is therefore relevant as part of a wide variety of postgraduate courses, and students from any postgraduate course are accepted if numbers permit. 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.

Note: Also offered in off-campus mode in Session 2 and Short Course mode in Summer Session (compulsory 4 day workshop plus assessable tasks completed subsequently)

SESC9221
Major Hazards Management
School of Safety Science
UOC6 HPW3

This course looks at the management of major hazardous facilities.

Australian and overseas legislation is discussed, together with the preparation of safety cases, environmental impact statements and emergency planning. Also discussed are analysis techniques that are required for these assessments - including how to quantify likelihood and consequences through the use of modelling - and the requirements for emergency plans.

Assumed knowledge: SESC9201

SESC9231
Risk Analysis
School of Safety Science
UOC6 HPW3

This course introduces methods used to analyse risk in different disciplines. Techniques covered include Fault Tree analysis and quantification, Trend analysis, Monte Carlo and other computer modelling techniques, use of risk analysis software. The methods are applied to examples which include decision-making in financial, environmental and safety management. In addition students undertake a case study selecting areas of risk of their choice.

SESC9241
Introduction to Injury Risk Management
School of Safety Science
UOC6 HPW2

Introduces students to the main concepts in injury risk management and provides an understanding of how injury differs from other public health problems. The course presents an overview of injury issues in different contexts, including transport, the workplace, sport and recreation, product safety and patient safety. It also looks at different approaches to injury intervention including regulatory, design, engineering, organisational and behavioural interventions.

Note: Short Course mode only in Winter Session (compulsory 5 day workshop plus assessable tasks completed subsequently)

SESC9261
Introduction to Environmental Risk Assessment
School of Safety Science
UOC6 HPW3

This course introduces the methods used to quantify human health and ecological risks associated with the presence of hazardous chemicals and pathogens in the environment. Environmental risks can be quantified when the following elements are known:-

The source of the chemical/pathogen posing risk/s to human and/or ecological receptors; the fate and transport mechanisms by which a chemical/pathogen moves from the source of the receptors; exposure scenarios; the dose to the receptors. These elements are evaluated during the course. Theoretical concepts used in environmental risk assessment are illustrated with simple, real-life examples. Relevant guideline documents are used to highlight the practice of environmental risk assessment in Australia, and compare it with that of countries in Europe and the United States.

Note: Also offered in off-campus mode in S1.

SESC9281
Issues and Trends in Emergency Management
School of Safety Science
UOC6

The purpose of this course is to identify the paradigms and frameworks that underpin emergency management policies and procedures, and explore their contribution and effectiveness in achieving community outcomes.

The course explores existing paradigms in emergency management and demonstrates how they drive existing emergency management practices. It considers how research findings and current and emerging technologies might inform change in emergency management paradigms.

Note: Short Course mode (compulsory 5-day workshop plus assessable tasks completed subsequently)

SESC9291
Risk Treatment
School of Safety Science
UOC6 HPW3

The course examines various methods of control and treatment of organisational risk, which have been identified, analysed and assessed using a comprehensive risk management framework. Various control and treatment options for major categories of risk include applied techniques in loss prevention, loss reduction, risk transfer and risk financing, including the application of commercial insurance and self-insurance methods.

SESC9300
Effective Behaviour in Organisations
School of Safety Science
UOC3 HPW3

Examines a range of issues related to the effective implementation of systems for the management of occupational health and safety, environmental and other organisational concerns.

Various topics in organisational behaviour and management are covered, including theoretical issues and practical applications to areas such as motivation, communication, training and consultation.

SESC9320
Effective Management
School of Safety Science
UOC3 HPW3

Covers a range of current topics in organisational behaviour and management. Theoretical issues and practical applications relevant to management of health and safety are highlighted. This includes an examination of issues such as stress, conflict, fatigue, and safety culture.

Readings are included to help you gain experience in analysing and applying the concepts and theories covered in the course, and to encourage a wider understanding of the areas explored.

Assumed knowledge: SESC9300

SESC9340
OHS Management Systems
School of Safety Science
UOC3
Corequisite SESC9060

An introduction to the management principles and the requirements of an effective OHS management system, with emphasis on the systems specified in the latest edition AS/NZS 4801 Occupational Health and Safety Management Systems- Specification with Guidance for Use.

A working knowledge of industry practices, OHS principles and relevant legislation is required.

Assessment for the course includes continuous assessment, role play and planning and carrying out an audit of a SHE topic.

Assumed Knowledge: SESC9201, SESC9300

Note: Short Course mode only, in combination with SESC9060 (compulsory 5-day workshop and assessable tasks completed subsequently).

SESC9361
Industrial Safety Management Systems
School of Safety Science
UOC6

Explores industrial safety management systems in technological industries, particularly those where safety failures have the capacity to cause injury or damage in the community, such as transportation and major hazards industries.

The industrial safety management systems specified in various legislation are reviewed, including the requirements for safety reports. Course participants then explore good practice in the components of industrial safety management systems.

Topics include governance and internal control, business continuity, safety culture, safety performance measurement, information management, process control, contractor management, asset management, maintenance management, reliability change management, and training and competency.

At the end of the course participants should be able to recognise good and bad practice in each of these areas and propose changes to improve safety.

SESC9400
Ergonomics 1
School of Safety Science
UOC3 HPW3

A basic introduction to ergonomics, emphasising the principles of designing user-centered machine-environment systems. Specific topics include definition of and justification for ergonomics, design and human error, human capabilities and limitations, introduction to anthropometry, and the reduction of musculoskeletal loading of workers.

Assumed knowledge: ANAT6151, SESC6010, SESC6110

SESC9410
Ergonomics 2
School of Safety Science
UOC3 HPW3

This course follows on from SESC9400 Ergonomics 1, and covers displays & 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: SESC9400

SESC9411
Principles of Ergonomics
School of Safety Science
UOC6 HPW3

This course provides an introduction to ergonomics, emphasising the principles of designing user-centred, human-machine-environment systems. Specific topics include definition of and justification for ergonomics, design and human error, human capabilities and limitations, introduction to anthropometry and the reduction of musculoskeletal loading of workers, displays & 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: ANAT6151, SESC6010, SESC6110

SESC9421
Applied Ergonomics
School of Safety Science
UOC6

This course focuses on the application of ergonomics principles to real world problems, and the difficulties involved. It requires a knowledge of the principles of ergonomics and provides in-depth knowledge and skills in ergonomics research methodology: analysing the exact nature and extent of the ergonomics problem, and evaluating the outcome of solutions to the problem. Topics covered include ergonomics methodologies, various analysis techniques, benefit-cost & practical case studies, professional ethics, and participatory ergonomics.

Assumed knowledge: SESC9411 or equivalent

Note: Short Course mode (compulsory 5-day workshop plus assessable tasks completed subsequently).

SESC9431
Physical Ergonomics
School of Safety Science
UOC6

This course discusses various analytical tools and techniques used by ergonomists to assess or solve practical, physical ergonomics problems. It requires a knowledge of the principles of ergonomics and provides in-depth knowledge and skills in assessing the physical ergonomics aspects of work systems.

Topics include applied anthropometry, biomechanical models, electromyography, manual handling jobs with multiple tasks, and work physiology. Students gain hands-on experience with relevant equipment and software such as Mannequin, 2D and 3D SSP Programs, Energy Expenditure Program, and the revised NIOSH 1991 equation.

Assumed knowledge: SESC9411 or equivalent

Note: Short Course mode (compulsory 3-day workshop plus assessable tasks completed subsequently).

SESC9441
Ergonomics and New Technology
School of Safety Science
UOC6

This course focuses on the ergonomics issues related to the design and implementation of new technology. It assumes a knowledge of the principles of ergonomics, and in particular looks at cognitive aspects of human-computer-interaction, human error and design, usability and its assessment, user interface design, evaluation techniques, guidelines and standards, and the introduction of new systems into organisations.

Assumed knowledge: SESC9411 or equivalent

Note: Short Course mode only (compulsory 5-day workshop plus assessable tasks completed subsequently).

SESC9451
Experimental Biomechanics
School of Safety Science
UOC6 HPW3

This course commences with 4 lectures on experimental methods, instrumentation, optical measurement and data analysis methods in biomechanics. The student then undertakes a series of experiments in the areas of quantitative gait and human movement, EMG, exercise testings and impact biomechanics.

SESC9460
Biomechanics of Impact Injury
School of Safety Science
UOC3

Impact injury occurs in the workplace, on the sports field, during recreation, and in traffic accidents. The course covers mechanisms of trauma, research methods, human tolerance to impact and methods for reducing injury. It brings together biomechanics, engineering and traumatology.

Assumed knowledge: SESC6110

SESC9471
Industrial Ergonomics
School of Safety Science
UOC6 HPW3

This course discusses the principles of ergonomics and their application to engineering systems. Topics include Introduction to ergonomics, works systems design and evaluation, neuromuscular function, perceptual motor skills, biomechanics of human body movement, work physiology, anthropometry and workplace design, human information processing, human error and design, job design and work organisation, psychophysical measurements, manual materials handling, visual tasks measurements and design, environmental ergonomics, work schedules and sustained human performance (shift work), participatory ergonomics, ergonomics in manufacturing, ergonomics cost/benefits analysis.

Note: Not available to Safety Science students.

SESC9510
Occupational Hygiene Hazards
School of Safety Science
UOC3 HPW3

This course covers practical consideration of recognising and evaluating workplace hazards. Topics include identification and assessment of workplace hazards such as gases, particulates, chemicals, noise, radiation and biohazards.

Assumed knowledge: SESC9201, SESC9600

SESC9530
Personal Protective Equipment
School of Safety Science
UOC3

This course provides an introduction to personal protective equipment: protection for head, eyes, hearing, skin, respiration, feet and protection against falling; relevant standards for personal protection; personal protection programs.

Assumed knowledge: SESC9201, SESC9600

Note: Short Course mode only (compulsory 3-day workshop plus assessable tasks completed subsequently).

SESC9541
Assessment of Workplace Environment
School of Safety Science
UOC6

This is an experimental and workplace-based course. Students are required to assess ergonomics, physical and chemical hazards encountered in the occupational environment. Students design and carry out a number of practical measurement programs to assess and report on workplace environmental parameters.

Topics include measurement and analysis of noise, lighting, vibration, ventilation, air quality, thermal environment, radiation and magnetic fields; assessment of chemical hazards; floor slip resistance characteristics.

Assumed knowledge: SESC9201, SESC9600

Note: Compulsary 3-day workshop prior to the commencement of Semester plus assessable tasks completed subsequently.

SESC9550
Occupational Hygiene Controls
School of Safety Science
UOC3 HPW3

This course builds on the introduction to workplace hazards introduced in SESC9510, covering practical considerations in the control of workplace hazards such as ventilation and personal protective equipment.

Assumed knowledge: SESC9510

SESC9581
Industrial Pollution Control
School of Safety Science
UOC6

This course introduces environmental and pollution issues of relevance to people with responsibility for ensuring pollution control in industry. The course starts with an introduction to environmental assessment processes and environmental management systems then considers contaminated sites, pollution from liquid, solid and gaseous wastes and their control.

SESC9600
Occupational Health
School of Safety Science
UOC3 HPW3

Introduction to occupational health, including workplace hazards and risks, approaches to workplace safety, occupational health and safety legislation, management of workplace safety, the hierarchy of controls, occupational epidemiology and occupational rehabilitation.

SESC9620
Occupational Diseases and Injuries
School of Safety Science
UOC3 HPW3

The ways in which work can affect the health of workers. Covers occupational diseases and injuries: occupational diseases of skin, respiratory system, nervous system, reproductive system, musculoskeletal system, kidneys, and occupational cancer.

Assumed knowledge: ANAT6151

SESC9630
Occupational Medicine
School of Safety Science
UOC3

This course deals with the role of the occupational physician in practice and research. This includes health promotion, health screening, medical surveillance and biological monitoring.

SESC9651
Occupational Rehabilitation
School of Safety Science
UOC6

This course provides a scientific basis on which to base rehabilitation. The main focus is on examining methods in physical rehabilitation. Other issues, for example relating to case management, are covered briefly. Concepts and practice from areas such as exercise physiology, training/conditioning, biomechanics, medicine, physiotherapy and occupational therapy are covered in the context of the rehabilitation.

Assumed knowledge: SESC9400, SESC9620

Note:. Medical or allied health background desirable.

SESC9721
Environment and Medicine
School of Safety Science
UOC6 HPW3

Aspects of medicine bearing upon physiological consequences of pollutants. Metabolic mechanisms: chemical interactions, synergism and antagonism, photosynthesis and phytotoxicity; ozone depletion and greenhouse effects; morbidity and mortality surveys; studies of particular pollutants and environmental contaminants.

SESC9741
Environmental Management Systems
School of Safety Science
UOC6

This course describes useful approaches for organisations to fulfil their professional obligations regarding the environment. It focuses on the management of environmental issues, incorporating current legislative requirements and due diligence. In addition it addresses customer requirements, safety aspects and competitive pressure of firms.

The course responds to multidisciplinary management challenges which require integrated management systems options. A number of case studies examples are presented. The main part of the assessment of this course is a project looking at the development of an EMS for industry.

Assumed knowledge: A good working knowledge of environmental management, environmental science or environmental engineering is required for this course.

Note: Short Course mode (compulsory 3 day workshop plus assessable tasks completed subsequently).

SESC9751
Introduction to Environmental Science
School of Safety Science
UOC6 HPW3

This course describes the current and fundamental knowledge in the area of environmental sciences and is a core in the Environmental Science degrees. Covered are the current global legal frameworks that affect environmental science practice, latest modeling and research in global system and climate change, current practices and directions of environmental planning and impact assessment.

SESC9761
Environmental Auditing
School of Safety Science
UOC6

With an increase in regulation and new standards as well as stronger awareness of environment protection, industry will need to rely increasingly on environmental auditing to systematically manage its impacts. This course covers the basic elements of the different types of environmental auditing undertaken by industry with a focus on the ISO 14,010 EMS Environmental Auditing standard. Attendees learn about the various types of environmental audits undertaken and the tools required for conducting these.

The principle aims are to identify and evaluate potential environmental liabilities, risks and hazards in industry. The main part of the assessment of this course is a project looking at the application of environmental auditing to industry.

This course has been recognised by the Quality Society of Australasia (Reg No EA70) as meeting the training requirements for Environmental Auditor certification.

Assumed knowledge: A good working knowledge of environmental management, environmental science or environmental engineering is required for this course.

Note: Short Course mode only (compulsory 5 day workshop plus assessable tasks completed subsequently).

SESC9810
Toxicology
School of Safety Science
UOC3 HPW3

An introduction to chemical hazards, including disposition and biotransformation, principles of toxicological assessment and effects of exposure to toxic hazards; risk assessment aspects of workplace exposure to chemicals; hazardous substances legislation for the identification and control of chemicals.

Assumed knowledge: SESC6800 or chemistry or biochemistry

SESC9820
Chemical Safety and Toxicology
School of Safety Science
UOC3 HPW3

This course provides an outline of the toxicological, occupational hygiene and environmental aspects of chemical hazards and exposures. Atmospheric contaminants, metals, solvents, pesticides, carcinogens, hazardous wastes and dioxins are used as case studies.

Assumed knowledge: SESC9810

Note: Short Course mode in S1 (compulsory 2 day workshop plus assessable tasks completed subsequently). Also offered in off-campus mode in S1.

SESC9850
Management of Dangerous Materials
School of Safety Science
UOC3

Chemicals legislation, the dangerous goods system, the hazardous substances regulation, systems for management of hazardous wastes and systems for the management of chemicals in the workplace.

Note: Short course mode in S1 (compulsory 2 day workshop plus assessable tasks completed subsequently). Also offered in off campus mode S2.

SESC9871
Environmental and Toxicological Laboratory Science
School of Safety Science
UOC6 HPW3

A laboratory-based course which provides basic requirements of laboratory-based research, especially in chemical safety and applied toxicology. The course covers literature review, methodology, experimental design, data collection and analysis, discussion and presentation skills, through undertaking a research project.

Assumed knowledge: SESC9820

SESC9900
Project Methods
School of Safety Science
UOC3 HPW3

This course covers the development of a research project including the research proposal, research design and data analysis and the writing of the research report. Students will be expected to be able to recognise and avoid common methodological problems in research.

Assumed knowledge: SESC9010

Note: Also offered in off-campus mode in S1 and S2.

SESC9903
Report (3 Units of Credit)
School of Safety Science
UOC3

A 3 units of credit report on a topic relevant to the study program.

Note: Also offered in off campus mode in S1 and S2.

SESC9906
Report (6 Units of Credit)
School of Safety Science
UOC6

A 6 units of credit report on a topic relevant to the study program.

Note: Also offered in off-campus mode in S1 and S2.

SESC9912
Project (12 Units of Credit)
School of Safety Science
UOC12

A 12 units of credit project relevant to the study program. Students will be required to undertake an investigative project with supervision and to present a satisfactory report.

Assumed knowledge: SESC9900

Note: Also offered in off-campus mode in S1 and S2.

SLSP5001
Policy Analysis
School of Social Science and Policy
UOC8 HPW2

What is policy, and why does it matter? Examines the way in which the term 'policy' is mobilised to make sense of what happens in and around organisations, and to shape the action. Also examines the different dimensions of policy, and the significance of each for policy analysis.

SLSP5002
Information and Research for Policy
School of Social Science and Policy
UOC8 HPW2

An examination of the various sources of information available and the ways in which they are used to inform policy. This includes methods of social research, both quantitative and qualitative, the production of official statistics and social indicators, case studies and documentary research; the locations in which such information is produced (universities, think-tanks, government bureaux, etc) and the nature of the information produced (basic research, strategic research, intelligence and monitoring, etc). The political, ethical, social and economic context in which information is produced and used in policy is examined through the analysis of examples from a range of policy areas.

SLSP5004
Policy and Organisations
School of Social Science and Policy
UOC8 HPW2
Excluded: SLSP7006

Examines issues relating to the management and steering of organisations such as effective policy making, administration, strategy and leadership. It includes the provision of an understanding of the principles of new public management, strategic and corporate planning, partnerships,

participation and governance. Attention is paid to the role, location and external relationships which 'stakeholders' and 'policy communities' play in management and policy in organisations.

SLSP5015
International Development Policy
School of Social Science and Policy
UOC8 HPW2
Excluded: SLSP5030, SLSP5031

Examines what is perhaps the most important question in economic and social development today, that is - why is there a rich world and a poor world and what policies can be identified and implemented to address this problem? Examines some of the most important explanations used to explain the different rate and pattern of development within and between countries and regions such as the role of the nation state; particular social structures; patterns of capital accumulation and technological developments and the policy solutions developed from them. The local, national and international institutions through which policy is formulated, implemented, managed and monitored will also be examined. A variety of Latin American, Asian and other case studies will be used to illustrate the issues.

SLSP5017
Policy and Advocacy
School of Social Science and Policy
UOC8 HPW2

Examines policy advocacy in state/civil society relations. Studies how policy advocacy by civil society organisations contributes to democracy and considers the role of policy knowledge in advocacy. Examines the international context of policy advocacy. Considers the way in which civil society associations contribute to social capital and/or public policy.

SLSP5092
Policy Project
School of Social Science and Policy
UOC8 HPW2
Prerequisite: SLSP5001; Excluded: SLSP5091.

Students undertake individual and/or group policy research in consultation with senior policy-makers from the public, union, private or community sectors. A Major Policy Paper is presented to the client and is assessed by both the client and academic staff. The process of preparing the report may involve writing of memoranda, briefing documents, etc. The Major Policy Paper normally includes recommendations, including implementation strategies.

SLSP5501
Theory of Program Evaluation
School of Social Science and Policy
UOC8 HPW2
Excluded: SOCA5018

An outline of the nature, origins and theory of program evaluation. Debates over the nature and definition of evaluation, theories and methodologies, role of the evaluator and use of the findings of an evaluation will be analysed. A thorough understanding of these issues will equip students with an understanding of the role of evaluation and the problems encountered in conducting evaluations.

SLSP5502
The Practice of Program Evaluation
School of Social Science and Policy
UOC8 HPW2
Excluded: SOCA5018

Issues in the conduct of program evaluations including design, methodologies, consultation with stakeholders, ethical considerations, writing of evaluation briefs, proposals and reports and in the use of evaluation findings.

SOCA5010
Anthropology Fieldwork
School of Sociology and Anthropology
UOC8 HPW2
Excluded: SOCA2204, SOCI3710, GENT1204, GENT1205

Provides training in and use of ethnographic fieldwork methods in the context of a developing country with an understanding of village vs urban life and how development organisations impact. Ethnography is a part of the methodology of both sociology and anthropology as well as other social science research. Interview techniques and technologies, cultural mapping, methods of recording field data and participatory community development research are amongst the procedures to be explored. Field visits to regional, government and non-government organisations form a part of the research to understand how such institutions impact on village life.

Note: This course will be taught in November-December. Students must contact Grant McCall (email: G.Mccall@unsw.edu.au) prior to the commencement of Session Two.

SOCF5001
Theory of Couple & Family Therapy
School of Social Work
UOC4 HPW2
Corequisite: SOCF5002

Introduces the theory of systemic family therapy. Frameworks for understanding the evolution of relationship patterns will be presented, including intergenerational perspectives. An overview of the current theory of the Milan framework of therapy will be given, as this serves as a cohering basis for the Clinical Studies courses.

SOCF5002
Clinical Studies A
School of Social Work
UOC8 HPW3
Corequisite: SOCF5001

Introduces the clinical knowledge needed for the practice of couple and family therapy. There is a strong emphasis on the use of self in the therapeutic relationship. In preparation for Clinical Studies B, there is a small group program of simulated practice using supervised role-play and video analysis. Practice skills are developed for interviewing couples and families, and attention is paid to competencies in beginning, middle and ending stages of therapy. Both Clinical Studies A and Clinical Studies B use the theory and practice of the Milan framework of therapy as the main reference point, and other theory is drawn in as it relates to specific clinical situations.

SOCF5003
Clinical Studies B
School of Social Work
UOC12 HPW6.5
Prerequisite: SOCF5002

Provides clinical training as students work directly with families and/or couples using the 'live' supervision facilities of Relationships Australia (NSW). Develops theoretical and clinical understandings of systemic assessment, therapeutic mangement and systemic interviewing. Focuses on practice skills, the capacity to critically reflect on practice, and the capacity to analyse therapeutic situations.

SOCF5004
Contemporary Theory Issues
School of Social Work
UOC8 HPW2
Prerequisite: SOCF5001

Presents current theory influences in systemic therapy, including the influence of postmodernist ideas, the different uses of the metaphor of narrative in therapy, and the use of psychoanalytic ideas in systemic practice. Explores the expression of postmodernist influences in different frameworks including narrative and solution focused therapy.

SOCF5005
Research Issues
School of Social Work
UOC4 HPW2

Examines the research process and its role in the development of knowledge in couple and family therapy. Gives an overview of quantitative and qualitative methodologies. Explores values and the political context of research activity. Develops the skills for assessing and reviewing specific examples of research.

SOCF5006
Clinical Studies C
School of Social Work
UOC12 HPW4
Prerequisite: SOCF5003

Further develops the capacity to understand and analyse therapeutic process as students present their own practice in couple and family therapy for review and evaluation. Explores specific practice topics

including cross - cultural practice, work with violence and abuse, and the therapeutic relationship.

SOCW7850
Issues and Policy in Social Development
School of Social Work
UOC8 HPW2

Introduces conceptual, structural and pragmatic issues in social development and offers a knowledge base and analytical framework for working with a global perspective in Australia or overseas. Controversies in development theory are examined. Global problems are addressed via studying policies adopted to address them. A range of social theories and ideologies justifying these policies are also examined. Issues may include: the colonial legacy, poverty, population growth and movement, gender inequity, multi-national corporations, international loans and Third World debt, environmental degradation, war, refugees, indigenous peoples' rights. Relevant policy theory, including development and analysis, are introduced to help understand the various issue and policy case studies addressed. A social justice, human rights and community development paradigm is used to analyse policies and approaches to deal with these issues.

SOCW7851
Community Development
School of Social Work
UOC8 HPW2

Covers a review of the history of community development; the changing nature of community work; the concept of culture in relation to community work in developing societies; different ideological approaches to community work; an analysis of the outcomes that these approaches might have on communities and the alternative models of planning and service delivery which would evolve. Using case studies, strategies for effective community development will be identified and skills in consultation and partnership building developed. Students undertake an individual analysis of a local community development project.

SOCW7852
Politics of International Aid
School of Social Work
UOC8 HPW2

An introduction to the international aid agencies, their respective structures, roles and relationships with one another. Also provides an introduction to the impact of international economics and international politics on matters relating to international aid. Examines the workings of government and non-government aid agencies at the national and international level. This information is related to case studies which demonstrate skills to negotiate within the international aid systems, secure funding, lobby and advocate to redefine development assistance.

SOCW7853
Community Education Strategies
School of Social Work
UOC8 HPW2

Covers a range of community education strategies drawing on case studies of innovative models in Third World communities. Students consider appropriate objectives, methods, communication skills and assessment for adult learners taking into account adaptations required in different sociocultural contexts. In addition to examining the rationale, nature and scope of distance education, students are introduced to skills for developing curricula and written packages, and to the appropriate use of available technologies. Each student has the opportunity to apply educational strategies in the classroom.

SOCW7855
Program Design and Evaluation in Social Development
School of Social Work
UOC8 HPW2

Reviews the values, knowledge and skills required to design and evaluate social development programs in the international/cross-cultural contexts. Major topics include cooperation in change, methods of needs assessment, defining outcome objectives, theories of decision making, models of scheduling and implementation, theory and practice of evaluation including development of criteria, data collection and analysis, the ethics and uses of evaluation. Students engage in a program planning and evaluation exercise to apply theory covered in the course.

SOCW7856
Program Management in Social Development
School of Social Work
UOC8 HPW2

Current trends and theory in international organisational management are analysed critically for their applicability in the social development arena. Budgeting and accounting practices, staff recruitment and staff management, ethical public relations and marketing for social development settings are examined. Strategies for transferring these skills to local partner agencies, and methods of evaluating program management in funded programs are also elements studied.

Note: As this is an elective course, it will be offered only when the demand is deemed sufficient by the Head of School.

SOCW7857
Refugees and Forced Migration
School of Social Work
UOC8 HPW2

Explores the push factors that cause forced migration, the root causes of these factors, and the impacts of forced migration on the people affected. The international legal framework is examined as it applies to these groups, their needs and rights in the various stages of flight, first asylum, secondary movement, repatriation, and resettlement. The major impact of conflict as a push factor is also explored, and strategies for peace and conflict resolution are addressed.

Note: As this is an elective course, it will be offered only when the demand is deemed sufficient by the Head of School.

SOCW7858
International Social Development Project
School of Social Work
UOC8 HPW2
Prerequisite: SOCW7850 and SOCW7851

Project based on field or documentary data/information regarding an issue or problem immediately relevant to International Social Development theory or practice. Students may gather information in an international setting if that is feasible or in an international aid agency as a contribution to the work of the agency.

Note: As an elective this course will be offered only when the demand is deemed sufficient by the Head of School.

SOCW7859
Community Development Project
School of Social Work
UOC8 HPW2
Prerequisite: SOCW7850, SOCW7851

Based on field or documentary data/information regarding an issue or problem immediately relevant to Community Development theory or practice. Students may gather information in a community setting if that is feasible or in a community development agency as a contribution to the work of the agency.

Note: This course is available to students in the Master of Social Development (Community Development) program only.

SOCW7880
Refugee Women, Sexual Violence and International Protection
School of Social Work
UOC8 HPW2

Examines the protection needs of refugee and Internally Displaced women and children, and current international responses to these and the endemic experience of violence, in particular sexual and gender based violence experienced by the majority of refugee women, and the impact of this on their future resettlement and or repatriation. Links international law, current protection practice, and issues of culture and identity. It is outcomes focused, encouraging participants to develop new ways of thinking of international protection for women and children in policy, program design and implementation, based on community development principles.

SOCW7881
Resettlement as an International Protection Tool
School of Social Work
UOC8 HPW2

Examines the three durable solutions for refugees, local integration, repatriation and resettlement. Resettlement has traditionally been seen as a minor part of durable solutions and little attention has been paid to developing a body of resettlement theory. Current trends from UNHCR and the international community is to encourage more developed countries to use resettlement as a tool to provide solutions for dismantling long established refugee camps, and to provide group resettlement. Refugees

from these situations have acute resettlement needs. Encourages students to identify these needs and appropriate responses to issues such as the identification of refugees for resettlement, the resettlement process, and for adequate resettlement services in country of final destination.

SOCW7882
Refugees and Forced Migration Project
School of Social Work
UOC8 HPW2
Prerequisite: SOCW7850, SOCW7851

Based on field or documentary data/information regarding an issue or problem immediately relevant to Refugee and Forced Migration theory or practice. Students may gather information in an international refugee setting if that is feasible or in a refugee agency as a contribution to the work of the agency.

Note: This course is available to students in the Master of Social Development (Refugee and Forced Migration) program only.

SOLA9001
Photovoltaics
School of Photovoltaic and Renewable Energy Engineering
UOC6 HPW4

The use of solar cells (photovoltaic devices) as electrical power supplies based on the direct conversion of sunlight into electricity. The emphasis is placed on applications including system design and construction, although the properties of sunlight, the operating principles of solar cells and the interaction between sunlight and the cells are also treated.

SOLA9004
Solar Energy
School of Photovoltaic and Renewable Energy Engineering
UOC6 HPW4

World and Australian energy resources. General energy conversion principles and their application. Characteristic of received solar radiation. Thermal conversion and selectively absorbing surfaces. Biological methods of conversion. Fundamentals of photovoltaic generation.

SOLA9006
Solar Cell Technology and Manufacturing
School of Photovoltaic and Renewable Energy Engineering
UOC6 HPW4

A basic introduction to solar cell operation is provided leading to a study of the types of industrial processes used in large scale manufacturing. Dominant commercial cell technologies are covered in detail including evaluation of the relative strengths and weaknesses of each. A "virtual" production line is used to give students direct control of and exposure to the manufacturing environment and techniques for optimizing performance of mass produced devices. Production issues such as yields and in-line quality control are considered. Assignment work includes having students take control of the virtual production line for the purposes of performance optimization, fault diagnosis and maximizing of yields.

SOLA9009
Photovoltaics in Buildings
School of Photovoltaic and Renewable Energy Engineering
UOC6 HPW3

There is currently significant interest in reducing energy use and greenhouse gas production in buildings by designing buildings that are climate-appropriate, implementing energy efficiency measures and producing energy from renewable sources. Photovoltaics (PV) is one of the few renewable electricity generation options that can be readily used in urban areas and has no environmental impacts at the site. This course will examine the use of PV in the urban envirnoment, with a particular focus on the integration of PV modules into the building envelope. The design of energy efficient buildings, building thermal and lighting performance and solar access will be introduced as an appropriate context for the use of PV. A competency in the use of building energy simulation software will be developed. Technical issues associated with the use of PV in buildings and the urban environment, such as heat transfer processes, partial shading and mismatch and system siting, sizing and configuration will be investigated. Students will tackle urban design problems that require balancing architectural and human requirements with the functional constraints of PV technology. Examples of PV products for building and the urban environment will be studied and system performance assessment and prediction will be introduced.

SOLA9011
Biomass Energy Sources
School of Photovoltaic and Renewable Energy Engineering
UOC6 HPW4

This course will introduce a range of biomass energy sources, including forestry, wastes and crops, as well as various technologies for their conversion into useful fuels or power. The course will cover liquid and gaseous fuels, including ethanol, however, the emphasis will be on electricity generation technologies, including combustion and gasification systems, biogas and landfill gas systems, combined heat and power production.

SOLA9012
Renewable Energy Policy
School of Photovoltaic and Renewable Energy Engineering
UOC6 HPW4

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.

SOLA9018
Special Topic Renewable Energy
School of Photovoltaic and Renewable Energy Engineering
UOC6

This syllabus changes to allow presentation of a special topic of current interest particularly by visitors with recognised expertise in the topic.

SOLA9914
Project Report
School of Photovoltaic and Renewable Energy Engineering
UOC6

SOLA9915
Project Report
School of Photovoltaic and Renewable Energy Engineering
UOC6

SOMA9001
Sound Construction 1
School of Media Arts
UOC6 HPW3

This course covers aspects of audio production relating to the production of soundtracks for film and video. Students are introduced to various conceptual, stylistic, aesthetic and philosophical approaches to the use of sound within screen-based media, with attention also being paid to the relationship of sound to other art practices. A screening and listening lecture program examines various sound/music pieces, installations and soundtracks.

SOMA9002
Sound Construction 2
School of Media Arts
UOC6 HPW3
Prerequisite: SOMA9001.

This course continues the examination of both the audio/visual relationships and sound/music genres, while expanding on the techniques and ideas taught in the previous semester. Both individual and group projects will be based around the development of sound design works that relate to screen based media, or stand alone works that explore the creative uses of sound in their own right. The relationship of sound to editing within other works within time based and interactive works will be examined. Technical knowledge of sound recording and editing will be refined, with a concentration on integrating the use of sound into the production and post production process. Further techniques such as MIDI composition and analogue synthesis will be explored.

SOMA9101
Video Construction
School of Media Arts
UOC6 HPW3

This course explores the creative use of the video medium as a means of understanding both televisual and cinematic representation and the techniques involved in production of both documentary and narrative works. The technique and grammar of the medium is explored, with students undertaking production work in studio sessions to gain a practical appreciation of the material outlined in lectures and screenings. Screenings are scheduled within the lecture program to give students a common base of experience in the history and creative aspects of the medium.

SOMA9102
Production Workshop - Development of Integrated Media Programs
School of Media Arts
UOC6 HPW3
Prerequisite: SOMA9101.

This course develops a program of integrated production methods that span production budgeting and management, scheduling and the integration of a suite of production technologies into the development of screen based programs. Students are introduced to detailed elements of the production process, such as the management of budgets, production personnel and resources, as well as the realization of creative ideas at a range of budget points. The balance of creative vision with the real world constraints of production is explored, along with the costing and scheduling of production. Students are further introduced to the possibilities of a range of production technologies that extend the creative possibilities of digital production such as compositing and effects tools, different lighting tools and production tools that extend the possibilities of low budget production. A workshop exercise is integral to the course, with all students completing a collaborative project that integrates the principles taught in the course.

SOMA9201
Three Dimensional Animation 1
School of Media Arts
UOC6 HPW4

This s a basic suite of principles and processes used in the production of three-dimensional animation. Basic concepts of modelling, lighting and texturing are covered to allow students to progress with more complex work in this medium. Because of the detail and complexity of the skills involved in this subject, students undertaking this work will be expected to devote a significant portion of their time outside of classes to progress with this work in a satisfactory manner.

SOMA9202
3D Animation Workshop
School of Media Arts
UOC6 HPW3
Prerequisite: SOMA9201.

This is an advanced course that assumes prior knowledge of 3D software. The 3D Animation Workshop provides a platform for comprehensive instruction in the disciplines required for professional short animation production. The class will also illustrate many applications for 3D computer effects and animation in the world of digital media. The 3D Animation Workshop extends on the concepts developed in the introductory sessions of 3D Animation 1.

SOMA9500
Digital Media Major Project Workshop
School of Media Arts
UOC18 HPW6
Prerequisite: SOMA9102 or SOMA9202.

This course involves the development of a major project in the field of digital media that integrates the work undertaken in the first two semesters of the Masters program in the context of a complete production. Students are asked to plan and produce a collaborative or individual exercise that follows an agreed schedule, scope and budget, which integrates the digital production processes they have been using within the masters program. Close consultation with an academic supervisor is a key component of this course, as is group work and analysis on the planning and execution of projects. Works undertaken may range from short narrative and documentary subjects, to motion graphics works, interactive or installation works and 3D animations. It is expected that a significant commitment outside of formal teaching hours will be required from students to complete this course.

SOMA9705
Lighting
School of Media Arts
UOC6 HPW3

Lighting 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.

SOMA9713
Photomedia 1
School of Media Arts
UOC6 HPW3

This studio-based course will assist students in developing the conceptual and practical abilities to produce imagery in the context of contemporary art practice. Students will be encouraged to develop their critical, analytical and investigative skills within an environment that fosters an awareness of historical precedents, theories of contemporary photography and inter-disciplinary approaches.

SOMA9714
Photomedia 2
School of Media Arts
UOC6 HPW3
Pre-requisites:SOMA9713

This studio-based course will assist students in consolidating their practical and conceptual skills into a resolved body of work that their focus of inquiry within the broad field of photo-based image production. Students are encouraged to progressively develop the ability to assess their practice within the context of contemporary art practice.

SOMA9715
Photomedia 3
School of Media Arts
UOC6 HPW3

To develop conceptual and practical abilities at a professional level in the production of imagery appropriate to a contemporary art practice.

SOMA9716
Photomedia 4
School of Media Arts
UOC6 HPW3

To develop conceptual and practical abilities at a professional level in the production of imagery appropriate to a contemporary art practice.

SOMA9717
Time-Based Art 1
School of Media Arts
UOC6 HPW3

Students will create and present conceptually and theoretically informed practical investigations into chosen time based art practices which may include: experimental film, video art, performance, installation, interactive multimedia and experimental sound. The course also encourages students to critically analyse the conceptual basis of their work and to develop technical and conceptual skills appropriate to the work. It is assumed that the student will have had an appropriate and related undergraduate training in the fine arts and possess a level of technical skill to begin practical work

SOMA9718
Time-Based Art 2
School of Media Arts
UOC6 HPW3
Pre-requisites SOMA9717

Students will continue to create and present conceptually and theoretically informed individual art work in the areas of: experimental film, video art, performance, installation, interactive multimedia and experimental sound. The course will further encourage students to critically analyse the conceptual basis of their work and continue to develop technical and conceptual skills appropriate to the development of the work. It is expected that by the end of the course the student would have developed an individual art practice to a high level and understand the context in which contemporary time based and media art work is created and presented.

SOMA9719
Time-Based Art 3
School of Media Arts
UOC6 HPW3

To develop contemporary forms of art practice from the interdisciplinary areas of installation and performance and from the technologies available to the time based areas of film, video, sound and computing; to allow ideas to develop with these means which are critically acute and appropriately informed.

SOMA9720
Time-Based Art 4
School of Media Arts
UOC6 HPW3

To develop contemporary forms of art practice from the interdisciplinary areas of installation and performance and from the technologies available to the time based areas of film, video, sound and computing; to allow ideas to develop with these means which are critically acute and appropriately informed.

SOMA9725
Introductory Interactive Multimedia
School of Media Arts
UOC6 HPW3

This course will develop knowledge and awareness of concepts and techniques involved in multimedia computing within a visual arts context. The focus of the course will be on utilising multimedia authoring tools to acquire the knowledge and skills to produce individual or collaborative projects. Emphasis is on self-development and progress by constant exploration and practice. This course is intended to provide creative opportunities and support for the interested non-specialist. The goal is to support the student in an experimental artistic practice.

SOMA9726
Introductory Animation
School of Media Arts
UOC6 HPW3

Introductory Animation is a general introduction to various techniques and methods involved with both the linear capture of pictures onto film or hard drives, and other computer animation techniques. Students will develop timing skills and investigating through workshops various approaches to timing. Through a series of projects, workshops and tutorials students will also develop a comprehensive range of approaches to computer animation.

SOMA9730
Analogue Photography
School of Media Arts
UOC6 HPW3

This course will provide an introduction to and overview of black and white analogue photographic processes. The emphasis is on the investigation of analogue photographic techniques as utilised by contemporary visual arts practitioners. The following basics are covered: overview of 35 mm camera operation; B/W film types and exposure; film processing and printing; darkroom procedures; and print finishes and presentation. Practical workshops in camera use and darkroom practice are conducted to enhance the acquisition of technical skills towards the production of photomedia based works of an increasingly professional standard

SOMA9731
Digital Imaging
School of Media Arts
UOC6 HPW3

In this studio workshop the student is introduced to the basic concepts and potential of digital imaging processes. The emphasis is on the integration of digital imaging technologies as utilised in visual arts practices. The course explores how the application of digital processes can be used for extending image visualisation, production and presentation. The student is introduced to examples of artworks by contemporary artists who have applied, or integrated, digital technologies within their work.

SOMA9736
Advanced Analogue Photography
School of Media Arts
UOC6 HPW3

Assumed knowledge of basic photographic processes and techniques is necessary for this course. Assumes student has knowledge from Undergraduate studies or Professional practice in photomedia (Completion of SOMA9730 meets this requirement) .

The course provides an introduction to and overview of colour analogue photographic processes and medium format camera operation for graduate students. The emphasis is on the investigation of analogue photographic techniques as utilised by contemporary visual arts practitioners. The following basics are covered in Graduate Analogue Photomedia: overview of medium format camera operation; colour film types and exposure; colour (type C) printing techniques; colour darkroom procedures; and colour print finishing and presentation. A demonstration of medium format camera use and workshops in colour darkroom practice are conducted to enhance the acquisition of technical skills towards the production of photomedia based works of an increasingly professional standard.

SOMA9737
Vector Graphics in Visual Arts
School of Media Arts
UOC6 HPW3

Assumed knowledge of photographic processes and digital imaging software is necessary for this course; the equivalant of SART1312.

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 and graphic based images, and artist's publications. Students will also be introduced to advanced scanning equipment and their requirements. The emphasis is on the integration of digital technologies as utilised in visual art practices. The course advances the student's skills for image production, visualisation and presentation.

SOMA9739
Advanced Interactive Multimedia
School of Media Arts
UOC6 HPW3
Pre-requisites:SOMA9725

This course will enable students to further develop their conceptual and technical skills in multimedia production. It will cover a variety of approaches and software for producing online work utilising the web to develop the knowledge and techniques to produce individual projects. Emphasis is on the completion of fully operational interactive projects.

SOMA9740
Narrative and Gameplay
School of Media Arts
UOC6 HPW3

This course provides a detailed examination of screen based media in both popular cinema and interactive games. Principles of narrative structure are introduced, with a detailed examination of the roles of archetype, genre and myth in the development of narrative experience. Students undertake creative exercises in the development of scenarios based on these principles.

These concepts lead into a detailed examination of the games media its history and current developments in both technology and gameplay as they relate to use experience. Different games are explored from a theoretical point of view, while students develop original scenarios for their own games.

SOMA9741
Writing for Digital Media
School of Media Arts
UOC6 HPW3

This course aims to develop the creative writing skills of students in a way that is meaningful to their work as media practitioners. Writing scenarios, genres and styles are explored through creative writing exercises, while students both produce and critique a range of different written texts that extend their skills as writers.

Screenplay and storyboarding for films are also developed, with a particular emphasis on the wholistic development of correctly formatted script materials. Students are exposed to case studies in both script and character development, and these concepts are extended into practical visualisation through storyboards.

Interactive media are considered, with specific reference to styles of interactivity, information architecture and the role of the user in interactive experiences.

SOMA9742
Introduction To Sound
School of Media Arts
UOC6 HPW3

Students will gain the conceptual and technical skills to develop soundscapes and audiovisual soundtrack work. Technically, the following elements are covered: digital sound recording, editing and mixing; sampling; synthesis and; sound design. All students will gain proficiency on the basic operation of the sound studios. Various conceptual, aesthetic and philosophical approaches to sound and sound design will be introduced through critical discussion of examples and project work.

SOMA9743
Advanced Animation and Video Graphics
School of Media Arts
UOC6 HPW3
Pre-requisites:SOMA9726

Advanced Animation and Video Graphics offers the student who had already completed Introductory Animation the chance to develop more complex techniques and projects. More emphasis is given to project management and a greater detail is developed about the particular project requirements. Also more detail is given to Composting and other Video Graphic techniques.

SOMA9744
Advanced Sound
School of Media Arts
UOC6 HPW3
Pre-requisites:SOMA9742

Advanced Sound allows postgraduate students to further develop principles, techniques and applications of sound technology and theories that have been introduced in "Introduction to Sound". Comprised of lectures, a screening and listening program, individual and group work, and consultation processes, the course expands upon techniques and ideas in soundscape; sound design and sound/music scores for audio/visual works; MIDI composition, synthesis, and surround sound. Students will develop and complete individual projects across those audio strands that are relevant to their practice.

SOMA9745
Introduction to Photographic Studio Lighting
School of Media Arts
UOC6 HPW3

This course introduces students to the basic analysis and control of natural and artificial light for photography. Students are instructed how to observe the quality of natural light for photography as a basis for learning basic photographic studio lighting techniques and their creative applications. Students require knowledge of basic B/W and colour photography; 35mm camera operation; film exposure and processing; and print production. The emphasis is on the development of new technical skills central to the production and advancement of students' work. Exercises and projects are set which focus on the production of photographic images for contemporary visual art works.

SOMA9746
Advanced Photographic Studio Lighting
School of Media Arts
UOC6 HPW3
Prerequisite: SOMA9745.

This course introduces students to advanced techniques in studio lighting and their creative applications. The course focuses on the use of artificial lighting techniques for studio lighting set-ups in addition to specific lighting techniques for portraiture and still life. The student is required to have knowledge of basic lighting techniques; B/W and colour photography; 35mm camera operation; film exposure and processing; and print production. The emphasis is on the development of new technical skills central to the production and advancement of the studentâ 's work. Projects are set which focus on the production of photographic images for contemporary visual art works.

SOMA9747
Cinematography Workshop
School of Media Arts
UOC6 HPW3

Cinematography Workshop offers students grounding in the technical operation of cameras and lighting equipment, and also explores related conceptual approaches. Attention is focused on the control of the media through an understanding of framing, lighting, film stock and professional video formats. Areas of study include camera operations, film language, exposure, lighting, camera mounts, frame speed, filters, printing, the laboratory process and, increasingly, high-definition video production processes. Classes include demonstrations and workshops, discussions and tutorials, reviews and critiques.

SOMA9749
Video Art
School of Media Arts
UOC6 HPW3

Video Art offers an engagement in the process of creating individual video art projects including the technical, theoretical, conceptual and historical understanding of the artform. Final Cut Pro digital video editing software, simple DVD authoring and the processes of creating video installations are covered within the course. Classes include demonstrations, workshops, screenings, discussions and technical instruction.

SUSD0001
Sustainable Development and the Urban Environment
Architecture Program
UOC6 HPW3

A review of innovative approaches to the planning, design and management of the 'sustainable city', with an emphasis on techniques which seek to maintain and/or improve air quality, water quality and biodiversity. Topics include principles of urban ecology and sustainable development, the ecological 'footprint' of the metropolis, water cycle management, urban design and transportation issues, urban forestry, parks systems and greenways, use of tools for assessment/evaluation. The course will be based on lectures, seminars and case studies.

SUSD0002
Resources, Materials and Sustainability
Architecture Program
UOC6 HPW3

The life cycle of building materials from the availability and acquisition of the raw materials, through processing and manufacture to on-site construction and use, maintenance and refurbishment, and eventual demolition and reuse/recycling or disposal. Consideration of environmental impacts at each stage of the life cycle, such as embodied energy, wastes generated and their disposal, and ways in which design may minimise or eliminate such impacts. Economics and management of sustainable buildings.

SUSD0003
Energy and the Built Environment
Architecture Program
UOC6 HPW3

Energy - definitions and terminology. Energy flows, balance, options, demand and supply solutions in the context of the Built Environment. Urban energy infrastructure impact, energy in transportation, global warming and environmental impact assessment. Use of tools for assessment/evaluation (performance simulation and benchmarking). Future technologies, architectural impact and regional development implications.

SUSD0004
Human Factors, Sustainability and Habitability
Architecture Program
UOC6 HPW3

The impact of buildings and urban environments on quality of life or habitability, and of values and preferences on sustainability or quality of the environment, concentrating on five fundamental human factors: environmental responsibility, health and wellbeing, comfort and amenity, security, and equity. Responsibility focuses on practitioner and community environmental ethics. Health evaluations include sick building syndromes, light quality and performance, indoor air quality, and urban thermal- and air-pollution. Comfort and amenity concentrate on the influence of user knowledge and preference on energy use and environmental impact. Security evaluates the role of environmental design and territoriality in the experience of security in buildings and urban domains. Equity aspects include affordability, accessibility, and community participation in environmental design and management.

SUSD0005
Graduate Project
Architecture Program
UOC18 HPW6

A supervised research or design project from a selected field of interest will be identified in consultation with the Program Head. A research topic may exted to areas of interest in closely related disciplines if suitable arrangements can be made for supervision. In case of a research project, its design and methodology should be well resolved prior to proceeding with the other aspects of the research. In case of a design project, a suitable design brief should have been agreed to with the supervisor prior to entering the design phase. The outcomes in either case should demonstrate high level skills and communication. The research report should not exceed 20,000 word.

SUSD0006
Design Research Methods
Faculty of the Built Environment
UOC6 HPW3

This core course aims to inform students enrolled in the Master of Sustainable Development Program (and other FBE Coursework Masters Degrees or Research Postgraduates - as an elective) of the range of research methods appropriate to the understanding and design of the built environment, and to assist them in the development of their Graduate Projects, Workbook Assignments (or Dissertations) and Design Studio Investigations. Given the complex array of interrelationships between people and their physical, ecological, economic, socio-spatial and cultural environments which need to be considered by the responsible practitioner, the Course ranges widely across the research strategies available - from observation and simulation of buildings and cities to building physics, post occupancy evaluation and statistical verification. Theoretical, empirical and phenomenological approaches are elaborated, and both qualitative and quantitative methods addressed.The course is offered in intensive mode, two 3-hour lecture/seminars a week for 5 weeks with week 6 designated as research write-up time, with no class time. The seminar periods (and computer laboratory) allow students the opportunity for interaction, discussion and practice. The outcome expected is the development of a comprehensive research proposal - based on students' areas of interest - and inclusive of a critical rationale for the Design Research Methods selected. Serves as a hypothetical basis for the Graduate Project (Research or Design).

SUSD0007
Desgin Studio
Faculty of the Built Environment
UOC12 HPW0

This course is offered to students enrolled in the Master of Sustainable Development Program (and other FBE Coursework Masters Degrees or Research Postgraduates - as an elective). The Design Studio is an opportunity for students to acquire and apply the design skills required to integrate environmental issues in architecture. The focus of the studio is the single building or group of buildings, with an emphasis on minimizing the impact of buildings on the global environment, while maintaining environmental quality within the building by using passive or bioclimatic approaches to design. This studio complements others dealing with broader urban and regional scales, offered by the Master of Urban Design and Development (MUDD) program in the Faculty of the Built Environment. On completion of the Studio, students will be able to demonstrate professional level skills in the management and application to design development of advanced computer modelling of energy use, renewable energy, thermal performance, air flow and lighting, and will have undertaken at least some physical scale modelling for analysis and visualization of wind effects, solar penetration and shading, daylighting and acoustic performance. They will be able to prepare compliance reports to support their design work, under one or more sustainability rating frameworks such as Australian Greenhouse Building Rating tool (AGBR) or BASIX, the world's first web-based planning tool designed to assess the water and energy efficiency of new residential developments.

SWCH9001
Basic Reproductive Physiology
School of Women's and Children's Health
UOC6

This course begins in the areas of genetics and molecular biology, then explores the reproductive, and other related hormonal systems, and their effect on reproduction. The male reproductive function and spermatogenesis are also reviewed. The mechanism of sexual determination, differentiation and development towards reproductive competence are examined.

SWCH9002
Contraception
School of Women's and Children's Health
UOC6

This course deals with the social, epidemiological and ethical aspects of family planning. It explores the various methods of contraception, sterilisation and pregnancy termination, enabling students to better understand possible future developments in family planning.

SWCH9004
Clinical Reproductive Medicine 1
School of Women's and Children's Health
UOC6

This course is predominantly an introduction to infertility with areas of study including epidemiology, preliminary and advanced investigation and diagnostic techniques for both female and male factors. Although not focusing on technique the role of ultrasound, endoscopic and radiological procedures will be explored.

SWCH9007

Menopause
School of Women's and Children's Health
UOC6

This course explores the historical and epidemiological aspects of the menopause. It seeks to develop an improved understanding of the physiology and pathophysiology of menopause thereby better enabling the student to provide competent.

TAHM5010
Global Perspectives in Tourism
School of Marketing
UOC6 HPW3
Prerequisite or corequisite: MARK5800 or MARK5801

Examines and discusses contemporary global tourism issues from the perspectives of government, business and customers/visitors. Issues include crisis management, recovery strategies for disaster-hit destinations, sustainable tourism, technological contribution to the global tourism industry, development of cultural and nature-based tourism, and the conflicting imperatives of economic gains vs social impacts of tourism in developing societies.

TAHM5011
Strategic Tourism Marketing
School of Marketing
UOC6 HPW3
Prerequisite or corequisite: MARK5800 or MARK5801

Through case-studies and real-world examples, students learn, evaluate and debate the strategic marketing activities adopted by private- and public-sector tourism organizations. Fundamentals of strategic marketing in tourism, such as branding, segmentation and cooperative alliances, are discussed in depth. Particular emphasis on how strategic options differ between small & large-scale enterprises and national destination & regional destination organisations. A research assignment requires students to develop a strategic marketing plan for an existing tourism operation.

TAHM5012
Creating & Managing Alliances in Global Tourism
School of Marketing
UOC6 HPW3
Prerequisite or corequisite: MARK5800 or MARK5801

The highly competitive environment in global tourism demands that tourism destinations, tourism enterprises and government-funded tourism promotion bodies develop innovative means of reducing marketing costs, optimising marketing reach and implementing more effective marketing strategies. Adopting a case-study learning approach, students are exposed to a variety of real and artificial scenarios for achieving effective alliances. The main alliances studied are those adopted by airlines, hotels and destination organisations.

TAHM5013
Destination Marketing & Management
School of Marketing
UOC6 HPW3
Prerequisite or corequisite: MARK5800 or MARK5801

Today's international and domestic tourists seek more than the traditional sun-and-surf destinations. Some of the motivational drivers that destinations now use to attract tourists in an increasingly competitive environment revolve around nature-based experiences, adventure, culture, retailing and entertainment, events, meetings and conventions. Yet for destination marketing and management organisations influencing demand represents just one side of the coin. They must also manage supply side issues: private sector investment in tourism facilities, government support of tourism promotion, service quality standards, promotion of information technology to industry and tourism industry support through market intelligence and management advice. Case-studies, guest lectures and in-depth research projects support the learning objectives of this course.

TELE9301
Switching System Design
School of Electrical Engineering and Telecommunications
UOC6 HPW3
Excluded: TELE4363

To provide an introduction into principles, structures and methods for constructing switching systems capable of supporting data, voice, image and video transport. The focus is on the design principles as well as the methods for constructing networks which provide quality of service guarantees. A student who successfully completes this course will get an understanding of the trends, and the key switching technologies, and develop the understanding necessary to design, analyse and implement traffic and congestion control in data communication networks.

TELE9302
Computer Networks
School of Electrical Engineering and Telecommunications
UOC6 HPW3
Excluded: TELE4352

An overview of computer networks. Issues in the data link layer: Error correction and detection, flow and error control and shared medium access schemes. Concepts in the network layer: introduction to the Internet Protocal (IP), IP addressing, classical IP subnetting technique and IP routing. Transport layer concepts: introduction to the Transport Control Protocol (TCP) and User Datagram Protocol (UDP). The operation of the different Internet applications: HTTP, DNS, FTP, SMTP and Internet multimedia streaming applications.

TELE9303
Network Management
School of Electrical Engineering and Telecommunications
UOC6 HPW3
Excluded: TELE4354

This course complements courses in Switching Systems, and Computer Networks and gives students an understanding of the concepts of network and content management. It introduces concepts that are used in the management modern communication networks by examining SNMP in detail. Then it introduces the concepts that are used for management of mobility in these networks. Finally, it examines the concepts of content management by examining the fundamental concepts of caching, and the emerging technologies associated with content distribution networks.

TELE9337
Advanced Networking
School of Electrical Engineering and Telecommunications
UOC6 HPW3

Data transmission on telephone networks. Local area network interconnection. Analysis of protocols for data link, network and transport layers. TCP/IP protocols. Operating system views of communications; network protocol drivers, network servers. Case studies: Asynchronous Transfer Mode (ATM), MPLS, Wavelength Division Multipleting (WDM) and Multimedia Communications.

TELE9343
Principles of Digital Communication
School of Electrical Engineering and Telecommunications
UOC6 HPW3
Excluded: TELE4333

Principles of signal time discretisation, amplitude quantisation, A/D and D/A conversion. Matched filter receiver, principles of single symbol digital signal detection and probability of bit/symbol error. Intersymbol interference (ISI), Nyquist criteria for ISI free transmission. Equalization, linear equalizar, decision feedback equalizer. Adaptive equalization, LMS algorithm (RLS adaptive algorithm - optional). Khinchin's geometrical representation of digital signals. Communication system as a signal vector space. Application of Gram-Schmidt ortogonalization procedure in telecommunications. Modulation schemes BPSK, FSK, QPSK, MSK. Probability of bit error and spectral properties of mentioned modulations. (CDMA and spread spectrum principle - optional). Principles of Information Theory. Entropy, source coding, Shannon channel capacity for discrete and continuous channels. Channel coding theory; Block, cyclic and convolutional codes; Viterbi decoding; Trellis coded modulation. Principles of soft-input soft-output decoding algorithms, turbo codes.

TELE9344
Cellular Mobile Communications
School of Electrical Engineering and Telecommunications
UOC6 HPW3
Excluded: TELE4353.

Modern communication systems from a systems point of view. Cellular mobile communication systems. Radio Propagation-loss model. The mobile fading channel. Multiple access techniques TDMA, CDMA. Modulation and coding in mobile communication systems, Equalization and channel diversity, Wireless Standards - GSM and CDMA IS-95. The concept of Spread Spectrum (SS) Communications - historical background; Major Characteristics of SS-CDMA; Direct Sequence Spread Spectrum; Basic Features of DS-CDMA Systems, PN Sequences; CDMA System Processing Gain; Synchronization in CDMA; The BER Performance of DS-CDMA System; Interference Limited Capacity of a Single Cell CDMA System; Adaptive Mutiuser Detection on Multipath Fading Channel; Diversity and Smart Antennas ;Antenna Beam-Forming, and Space Division Multiple Access ; Overview of Fundamental Concepts Used in IS-95 CDMA; Channel Coding (Convolutional Codes); Maximum Likelihood Decoding (Viterbi Algorithm); Hadamard-Walsh Orthogonal Coding (orthogonal modulation); Concatenated Coding and Block Interleaving ; IS -95 CDMA Link Capacity; CDMA 2000; Evolution of IS-95 to CDMA 2000; Conceptual Similarities and Differences Between IS-95 and CDMA 2000.

TELE9345
Adaptive Signal Processing in Telecommunications
School of Electrical Engineering and Telecommunications
UOC6 HPW3

The course is roughly in two halves. The first half covers adaptive signal processing and the second half concentrates on telecommunication applications. The adaptive signal processing material will cover a selection of topics from: algorithm construction (for both finite impulse response and infinite impulse response filters) such as LMS, EWLS, Kalman filter based algorithms and their derivatives; algorithm stability (including tracking analysis) and algorithm performance (including misadjustment). Background stochastic process material such as autocorrelations, autoregressive processes, spectra will also be included. The telecommunications component will focus in depth on applications such as equalization and mobile channel estimation, signal carrier and timing synchronization, adaptive multiuser detection in 3G mobile communication systems, adaptive CDMA RAKE receivers, adaptive or smart antennas in mobile communications. There will be a significant computational component to the course involving computer based simulation.

TELE9912
Project Report A
School of Electrical Engineering and Telecommunications
UOC6 HPW6

The project is done in a major area, under the supervision of an academic member of staff. Where the work is carried out externally, a suitable co-supervisor may be required. Projects can take many forms such as the design and construction of experimental equipment or a theoretical investigation. Work is to be carried out over two sessions. At the end of the work a comprehensive project report giving an account of the student's own research must be submitted. Information on the preparation of project reports is contained in the University Calendar.

TELE9913
Project Report B
School of Electrical Engineering and Telecommunications
UOC6 HPW6

The project is done in a major area, under the supervision of an academic member of staff. Where the work is carried out externally, a suitable co-supervisor may be required. Projects can take many forms such as the design and construction of experimental equipment or a theoretical investigation. Work is to be carried out over two sessions. At the end of the work, a comprehensive project report giving an account of the student's own research must be submitted. Information on the preparation of project reports is contained in the University Calendar.

UDES0001
Urban Design Studio
Architecture Program
UOC12 HPW6

The aim of this studio is to establish a knowledge base for commencing students upon which urban design skills can be developed. The studio commences with generic design studies investigating the paradigms and typologies if urban design to develop a vocabulary of urban space upon which later design studio projects can be built. This is followed by a conceptual project, which provides an initial opportunity of applying what has been learned to a specific urban setting. Note: Where enrolment numbers permit, students commencing in Session 2, or part-time students for whom this is the concluding studio, will undertake an alternative

project in a specific urban setting aimed as refining professional urban design skills.

UDES0002
Urban Design Studio
Faculty of the Built Environment
UOC12 HPW9

Building on the introductory generic and conceptual introductory projects, this studio investigates a large-scale and complex urban development (or re-development) area, usually in Sydney or another major urban centre in NSW. This studio commences with a broad analysis of the social, economic, environmental and regulatory factors shaping urban form followed by the development of a conceptual framework (structure plan) for future development. The detailed design of urban elements and precincts is then undertaken including the development of guidelines capable of ensuring that design intentions can be realised. Typically, this includes residential, commercial, and institutional and transport infrastructure elements. The emphasis is on creating a socially responsible, environmentally sustainable and commercially feasible urban environment with reference to current urban design priorities such as urban consolidation and ecologically sustainable development principles. Note: When enrolment numbers permit, students commencing in Session 2, or part-time students for whom this is their first studio, will undertake an alternative studio similar to that outlined for UDES0001 Urban Design Studio.

UDES0003
Urban Design Studio
Architecture Program
UOC12 HPW12
Must be enrolled in Program 8131

This studio focuses on major urban projects in international cities. The location of the project will vary from year to year and typically involves two alternative locations, one of which is usually located in the East Asian region. The projects are typically large-scale urban interventions that are complex by nature and may include financial and commercial centres, tourism and recreation development, housing areas and associated transport, services, communications, and environmental management. Central to the studio is developing an understanding of the regional context in socio-cultural, political, economic and environmental terms through expert briefings and field investigations and consideration of these factors in the urban design process and appropriateness of the design products. The studio normally involves two weeks of intensive overseas studio and field work (sometimes in collaboration with a local university) followed by 5 to 6 weeks of studio work back in Australia. Note: Travel and associated costs for this project are in addition to the course fees.

UDES0004
History and Theory of Urban Development and Design
Architecture Program
UOC6 HPW2

Over the last twenty years there has been a revolution in production, from one based in nation states, to global economic networks and informational capitalism. Over the same period, and in order to explain what is happening, critical urban theory has undergone a similar revolution. Fundamental to this change has been a movement from pure social and economic theory to incorporate the creation of spaces and places. The rate of change has been such that theoretical explanation of the world we live in has had difficulty in keeping up with the accelerating pace of social change. Using international examples of development, including from the South East Asian region, this course first builds a theoretical scaffolding that explains the forces underlying the global political economy, prior to a series of case studies of capital cities and the urban projects currently being built within them. The course therefore integrates the real world of development and urban design, with the world of theory. In the process a comprehensive picture is constructed of the growth of cities and the complexity of urban space.

UDES0006
Case Studies in Urban Development and Design
Architecture Program
UOC6 HPW4

Generic examples of urban development and design assembled from both Australia and the SE Asian region are presented and analysed in order to assess the validity of the objectives, the effectiveness of the process, and the costs and benefits of the results in improving the city and the welfare of its citizens. The major object is to demonstrate through practical examples how major developments are conceived, financed, designed and built.

UDES0007
Planning and Urban Development
Architecture Program
UOC6 HPW2

Understanding the relationship between processes of urban development and regulatory systems is central to urban design. This course deals broadly with nature of the property market, the development industry and systems of planning law and administration and how they interact in the context of major urban projects. It also outlines the various methods for developing guidelines that ensure that urban design intentions can be successfully realised. These issues are explored from both an international and local perspective using examples and case studies.

UDES0009
Urban Landscape and Heritage
Architecture Program
UOC6 HPW2

This course critically examines the role of landscape architecture and heritage conservation in the making of the modern city. While it distinguishes between nature and artifice (something created from human labour) it recognises that the earth is now both commodified and urbanised. As a consequence, the landscape and history of the city have become central to the human condition in direct proportion to the modification, manipulation and loss of these key components of urban identity. Therefore, a fundamental knowledge of the relationship between development impacts, heritage conservation and environmental sustainability is critical to an understanding of contemporary urbanisation. The course explores the relationship between ecology, history and urban morphology, showing how theoretical constructs within the discipline have changed with the changing landscapes of production and consumption which now characterise the cities of the world.

UDES0010
Communication in Urban Design
Faculty of the Built Environment
UOC6

Focuses on two of the main communication modes of urban design - publication and exhibition. Skills in writing, editing, graphic design, photography, publishing, exhibition design and management are developed through the preparation of the annual MUDD publication and exhibition.

Glossary

Award

An award is a degree, diploma or certificate obtained when a student graduates from a program at UNSW. It recognises the student's successful completion of that program.

Bachelor

A Bachelor degree is the formal award a student receives when they successfully complete an undergraduate university degree program, ordinarily of three or more years duration.

Campus

This is the teaching location where a program, course or plan is taught. UNSW has several campuses including the main campus at Kensington, the College of Fine Arts campus in Paddington, and the Australian Defence Force Academy in Canberra.

Co-major

A co-major is part of a sequence of study for a program in which the requirements for two majors are met.

Combined Program

A combined program is a program of study which leads to the award of two degrees, that is, the graduate earns two qualifications (an example of this would be the Bachelor of Arts/Bachelor of Laws.) These are also sometimes called combined degrees. They have a single set of program rules.

Corequisite

A corequisite is a course which is linked or integrated with another course so that the two must be studied concurrently.

Course

Otherwise known as a subject, a course is an individual study unit offered within a program and plan (for example, MATH1131 - Mathematics 1A). Students enrol in many courses to make up their program of study, some of which may be core courses (courses which need to be completed to satisfy the requirements of a particular program) and some of which may be elective courses (where students are given a choice of courses). At UNSW, courses are identified by a four character alphabetic prefix which identifies the subject area or specialisation and a four digit numeric suffix e.g. ECON1101 -Microeconomics 1.

Coursework

Coursework refers to a mode of study which is largely or wholly constituted of courses involving face-to-face class instruction. It is a term which is commonly used with regard to undergraduate and postgraduate study. The other mode of postgraduate study is research.

Degree

A degree is the formal qualification awarded when a student graduates from an undergraduate program of study such as a Bachelor of Arts, or a postgraduate Masters or PhD program.

Department

See School.

Doctorate/Doctoral program

A doctoral program is a postgraduate research program where students independently research a specific topic under the guidance of a supervisor to produce a thesis. For a doctorate, considerably more original work is required than for a Masters by Research program. Students should note that in some faculties, coursework may also be prescribed.

Faculty

Faculties are the large academic organisational units of the University, and are generally comprised of several schools or departments. UNSW has eight faculties: Arts and Social Sciences; Built Environment; Commerce and Economics; Engineering; Law; Medicine; Science; College of Fine Arts. University College, ADFA, and the Australian Graduate School of Management are also regarded as faculties.

Fast-track program

UNSW offers several "fast-track" or "Masters track" programs. These give students the opportunity, if they meet progression requirements, to progress directly from an undergraduate program to a particular Masters program with some courses in the final year counting towards both qualifications e.g. the Bachelor of Engineering/Master of Commerce.

General Education

UNSW requires undergraduate students to complete some courses outside the study area of the degree program in which they are enrolled. General Education courses are offered in a variety of general subject areas to allow students to complete this requirement.

International Student

International students are citizens of a country other than Australia or New Zealand and are not Australian permanent residents.

Local Student

Local students are Australian citizens, Australian permanent residents or New Zealand citizens.

Major

Many programs require students to complete a major. A major is an approved sequence of study in an area of academic or vocational specialisation. This is also sometimes referred to as a 'plan' (see below).

Masters

A Masters program or degree is a postgraduate program where students enrol in an approved sequence of courses involving face-to-face instruction. Some Masters programs also involve a research component.

Minor

In some programs, students are required to supplement their study major (see above) with a 'minor.' This is a sequence of study in a secondary area of specialisation, comprising fewer units of credit than a major (usually 24). For example, a student enrolled in an Science degree program might complete a major in Anatomy and a minor in Zoology. Majors and minors are both examples of a 'plan' (see below).

Non-Award

Non-award enrolment means that the course/s undertaken by the student do not lead to the award of any formal degree, diploma or certificate at UNSW. Students from other universities (cross institutional students) often enrol in non-award courses at UNSW, as credit may be granted for these courses by their home institution.

PhD

See Doctorate.

Plan

A plan is a sequence of study within a program focused on a particular study area, usually requiring students to complete an approved sequence of 'core' and 'elective' courses. At UNSW, plans are identified by a five-digit alphabetical prefix and a five-digit numeric suffix e.g. SENGA13648 refers to the full-time Software Engineering plan.

Postgraduate

Postgraduate programs of study are available to students who have already completed a university degree program in a related area. They offer the opportunity for students to further their skills and qualifications in a particular area of specialisation. Completion of a postgraduate program may lead to an award of a Graduate Certificate, Graduate Diploma, Masters (by Coursework or Research), Doctorate (PhD) or post-doctoral qualification.

Prerequisite

Some courses have prerequisites. A pre-requisite is a requirement which must be completed before enrolling in the course or the next level of courses e.g. completing a Level I MATH course before progressing to Level II MATH courses.

Program

A program is an approved program of study which leads to the award of a degree, diploma or certificate. Programs may be undergraduate or postgraduate and are identified by a four-digit numeric code e.g. the program code for the Bachelor of Psychology is 3432.

Research

Research programs of study are postgraduate programs of study which involve a student independently researching a specific topic under the guidance of a supervisor and producing a thesis or report. Some research programs involve a coursework component.

School

This is an academic organisational unit, also sometimes referred to as a department. Faculties may be comprised of several schools e.g. the Faculty of Arts and Social Sciences has 12 schools including the School of Philosophy and the School of History.

Session/Semester

A session or semester is a university teaching period. Each academic year, there are two main sessions (Session 1 and Session 2), usually of 14 weeks teaching, plus an examination period. There are also shorter Summer and Winter sessions that run during the breaks between the major sessions. Exceptions to this pattern are the Faculty of Medicine and the Australian Graduate School of Management whose academic years are divided into four teaching periods.

Specialisation

A specialisation is an area of academic expertise on which students' focus their studies, often by enrolling in a plan offered in that area, such as a Philosophy major within an Arts degree. Examples of specialisations include French, Biological Science, Taxation etc.

Stage

Programs are generally structured in a number of 'stages' of study, requiring students to complete a specified number of units of credit and/or a particular sequence of courses at each stage. Generally, when a student completes their degree program within the normal minimum time, the different stages will correspond with the different years of the student's enrolment (e.g. Level 1 is Year 1, Level 2 is Year 2, etc).

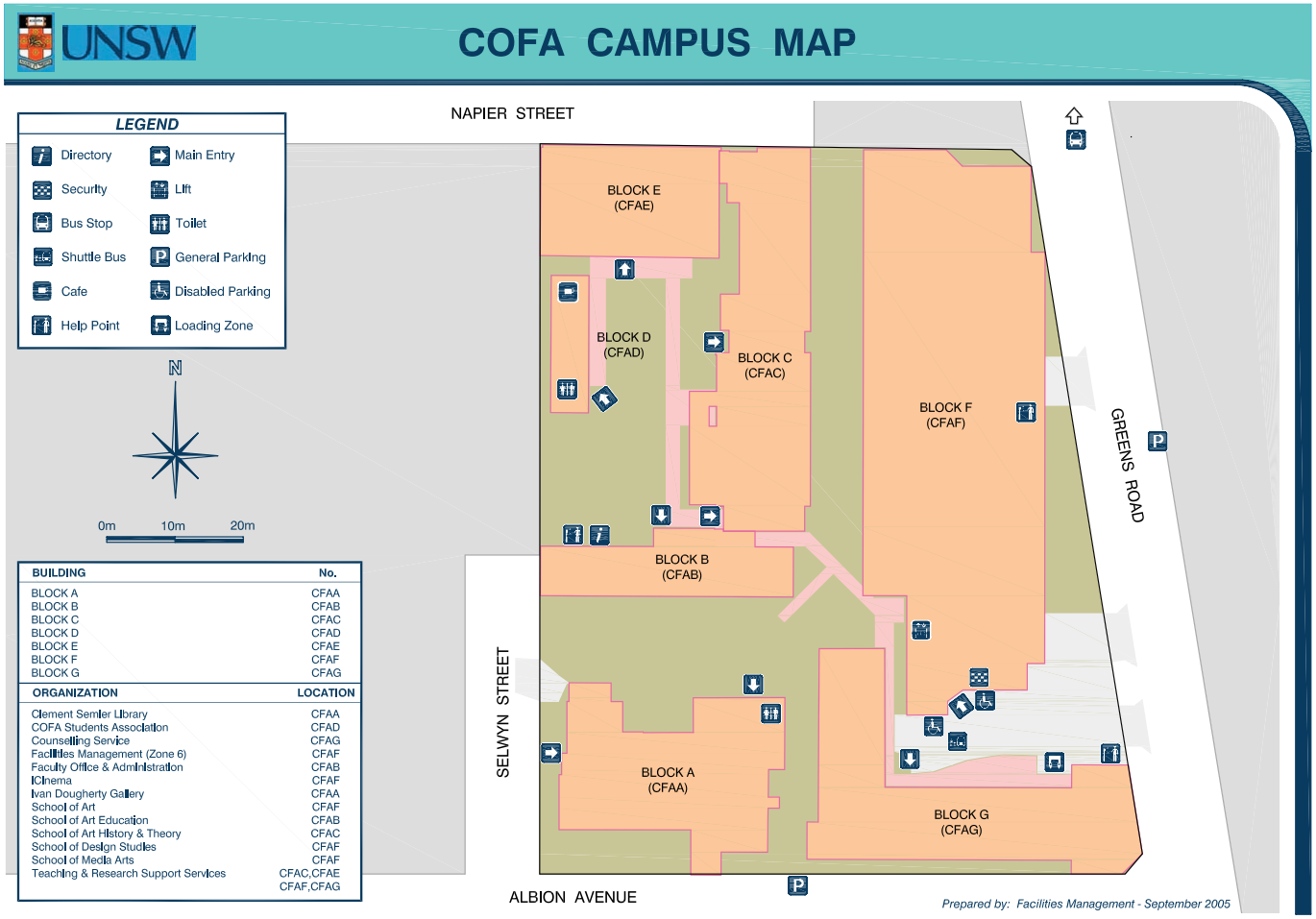
Undergraduate

Undergraduate programs of study are degree programs which do not require students to have previously undertaken university study in order to enrol. They are designed for students who have completed secondary studies (high school) in Australia or have a level of education deemed equivalent to this (e.g. equivalent overseas study or alternate entry programs).

Unit of Credit (UOC)

Each course at UNSW has a particular load or weighting which is referred to as a unit of credit e.g. the course ELEC1101 Electrical Engineering is worth 3 units of credit. This is often abbreviated to UOC. UNSW programs require the successful completion of a certain number of UOCs and fees are also charged on a UOC basis.

Maps



BUILDING	No.
BLOCK A	CFAA
BLOCK B	CFAB
BLOCK C	CFAC
BLOCK D	CFAD
BLOCK E	CFAE
BLOCK F	CFAF
BLOCK G	CFAG

ORGANIZATION	LOCATION
Clement Semler Library	CFAA
COFA Students Association	CFAD
Counselling Service	CFAG
Facilities Management (Zone 6)	CFAF
Faculty Office & Administration	CFAB
ICinema	CFAF
Ivan Dougherty Gallery	CFAA
School of Art	CFAF
School of Art Education	CFAB
School of Art History & Theory	CFAC
School of Design Studies	CFAF
School of Media Arts	CFAF
Teaching & Research Support Services	CFAC,CFAE CFAF,CFAG

The University of New South Wales • Kensington Campus

BUILDINGS

AGSM **G27**
Analytical Centre (Under Construction 2005/07) **G11**
Applied Science **F10**
Arcade **D24**
Biological Sciences **D26**
Blockhouse **G6**
Building **L5**
Chancellery **C22**
Civil Engineering **H20**
Dalton **F12**
Electrical Engineering **G17**
Food Science **B8c,C8a**
Golf House (38 Botany St.) **A27**
Goodsell **F20**
Heffron **E12**
K17 (Computer Science) **K17**
Law (Under Construction 2005/07) **F8**
Library **E21**
Library Stage 2 **F21**
Material Science **E8**
Mathews **F23**
Mechanical Engineering **J17**
Medical Administration **B27**
Metallurgy Process **D7**
Morven Brown **C20**
Newton **J12**
NIDA **D2**
Old Main **K15**
Pavilions **E24**
Petroleum Engineering **D12**
Quadrangle **E15**
Red Centre **H13**
Robert Webster **G14**
Roundhouse **E6**
Rupert Myers **M15**
Sam Cracknell Pavilion **H8**
Samuels **F25**
Scientia **G19**
Squarehouse **E4**
University Regiment **J2**
Vallentine Annexe **H22**
Wallace Wurth **C27**
Willis Annexe **J18**

RESIDENCES

Barker Apartments **N13**
Basser College **C18**
Baxter College **D14**
Goldstein College **D16**
International House **C6**
Kensington Colleges (Office) **C17**
New College **L6**
Shalom College **N9**
Warrane College **M7**

FACULTY OFFICES

Arts and Social Sciences **C20**
Australian Graduate School of Management (AGSM) **G27**
Built Environment **H13**
Commerce and Economics **F20**
Engineering **K17**
Law **F21**
Medicine **B27**
Science **F12**

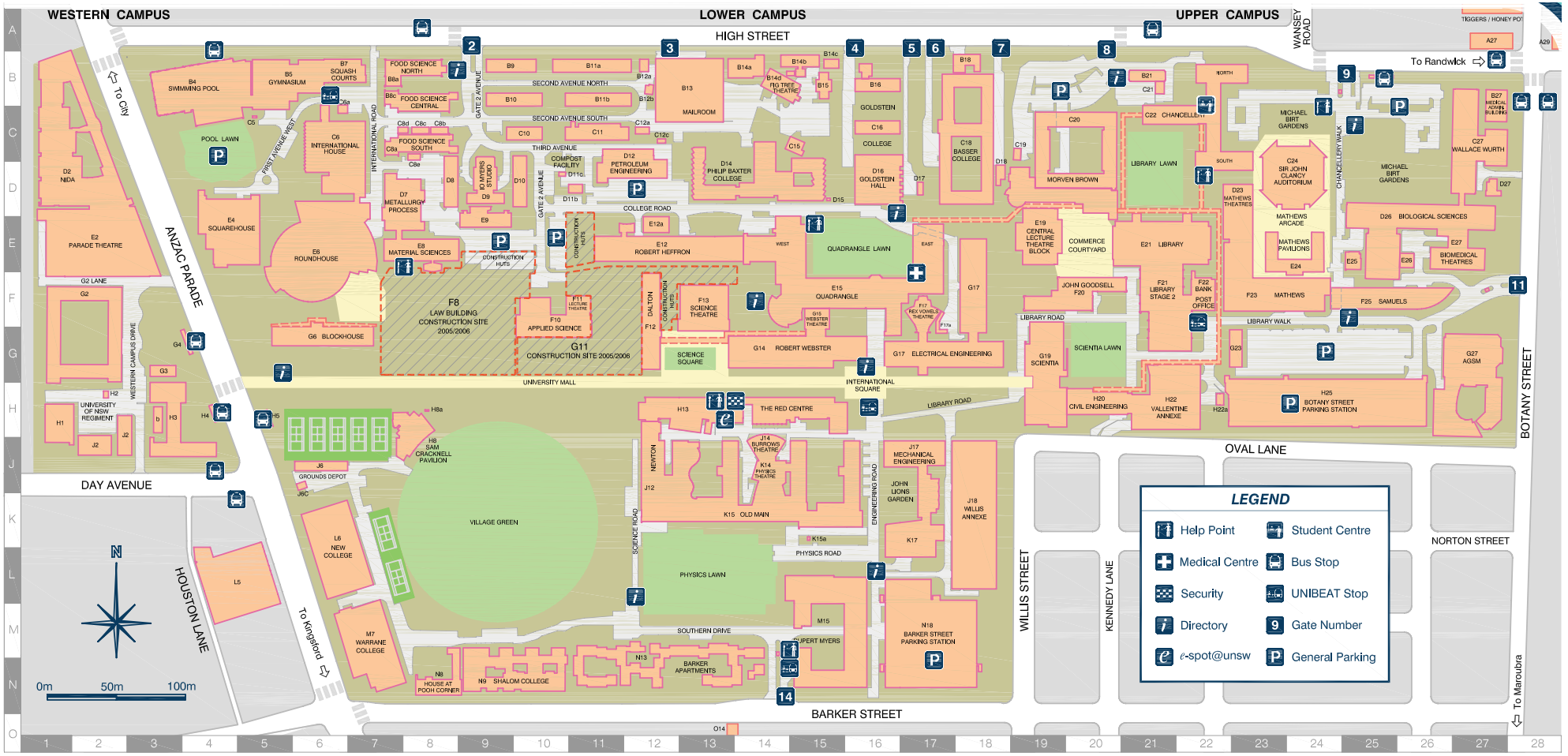
THEATRES

Applied Science Theatre **F11**
Biomedical Theatres **E27**
Central Lecture Block (CLB) **E19**
Civil Engineering Theatre **G1 H20**
Clancy Auditorium **C24**
Fig Tree Theatre **B14d**
lO Myers Studio **D9**
Keith Burrows Theatre **J14**
Macauley Theatre **E15**
Mathews Theatres **D23**
NewSouth Global Theatre **G14**
Old Main Building (112) Theatre **K15**
Parade Theatre (NIDA) **E2**
Physics Theatre **K14**
Red Centre Theatre **H13**
Rex Vowels Theatre **F17**
Ritchie Theatre **G19**
Rupert Myers Theatre **M15**
Science Theatre **F13**
Webster Theatres **G15**

SERVICES

Aboriginal Education Program (47 Botany Street) **A29**
Aboriginal Research and Resource Centre **F21**
Accommodation (Housing Office) **E15**
Admissions and Enrolment - Student Centre **C22**
Alumni Association **C22**
Biomedical Library **F23**
Bookshop **E15**
Campus Conferencing **C22**
Cashier **C22**
Careers & Employment Office **E15**
Chaplains **E4**
Child Care Centres:
- House at Pooh Corner **N8**
- Kanga's House (52 Barker Street) **O14**
- Tiggers/Honey Pot (34 Botany Street) **A28**

Co-op program **M15**
CONTACT **E15**
Counselling Service **E15**
e Spot (Security, Parking, Permits etc) **H13**
Environment Management Program **G2**
Equity and Diversity Unit **F10**
Facilities Management **B14a**
Housing Office **E15**
Human Resources **C22**
Independent Learning Centre **G23**
IT Service Desk **F21**
Law Library **F21**
Mail Centre **B13**
Medical Centre **E15**
NewSouth Global P/L **L5**
Optometry **M15**
Physiotherapy Clinic **B5**
Planning and Development **C22**
Post Office **F22**
Marketing and Development **C22**
Publishing & Printing Services **C22**
Religious Services **E4**
Research Office **M15**
Roundtable Conferencing and Catering **E4**
Security (Lost Property, Parking etc) **H13**
Sports Association **H8**
Squash Courts **B7**
Student Centre (UNSW Student Central) **C22**
Student Guild **E15**
Student Recruitment Office **C22**
Swimming Pool **B4**
Unisearch Limited **M15**
Uni Gym **B5**
UNSW Bookshop **E15**
UNSW International (Student Centre) **H13**
UNSW Student Central **C22**
UNSW Union **G6**



The University of New South Wales • Kensington Campus